TOWARD A SYSTEMIC THEORY OF SYMBOLIC ACTION

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ABSTRACT

Though Kenneth Burke has often been dismissed as a brilliant but idiosyncratic thinker, this dissertation will argue that he is actually a precocious systems theorist. The systemic and systematic aspects of Burke's work will be demonstrated by comparing it to the General Systems Theory (GST) of biologist Ludwig von Bertalanffy. Though beginning from very different starting points, Bertalanffy and Burke develop similar aims, methods, and come to remarkably similar conclusions about the nature and function of language.

The systemic nature of Burke's language philosophy will also become evident through an analysis of the Burkean corpus. Burke's first book contains several breakthrough ideas that set him irrevocably upon the path of a systemic theory of symbolic action. Burke's next book, influenced by GST-inspired biology, seeks to understand the nature of associative networks by employing an organic metaphor. Burke's interest in systems comes from his desire to repair the cultural system crumbling around him as a result of the Depression. Consequently his next book, Attitudes Toward History, studies what happens to such "orientations" (i.e., the systems by which humans classify and evaluate the world) during epistemological crises. The Philosophy of Literary Form is concerned primarily with the function of these orientations.

In A Grammar of Motives Burke seeks to understand the basis for transformation of these evaluative systems, and in A Rhetoric of Motives he demonstrates how these transformations are used to persuade. Burke next turns his attention to

understanding a small part of the system, a theological doctrine, in The Rhetoric of Religion.

Burke's theory appears plausible when compared to and supplemented by GST and the related self-organizing system theory. Furthermore, a paradigm shift to non-mechanistic cognitive theory allows us to refine and extend Burke's intuitive theory of symbolic action. The final chapter will argue that symbolic action is the manipulation of the quality space, which is a multi-dimensional model for the super-system composed of mental, linguistic and cultural sub-systems. In mental systems, skeletal information structures called schemas combine to form simple models, which in turn combine to form a model of the world. Similarly, a culture can be seen as a system of schemas held in common by the group. The linguistic system labels, transmits and thus evokes these schemas. The primary means by which the quality space becomes reconfigured is through metaphor, which creates new schemas, and modifies the connections between schemas (and thus the position and relative value of a schema). Metaphor, therefore, is the basis of symbolic action.

This systemic theory of symbolic action may be modeled by Connectionist networks. These analogical neural networks provide a model for how brains form and associate categories and support Burke's assertion that thought is primarily analogical and categorical, thus affording the means for refining Burke's theory of symbolic action. Ultimately, such a theory may provide a unified field theory for rhetoric, showing how various symbolic action strategies work and interrelate.

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CHAPTER ONE

Towards A Systemic Theory of Burkean Symbolic Action

1.1. Introduction

This dissertation will argue that the corpus of Kenneth Burke's work provides the field of rhetoric with the basis for a systemic theory of symbolic action. The dissertation will argue that symbolic action is transformation of a system, quality space, which is made up of mental, linguistic and cultural subsystems. This transformation of quality space is generally effected through metaphor. Burke's theory of symbolic action is systemic because he is concerned with structure, function, interrelations and evolution. We can confirm Burke's systemic approach by comparing it to the systemic approach par excellence, Ludwig von Bertalanffy's General Systems Theory.

The purpose of the present chapter is to give an overview of the entire argument. This is necessary because presumably few readers will be familiar with both Burke and Bertalanffy. Having an overview of both before their theories are presented in any detail will allow the reader to make connections immediately, though the parallels will be presented after Burke and Bertalanffy's theories are set forth. The second chapter will be devoted to General Systems Theory. The third and fourth chapters will trace the development of systems thinking in the Burkean corpus. Chapter Five will demonstrate the remarkable parallels between Burke and Bertalanffy (including the privileging of language and the negating of mechanistic theories), and conclude that Burke's systemic theory of symbolic action is plausible, but it will also

point out its limitations. The final chapter will demonstrate how a paradigm shift away from mechanistic and towards systemic thinking currently in progress in both the "hard" and the human sciences supports Burke's theory of symbolic action. Based on that current research, some refinements of Burke's theory of symbolic action will be offered, along with some suggestions for future research.

Because the argument being made here is complex, an overview with historical context may prove helpful. We can profitably begin by claiming that Burke is a systemic and a systematic thinker.[1] Burke is systematic in two senses: he is building a vast interpretive apparatus that can be brought to bear on virtually any critical problem. He is also systematic in his application of this apparatus. That Burke is systematic will come as a surprise only to his detractors with a superficial knowledge of his work. The more important claim is that Burke is also a systemic thinker; that is, he is interested in the interrelations within his object of study, as well as its interrelations with the context that produced it. He also shares with other systems theorists an interest in function, evolution, and dysfunction. Burke's work is systemic, in part, because his quarry, symbolic action, is a systemic phenomenon. Nearly everyone who knows Burke at all well for the last couple decades has been able to discern the systematic nature of his work (though many who know Burke only in fragments continue to be baffled, and dismiss him as incoherent). The systemic nature of Burke's work, however, has gone largely unnoticed. Because a major goal of the current work is to prove Burke has a systemic theory, we would do well to begin by asking why it has been overlooked.

Despite Burke's systemic and systematic proclivities, he has often been accused of being idiosyncratic, intuitive, and unsystematic. These misapprehensions have several sources: the first has to do with scope. Because Burke's overall project has been to account for symbolic action (involving mind, language and culture), he necessarily draws on and works in many fields. Stanley Edgar Hyman, one of the few critics to appreciate Burke early on, feels that "the reason reviewers and editors have so much trouble fastening on Burke's field is that he has no field unless it be Burkology" (375); moreover, he refuses to be "disciplined" (i.e., constrained by the academic specialization he calls the "philosophy of the bin"). So his wide-ranging interests sometimes make it difficult to comprehend his project. Nevertheless, inter-disciplinary work is one of the hallmarks of systems approaches.

Another reason that the systematic nature of the Burkean corpus has not been apparent is that although his project has always been the same--to chart and account for symbolic action--he has moved through a number of methodological phases. Often he is amongst the first to employ a methodology, for example, formalism or structuralism, or even post-structuralism (Lentricchia 66). But he is also quick to abandon a method (though never irrevocably). It may well be that his systemic mind allows him to see both the possibilities and the limits of any one methodology. Frank Lentricchia holds that Burke engages system itself, finding that the "desire to be systematic is met by resistance to the essentializing consequences of systematizing thought" (55-6). But this is not to say that Burke is unsystematic. However, his reluctance to give up any speculative instrument, even when he has discovered its

limitation, can be confusing. Ever the pluralist, Burke exhorts us to use everything there is to use (1969b 265).

Perhaps the most important reason that Burke has been considered obscure is because he was adopting a systemic approach in an intellectual episteme dominated by mechanistic thinking. Because of his precociousness, Burke also seems idiosyncratic because he is continually bucking the current consensus, especially if it is too reductionist. To the charge of being non-logical or intuitive, he responds that he simply divides the field up differently in order to get a different perspective. Burke's project to understand how human systems evolve and break down required him to deal with ideas such as wholeness, teleology and transcendence, which are systems terms beyond the pale of the mechanistic paradigm.

Paradoxically, at times it is Burke's very methodical and systematic spinning out of possibilities itself that leads to the charge of his being unsystematic. Sometimes he claims to pursue a line of thinking to "round out" the symmetry of a system. Whether this is done for the sake of completion, to see how far a technique can take him, or as a rationale to induce readers to follow beyond the point where they would ordinarily balk, Burke so doggedly follows his quarry that readers can easily become lost, especially if unfamiliar with the corpus. Lentricchia asserts that Burke cannot be taken in "small bearable doses," but rather "whole or not at all" (53).

While there have been many who have come away from Burke with a very superficial understanding of a term or technique, those who are persistent will be rewarded with an immense interpretive apparatus. Professor William Rueckert, one of the foremost commentators on Burke, claims that Burke's Dramatistic system has

produced "a complete theory of language (spoken and written), a complete grammar or dialectics and logic, a complete rhetoric, a complete poetics, and, I think, a complete ethics" (1982 21). Such a comprehensive approach is required because a systemic theory of symbolic action must include mind, language and culture. To fully understand why Burke's systemic ideas were not appreciated, we must understand some history.

1.1.1. Historical Context

In order to understand the genesis, trajectory and importance of Burke's career, a brief history of metaphor theory is required. Aristotle had a complete theory of metaphor; he understood that it involved mind, language and culture. He privileged metaphor, and understood its heuristic and persuasive power. However, his theory was seriously hampered by lack of a cognitive model. Over the next two dozen centuries, metaphor was reduced to language alone and thus to ornament, irrelevancy and, finally, to a danger to rational thought by the early empirical scientists. The Romantics tried to counter the denigration of language, metaphor and imagination, but the heuristic function of metaphor was largely ignored until I.A. Richards and other New Rhetoricians revived Romantic and traditional rhetorical theory. Burke completed the reclamation of the full Aristotelian context of metaphor with his interest in culture, but both he and Richards were hobbled by the same lack of an adequate cognitive theory which had also plagued Aristotle. For lack of this theory, Burke could be dismissed as a mystic. (Many years later Richards' work on metaphor was revived and made intellectually respectable by the philosopher Max Black. This eventually started a boom in metaphor studies not seen since the

Renaissance. The most promising outgrowth of this boom is schema theory, which provides the supplement to Burkean theory in the final chapter.)

Now that the mechanistic model is being discarded even in the "hard" sciences, a systemic model is taking its place. Recent work in cognitive science has yielded schema theory and Connectionist models which make metaphor, as Richards wanted, "discussable science" (94). This science is supporting many of Burke's ideas about how symbolic action works, and what it is for. Burke holds that the essential function of symbolic action is evaluation (and ultimately persuasion): if one person accepts another person's interpretation of a situation, that is the essence of persuasion). Current theory also supports the idea that the primary way one person transmits an interpretation of a situation is by metaphor.

Burke clearly understood the importance of metaphor, but because it was not considered a proper problem for scientific study for most of his career, Burke lacked a specific account of how metaphorical transfer and transformations work. The schema theory of metaphor holds that when a speaker names a situation by metaphor, the hearers use that metaphor as a cue to scan through their analogy bank of schemas for one that the speaker is suggesting can account for the situation. The hearers then instantiate the elements of the situation into the template (schema) in order to understand the situation. For example, Iraq's invasion of Kuwait could be interpreted as a neighborhood squabble or as comparable to Hitler's early annexations.

So metaphor is important because human beings think analogically (i.e., metaphor evokes schemas). Schemas allow cognition because they allow recognition. Understanding a problem is primarily a matter of recognizing it as a kind of situation

and dealing with it accordingly. Clearly Burke was aware of the categorical nature of thinking because he deals with classification and metaphorical thinking in all of his books. Thus Burke, whether he was fully conscious of it or not, spent his career trying to understand metaphor because it is the basis for symbolic action. He devotes a great deal of space in his early books reclaiming metaphor, and many of his key terms and strategies in his later books (such as identification and consubstantiation, as Chapter Six will show) are essentially all variants and subspecies of metaphor. This is why a systemic theory of symbolic action may provide a unified field theory for rhetoric.

Interestingly, though symbolic action is Burke's central term and his primary object of study, he never precisely defines the term. By supplementing Burkean theory with schema theory, we now can: it is the manipulation (transformation) of quality space by means of metaphor. "Quality space" is a term derived from anthropologist James Fernandez, whose work on the importance of metaphor in culture was influenced by Burke (11). Quality space is a supersystem made up of sub-systems: mind (an interactive network of schemas which constitutes a model of the world re-created by an individual), language (the labels applied to those schemas) and culture (a supermodel of the world, which is the sum of commonly held schemas of a group). This concept of quality space helps us understand why Burke's bringing culture back into rhetorical (and thus metaphorical) studies is crucial. Burke's work leading to the reclamation of Aristotle's insight that metaphor involves mind, language and culture is critical because metaphor (and thus symbolic action) is grounded in a supersystem, quality space. An understanding of the structure and function of quality space

provided by schema and Connectionist theory yields insights into how metaphorical strategies function and interrelate, which may yield a kind of unified field theory for rhetoric.

1.1.2. Symbolic Action

Before we can proceed any further, we must establish at least a thumbnail sketch of Burke's theory of symbolic action. Interestingly, though it is Burke's basic term and his principle object of study, William Reuckert states that Burke "has never, as far as I know, given a concise and complete statement of the complex of ideas which constitutes the essence of the theory" (1963 57). Even if Burke offers no concise and precise definition of symbolic action, the theory of symbolic action that he develops may be summarized thus: a symbol is a reaction or adjustment to a situation. By selecting a name (i.e., a label from a repertoire of patterns which are so useful and recur so frequently that people feel the need to have a name for them), human beings get a fix on the flux of sense data; after all, as Burke is fond of pointing out, nothing really happens twice, but for convenience we use the same name for two situations in which we discern similarity (i.e., we classify the two situations together).

Any name foregrounds some aspects of a situation and ignores others, and hence creates a perspective and a corresponding attitude; Burke calls this metaphorical filter a "terministic screen" (1966 45). Names are a way of creating meaning, of evaluating, and of helping us decide how to act (as Kenneth Burke, following I.A. Richards, often notes, since attitude is incipient action). Burke holds that the choice of a name is never right or wrong, only more or less accurate (though too many

inaccurate names lead to epistemological crisis and ultimately to extinction). Nor is naming disinterested. Contending factions will select different names--and hence ascribe different motives--for the same act or situation.

Some names, however, are more privileged than others. The most privileged terms Burke calls ultimate or God-terms--vague but powerful words for which people are expected to make sacrifices (e.g., freedom, the fatherland, jihad, etc.). Because of such terms, we know that the quality space system is a collection of hierarchically structured names. We also know that the system's main function is evaluation by means of classification. (The structure and function of the quality space system will be the subject of Chapters Five and Six). In addition to God-terms, according to Burke, the system is composed of equations, or associative clusters of names: what equals what, what goes with what, what leads to what (e.g., capitalism equals freedom and prosperity) (1973 38). Here we can see why Burke is interested in systems: studying relationships between the entities and transformations is the essence of understanding a system.

An important kind of equation, as Burke shows us in his analysis of Hitlerite rhetoric, is identification (1973 207). Symbolic action strategies such as identification have transformational power; Chapters Five and Six will argue that they are metaphors which reconfigure the system of associations that people use to evaluate and find their way through the world. Simple change can happen to anything (e.g., one rock can fall on another and crush it; this is nonsymbolic motion); however, transformation happens only in systems. For example, Winston Churchill calling Benito Mussolini "that utensil" is an action because a new Caesar is relegated to a

merely instrumental, even inanimate role. If this linkage were accepted, the entire system would, to a degree, become reoriented.

When a system fails to predict, or at least account for, a situation, a new name (generally a metaphor) is created. This is what Burke means when he says that language grows by analogical extension (1969a 506). Any new term allows for the creation of new distinctions, and thus more accurate naming. However, if a system cannot be extended to cope with an important situation (whether in an individual or a culture), we have what Alasdair MacIntyre calls an epistemological crisis (54). At that point a shaman or "medicine man" is required, an expert in manipulating symbol systems. This expert will create a new metaphor or equation that will make the situation understandable, meaningful, and hence tolerable.

The preceding brief summary suggests the systemic nature of Burke's project. This will become even more evident when we compare Burke to other systemic thinkers.

1.2. Chapter Two: General Systems Theory

Burke is not the only thinker trying to displace the hegemony of scientistic, mechanistic thinking. Not surprisingly, systems thinking was also taking place in the biological sciences, another field in which mechanistic methodology is not apt. Biologist Ludwig von Bertalanffy was interested in the same sort of problems that occupy Burke: how a system evolves, develops and adapts. He became interested in studying systems as systems, not as components or ultimate constituents (e.g., molecules or atoms). He began comparative studies of different types of systems, looking for principles that systems in general share. Not unlike Burke, exploring

some of these principles, such as wholeness, evolution, transcendence and harmony, made Bertalanffy vulnerable to the charge of mysticism.

Not coincidentally, then, some striking parallels exist between Bertalanffy's General Systems Theory and Burke's approach in both concepts and even terminology. While no specific reference to General Systems Theory is to be found in Burke, some indirect influence is evident in Burke's use of J.H. Woodger's biological theories, which were influenced by Bertalanffy. Bertalanffy appears unaware of Burke, though his followers are not. It may be that General Systems Theory and Burke's theory developed along parallel lines because both were reacting against the constraints of positivism, and that both were interested in complex phenomena. It may also be that the general shift from simple Newtonian mechanical models to more complex organic models would account for the parallels. In any case, the precision of General Systems Theory makes Burke's intuitive account more understandable and more impressive. (Burke is much stronger than General Systems Theory on culture, symbol, and the function of symbolic action, so the two are mutually elucidating.)

Bertalanffy traces General Systems Theory development from Aristotle through Dionysus the Aeropagite, Nicholas of Cusa, Hegel, to current ecological, sociological, engineering, and psychological theory. Bertalanffy holds that General Systems Theory can deal with multiple variable problems in a way that classical science cannot (1972 23). At its most fundamental, General Systems Theory asserts the only way to understand a system is by looking at it <u>as</u> a system; the state of the whole must be studied before the coordination of its parts. Units which compose

complex systems are defined as entities that retain sufficient identity over time and in different places to have a name (a phrase which could easily have come from Burke).

One of the most important characteristics of systems is that they can produce a standard behavior under different conditions; this behavior is maintained not through "a rigid concatenation" of units, but despite its absence (Weiss 13). The "Poetry Exchange" Burke speaks of (a kind of prototype for quality space) has all the attributes of an organic system: composed of heterogenous units of different classes, which are not mixed at random; rather, they can be mapped in a field pattern (such a pattern being almost invariably hierarchically structured). The field pattern retains configuration at equilibrium, and returns to it after a disturbance (Weiss 23).

In much the same way as biological systems, a cultural system reconfigures itself after an epistemological crisis, a phonological system changes but always remains a system, or an individual's cognitive classification system reorients itself after the "slight wounding of the intellect," as the Renaissance defined metaphor. Moreover, there must be interrelations between the mental, linguistic and cultural systems, as Burke was well aware. Burke's career has been devoted to understanding symbolic action, which the dissertation will argue is the manipulation of the quality space. More precisely, symbolic action is the transformation and extension of the interpretive system of associated concepts. Transformation, growth and relationship can only be understood in terms of systems. This is why the refinement and clarification made possible by General Systems Theory is central to the present work. Once the reader is familiar with this theory, the systemic basis of the Burkean corpus will be much more readily discernable in the following chapters.

1.3. Chapter Three: Evolution of Systems Theory in the Early Burkean Corpus

Burke began his career trying to account for the aesthetic effects of literature. But his rhetorical training led him to wonder about the cultural situation which gave rise to the work and about the mind of the audience that would read it. Thus Burke's project--indeed the project of all the human sciences in the twentieth century--is accounting for context. Classical science stripped context so that phenomena could be reduced to two variable problems. This works well in Newtonian clockwork physics (i.e., very simple systems), but not in analyzing symbolic action and human motivation. In this respect we can view Burke's entire career as a counter-statement to mechanism and positivism.

Burke's effort to account for Shakespearean rhetorical strategies led to Counter-Statement (1931) with its three breakthrough ideas which would set Burke irrevocably on a systems approach path: 1) art (later amended to symbol) is an adjustment to a situation; 2) human beings respond to form; 3) networks are made up of clusters of terms. The first assertion is important because it requires that Burke deal with context. Scientistic strategy strips context, the importance of which we have just noted. This need to deal with context might account for the dominance of field theory and systems approaches manifest in the most significant work of this century, e.g., Picasso, Whitehead, Einstein, et al. The key term "adjustment" in Burke's first idea by its very nature takes him into systems theory, since only systems have the ability to compensate. Also, understanding context requires an interdisciplinary approach since it involves history, sociology, economics, anthropology, as well as the psychology of author and audience. Burke must also deal with the relations among

the author, text and audience. Interdisciplinary work and interest in interrelations are both important characteristics of a systems approach.

Burke's second breakthrough, his interest in form (both natural and cultural), will also prove crucial. An artist's naming of a given situation allows the audience to see form underlying the chaos of experience. This idea anticipates the importance of metaphor in later works, as well as the schema theory examined in Chapter Six. Thirdly, Burke's interest in clusters will develop into his system theory. His intuitions can be supplemented by Self-Organizing Theory in Chapter Five.

We can readily see that from the start Burke's ideas are in conflict with scientistic reductionism and positivism. In his first book, he opposes his aesthetics to positivism: anti-machine, anti-practical (107-121). As we noted above, the machine metaphor is central to over-reductive scientism. In "practical" we find a hint of the dichotomy that will provide the basis for his definition of symbolic action: machines and animals have practical, nonsymbolic motion, whereas humans can create action (an important distinction for Burke that will be developed later). Also significant, we can discern from the start that Burke defends metaphor, which is really the principle of transformation in symbol systems. Umberto Eco concurs that "to study metaphor is to study rhetorical action in all its complexity" (1983 218).[2]

Burke's next work, Permanence and Change (1935), was written in response to the Great Depression. In this volume Burke is more concerned with social criticism and communication than aesthetics. Heavily influenced by the systems approach to biology (he calls this work a "meta-biology," as opposed to a work of metaphysics, classical physics being the source of the mechanistic metaphor Burke

opposes), his key term in this text is "orientation," roughly equivalent to a world view. He asserts that an orientation is a self-perpetuating system (which may be seen as an ur- or proto- quality space). Burke wants to know how an orientation breaks down, and how it can be repaired, or reoriented. In Permanence and Change Burke begins to deal with systems as systems.

In Permanence and Change Burke more pointedly questions the value of scientism, asserting that experiments with lower animals can tell us little about the symbol-using animal, since the laws of simple conditions may not apply to complex conditions (29). Burke objects to human motives being reduced to a simple stimulus-response model, or even to primitive drives. For example, he asks what happens when drives conflict, which creates precisely the kind of multi-variable problem with which the mechanistic model cannot cope (35). Burke observes that the prestige of the physical sciences has allowed their methodology to be imported to realms where they do not apply, though because their claims cannot be easily tested, it is difficult to evict them (101). But even as positivism was making its biggest conquests, Burke claims, the limits of the method were becoming evident. Burke offers his own methods as a philosophical corrective to reductive methodology.

Burke's next work, Attitudes Toward History (1937) is also a reaction to the Great Depression. The epistemological crisis that the country is going through shakes Burke as well, and he begins to think more about social and ideological systems. Orientations of the last book are renamed "frames of acceptance," which are "organized systems of meaning" for evaluation, interpretation and compensation (1984a 5). Burke comes to the crucial insight that the individual's frame (mind) is based on the

collective mind (culture). The job of the rhetorician is to chart these systems. The task is daunting because of the sheer size and complexity of the system, the constant change within it, and the fact that competing factions will name the same situation in accordance with their own interests.

Burke tries to establish the reality of the system and to produce a model for understanding it with his term "Poetry Exchange"(202). The Poetry Exchange is a system wherein the value of a given cultural concept rises and falls in response to changes in the symbolic and/or "real" worlds. Burke states that Logical Positivism cannot understand the Exchange because it does not know how to "discount," i.e., it cannot account for metaphorical transformation, which is the basis of symbolic action (246). Scientism can only deal with entities; Burke wants to understand the system, which requires that he concern himself with the relationships between entities, and the transformations of those relationships. In this text Burke begins in earnest the defense of metaphor that will be continued in the next several books. The full significance of this privileging of metaphor will become apparent in the concluding chapter of the present work.

In Attitudes Toward History, then, we find important components of Burke's emerging theory of the systemic nature of symbolic action: individual frames of acceptance (and rejection) are "organized systems of meaning" for evaluation, integration (kairos) and compensation, which are built from the collective frame, and tested by public discourse. The network is composed of clusters of terms/ideas which can be transferred, modified and charted. The theory here is still tentative, however. Burke speaks generally of "cooperative and symbolic networks," by which he seems

to mean the economy, culture, and perhaps language (234). Having rejected the mechanistic model, Burke must find an alternative, so he makes analogies between the symbol systems he is charting and the undeniably real systems of the market and the body. Here Burke develops the crucial idea that an orientation is a classificatory evaluative system learned from the culture.

In the last of the Thirties books, The Philosophy of Literary Form, Burke moves from an interest in the structure of orientations to their function. He does, however, continue to analyze the system by tracking down key terms and the associations between them. But he also claims that the structure of a system (e.g., a text) cannot be grasped without understanding its function as well. Burke uses the tracking of key terms in his brilliant analysis of Hitler's rhetoric, which he claims is essentially religious--a snake oil cure for an epistemological crisis.

In The Philosophy of Literary Form Burke discards the heuristic metaphors (such as the Poetry Exchange) and asserts that culture is a system: we should treat a group of people as a functioning system, not as an aggregation of individuals (74). Here again he asserts the primacy of the biological model (a more complex and hence qualitatively different system) over the machine metaphor. In a machine, the same input will result in the same output. In human systems, however, identical inputs can produce opposite results. (Moreover, the use of symbol systems makes symbolic action possible, a level which is a quantum leap from biological motion.) Burke asserts that the ideal of science is to explain "the complex in terms of the simple, but the simple is precisely what the complex is not" (262). We can also see the evolution of systemic thinking in Burke's exhortation that we approach a text as the functioning

of a structure, and that we chart its structural relations or clusters. Burke holds that we can identify clusters of terms by beginning with a key term and asking: what is equated with that term, what goes with it, what leads to it, and what can be substituted for it (1973 38)?[3]

1.4. Chapter Four: Systems Theory in the Later Works

In the Forties, Burke launched into a trilogy of books intended to account for human motives, the Motivorum. In the first volume, A Grammar of Motives (1945), Burke continues his reclamation of rhetoric and the corollary attack on reductionism. He repeats his assertion that motives cannot be reduced to the terms favored by classical science (i.e., trying to treat entities in terms of their particles will not get us very far). In this volume Burke deploys the Dramatistic Pentad as a method for analyzing a text or situation in all its complexity, including interrelations, which places him solidly within systems theory.

One of the most important contributions of A Grammar of Motives to systemic theory of symbolic action is the idea of the paradox of substance. Burke establishes the existence of the system that gives rise to symbolic action by demonstrating its transformational capabilities (since transformation is only possible in systems, according to Claude Lévi-Strauss). He employs a volcanic metaphor, claiming that the system throws out distinctions, but also reabsorbs them. This dynamic suggests why quality space can reclassify and reorient itself. This transformative capability is the essence of symbolic action.

Now that Burke is certain that he is dealing with systems, he sets out to explain how they operate. Specifically, the mechanism of transformation is the

subject of A Grammar of Motives. Burke identifies two sources: the paradox of substance, and the overlaps in the network which allow for "alchemic opportunities" for transformation and thus for symbolic action.[4] In A Grammar of Motives Burke studies the resources of ambiguity that language affords as a result of the paradox of substance. His metaphor for this process is of a central moltenness which throws forth distinctions that can be reabsorbed. The ambiguity of language allows for transformation, which is essentially, "substantially," metaphor. Burke's volcanic metaphor is the simplest model possible for a system.

Because of the transformational properties created by the paradox of substance, people can not only classify, but reclassify. The idea of classification brings us to the second source of transformation: terminological overlap. The more associative links that exist between two entities in the system, the easier it is to classify them together. Metaphor is the process of transformation wherein related things can be classified together, but so great are the resources of language that very different entities can be grouped together (in fact, opposites can) (1973 77).[5]

The next book in the series, A Rhetoric of Motives (1950), examines how the transformation of quality space is used for persuasive ends. In the process he reclaims much of the traditional lore of rhetoric, defends it from scientistic attack, and expands its scope by adding the idea of identification. Burke claims that rhetoric has not been rendered obsolete by scientism, asserts that rhetoric and metaphor are outside the realm of true-false, and that opinion is not the opposite of truth. Moreover, Burke shows that positive science cannot account for human behavior and motives, and that it is important to do so because the "word magic" of political

discourse can be extremely effective, even fatal. He often points out that words about the supernatural are real, even if the supernatural is not. Words have meaning even when they do not correspond to a physical thing, despite the claims of Logical Positivism. In fact, the most powerful words do not, for example "God," "Apartheid," "patriotism," etc. Though positive science cannot deal with and denigrates the "merely" linguistic, emotional, metaphorical, and ethical, Burke claims that an ethical "shall" is often smuggled into scientific discourse that purports to deal only in what is, not what ought to be.

Evidence of Burke's systemic thinking is readily seen in A Rhetoric of Motives, e.g., in his definition of an identity as a unique structure (and elsewhere as a set of interrelated terms). In addition, he spends a great deal of time discussing the systems ideas of hierarchy and telos. He also describes a society as a "superentity," a term used in General Systems Theory (130). His interest in substitution and hierarchy is also paralleled by General Systems Theory, and is continued in The Rhetoric of Religion (1961). In that work he also asserts that not only is a culture as a whole a system, but all its contending doctrines are as well.

Burke's next projected book was to be either an ethics or a poetics, but in The Rhetoric of Religion he instead decided to map a microcosm of the system, since to map the whole shifting quality space was not then possible. Consequently, he chose to begin to map a theological doctrine because (despite its being much smaller) it possesses all the transformational devices operating in the system as a whole. Burke's analysis leads him to examine transcendence, ethics, values, guilt and redemption, but as systemic functions, not as theological terms.

Burke's last major text, Language as Symbolic Action (1966), is an anthology in which he introduces few new ideas, but rather seeks to make his philosophy of language clearer and more systematic. Moreover, many of his key terms are systemic; e.g., function, context, perfection (telos), and Logology, the latter being "the systematic study of theological terms. . . purely for the light they might throw upon the forms of language . . . . a purely empirical study of symbolic action" (47).

This overview conveys the gist of Burke's development of a systemic theory of symbolic action. Systems thinking is evident in the influences on Burke, the problems that he chooses, in the terms that he develops, and in his running battle with scientism. The systemic basis of the Burkean corpus will become even more evident when Burke and Bertalanffy are placed in a dialectic in the following chapter.

1.5. Chapter Five: The Systemic Basis of Burke's Theory of Symbolic Action

As noted at the outset, Burke encountered considerable opposition because he opposed the mechanistic conceptions then current. Bertalanffy also opposed these conceptions and employed a similar methodology. Moreover, despite working in very different fields, both came to nearly identical conclusions about the role of language. Both assert that the capacity to use symbols makes us human, representing a "quantum leap" to a level of complexity with accompanying emergent properties: values. Furthermore, symbols allow a kind of categorical thinking that does not exist in lower system, and affect the way that human beings perceive the world (which is a human world, in distinction to a purely biological world). Mechanistic metaphors, which treat higher level systems in terms of lower level systems, are thus not apt for studying human thought and behavior.

Because of its empirical origins, General Systems Theory is more developed and explicit on structure than Burke is. Though Burke thinks about mind, language and culture as systems, and even considers how they interrelate, his account is highly intuitive. He posits that systems are made up of clusters of terms, and that they grow through analogical extension, but he does not get much more precise. General Systems Theory and its descendent, Self-Organizing Theory, can be helpful in refining Burke in this respect. For example, Bertalanffy holds that language is a system because it has all the attributes of the "soft" system definition: a self-maintaining structure of heterogenous parts which can cope and even grow in a changing environment (1975 46). In addition, it evolved as part of a biological system, so the idea of its being unsystematic makes about as much sense as a pancreas being unsystematic. Moreover, aspects of language are clearly systematic, such as syntax and phonology.[6]

Once language is accepted as a system, it is only a short step to see mind and culture as systems as well. Systems thinking would then lead us to consider the interrelations among these systems. A possible way of looking at this is to consider the three as subsystems of a supersystem: quality space. Systems theory further holds that all systems must have mechanisms of stability and flexibility. The concluding chapter will argue that in the case of quality space this is accomplished through metaphor.

Despite the rather remarkable convergence of ideas in Burke and Bertalanffy, there are differences in emphasis that make the two complementary. But even fortified by General Systems Theory, there are some fundamental questions about the

structure and function of quality space that remain unanswered. The final chapter will attempt to answer those questions.

1.6. Chapter Six: The Metaphorical Basis of Symbolic Action

If Burke is as prescient as he has been portrayed in earlier chapters, then some corroboration of his theories should exist. In fact, many fields are abandoning the mechanistic models that Burke challenged and are finding evidence that support his intuitive ideas. For example, in the human sciences a paradigm shift is being driven by anomalies related to categorization. Current research, particularly in cognitive science, will allow us to refine and extend Burke's theory of symbolic action. This chapter will argue that symbolic action is the transformation of quality space, and that transformation is accomplished primarily through metaphor. These hypotheses will be supported by historical, textual and empirical arguments.

The historical evidence is that for two thousand years metaphor was always central to rhetorical teaching and theory. The problem is that since the cognitive theory was not available to explain metaphor, rhetoricians could only investigate the phenomenon by constructing Byzantine taxonomies. The Scientific Revolution of the seventeenth century denigrated Aristotle (who had the best metaphor theory), language in general, and metaphor in particular. Despite this attack, metaphor was one of the few parts to survive what G. Genette calls "the shipwreck of rhetoric," albeit in a severely attenuated form (113). Early science also provided a passive mechanical model of cognition which has only recently been challenged. It is no coincidence, therefore, that Burke is obliged to spend a great deal of effort in attacking mechanism and in reclaiming metaphor in the process of his reclamation of rhetoric (while

metaphor is dismissed as a minor form in Burke's first book, by the last he more or less equates it with symbolic action itself).

The third and main argument presented in Chapter Six, the empirical, builds on the theory set forth in Chapter Five. Connectionist research is relevant to our attempt to understand symbolic action because Connectionists construct models of the brain called neural networks. These models think like brains (analogically) and learn like brains (forming and associating categories, ultimately leading to rule-like behavior).

Connectionism suggests that Burke is correct in asserting that thought is largely analogical and categorical. But what is the connection between the two? George Lakoff has done considerable work on both metaphor and categories. Based primarily on his work, this chapter will attempt to clarify the relation between metaphorical and categorical thinking.[7] Lakoff employs schema theory which is central to both metaphor and categories, and thus helps elucidate the relation between them: the mind is made up of schemas, which are packets of information distilled from experience. They are skeletal structures with slots (perhaps along the lines of Charles Fillmore's case grammar: actor, instrument, patient etc.) into which information from a given situation can be instantiated. Thus we make sense of the world through the application of schemas.

Schema theory is also crucial to our "rounding out" of the theory of symbolic action set forth in chapter five because it gives a fuller account of how the quality space system is constructed and how it works (i.e., how metaphor transforms quality space). When a situation arises which must be evaluated, the brain scans through its

analogy bank for a template (schema) which will accommodate the most salient stimuli. If no match is found, the closest matching schema can be modified, or a schema can be imported from a different domain; this is the essential nature and function of metaphor (for example, a hydraulic model for electricity). A schema structures perception and inference, which accounts for the heuristic and perspectival functions of metaphor. Metaphor evokes a schema which structures experience. Hence cognition is recognition, essentially analogical.

General Systems Theory suggests that quality space is a system, and like any other system it must balance stability and flexibility. The system is made up of associated schemas. Such associations come about when a metaphorical linkage is useful enough to be repeated often enough to become a permanent (thus stable) part of the system. But the forging of new linkages also leads to flexibility and system growth. This flexibility not only allows the system to grow, but allows it to stay apt (thus avoiding epistemological crisis).

Usually quality space is up to the job of making sense of the world. When it does fail for an individual, that person generally seeks some sort of counselor who can provide a metaphor or story which will make the situation understandable and tolerable. (This will be referred to as the <u>shaman</u> function.) As Burke points out, however, sometimes an entire culture is afflicted with the same sort of epistemological crisis of meaning. In that event, various <u>shamans</u> (or "medicine men," as Burke referred to Hitler) will offer new ways of seeing. The resulting prescriptions are almost invariably metaphors (cf. Darrand and Shupe 18-21). This is because metaphors are the best way to get a handle on an abstraction or a confusing situation.

Because metaphors make the unknown or incorporeal concrete and graspable, they are essential in discussing what Wayne Booth calls the contingent, that which matters most. For example, politics is characterized almost exclusively by war and sport metaphors. The metaphors evoked to understand a political situation will often lead to certain policies (e.g., the war on drugs emphasizes interdiction, whereas a drug epidemic metaphor would favor treatment).

The centrality of metaphor in persuasive discourse supports the thesis of this chapter: symbolic action is the purposeful manipulation or transformation of the system of quality space. This reorientation requires the making and breaking of associations. Metaphor is the primary means of breaking old connections and forming new ones. For example, the addiction as disease metaphor dissociates addicts from immorality and associates them with innocent victimage, thus reclassifying the addict as a patient.

1.7 A Unified Field Theory for Rhetoric

Schema theory not only helps us account for metaphor, but other symbolic action strategies as well, and for how these strategies can mutually support one another. For example, topoi may be thought of as inference based on root metaphors, or orientational metaphors (i.e., schemas that are widely shared because they have a physiological basis). Similarly, enthymemes may be inferences grounded in schemas that are more learned than inherent. The importance of schema theory in understanding metaphor was suggested above, and it suggests that identification is metaphor in which both donor and target domains (schemas) are human or groups of people. Moreover, God-terms are schemas that are the most privileged, but also the most

amorphous; this makes them useful and powerful (e.g., nearly anything valued can be associated with freedom). Interestingly, God-terms commonly found in political discourse parallel rather precisely the UP metaphors listed by Lakoff and Johnson (16). This parallel tends to confirm the systemic, hierarchical and evaluative nature of quality space.

Schema theory also helps us understand how these devices can cooperate, since schemas are interactive by their very nature. We shall see in a brief analysis of Martin Luther King's "Letter form Birmingham Jail" that he combines a number of these rhetorical strategies without cognitive dissonance. Using schema theory to formalize how these metaphors, topoi, enthymemes and God-terms interrelate will be the next step for rhetorical studies. Such an account might well provide a unified field theory for rhetoric. Schema theory and the cognitive models offered by Connectionist theory may ultimately help us to map quality space as well, which was Burke's long-standing but elusive goal.

CHAPTER TWO

General Systems Theory

2.1 Introduction

This chapter has a number of related functions and aims. Since the purpose of the dissertation is to demonstrate that Burke's theory of symbolic action is systemic (and that it provides a plausible foundation for a systemic theory of symbolic action), we would do well to compare his work to that of other systems theorists so that we can distill out the systemic elements in the following chapters. This chapter will also show a long battle between mechanistic and organic models and methodologies. This is important because both Burke and Bertalanffy struggled against the mechanistic hegemony. The final chapter will show the ramifications of the overthrowing of the mechanistic conception.

In some respects, systems thinking is nothing new, going back at least as far as Anaxagoras, but Ludwig von Bertalanffy is generally considered the founder of modern humanistic systems theory. Although Burke never directly cites Bertalanffy or other authors of the General Systems theorists, he does sometimes employ General Systems Theory terminology and he has been influenced by figures who have informed General Systems Theory, notably Aristotle, Marx, Freud and to a lesser degree Vico. As we shall see in Chapter Three, Burke was also influenced by J. H. Woodger's biology inspired by Bertalanffy.

Bertalanffy has cited Aristotle, Nicholas of Cusa, Ibn-Kaldun, Goethe, Vico, Marx and Spengler as precursors of General Systems Theory (1972 21-25). Many of these theorists strike us as precociously modern because they do not employ the

mechanistic paradigm which has until recently dominated our thinking. In our own century, as the cracks in the wall of positivism have become more apparent, each generation has challenged the mechanistic scientistic paradigm, including neo-vitalists, Gestalt psychologists, functionalists, and structuralists, though with limited impact until very recently.

Although Bertalanffy had early interests in both biology and philosophy, he chose biology as his field. He remained interested in philosophy, as Ervin Laszlo observes, not as an escape from scientific rigor, but to find meaning (Bertalanffy 1975 10). After some considerable success in developmental biological theory, he began to extend his systems thinking to the psyche and then to culture. When he did so, he discovered the centrality of language, and many of his later observations could have come verbatim from Burke's philosophy of language.

In this chapter we will trace the historical origins of systems thought, noting how it evolved in Bertalanffy's career, and place that career in its epistemological context. The next task will be to show how his work became an interdisciplinary movement, and summarize some of General Systems Theory's basic principles. We will then be in a position to compare its development and concepts with those of Kenneth Burke. Such comparisons are essential because, as Bertalanffy observed, since the human sciences can not depend on replication of an experiment for validation, independent creation of an idea is the closest the human sciences have for proof (1981 60).

2.2 Biographical Background

At ten years Bertalanffy enrolled in the Gymnasium, studying Homer, Plato, Virgil and Ovid in the original languages. Later he read Lamarck, Darwin, Marx and Spengler. He also wrote poems, plays and a novel. Bertalanffy subsequently studied at the University of Vienna, and took part in the Vienna Circle, as he was proud to point out in his later years (since he could not be charged with damning positivism without any knowledge of it). Because of the limitations of positivism and the hegemonic claims it was making, Bertalanffy charged it with scientism--the view that science is the only key to reality (Davidson 50). He asserted that the objectivity of science was a myth.

In 1924 he published his first article, an essay on Oswald Spengler. At this time he was also interested in Goethe, Bosch and mystics like Nicholas of Cusa. Bertalanffy's career as a biologist was mostly devoted to development, hence his interest in teleology. His Modern Theories of Development was published in 1928, and translated into English by Joseph Henry Woodger in 1933. In 1932 he published Theoretical Biology. In 1937 as a Rockefeller Fellow at the University of Chicago, a bastion of pragmatism and neo-positivism, he first introduced General Systems Theory, which received a cool if not hostile reaction. He consequently shelved his theory for some years.

Bertalanffy spent the war years in Vienna investigating ultra-violet light and cancer, fighting with Nazi colleagues, and lecturing to enormous classes of pre-medical students trying to stay out of the army. During the war his house burned, along with his library of some fifteen thousand volumes. After the war he worked in

Switzerland, and then in England with the help of Woodger. In 1949 he moved to McGill University and then to Ottawa.

In 1952 he lectured in the United States, where he met Aldous Huxley, with whom he had corresponded for some time. After a stint in Ohio, he worked as a Ford Fellow at Stanford, where he met economist Kenneth Boulding, biomathematician Anatol Rapoport and physiologist Ralph Gerard; this group discovered sufficient commonality of ideas to establish a General Systems Theory society. Bertalanffy attended a World Health Organization conference which included Piaget, Mead and Lorenz, who though in different fields had an affinity in terms of systemic ideas. In 1958 Bertalanffy was out of work, but obtained a position at SUNY, where he worked until his death in 1972. His influence was attested to by two posthumous volumes of his work, and a Festschrift volume containing works from many fields and an introduction by Buckminster Fuller.

2.3 Origins

Bertalanffy often prefaced his explanations of General Systems Theory with a brief account of its historical roots, which he saw going back to the Pre-Socratics. He held that the roots in the West of General Systems Theory may be discerned with the Ionian philosophers in the sixth century B.C. starting to see the world as orderly, hence intelligible and ultimately controllable (Bertalanffy 1972 21).[8] The Ionian philosopher Anaxagoras (500-548 B.C.) separated mind and matter in his attempt to find a cause independent of matter, which he called nous, the source of motion and change. He opposed the rather mechanistic explanation proposed by others, introducing teleological theory. His philosophy had some internal contradictions, thus

setting up the problem of telos for Plato and Aristotle. Perhaps more important, we also see the fundamental distinction arise between mechanistic and more organic systems approaches.[9]

Aristotle is an important figure to General Systems Theory because his system encompassed everything, including ethics, which he derived from biology, not physics (Churchman 38). Other Aristotelian ideas that are crucial in General Systems Theory are telos, hierarchy, and homeostasis--i.e., humans try to maintain a mean between two extremes (Churchman 38). Donald Washburn holds that Aristotle had a systems approach to literary criticism, unlike Plato, who had a geometrical, not a biological conception of form (233). The development of Greek tragedy reminded Aristotle of organic development in that, like any organism, a play must have proportions. Catharsis and climax are also systems ideas, as is the idea that tragedy comes about when a human becomes dissociated from cultural system (235). Aristotle's history also has systemic elements (155).[10]

The medieval scholar Nicholas of Cusa (1401-1464) was a figure of great interest to Bertalanffy. He encompassed the mysticism of the Middle Ages, but also anticipated modern rationality. Because of his great intellect and synthesizing ability, he was often recruited by the Church for diplomatic missions. Nicholas was precocious in a number of ways. For example, he was the first to formulate a concept of infinity (which Spengler says is the central metaphor for moderns) (1975a 59). Nicholas has remained a rather obscure figure, though Ernst Cassirer wrote a book on him. Karl Jaspers was rather critical of Cusa, denying he was a pre-modern, though Bertalanffy holds that Jaspers was blinded by the "Galileo legend," which holds that

modern science replaced a primitive, superstition-ridden Aristotelian system (1975 65).[11]

Giambattista Vico (1668-1744) is another precociously modern thinker with clearly systemic ideas. Though he was aware of the scientific revolution, and even sought to do for human nature what Newton had done for nature, his thinking was largely free of mechanism. His New Science is a comprehensive historic-systematic study of culture. He had a cyclical theory of history, and considered nations as systems of institutions with internal stresses leading to constant change (growth or decay). He devotes a great deal of space to language, sounding very much like Burke and Bertalanffy in declaring that the world is made of words, that humans are separated from the natural world by abstraction, and that language forms mind. As with most systems thinkers, he was interdisciplinary, combining history and what was to become sociology. His ideas were generally ignored in his time, but taken up by Auguste Comte (the more popular candidate for the title founder of sociology), according to Mark Davidson (155). Vico's analysis of class conflict is said to be the best until Karl Marx, whom he influenced.

Johann von Goethe (1749-1832) is another thinker to whom Bertalanffy often turned for inspiration. He founded the science of morphology, which was important in evolutionary theory. Though he lived in a time which still held that spontaneous generation was possible, his finding of structural similarities in different species is very much like the isomorphism (i.e., structural and functional similarities in different systems) that General Systems Theory seeks (Davidson 92-3). His blend of

philosophy and science inspired generations of German scholars, including Marx, Freud, and Bertalanffy.

Karl Marx (1818-1883) inherited systemic ideas from Georg Hegel, including teleology and dialectic (i.e., a force or situation calls forth its own opposite). Marx synthesized this dialectical idea with the materialism that dominated the day to create his dialectical materialism. His collaborator Friedrich Engels had a lively interest in science and Darwinism. Consequently, evolution or teleology is central to Marxist theory: economic relations lead to a given justifying ideology institutionalized into a class structure, government, and religions. But this steady-state will create its antithesis which will create disequilibrium, which will in turn produce a new system of production with a corresponding ideology, which will lead to the next phase.[12] This account has very definite affinities with General Systems Theory: a concern with relations, steady state, a dynamic developmental model, and telos.

As with Marx, Sigmund Freud is influenced (though to a greater degree) by the mechanistic conceptions of the era. Not unlike Bertalanffy, Freud began with an interest in philosophical questions, but made his career as a scientist. In many respects, he was very much a product of his time. Darwin had established that human beings were animals, and therefore capable of being studied. Gustav Fechner, in founding psychology, took the argument a step further: the mind can be studied scientifically (i.e., that it was quantifiable). Helmholtz's discovery of the conservation of energy was no doubt influential as well. In studying physiology (especially neurology, particularly comparative structures of brain tissue), Freud came to believe that if an organism is a dynamic system subject to chemistry and physics, then the

mind should also be considered a dynamic system. This is Freud's great contribution.

Freud's model, however, is apparently more mechanical than organic (it is the biomechanical reductionism to which Burke and Bertalanffy object). Freud's mechanical metaphor leads him to overemphasize biological drives and homeostasis, and therefore to underemphasize telos.[13] Not coincidentally, these distortions are precisely what Freud's followers correct: Adler and Jung have more sophisticated ideas about telos, Sullivan emphasizes the social more, and Lacan inquires much more into the function of language. But these supplements should not distract us from the systemic aspects of Freud's theory, which tells us much about the structure and function of mind.[14]

Oswald Spengler was the last figure who influenced Bertalanffy's thinking (anyone coming along after will be considered among cases of parallel development, discussed below). Spengler's Decline of the West, published after the German defeat in World War I, contested the standard view of most historians who viewed history as linear. Spengler proposed a cyclic view (after Vico and the ancients). This model was adopted by Arnold Toynbee, who held that a civilization has a life cycle--rise, proliferation, breakdown (the latter resulting from external attack and/or internal systemic problems) and decay.

2.3.1 Parallel Developments

The non-mechanistic ideas that would eventually coalesce into General Systems Theory grew independently in a number of fields. For example, Nicholai Hartmann published a systems approach to philosophy as early as 1912. Alfred North Whitehead's organicist philosophy also had some strong affinities with Bertalanffy's work.

So strong were the parallels, in fact, that Bertalanffy felt compelled to state that he was unaware of Whitehead's work while writing Modern Theories of Development (Davidson 96). But systemic ideas were taking hold even in the Newtonian stronghold of physics as well. For example, the physicist Ervin Schrödinger opposed mechanistic thinking. In fact, the New Physics is very much concerned with the superseding of mechanism, as is evident in the work of Einstein, Heisenberg, Bohr, and Gödel.

As we turn from the "hard" science of physics, we find an irony that no doubt both amused and frustrated Bertalanffy: the vast applicability and dazzling certainty of Newtonian physics made it the scientistic ideal. Hence the life sciences and even the new and lowly human sciences emulated it. The irony is that these "soft" sciences were aping classical physics long after it had discarded Newtonian mechanism. The irony is more profound when one realizes that the method being adopted (the mechanistic model) is entirely unsuited to studying biological, much less human, phenomena, as we shall presently see. However, there were those who tried to buck the mechanistic tide, even when it was at its fullest.

Not surprisingly, given the shortcomings of mechanism in biology, there are a number of biologists who take a systems approach: J. H. Woodger, A. J. Lotka, J. Needham, J.B.S. Haldane, R. Dubos and G.W. Sinnot. Similarly, sociology and anthropology saw the Integralist theories of P. A. Sorokin, Talcott Parsons' systematic general theory, the structuralism of Claude Lévi-Strauss (Davidson 153), and the Social Interactionalist approach. Most of these were not widely known

outside their respective fields, but eventually the affinities and resonances began to accumulate, setting the stage for a paradigm shift.

2.3.2 General Systems Theory Movement

Not unlike Burke, Bertalanffy encountered resistance to his systemic ideas throughout much of his career. He did, however, discover kindred spirits in other fields. These thinkers were adopting a system approach because the mechanistic approach simply could not help with the problems they were encountering. The systems approach also got a boost from the interdisciplinary scientific efforts during the war. In addition, the advent of computers made it possible to deal with more complex relations (Davidson 192). As a result, systems theory spawned many theories in many fields, including theories of automata, cybernetics, queuing, game, and fuzzy sets. These systemic theories influenced fields as diverse as physiology, medicine, psychology, sociology, history, education and philosophy (Davidson 71). One of the best-known offspring of General Systems Theory was Norbert Wiener's cybernetic theory, though Bertalanffy regarded classical cybernetics as a mechanistic subclass of General Systems Theory (Davidson 205). Classical cybernetics was concerned with control mechanisms such as those found in navigation, gunnery and missiles. Bertalanffy regarded this as little more than a stimulus-response model with a feedback loop. The reason for this attitude becomes clearer when we view Bertalanffy in the mechanistic milieu in which he proposed his systemic ideas.

2.3.3 Epistemological Context

Bertalanffy's contribution can only be fully appreciated when the context in which he struggled is understood. When first introduced, his "organismic biology"

was dismissed as pseudo-scientific because it violated the mechanistic assumptions that permeated even the life sciences. Anything that could not be precisely quantified was not scientific, an idea going back to Galileo, who sought to "make measurable that which hitherto has not been measurable" (Churchman 57). In addition, according to Bertalanffy, at that time

> the only goal of science appeared to be analytical, that is, the splitting-up of reality into ever smaller units and the isolation of individual causal trains. Thus, physical reality was split up into mass points of atoms, the living organism into cells, behavior into reflexes, perception into punctual sensations, and so forth. (1975a 13)

Bertalanffy identified Descartes as the precursor to the mechanistic model. The Third Axiom of the Discours de la Méthode exhorts us to start with the simplest phenomena and move to the more complex. He held that all nature was motion that could be reduced to mathematical laws, and so any animal, including man, was a bête machine (Davidson 74). However, as Bertalanffy never ceased to be delighted to point out, Descartes also held that human beings had souls, thereby admitting that a mechanical explanation of life had to be supplemented by a deus ex machina (Davidson 74). Similarly, Newton's cosmic clockwork had a divine clockmaker. Nevertheless, the mechanistic explanation was applied to everything, even biology, where the heart was regarded as a pump, the limbs as levers, etc.

2.4 Contra Mechanism and Behaviorism

Not unlike Burke, Bertalanffy "spent a lifetime denouncing mechanism as a doctrine that was scientifically unjustified and morally degrading" (Davidson 73).

Bertalanffy opposed mechanistic reduction on scientific grounds because the mechanistic explanation is inadequate to describe biological and human phenomena, since such phenomena are simply not mechanical (Davidson 76-7). These systems violate the laws of entropy (Second Law of Thermodynamics) by increasing complexity. Moreover, biological systems do not move to homeostasis (as a cybernetic machine does), but toward equifinality: i.e., the ability of organisms to reach a final goal from different initial conditions and by different means (Davidson 77).

The most dramatic examples of equifinality are organisms regenerating lost limbs, salamander eye tissue becoming an eye no matter where on the organism it is placed, or sponge cells reassembling themselves. Clearly a developmental biologist such as Bertalanffy who had to account for such phenomena would have to come to terms with what Aristotle called entelechy, although the mechanistic model had made the notion disreputable. Bertalanffy does, however, attempt to separate entelechy from vitalism (the notion that there was some sort of mystical life force which guided development), which he saw as an unscientific dead end. But he was equally opposed to the other extreme, the "nothing-but-ism" of the mechanists (Davidson 30). The vitalists mystified entelechy, while the mechanists denied it. Eschewing both extremes, Bertalanffy tried to make the myriad of relations of an organism understood: "the problem of life is that of organization. . . Organisms are charged with form the way batteries are charged with electricity" (Davidson 81).[15]

Bertalanffy's second grave objection to mechanistic theory is that organisms are autonomously active systems. This suggests Burke's central distinction between action and motion: humans can act, things but move. Human beings, the symbolic

animals, have abilities that lower level systems do not have. While rudimentary goal-seeking is characteristic of biological organisms, true purposiveness is the privilege of man, and depends on symbols, as we shall see in Chapter Five (Bertalanffy 1981 132).

Because Bertalanffy was critical of mechanism in biological systems, he was particularly critical of Behaviorism's approach to mental systems. Despite the fact that General Systems Theory looks for similarities in all systems, it also recognizes that levels are hierarchical, with higher levels having emergent properties not possessed by simpler lower level systems or subsystems. Moreover, the more complicated the system, the more autonomous and active it is. Hence Bertalanffy opposed the "robot model" with his notion of human beings as active personality systems. The robot model assumes that animals are essentially reactive, trying to reduce tensions, gratify needs, or reacting to operant conditioning (Bertalanffy 1981 110). Accordingly, it studied animals, machines and infants because these were the most accessible, simplest systems, and conformed to the mechanistic model. Bertalanffy objects to the robot model on ethical as well as scientific grounds: if humans are robots, then ethics is pointless, and the Behaviorist efforts to better program and regiment people are justifiable.

These scientistic studies, such as stimulus-response and behavioral psychology (copying the methodology of physics), sought elementary entities which would explain complex human behavior (Bertalanffy 1981 110). But anomalous behavior kept creeping in: wholeness, hierarchy, goal directedness and order which could not be accounted for by the mechanical model (111). Even rats appear to look for problems

to solve, as brain research pioneer Donald Hebb noted. This supports Bertalanffy's contentions that higher level systems are active, rather than reactive; much human behavior appears to be performed for its own sake. Many theories in psychology evolved to account for these phenomena, but they all had in common viewing the psyche as a system. Psychologist Gordon Allport summed up the consensus: "Whatever else personality may be, it has the properties of a system" (Bertalanffy 1981 112).

2.5 Symbolism

As many systems thinkers note, the introduction of language made humans fundamentally different from other animals. Bertalanffy is a strong proponent of this position, asserting that symbolism (i.e., the capacity to learn a symbol system) is the unique criterion of human beings (1968 41). It is here that Burke and Bertalanffy coincide completely. "Except for the immediate satisfaction of biological needs, man lives in a world not of things but of symbols" (Bertalanffy 1981 119). Moreover, human striving differs from the entelechial properties of other organisms because of symbolism: human beings strive to realize values (Bertalanffy 1968 217). Bertalanffy sounds very much like Burke when he cites Allport's observation that it is because of "symbolic functions that 'motives in animals will not be an adequate model for motives in man'" (Bertalanffy 1968 216).

Bertalanffy's most extensive writings on symbolism were produced towards the end of his career. There he noted that symbolic behavior is so widely considered the difference between human and animals that he finds it hard to imagine how its significance could be neglected. Occasionally in the past the importance of language was

acknowledged, even proposed as the difference between human and animals. However, this distinction has led to some problems; consequently Bertalanffy had to deal with the issue of animal language, broaden the concept of language to encompass symbolism and culture, and acknowledge that human symbolic ability is an outgrowth of subhuman behavior (41).[16]

Bertalanffy noted that symbolism has been defined in a number of ways with a wide range of meanings: compare Carnap to Goethe to Freud. However, Bertalanffy recommends Ernst Cassirer and Suzanne Langer's conception. Cassirer held that symbolic forms are essentially Kant's categories (However, the former asserted that the mind was not passive, and that a system of categories developed over time. These ideas will be treated in the final chapter.). Bertalanffy further argues that symbolism can be distinguished from animal language in that the former must be freely created, representative, and transmitted by tradition. By freely created, he means that there must be "no biologically enforced connections between the sign and the thing connoted," e.g., a conditioned reflex (1981 44). Second, to count as language it must be representative, not merely expressive, i.e., the signal must stand for something. Finally, a language is transmitted, thus learned, whereas most animal communication is instinctual and inherited (47).

Bertalanffy's privileging of language is particularly impressive when we note that the scientistically-minded had been trying to denigrate the importance of language since the attempt by the Royal Society in London to eliminate metaphor and ambiguity from language. Now that we have sketched the historical roots of General

Systems Theory, and the epistemological context out of which it grew, we can turn to a consideration of its central principles.

2.6 General Systems Theory Principles

In order to understand General Systems Theory and its contribution to a Burkean theory of symbolic action, some of its basic terms and principles must be understood. Fundamentally, General Systems Theory departs from standard scientific approaches in advocating that a system can only be understood as a functioning whole, rather than in terms of its building blocks. General Systems Theory does not ignore components; rather it stresses the interrelations between components. Essentially, General Systems Theory is "the ultimate generalization of the organismic conception" (Davidson 172), but Bertalanffy does not accept the organic metaphor in a naive way. What General Systems Theory seeks to do is see what principles are true of a wide variety of systems (i.e., what can be said of systems as systems). These principles include wholeness, interaction with environment, self-maintenance, life cycle, and isomorphism.

2.6.1 Isomorphism

Isomorphism is in General Systems Theory a central concept: a one-to-one correspondence between objects which preserves the relationships between them (Hall and Fagen 64). This is an important concept in General Systems Theory because it seeks to find isomorphism between different systems, thus leading to laws that are true of all systems. What all systems have in common can be seen in their definition: a set of objects together with relationships between the objects and their attributes (Hall 52). James McFarland has gathered a number of related definitions:

> Miller defines systems as "bounded regions in space-time, involving energy interchange among their parts, which are associated in functional relationships, and with their environments . . . . A system is all of a thing." McClelland adds, "A system may be defined as an assembly of components, having identifiable properties, among which relationships are perceived. To a person who has yet to comprehend some relationship between components or between their properties, there is no system." And finally, Rapoport says a system is "a whole which functions as a whole by virtue of the interdependence of its parts." From these definitions we may conclude that systems consist of an aggregate of dynamic events that are in some way interconnected and interdependent. (159)

We may also conclude that relationships are of central importance in General Systems Theory. Particularly in organic systems, all parts and processes depend on all other parts and processes (1975b 98).

Bertalanffy distinguishes between a precise, rigorous "hard" system theory which can be formalized (e.g., cybernetics), and a more general "soft" definition which includes any "portion of the world that is perceived as a unit and that is able to maintain its 'identity' in spite of changes going on in it" (Bertalanffy 1975b 48). Soft systems theory can deal with living organisms, as well as cultures (super-organisms) and even languages. These soft systems may be said to have a structure, function to maintain a steady state, and grow, evolve, or decay (47). These ideas will be crucial in refining Burke's theory of symbolic action in Chapter Five.

We begin to understand Bertalanffy's vehement objections to the mechanistic metaphor when we realize that one of the most important distinguishing characteristics of a complex system is its ability to produce standard behavior under differing conditions. Unlike in a simple system (e.g., a machine), a standard behavior is not maintained by a rigid procedure, but despite its absence. Also unlike a machine, a higher order system can arrive at a steady state through various procedures. The more complex the system, the broader will be the repertoire of coping strategies. Moreover, the more complex the system, the more heterogenous will be its components or subsystems, and the more hierarchical. These components will not be random, but can be mapped in a field pattern (Weiss 23). This pattern will return to a steady state after a disturbance below a destructive magnitude (e.g., order can be restored after a riot, but not always after an internecine civil war, or a massive infection).

One of the most important attributes of systems is their ability to compensate and to grow (anamorphosis). These are not features of lower level systems, such as machines, which is another reason why Burke and Bertalanffy object to the mechanical metaphor so vociferously. With each higher level of complexity there are emergent properties which give higher level systems more freedom and autonomy than those at the levels below. As a system develops, it becomes more hierarchical and progressive segregation takes place, which involves increasing division into subsystems with different functions, i.e., "transformation from a more general and homogenous to a more special and heterogeneous condition" (Bertalanffy 1981 117).

As an organism further divides the labor, the subsystems become increasingly interdependent as well.

2.6.1 Entelechy

As the above discussion suggests, an important difference between a systems or organismic theory and a mechanical theory is telos. Aristotle's concept of entelechy had been discarded by science. Somewhat ironically, Darwinism led to decline of teleological thinking since evolutionary change became a matter of random mutation (i.e., chance), and the idea was only preserved by the vitalists, who steadily lost ground as more and more life phenomena could be accounted for in mechanical terms. Then Behaviorism, the idea that all behavior could be conditioned reflex, seemed to negate telos completely, even in the highest functions of the highest system--the human psyche (Rapoport 171-2). However, higher level systems are not merely reactive, as machines are, but are autonomously active, which leads to behavior such as creativity, dreams, and play (Davidson 85). These activities are emergent properties made possible by the complexity of higher level systems. Another significant difference between higher and lower level systems is that animals change themselves in response to a stimulus, rather than merely reacting to it, as the Behaviorists believe (Washburn 191).

Despite the domination of mechanistic thinking in psychology and even biology throughout this century, it eventually became apparent that certain attributes of living systems could not be accounted for by the mechanical model. Though the behavior of a machine could be predicted from its structure, this is not true of higher level systems. Whereas a cybernetic device like a thermostat can maintain homeostasis or

equilibrium, more advanced living (open) systems can maintain disequilibrium. Moreover, living systems move toward a steady state or equifinality, and can achieve that through a number of different ways, which is not true of machines.[17] In short, the mechanical model simply does not account for living systems behavior; Bertalanffy points out that if it did a race of grandfather clocks would be just as likely as, say, amoebas.

Many researchers in a variety of fields now accept the teleological nature of higher level systems, such as human beings. Though Freud dealt mainly in instinctual drives, Jung acknowledged that the task of each person is to discover the individual in the self. Allport holds that people favor change over stasis, progress over mere maintenance, and meaning over success, i.e., simple biological survival (Washburn 166-8).

Teleological ideas and the profound differences between machines and living systems become much more apparent and credible when such systems are arranged in a hierarchy, as systems theorists inevitably do. These different schemes have different numbers of levels and may differ in range, according to the interest of the author; some go down below subatomic particles and some go to supranational organization. All these schemes, however, note the significant distinctions between life and non-life, and between human and animal. (The latter distinction, that language creates a fundamental qualitative difference between animals and humans, will be crucial later, as it supports Burke's crucial distinction between action and motion.)

Bertalanffy's hierarchical scheme is representative: the lowest level he describes is that of frameworks e.g., the pattern of electrons, the DNA code, the

arrangement of planets. The description of such basic and generally static structures is the necessary beginning of most scientific fields because the dynamic system cannot be described until its framework is understood (Bertalanffy 1975b 27). However, the investigation must not end with the framework, nor should the operation of higher levels be reduced to the framework level, as is the case with mechanistic approaches.

The next more complex level Bertalanffy calls that of clockworks: simple dynamic systems with predetermined motion. The steam engine and the dynamo which served as metaphors for so much eighteenth and nineteenth century theorizing are examples of simple dynamic systems. Most of physics, chemistry and economics are devoted to understanding systems at this level (27).

A still more complex mechanism has a cybernetic or control system. Bertalanffy nicknames this level that of the thermostat: a simple, stable equilibrium system maintained through the use of information. Actually at each higher level there is more information and less entropy, but here the distinction is clear: a cybernetic mechanism must "remember" information and compare it to its present state in order to make adjustments (feedback). This homeostatic model is important in biology and even in social science, but again we must not be too constrained by it because the next level introduces a fundamental emergent property--life.

The next level is that of the open system: life begins to differentiate itself from non-life. Bertalanffy calls this an open system because the system exchanges energy with its environment (basically, it eats, which allows it to import usable energy which in turn allows it to overcome the Second Law of Thermodynamics; in fact it flouts it by becoming more complex). Flames and rivers are open systems of a very simple

type, but essentially this is the level of a cell. A number of important properties emerge here as well. Not only can a cell maintain itself (primitive equifinality), it can reproduce itself.

The next is the genetic-societal level, typified by plants, which have a division of labor, and blue-printed growth (1975a 28). Note again how an increase of information is required to maintain a system of this complexity: different sorts of cells have to communicate and cooperate, and participate in the overall plan. Information from outside the system is limited by the lack of specialized sense organs, however.

On the next level, that of the animal, such sense organs do exist. In addition, we find increased mobility, teleological behavior and self-awareness (which is not precisely self-consciousness, as that requires language). Since an animal must deal with vastly more information than a plant, it has a central nervous system. As one examines progressively more complex animals, one finds more information is structured by the brain into an increasingly complex "image" or model of the world. So behavior is less and less a response to a stimulus and more to a knowledge structure of the world (1975a 28), a distinction which is often lost on Behaviorists.

Though all these levels form a continuum, with rather indistinct boundaries, there are nonetheless fundamental distinctions. We have already noted the dramatic difference between open and closed systems (i.e., life and non-life) and to a lesser extent plant and animal. But these differences are no greater or more fundamental than the tremendous "quantum jump" made possible by symbolism. This brings us to Bertalanffy's next level, human beings. As a result of symbolism, not only does the human animal know, but it knows it knows--it is self-conscious (29). Language

makes a much more complex model of the world possible, so concepts like time and values can emerge.

At the human level, Bertalanffy states that:

> we must concern ourselves with the content and meaning of messages, the nature and dimensions of value systems, the transcription of images into a historical record, the subtle symbolizations of art, music, and poetry, and the complex gamut of human emotion. The empirical universe here is human life and society in all its complexity and richness (29).

This symbolic realm is, of course, precisely what Burke sets out to study, as we shall see in the following chapters. With language come social roles and values: "ideology makes our bodies hop in peculiar ways," which is Burke's way of pointing out that human beings are not motivated solely by biological drives. Human beings live in a symbolic universe, as Bertalanffy also points out.[18]

2.7 Conclusion

The laws of physics which inform the mechanistic model are specifically restricted to closed systems. To understand anything more complex requires a more sophisticated model. General Systems Theory attempts to "restore meaning (in terms of intuitively grasped understanding of wholes) while adhering to the principles of disciplined generalizations and rigorous deduction. It is, in short, an attempt to make the study of man both scientific and meaningful" (McFarland 161).

Now that the essentials of General Systems Theory have been established, we can look for isomorphisms in Burke, e.g., the importance of language, the inadequacy

of the mechanical model, interdisciplinary approach, entelechy, hierarchy, and ethics. Burke's theory will be the subject of the following two chapters. In the fifth chapter, parallels will be drawn between Burke's theory and General Systems Theory. A dialectic will be set up in which the relative strengths and weaknesses of the two theories will be compensatory. In the final chapter the descendants of General Systems Theory will be used to further refine Burke's intuitive ideas to create a systemic theory of symbolic action.

CHAPTER THREE

Early Burkean Corpus

3.1 Overview

In order to demonstrate the systematic and systemic nature of Burke's theory of symbolic action, the following two chapters will employ one of Burke's favorite methods--the tracking and tracing of the interrelationships of key terms: system, symbolic action and scientism. For each major phase of Burke's career, a brief biography will be provided sketching what events and figures are influencing him. In addition, each of the analyses of Burke's eight major texts will include a brief statement of what Burke is trying to accomplish and how this volume furthers his project to understand symbolic action.

A major section will then be devoted to how Burke is countering scientism, since knowing what Burke is against is helpful in seeing what he is for. The next major section will distill out the systems ideas in terms of his method, his theory and his subject matter. When relevant, we will note how each book was received, since this will also provide some clues as to the intellectual climate Burke is reacting against, and provide critiques of his system. Finally, each section will provide a summary of which elements of system theory are new in each text, and which ideas are carried over. (This is particularly useful because Burke is forever coining or modifying terms for his own purposes, often discarding and renaming them.)

3.2 Early Years

As noted in the introductory chapter, both Burke's strengths and weaknesses are attributable to his being an autodidact. After brief stints at Ohio and Columbia,

he persuaded his father to give him the money intended for his tuition and went to live in Greenwich Village with other young avant-garde writers. He began "reading systematically through the classics, modern French, German and English fiction and poetry, and philosophy" (Jay 6).

In New York Burke became something of a renegade, and was deeply involved in the literary debates of the day. Burke was very much influenced by Continental literature, particularly French novelists Flaubert and Gide, and Baudelaire and the French Symbolist poets. He planned to go to Europe, but was rejected for military service; instead he worked in a shipyard. In 1922 Burke began to feel that the critical began to overshadow the creative and he soon became an editorial assistant at The Dial, where he worked until it closed in 1929 (Jay 151-152).

3.3 Counter-Statement

Counter-Statement (1931) is a product of Burke's early aesthetic period, but even here we see the crucial shift from literary criticism to communication. Burke began his critical career trying to account for the aesthetic effects of literature. His specific goal in this book was to develop critical terms that would account for the strategies in Shakespearean drama (215). But in trying to account for the aesthetic effects of literature, he realized the importance of form, which he felt resides in both the author and the audience (124). Moreover, his rhetorical training led him to wonder about the cultural situation which gave rise to the work and about the mind of the audience that would read it. As a result, he began thinking about literature in systems terms.

As a result of his broad approach, in Counter-Statement Burke begins his lifelong opposition to positivism and to the mechanistic metaphor; his aesthetics is anti-machine, anti-practical (109-11). The machine metaphor is central to scientism's analysis of human thought and behavior (e.g., clockworks, telephone switchboard, computer). In Burke's derogation of "practical" we find a hint of the dichotomy that provides the basis for his definition of symbolic action: machines and animals have practical, nonsymbolic motion, whereas humans can create action (an important distinction for Burke, as we shall see, particularly from the Forties onward).

In Counter-Statement, as critics often note, are the roots of much of Burke's later work. Here he establishes several systems ideas which will become mainstays of his philosophy: 1) the importance of form; 2) a symbol system is composed of a network of associations; 3) art (later symbol) is an adjustment to a situation. In order to account for the effect of literature on an audience, he must deal with the psychology of form (using Freud) and social context (using Marx). A central idea established in this volume that prompted the synthesis of Marx and Freud, and that will recur in a number of incarnations, is the idea of art as an adjustment to a situation (Hyman 348).[19] It can readily be seen how this seminal idea would involve both psychology and sociology.

In retrospect, Burke himself acknowledges the importance of his essay "Psychology and Form" in this book. This essay explores the importance of form for human beings. He asserts that form is built into the psyche, and that "form-al" excellence is the aim of art. The audience gets pleasure in seeing the underlying form, seeing order and simplicity underneath the apparent complexity of the world (a

major function of metaphor). In this manner, the artist helps the audience adjust to a particular situation. Burke posits that an artist wants audiences to see a situation in a certain way so that they can have the proper response to it. In this way an artist protects and unifies a society.

In this book we also see Burke not only considering the social and psychological systems, but the interrelationships between them, an interdisciplinary approach characteristic of systems thought. Burke is also prescient in asserting that while some forms are natural (i.e., what later theorists will call bodily, orientational or archetypal metaphors), others are cultural, or learned (126, 140-141). Regardless of origin, any form can become conventional. Counter-Statement seems to be about literature, but it is really the beginning of an analysis of the relationships among mind, language and culture (1984b xxv). Burke will subsequently develop this idea, asserting that an infant (literally "no words") becomes a member of a society by learning its symbol system and then its system of classification and values.

Though there is little discussion of system per se in Counter-Statement, the basis is clearly established. Burke's concern with form, audience and cultural context leads him to grapple with three interrelated systems: in trying to account for language (literature), he is forced to consider the mind and culture, and the interrelations among the three. Inevitably, he employs the major figure who deals with each, Marx and Freud, though always on his own terms. In doing this, Burke demonstrates both systemic and systematic tendencies. S. E. Hyman states that, "Like Bacon, Burke has set out to do no less than to integrate all man's knowledge into one workable critical frame" (Rueckert 1969 375).

As we noted in the last chapter, both Marx and Freud are thinking about systems. Freud applied the model of system (the steam engine, with safety valves and compensatory mechanisms) that then informed physiology. Marx too exhibits the beginnings of a systemic point of view: one class evolves from another towards a certain end (in this case the triumph of the proletariat). Such teleological thinking is characteristic of a systems approach. The systemic aspects of Marxist and Freudian theories undoubtedly reinforced Burke's own systemic thinking.

Other elements of systems thought are discernable in Counter-Statement. For Burke, it is a given that language is a symbol system. But he goes further to posit that a culture is a system of patterns of experience. He defines a symbol as the verbal parallel to these experiential patterns of judgments and beliefs (155). Systems thinking is especially evident in Burke's assertion that a culture or ideology will vary with the individual and period, but it has a stable core unaffected by variations. Even more remarkable is Burke's intuition about how such systems are formed: assumptions can be aligned in order to create an ideological system (111).

While Burke believed that an artist is a product of his cultural system, he also observes that artists can create their own clusters of terms, which must be analyzed in order to fully understand a work of art (23). Clearly, Burke wants critics to view a text as a system. He asserts that a work of art is organic, made up of events that change with context, but nonetheless retain sufficient identity to be recognizable and have a name (127). This last assertion too is clearly indicative of systems thought. Because a work of art is organic, its interrelationships demand investigation (128).

Evidence of a systems approach is also apparent in Burke's influences in this volume. We have already noted Marx and Freud, but perhaps the greatest influence on Burke is Aristotle, who, as we saw in the last chapter, is also a major source for General Systems Theory. More contemporary influences on Burke include Nietzsche and his disciple Oswald Spengler. Nietzsche, along with Remy De Gourmont, was the source of one of Burke's favorite critical tools, "perspective by incongruity" (this involves reversing common sense ideas in order to get a new perspective, e.g., invention is the mother of necessity) (1984a 308). Nietzsche was also doubtless influential in Burke's consideration of the interrelationships among mind, language and culture (Henderson 86). Spengler's contention that a culture was like an organism no doubt influenced Burke. Additionally, S.T. Coleridge may have informed Burke on the importance of metaphor.

In his early books Burke begins his defense of metaphor, which as later chapters will show is really the principle of transformation in symbol systems. Though Burke classes metaphor as one of the minor or incidental forms in this text, he does acknowledge that metaphor is natural, a function of the way that the mind works. Burke also asserts that aesthetic or metaphorical truth is as valid as scientific truth (168-9). In subsequent texts metaphor assumes an increasingly important position, partly because it is crucial (it has always been central to rhetorical theory), and partly because it is a phenomenon with which positivist science was least able to cope.

3.3.1 Summary

Despite being a work of literary criticism, Counter-Statement places Burke squarely on the path to a systemic theory. In particular, Burke's theory of form is essential to all that comes after (xi). His thinking on form anticipates the schema theory which currently is important in cognitive science and metaphor theory, as we shall see in the concluding chapter. Also important is Burke's insight that networks are made up of clusters of terms. Here this idea is amorphous and intuitive, and Burke seems to be thinking mostly in terms of texts. However, in subsequent books he will try to demonstrate the existence of these associative networks and how they are manipulated (symbolic action) in order that human beings can "make themselves at home" in the world. Also crucial to Burke's subsequent work is his realization that art is a reaction to a situation; because he is thinking about psychology and social context, a systems approach becomes inevitable.

3.4 Thirties Biography

In 1929 The Dial closed because of the Great Depression. Burke had a number of jobs there, but his primary responsibility was as a music critic. Nevertheless, he reviewed a wide variety of books as well, including psychology, anthropology, biology, art and even astronomy. After The Dial folded, Burke scraped by writing reviews for The Nation and The New Republic, and moved away from poetry. Though neither Burke nor his family suffered serious privation, the economic collapse had a profound effect on him. The epistemological crisis of the country led to a similar crisis in Burke himself. No doubt seeing the collapse of the

economic system led him to think about systems in economic terms. (He will later speak of the "psychic economy," and a "poetry exchange" analogous to a stock exchange.)

Burke says that he became more economically minded during the Depression, and he began gathering material for a book on business practices. In the process of his research, he came across the Pujo Report (which more or less accomplished what he had in mind), so he shifted his focus to the motives behind those practices. This line of research prompted the beginnings of his speculations about purpose (the subtitle of his next book is "An Anatomy of Purpose").

3.5 Permanence and Change

In Permanence and Change (written 1932-3, published 1935), Burke moves further away from aesthetics and more toward interpretation and communication in general. He is also moving from literary criticism to social criticism, assisted no doubt by the troubled economic times and by being berated publicly in a review of Counter-Statement by Granville Hicks (and by his friends privately) for not being more political. He rebutted the charge by asserting that the "Program" section of Counter-Statement was, in fact, political.

Burke came to feel increasingly strongly that not only was art a reaction to a historical and political situation, but that it had a responsibility to shape the political landscape. Again, Marx was an important influence on Burke as a thinker and critic, though he never joined the party because he felt that Marx "had left no blueprints" for building a better society, and that at any rate Burke was "not a joiner" (though his association with the Writer's Conference would cause him difficulties much later)

(Heath 14). Burke expressed gratitude to his friends who were in fact Communists for helping him to overcome his own epistemological crisis, and declared that Permanence and Change was the sort of book written to keep the author from falling apart (1984b xlvii).

Burke claims that Permanence and Change was an outgrowth of Counter-Statement (1984b 314), as to a degree all his work is, but it is convenient to view the next three books as outgrowths of Burke's social concerns of the Thirties. Critics have noted that Attitudes Toward History provides footnotes in a way for Permanence and Change, while The Philosophy of Literary Form is an application of the theory put forth in Permanence and Change (Frank 81). The specific aim of Permanence and Change is to show how an "orientation," or world view, structures the way that human beings perceive and act in the world. Identifying and analyzing such cognitive systems is an important first step in understanding symbolic action, which is the manipulation of such systems. In order to demonstrate that language is central to symbolic action, Burke must first disarm the scientistic point of view which long sought to dismiss the importance of language and explain human thought and action as mechanical or instinctual.

3.5.1 Contra Scientism

In Permanence and Change Burke questions the value of scientism, asserting that experiments with lower animals can tell us little about the symbol-using animal, since the laws of simple conditions may not apply to complex conditions (29). We noted in the introductory chapter that Burke has grave objections to human motives being reduced to a simple stimulus-response model, or primitive drives. Burke

asserts that the prestige of the physical sciences has allowed their methodology to be imported to realms (i.e., higher level systems) where they do not apply, though because their claims cannot be easily tested, it is difficult to evict them (101). Burke offers his own methods as a philosophical corrective to such reductive methodology.

As a corrective to the mechanistic model, Burke proposes the organic or poetic (which he also equates here with the dramatic model, later to become his primary one) because it takes more into account (266). The organic model is the basis for the systems approach, and Burke's systemic view no doubt influenced by readings in Woodger's biology and Gestalt psychology. The nineteenth century's basic metaphor was linear (e.g., electricity as current), whereas the twentieth century is to be dominated by the organic or field metaphors: e.g., Albert Einstein, Alfred North Whitehead's "philosophy of organism," and General Systems Theory. Burke observes that even physics is moving toward a more or less biological metaphor (229). It is not surprising, then, that Burke proposes a "metabiology" rather than a metaphysic.[20]

Burke enlists D. H. Lawrence as champion of the biological point of view. Lawrence stresses the biological or creative, seeing the universe as a process whose purpose is to foster life (rather like the Gaia Hypothesis). In a move reminiscent of Burke, he privileges the biological as prior and therefore primary, while relegating the mechanical to a secondary (and hence non-essential) status (224). Burke argues that science reverses the pathetic fallacy in applying an inanimate metaphor in order to "coerce biologic operations" (216).

In addition to the biological metaphor, Burke uses the metaphor of an economy to theorize about the psyche, either model being a much better analogy than

Newtonian clockworks, and both providing, he hoped, "an undeniable point of reference" (261). Many of these ideas have remarkably close affinities with the critique of classical science by General Systems Theory, which shares with Burke a suspicion of attempts to separate an organism from its environment (232).

3.5.2 System

In Permanence and Change Burke begins to deal with systems as systems, as the very title might suggest.[21] Burke introduces as a key term "orientation," which can be seen as roughly equivalent to a world view. Burke refers to an orientation, in its most tentative form, as an interpretive network. But he also refers to an orientation (in somewhat stronger terms) as "a self-perpetuating system, in which each part tends to corroborate the other parts" (169). The system survives insofar as it is an accurate reflection or interpretation of the world; Burke points out that an orientation tends to be a self-confirming system as well. That is, one will see the world in terms (almost literally) of one's orientation; different orientations will find different facts. This is one reason for Burke's relentless pluralism: one system can act as a corrective of another, showing faulty cause and effect linkages.

Burke contends that an orientation cannot be judged based on its being right or wrong, but rather as accurate enough for one's purposes or not. He is especially interested in what happens when an interpretive system lags behind changes in the world (78). We have noted that systems tend to be self-confirming, and it is not surprising that humans are protective of them, since their absence leads to powerlessness, chaos, insanity and, ultimately, extinction. Burke borrows a theological term for this conservative tendency: piety. Piety is the adherence to a system of

terms and their relationships. Piety is a system builder, since it leads to a desire to "round things out," and hence to create a unified whole (74). Piety is the sense of "what goes with what"; here we begin to get a sense of the system as a classification scheme for the purpose of evaluation. To reorient the system means to change its alignments and classifications, generally so that it can remain apt.

Though the system sets up resistance to reorientation (if it did not, it would not remain an organized, coherent system long; this is why living systems have permeable but discriminating boundaries), minor changes happen all the time as the system "learns" and expands. In the case of humans, infants acquire the rudiments of the classification and evaluation system, which is revised and extended as children mature (e.g., the young Burke experienced something of a blow when he discovered that the majestic lion was a cat rather than a dog).

Despite their flexibility and potential for growth, at times even mature systems encounter phenomena that cannot be accounted for. Often these anomalies can be dealt with by the creation of a new metaphor or the modification of an old one. But if the system fails too often (or in an important situation), and cannot be easily repaired or extended, we have the condition A. MacIntyre calls an epistemological crisis. Burke is no doubt interested in such phenomena because the Great Depression threw the country into such a condition, and Burke as well. Such crises call for a radical reordering of the system; so radical in fact that terms once considered opposite can become classed together. Burke's example of this phenomenon in an individual is the conversion experience: Saul becomes Paul and his despised quarry becomes his beloved correligionist (156). Burke's interest in epistemological crisis will continue

throughout his career, but is especially acute in his next volume, Attitudes Toward History, as he is still dealing with his own.

In his review of Permanence and Change, Charles Glicksberg notes the systematic nature of Burke's project (Rueckert 1969 71). He, however, feels that the book is too skeptical, perhaps because of Burke's attack on positivism, or because of Burke's use of perspective by incongruity. The reviewer accuses Burke of tearing down the old system without really providing a new one. William Rueckert notes that Burke spends the next three decades doing just that (80). In his review Malcolm Cowley refers to this volume as "seedful," (as opposed to fruitful) (Rueckert 1969 248). In fact, many ideas essayed here will reach fruition in subsequent works. Among these concepts are the dramatic metaphor, the defense of metaphor, guilt and victimage, and even a rudimentary model of symbolic action.

3.6 Attitudes Toward History

We noted above that Burke's Thirties books are related, and all are a reaction to the Great Depression. In Attitudes Toward History (1937) Burke develops his earlier ideas about social and ideological systems. Here he moves from the ideal cooperation of Permanence and Change to deal more with conflict and social reality. Burke's specific aim is to take a diachronic look at symbol systems, and along the way he makes some observations about the origins, constitution and function of these systems. Not surprisingly, since Burke is still dealing with the epistemological crisis caused by the Great Depression, he spends a good deal of time developing the concept of the "bureaucratization of the imaginative" (225-229). This is essentially about what happens when an idea is actually put into action (i.e., about the distortions that

take place when a projected system actually comes into being). Burke is also interested in what happens when a system becomes reified, since reification, overuse, and overextension are major causes of epistemological crises.

3.6.1 System

Attitudes Toward History exemplifies important components of Burke's emerging theory of the systemic nature of symbolic action: orientations of the last book are renamed "frames of acceptance," which are "organized systems of meaning" for evaluation, interpretation and compensation (1984a 5). These frames are built from the collective frame (and tested by public discourse), which is a network composed of clusters of terms/ideas which can be transferred, modified, and charted (111, 232). At this stage the theory is still tentative and intuitive, however. Burke speaks generally of "cooperative and symbolic networks," by which he seems to mean the economy, culture, and perhaps language (234). Having rejected the mechanistic model, Burke must find an alternative, so he makes analogies between the symbol systems he is charting and the undeniably real systems of the market and the body.

Burke comes to the crucial insight that the individual's frame (mind) is based on the collective mind (culture) (341). He declares that the job of the rhetorician is to chart these systems (233). The task is daunting because, of course, these constellations of terms change over time, and different parties name the same situation in accordance with their own interests (i.e., by choosing different names/ metaphors to describe the situation, different features of the situation are declared relevant). Burke tries to establish the reality of the system and to produce a model for understanding it, the "Poetry Exchange" (202). The Poetry Exchange (analogous to a stock exchange)

is a system wherein the value of a given cultural concept rises and falls in response to changes in the symbolic and/or "real" worlds. Burke states that Logical Positivism can't understand the Exchange because it doesn't know how to "discount," i.e., it can't account for metaphorical transformation, which is the basis of symbolic action (246).[22]

Positivism and scientism prefer to deal with entities that stay put (1984b 260), whereas Burke sets out to understand the shifting interrelationships that make up social, linguistic and psychic systems. Consequently, he must defend metaphor from positivist attack because metaphor is central to symbolic action. According to Burke, metaphor cannot be eliminated, only monitored (230). Nor can it be dismissed as irrational, because it is really non-rational (in addition, analogic thinking is much more common than formal logic). Furthermore, reason is not formal logic, but rather social logic; it is the system's way of checking itself (342). (These ideas will be treated more fully in the concluding chapter.)[23]

In Attitudes Toward History not only does Burke theorize about where systems come from, but what they are made of. Systems are built from associations (68). Burke also provides clues to the composition of the system with his examination of synthesis and analogical thought. "The natural tendency of the symbolic enterprise is integration" (184), which as General Systems Theory explains is the mission of any complex system. Burke explains that such mergers and associations are the techniques for building the system. Burke apparently sees the system as an aggregation of associations. His defense of metaphor in his early books is probably not coincidental: metaphor is the vehicle for making and breaking associations par

excellence. Metaphor has always been central to rhetoric, but had been dismissed by science. To reclaim rhetoric, he must make metaphor "real." In order to understand how minds really work, not as logicians think they should, we must understand analogical thinking--an idea corroborated in the works of all twentieth century rhetoricians, including I.A. Richards, Richard Weaver, Chaim Perelman and Wayne C. Booth. As cognitive science is now providing a basis for discussion, the importance and function of analogical thought will be considered in the final chapter.

But even if Burke could not account explicitly for how the system works, he is quite clear on function: the purpose of the system is to locate an entity for the sake of evaluation. Burke's account of how this internal map or model comes into being is a systems explanation: it is a network that grows. Associative connections between entities ("what-goes-with-what") are established over time as paths are inscribed in a field. These paths can be taken over by a new orientation, just as one empire can use the roads built by the previous empire (111-112).

Burke asserts that associations combine to form clusters, a sort of proto-system. We can infer that clusters can combine further into ever larger networks that eventually form stable cultural and ideological systems. It is this constellation of concepts that Burke wants to map: "Were we to have a survey of the hills and valleys of the mind, to match our government's geological surveys, it would be done by the charting of clusters, which have a momentous effect upon history" (232-233). Even the most "practical" or "realistic" writer necessarily capitalizes on these systems of clusters (194-5). "By charting clusters, we get our cues as to the important

ingredients subsumed in 'symbolic mergers'. . . . The symbol, as 'vessel,' may quite easily unite [even] logical opposites" (233).

But even a system with enough flexibility to unite logical opposites can be strained. The presence of a novel or anomalous entity forces one to re-evaluate, that is, to reorient the system of alignments that will account for the entities encountered in order to make them understandable and manageable. Burke states that the purpose of such interpretive systems is acceptance of evil and suffering (the resolution of such paradoxes and anomalies he elsewhere calls "tolerating the intolerable") (1984a 179).

3.6.2 Epistemological Crisis

Burke is very much concerned with how a system breaks down and what can be done about it, perhaps because of the ideological turmoil set off by the Depression. Burke's term for epistemological crisis is "alienation," the condition in which one no longer "owns" one's world because it has become unreasonable; one "repossesses" the world by forming allegiance to a new rationale of purpose (though this transitional period requires one to endure the "ills of interregnum" that the change of symbols of authority entails) (216). Maximum alienation occurs when one has no system of rationalization or myth of compensation in order to make the world tolerable.[24]

When an individual is experiencing an epistemological crisis, the first strategy employed would be to confer (mentally or verbally) with the cognitive system of the culture, checking one's thought pattern against those of the group. Interestingly, Burke calls this function "reason," which is a term reserved by scientists and logicians for formal logic:

> The "social" aspect of language is "reason." Reason is a complex technique for "checking" one's assertions by public reference. And insofar as one forms his mind by encompassing such linguistic equipment, he learns to use this technique of checking "spontaneously," with varying degrees of accuracy and scope. (342)

Burke is particularly interested in systems that become outmoded. He isolates three reasons why this occurs: rigidity, overextension and overuse. Rigidity, as the name suggests, is lack of change. Burke points out that a "gang morality" can become reified, and hence its orthodoxy prevents it from adapting to changing circumstances (1984a 73). This lack of fit between the terrain and the map leads to alienation, negativity and rejection. This rejection leads to invective by the orthodox, which in turn leads to guilt in the alienated. This intolerable guilt is transcended by the formation of a splinter group in which the "deviations" of the unorthodox are justified (guilt and redemption become major themes in Burke's theory). Alternatively, someone suffering an epistemological crisis can be recruited by a rival order.

Burke also demonstrates the opposite danger of changing too much too quickly: the danger of overextending a system. He holds that a frame creates acceptance, and that it can be extended to cope with new situations, but that all systems have "Malthusian limits" (by which he seems to be making an analogy to physical limits; e.g. a cell can only grow to a certain size) (132). So while expanding a system by metaphorical or casuistic stretching can save it, such extension can also lead to demoralization (i.e., a lack of credibility, since an overextended system will appear opportunistic and unprincipled). Stretching too far will lead to breakdown,

though apparently such a demise of the system can be delayed by force (e.g., an unworkable political system can be perpetuated by the army).

The final danger, related to the second, is simple overuse: the system becomes exhausted through going to the well once too often. The best example is evoking a God-term so often that it loses its evocative and exhortative power. For example, virtually every American president since Roosevelt has declared the moral equivalent of war on some problem: poverty, drugs, crime, energy waste or inflation. So routine has this strategy become that it has its own pejorative acronym, "MEOW," which is an indication of its increasing loss of efficacy.

Burke notes a number of devices which are used to deal with epistemological crisis in the Dictionary of Pivotal Terms which concludes Attitudes Toward History. Two prime examples of such devices are bridging devices and casuistic stretching (224-232). The former allows a conflict to be transcended through a symbolic merger (e.g., both capitalists and socialists can agree that liberty is good, though the word has opposite meanings: retaining vs. redistributing property). The second strategy, casuistic stretching, is the introduction of new principles while purporting to remain loyal to the old ones. Both of these strategies are for compensation, for "taking up the slack" between what is and what should be (229). Burke's sensitivity to systems thinking is evident in the fact that compensation is an important term in this book. It may derive from Burke's thinking about economic systems, but really compensation is a distinctive property of all higher order systems.[25]

3.6.3 Summary

With the benefit of hindsight that Burke calls "prophesying after the fact," we can see that a good deal of the structural underpinning for Burke's system theory is already in place. To wit: the prime directives of the system are to sustain and evaluate itself. In order to remain apt, the system must reorient its system of associative linkages. It must "take up the slack," or compensate. To change metaphorical names of problematic entities is a major means of reorienting the system of classifications that make up the system (213). Furthermore, Burke suggests what these systems are made of, how they arise, what they are for, and what happens to them over time. This book is Burke's only large-scale diachronic study of symbol systems. For the remainder of his long and fruitful career he will be more interested in the synchronic aspects. Burke's next book, and indeed the rest of his career is devoted to developing and applying these ideas.

3.7 The Philosophy of Literary Form

Though published in 1941, The Philosophy of Literary Form is the culmination of the work Burke was doing in the Thirties. But it is also a transitional text in that we can see the shift from investigating the structure of systems to the function of such systems. In this volume we also see the emergence of Burke's ideas on Dramatism and symbolic action as well; the Pentad is mentioned for the first time in a footnote. In addition, "symbolic action" (along with a number of alternative candidates) is used for the first time here (8). His theory of clusters (now called equations) is developed in this text as well. All of these concepts will be central to the system theory in subsequent books.

Looking back, Burke says that his specific goal in this book was to bridge the gap between what might be termed textual and contextual critics (i.e., the former, who confined themselves to the text, and the latter, who wanted to examine the political and social context and ramifications of a work). His method of analyzing clusters creates this bridge. Beginning with clusters within the text, he gradually widens his circumference until he accounts for context as well. This method, recommended in the title essay, clearly shows systems thinking: analyzing a work as a structure of organically related terms, and stressing "internality" equations embodied in "its act as an evolving unity" (1968 217).

3.7.1 System

In The Philosophy of Literary Form, as the introductory section above indicated, Burke's thinking about systems is quite evident. He apparently feels secure enough that he is dealing with systems that he discards the heuristic metaphors (e.g., Poetry Exchange) and asserts that a culture is a system: we should treat a group of people as a functioning system, not as an aggregation of individuals (74). This is precisely the kind of approach espoused by General Systems Theory. Similarly, Burke wants to regard a poem as a structure which cannot be understood without an understanding of the functioning of that structure (286).

Also reminiscent of General Systems Theory is Burke's interest in telos. He contends that a consideration of purpose is essential to the study of a poem's function. Burke likens trying to understand a poem without understanding its purpose to analyzing football purely in terms of motion. The choice of the game analogy is felicitous, but not accidental, since a game is the simplest model of symbolic action.

(In games, context is minimal; rules are stipulated, thus clear. When Burke wants to take both purpose and context into account, he shifts to the dramatic metaphor.)

3.7.2 Contra Scientism

Burke's concern with system as system is evident in his continued rejection of the mechanical metaphor. Here again he asserts the primacy of the biological model (a more complex system) over the machine metaphor. In a machine, the same input results in the same output (243). In human systems (a quantum jump above biology, though grounded in it), however, identical inputs can produce opposite results; for example, sometimes political oppression creates acquiescence, while at other times a virtually identical act of repression will spark rebellion.

Although the attraction of the mechanical metaphor is strong, since the ideal of science is to explain "the complex in terms of the simple," Burke holds that the mechanical metaphor is insufficient for explaining symbolic action because "the simple is precisely what the complex is not" (262). Action is not motion, even though it is grounded in motion. The attraction of the machine model becomes even more powerful as the complexity of machine systems increases (e.g., from steam engines to telephone switchboards and computers), but Burke asserts that there is a difference in kind, not just in degree, between human systems and machines. A human mind, language or culture is a much more sophisticated kind of system, and so to treat it in terms of a machine is reductionist. (The reader will have discerned a similarity to Bertalanffy here, which will be developed in Chapter Five.)

Though Burke acknowledges that any explanation is necessarily a simplification, he nonetheless asserts that all simplifications are legitimately open to the

charge of being oversimplifications--especially deterministic ones (22). Such desire for simplification leads scientists to attempt to understand adults in terms of child psychology, the sophisticated in terms of the primitive, and the normal in terms of the abnormal (22), or even worse, humans in terms of animals or machines.

Burke rebels against the trend to build generalizations about human behavior on observation of chickens. While he accepts the idea of association, he rejects stimulus-response psychology. This rejection is probably informed by Burke's growing understanding of the functioning of the symbol system. While repeated clanging of an iron bar when a rabbit is present will create a fear of anything furry in an animal or an infant, a rabbit presented to an adult can have many, even contradictory, meanings. This is because an adult subject does not respond to the stimulus per se, but to the many associated concepts which are elicited by it (159). Human beings can be conditioned, but such conditioning is not the essence of human behavior. (Human behavior is grounded in biology, but not limited to it.) As Burke observes, the only way to get humans (or even animals) to act like machines is to cut away the higher brain (wherein are found language and symbolic thought) (354).

Since the models derived from the physical sciences have difficulty dealing with multi-variable problems, however, the scientistically minded, such as the Behaviorist John B. Watson and his follower B.F. Skinner, had to reduce a process to an event with simple chains of cause and effect. Watson wanted to put psychology on the same footing as the natural sciences. Just a few years before Burke's arrival at Columbia University, Watson delivered his famous lectures that were to constitute "the Sermon on the Mount of behaviorism" (Blackmore 226). Burke repeatedly

attacks Watson's reductionism in several of his books. Burke asserts that science tries to make a totality out of a fragment (138). Science must break down and isolate, and hence must ignore many aspects of human behavior; as Burke puts it, science seeks to reduce drama to scene (since when and where are quantifiable, whereas why is not) (114).

In order to be able to argue for his methodology, Burke shows the reductive nature of General Semantics and the stimulus-response psychology of the day. He also continues his defense of metaphor and analogy, arguing that the only way to test a metaphor such as "New York City is in Iowa" is to apply it; there is no formal procedure, much less using positivism's truth conditions. Finally, Burke dismisses scientistic objectivity because it relies on a static one-to-one relationship between words and things, which can never exist.

3.7.3 Equations

The evolution of Burke's systemic thinking is evident in his exhortation that a text be seen as the functioning of a structure, and that we chart its structural relations or clusters. In order to chart these clusters, Burke asks: what is equated with what, what goes with what, what leads to what, what can be substituted for what (38)? This concern with charting the equations in a text will eventually lead him to charting an ideology (which he does in The Rhetoric of Religion). He begins by charting the equations in S.T. Coleridge's "Rime of the Ancient Mariner," but then includes equations in other of Coleridge's works, and finally incorporates equations from his life (and epoch). From there it is a short step to examining Hitler's (the frustrated

artist's) manufacturing of equations, e.g., Babylon = disunity = Vienna = poverty = immorality = incest = death = democracy (200).

This chain of associations seems absurd from the standpoint of another ideology, but it is not random. Indeed, in order to demonstrate the systematic nature of such associations, Burke gives us a test: substitution (e.g., Jews, parliamentary paralysis, or prostitution can be plugged into "_____ is/are sapping our national strength," whereas sacrifice, unity, and workers cannot). Burke equates equations with values, topoi (characteristic ways of thinking), and association, so he begins to refine the connections among language, mind and culture that he only hinted at in earlier volumes (1984a 341).

We have seen in Burke's two previous books of the Thirties that he is concerned with epistemological crisis. In The Philosophy of Literary Form he is more concerned with what such crises lead to: Hitler's demagoguery. Burke knows that even a system in crisis never becomes unsystematic, and even if it is replaced by another system, there will be carryover. Knowing this allows Burke to make an insightful analysis of Hitler's rhetoric, declaring that Hitler's strategy is essentially religious in format: he creates a Mecca (Munich), declares himself patriarch, and reduces all the problems that beset the German people to a single cause: the Jewish scapegoat. Even the swastika is a recycled sacred symbol. Hitler is peddling a religious snake-oil cure, but his "crude Nazi magic" is effective because Hitler succeeded in making the world appear reasonable and manageable again (192). (We will return to this "shaman function" in the final chapter).

Hitler brought back certainty to those languishing in epistemological crisis by using the resources of the symbol system to resolve conflicts and doubt by providing "a strategy of encompassment" (1). That is, he gave the German people names that made sense of the chaos. Burke demonstrates the capability of names in his discussion of proverbs. A proverb is an exemplary type of name, since it imposes familiar relationships (a metaphorical template) on a complicated and potentially frightening situation. Such naming is magical because it transforms one kind of thing into another (For example, Aryan survival is classified as noble because it is based in self-sacrifice, while Jewish survival is linked to evil because it is based in selfishness.).

But Burke does not want this magic (i.e., the transformational and heuristic power of language) eliminated, and he realizes that it can never be done away with since only completely accurate naming can eliminate magic (7). Since no one unambiguous word exists for every event and entity, metaphor is essential and inescapable. But we must be able to see when naming is self-serving and manipulative. The most common form of manipulation involves ultimate or God-terms, since they are the most powerful abstractions. In any culture there will be such terms that have what Weaver calls "tractative" power, such as freedom, for which we are expected to sacrifice. And some people will try to use these God-terms to their own ends, by acting in the name of these terms. Moreover, the opposite, devil-terms, can be used to denigrate. For example, as Burke points out, a great deal of social legislation was defeated in America simply by calling it Communist or associating it with dictatorship (326). Burke is quite insightful on why these terms are used, and

why it is important to understand them. What is lacking is a non-intuitive account for how they work, which will be essayed below.

3.8 Conclusion

Many elements of Burke's systemic theory of symbolic action are already in place: in the beginning of the volume he tells us that to name is to classify (4). Classifications lead to attitudes, which in turn lead to action (1984a 4). To change the name of a thing (i.e., to apply a different metaphor) is to change the system, hence the world view and subsequent attitudes and actions (217). The purpose of the classification system is evaluation: people like to label things, to get them placed, in order to be comfortable (8). Art assists them in sizing up a situation (his assertion in his first book); it is "equipment for living" (293). Burke says that the sizing up will be in keeping with various pre-existing attitudes (which suggests a system).

From the elements in the books we have reviewed so far, we can discern the roots of Burke's later view that human mind, language and culture are interconnected systems, the purpose of which is to evaluate the world. We have also seen the roots of his concern with purpose and motives, subjects which cannot be accounted for by mechanistic theories because true purpose and values are emergent properties of higher order systems. The accounting for motives will become his next big project. In the Motivorum, he must find a way to deal with context, hence his development of the Dramatistic metaphor and Pentad which appear in embryonic form in The Philosophy of Literary Form. Burke must develop these systemic methods in order to understand a systemic phenomenon: symbolic action.

CHAPTER FOUR

The Later Corpus

4.1 Introduction

The preceding chapter has shown that Burke's work in the Thirties placed him squarely on a systems theory path. By the end of the decade he seems rather sure that the structure of the system is a network, and he also knows that this network of associations is not static. Any given concept can rise or fall, and it would accordingly form new linkages and break old ones. This process allows the system to grow and change in order to avoid epistemological crisis. Clearly a complete systemic theory of symbolic action will require that Burke account for change and function, which are the tasks of his next two books, the first installments of a projected trilogy that will occupy him for the next decade. Having accomplished that, the next logical step would be to attempt a chart of the system. Accordingly, Burke's following book attempts to map a part of the overall system. Before looking at this undertaking and its results, a brief look at the time that gave rise to it is in order.

4.2 Biographical Background

In the Thirties, we have noted, Burke witnessed massive dislocation of people's lives because of a fluctuation of the stock market, which is, in some ways, a purely symbolic system; the day after the Crash there were just as many workers, just as many dollars, just as many factories as before, yet somehow everything was devastated. Not coincidentally, Burke has also seen the rise of Hitler, who through purely symbolic manipulation managed to take control of a country, and then a continent. Then in the Forties came the worldwide conflagration set in motion by these

disruptions. In such a chaotic world, the search for unity and meaning become much more difficult, but also more compelling. Burke dedicates his next book "ad bellum purificandum"--to the purification of war (and perhaps the purifying war as well).

To understand human behavior becomes all the more crucial when humans have demonstrated the logistical ability to commit genocide and have the technological ability to incinerate cities in a matter of seconds. Consequently, science turned itself to this important task of understanding human behavior using the same basic methodology that had led to such spectacular results at Los Alamos. Such methods led to stimulus-response psychology, operationalism, behaviorism in the behavioral sciences, and General Semantics in language study. While Burke asserts that all methods and points of view can make contributions, he is equally certain that to understand human thinking and actions requires understanding its context.

In the critical wars of the time, there were the relativists who claimed that context could not be accounted for, and thus certainty was impossible. At the other extreme were the formalists and empiricists who felt that context did not matter, and thus ignored it as much as possible. Burke avoids both extremes and comes up with a model for dealing with context: Dramatism. Burke seems to intuitively see that human symbol systems are of a different order than machines, and thus require different methods and models. The model that Burke eventually finds that will allow him to consider all the factors is the drama.

After completing The Philosophy of Literary Form, Burke had originally planned to publish a volume called On Human Relations, which he describes as a post-Machiavellian study of the tactics people use to outwit themselves and others

(1968 217). However, he felt that he first needed to do some background work. At the same time he was tutoring his students at Bennington College in philosophy. The result of this combination of factors was A Grammar of Motives (1945), the first of a projected trilogy on motives. The first volume, the grammar, was intended to demonstrate the purely "logical" dimensions of linguistic structures by distilling out the principles of symbolic action through the analysis of theological, legal and metaphysical texts (1968 218). The second volume, the rhetoric, was to investigate the polemical uses of such strategies. The projected third volume, the Symbolic of Motives, was to carry further the problems of poetics and ethics examined in The Philosophy of Literary Form.

In the middle Fifties, Burke altered the plan somewhat and intended to split poetics from ethics and deal with the latter in a fourth book, but as most of what he wanted to say about poetics appeared in Language as Symbolic Action (1966), he decided that a third book on ethics would complete the Motivorum. The ethics book, On Human Relations, was in fact published some years back, but it turned out to be an anthology of essays already published in earlier volumes. Instead of the projected ethics, Burke published a short book, The Rhetoric of Religion (1961), in which he introduced Logology (the study of words as words) as a supplement to Dramatism.

The last of Burke's major works, Language as Symbolic Action, appeared five years later. Burke attributes the cessation of writing major texts to the death of his wife, Libbie, in the late Sixties. Despite the fact that (or perhaps because) he had stopped publishing major texts, in the early Seventies Burke notes to his friend Malcolm Cowley that the world is catching up, and as a result Burke is finally getting

the recognition and acclaim that he has long deserved (Jay 359-360). The final chapter of the present work will be largely devoted to showing how the world has indeed caught up with Burke.

4.3 A Grammar of Motives

We noted at the outset that the task for the human sciences in this century has been accounting for context. Burke tries to account for the complexities of context by bringing in sociological, psychological, anthropological and other fields' terminologies and metaphors. In A Grammar of Motives Burke discovers that the dramatic metaphor is commodious enough to allow him to make a comprehensive analysis of human action in context. For Burke, human beings are like actors in a drama: they act in a given scene (context), with instruments, for a purpose. In all, Burke's Dramatistic Pentad offers five terms--act, agency, agent, scene and purpose--for analyzing human behavior. He claims that no account of motives can be complete without them.

In A Grammar of Motives Burke demonstrates that all philosophical schools are permutations of this set of terms. For example, the scientistic approach tends to reduce behavior to scene, because it eliminates the teleological (purpose) and leaves the mechanistic. Causality is simplified as well, dealing only with final cause, thus eliminating any need for a prime mover or a material cause (78-79), a criticism echoed by Bertalanffy as well. If any set of terms achieves hegemony, the inevitable result is an impoverishing reduction. This, of course, is precisely why Burke has been opposing scientism. Burke finds reductionist science so oppressive that he traces its origins, perhaps to demonstrate its shortcomings.

4.3.1 The Roots of Scientism

Burke notes that when materialism is applied to the physical realm, generally atomism is the result (129). He traces this debilitating scientistic reduction back to the materialist Thomas Hobbes who proclaimed that "All that exists is body, all that occurs is motion" (131). Materialism narrows the circumference of scene so much that action is reduced to motion, hence the popularity of using machine models. In such a scheme imagination is demoted to decaying sense, a kind of echo of real sensations. Even will is reduced to mechanism (145), which brings Hobbes "quite close to the metaphysics of modern behaviorist psychology" (136). Because machine models cannot account for telos, purpose is reduced to rational necessity (and eventually to instinctual drives or conditioned reflexes).

We find in Hobbes an exemplar of another notion of seventeenth century empiricism: he not only sets up the reduction to the machine model, but he also denigrates language and metaphor.[26] Language is annoying and even dangerous to a classical scientist because it will not stay put. Metaphor in particular is suspect because it allows for all sorts of sleight-of-hand, and rousing the mob. Eventually, historical philologists will see systematic resemblances among languages, and some of the more readily understandable aspects of language will be found to be systematic (e.g., syntax and phonology). But the kinds of language use that Burke looks at are not as neat, and thus their systematic attributes are not nearly so discernable, as we shall see in the next chapter.

Contradicting the scientistic tradition, Burke also heretically declares that not only is language not dismissable, but that it is the ground of human behavior and

thinking. Earlier he had described humans as communicators, but now he promotes them to actors who establish an identity (role) and act by means of and in a context of words (passim). This Dramatistic model is appropriate for studying human situations because it allows for complex consideration of complex phenomena (though literary characters will be somewhat less complicated than a real human being, and thus their motives will be simpler and more evident). Moreover, the Dramatistic Pentad allows Burke to think in terms of context, and eventually, system. It also gives him a way of making what he calls "rounded" (i.e., systematic) statements about action. More interesting in the present context is that he wants to consider the interrelationships (called "ratios") between the five elements--certainly evidence of systemic and systematic thinking.

In A Grammar of Motives, Burke repeats his earlier assertion that motives cannot be reduced to the terms favored by classical science (i.e., trying to treat entities in terms of their particles is a limited methodology). In this volume Burke continues his objections to over-reductionist models in the human sciences (particularly Alfred Korzybski's General Semantics). Rather than choosing as his representative anecdote the conditioned motions of a chicken, Burke chooses action.[27] But Burke is not content to merely show the shortcomings of standard methodology. He must also show the advantages of his own systemic approach.

4.3.2 System

Whereas in his earlier work Burke postulated the existence of social systems, here he offers some ideas about the constitution of these systems and their function. These systems are made up of names, allowing human beings to classify and thus

evaluate phenomena (96). Certain that he is dealing with systems, Burke sets out to explain how they operate. However, his argument that language is systematic cannot be accepted if he cannot discern systematic behavior in what linguist Edward Sapir called "a perfect hornet's nest of bizarre and arbitrary usages" (Duerden 201). But because the symbol system is always in flux, anyone who wants to be able to examine it must be able to deal with change. In consequence, the mechanism of transformation is the subject of Grammar of Motives. Burke identifies two related sources: the paradox of substance, and the overlaps in the network which allow for "alchemic opportunities" for transformation and thus for symbolic action.

Burke's metaphor for the paradox of substance is a central moltenness which throws forth distinctions that can be reabsorbed (xix). The ambiguity of language allows for transformation, which, as the last chapter will argue, is essentially, "substantially," metaphor. That is, metaphor is a primary way of reorganizing categories. Because of its importance in the theory to follow, we must look at Burke's thinking on classification.

4.3.3 Classification

Because of the flexibility in the system provided by the paradox of substance, people can not only classify, but reclassify. The idea of classification (as evaluation) occurs frequently in this volume. Humans classify automatically and effortlessly; for example, Burke points out that even a tic that arises from the mentioning of a certain thing is evidence of the presence of a scheme of classification (418). Burke's view is that in order to understand anything we must place it in terms of something else (24) and that we cannot see otherwise than in terms of categories (190). Thus all thinking

involves classification; a generalization takes a group of items and gives them a single property, which allows them to be considered as one thing. Even to apply a proper name to anything over time is to recognize a principle of continuity (96).[28]

What is interesting rhetorically about classification is reclassification. Transformation in human symbol systems occurs by merging and splitting classes. Burke explains that merger and division are resources operating in all classification systems--from the most formal and scientific to the most informal and poetic (401-4). We will return to the issue of classification in Chapter Six.

The idea of classification brings us to the second and related source of transformation: terminological overlap. We have posited that metaphor is the process of transformation wherein related things can be classified together, but so great is the transformational potential of language that ostensibly unrelated things can be grouped together (in fact, opposites can). As Burke (following Hegel) points out, everything is the other: this speaks to the transformative ability of symbolic systems (1973 77). This system is so flexible because, according to Burke, all distinctions "arise out of a great central moltenness where all is merged" (1969a xix). These distinctions are thrown up and reabsorbed so that "A" can become "not-A," not by a leap from one to the other but by returning to a point where the two are consubstantial. So "substance" can come to mean nothing (just as "sanction" can mean both something permitted and forbidden).

This flexibility in the categorization system allows it to be restructured as required. For example, one of two contrasting categories to be expanded until the two merge. Moreover, Burke demonstrates that terms can be stretched to cover

different cases, which increases the overlap between terms. These overlaps make alchemic transformation possible; for example, pirates can call themselves purveyors in an attempt to reposition themselves in the quality space (i.e., the pirates return to a level of generality at which there is no distinction between legitimate and illegitimate transportation of goods. Similar effects can be gotten by division as well: buccaneers who steal from the government are hanged, whereas privateers who steal for the government are knighted). The conclusion of the present work will show how such association and dissociation strategies are employed to reclassify quality space for rhetorical purposes.

4.3.4 Reviews

By current standards, Burke's ideas on language appear plausible, but at the time they were treated with a great deal of skepticism. In particular, Burke's anti-scientistic ideas were criticized. In his review of A Grammar of Motives, Abraham Kaplan urges Burke not to throw out the scientific baby with the scientistic bathwater (Rueckert 1969 70-77). Kaplan also accuses Burke of writing a thesaurus; however, to show the overlap between terms is to demonstrate the existence of a system. He also takes Burke to task for concerning himself with words and neglecting "reality"--a recurrent accusation. John Crowe Ransom sides with Burke in the humanistic vs. mechanistic argument, but agrees that Burke disregards reality, dismissing his dialectic as a "verbal trick" (163). Philosopher Max Black (whom Burke refers to as Black Max) skewers Burke for his lack of precision and for not using the proofs of academic philosophy, calling the book a "vast rambling edifice of quasi-sociological

and quasi-psychology [which] rests on unexamined metaphysical assumptions" (168-169).

4.3.5 Summary

A Grammar of Motives is important to Burke's overall project to analyze symbolic action because he attempts to account for the transformational abilities of the system that underlies symbolic action. This is essential for several reasons. First, if one wants to argue, as Burke has, that an epistemological crisis is caused by a system not adapting, the way such a system changes is important to know. Second, if one wants to claim that a static scientific approach to language is too limited, demonstrating the dynamic nature of the system would be useful. Third, if symbolic action is itself the transformation of the system, it would behoove Burke to understand how such transformation takes place.

This volume is also significant because in it Burke inaugurates Dramatism, a method which allows for a complete (i.e., systematic and systemic) description of human behavior. Here Burke's work is not only systematic, but metasystematic, since he is analyzing the relationships between philosophical systems. In the next volume he will show how the alembic possibilities that the transformative nature of symbol systems make possible are used in "The Wrangle," as he liked to call it, of public discourse.

4.4 A Rhetoric of Motives

A Rhetoric of Motives (1950) is the second book in the projected Motivorum trilogy. As the title suggests, it is concerned with persuasion (i.e., with how the strategies enumerated in the Grammar are actually employed in persuasive discourse). The specific goal of this volume is to reclaim, expand and update rhetoric, whose

subject matter had been taken over by social sciences or abandoned. In order to make such a reclamation possible, Burke must demonstrate the need for rhetorical study. Thus he must point out the shortcomings of the then current scientistic methodology.

4.4.1 Contra Scientism

While, as we have seen, all his previous work takes issue with reductionist scientism, here Burke indulges in what might be considered unfair criticisms. He repeats his imputation of scientistic experiments being motivated by sadism, and associates the Holocaust with scientific genocide (32). More defensible, perhaps, is his recrimination of science for producing the atomic bomb. But Burke's major quarrel with science remains its reductive nature. Because the dominant ideology is scientism, and because scientism had denigrated rhetoric, Burke is obligated to attack scientism in order to reclaim rhetoric. He employs four strategies to accomplish this, some of which he has employed previously.

One way that he defends rhetoric from scientistic attack is to put it on a plane beyond science, a strategy also employed by I.A. Richards and Yvor Winters (Knox 28). Burke claims that rhetoric and metaphor are outside the realm of true-false. Using one of his favorite dialectical moves (showing the common substance of things generally considered opposites), Burke asserts that opinion is not the opposite of truth--an assertion that would not become a Kuhnian commonplace for a decade or two.

Burke's second strategy to reclaim rhetoric is to demonstrate that it is important to account for human behavior and motives, and that positive science cannot accomplish this. Science wants to dismiss rhetoric as verbal trickery which

science has superseded as it has any other kind of magic or superstition. Burke counters that magic is not bad science but bad rhetoric; i.e., applying exhortation to things that cannot respond (40-42). However, the "word magic" of political discourse is real, and can be extremely effective, even fatal. Similarly, Burke points out that words about the supernatural are real, even if the supernatural is not.[29]

Despite the claims of the Logical Positivists, Burke shows that words have meaning even when they do not correspond to a physical thing. In fact, the most powerful words (God-terms) do not, for example, God, Apartheid, patriotism, etc. Thus any science whose method is confined to finding a one-to-one correspondence between words and objects is going to be little help in trying to understand human thinking and behavior. Burke's third anti-scientistic strategy is closely related to his second. He attempts to show that science is not as positive as it wants to portray itself. Even if a thing is positively there, the relationships between the things, and even the principles of positivism are not (184).

Should anyone remain unconvinced of the importance of rhetoric, Burke has a fourth and final strategy: "if you can't beat'em, join'em" (or rather, show that the scientists have already joined him). A Rhetoric of Motives incorporates anthropology and psychology, and even the General Semantics he had attacked in the previous volume (77). Burke even goes so far as to claim that information and even science itself are derived from persuasion--though information is usually contrasted with persuasion (177). As one might expect from someone who is usurping territory, Burke does finally have some "positive" views about positive methodology; he calls it athletic and precise, and perfectly adequate, except when dramatistic elements are

present (191). The positivist ideal of a physicalist vocabulary is simply not up to accounting for motives, which necessarily involve purpose and action. The pseudo-scientific "cult of the questionnaire," Burke asserts, is inadequate because quantifying is not helpful (15).

4.4.2 System

In the reviews of A Rhetoric of Motives, most critics (at least the sympathetic ones) have caught on to the systematic nature of Burke's project. While philosopher Kermit Lansner acknowledges that Burke "has devoted the last twenty years to the elaboration of a system of theories which embraces many crucial problems," he also characterizes the dialectical nature of the work as "a strange mixture of sense and nonsense. . . . system and no system" (Rueckert 1969 261-2). Lansner states that Burke's is a "systematic intellect" which appears to be unsystematic, but the merging of opposites is in fact "the key to Burke's system" (Rueckert 1969 261-2). Malcolm Cowley discerns in this book "the outlines of a philosophical system on a grand scale" (Rueckert 249).

Critical acceptance (or at least acknowledgment) of Burke's systematic aspects after the publication of A Rhetoric of Motives is no coincidence. Evidence of Burke's systemic thinking is readily seen throughout the work; in fact, there is much more theorizing about systems, both direct and indirect, than in earlier works. Not only does Burke analyze many of the systems that have intrigued him over the years, but he discusses the interrelationships among them as well: e.g., biological systems (both physiological and ecological), psychological, linguistic (i.e., symbolic) systems, and social and economic systems.

Burke's systemic approach is radically opposed to the dominant methodologies of the time, such as stimulus-response psychology. Though Burke knows that human beings are animals, with the attendant instinctual drives that Freud and empiricists want to make so much of, human beings also inhabit a symbolic system. Because this is so, humans and animals are completely different. To use Burke's example, when a human hears a bird's song in the spring, it is not a stimulus to a particular response. Rather, this song activates a "wider orbit of meanings" (175). The human mind is a system of associated clusters of ideas, including spring, rebirth, plenty etc. So humans respond to the idea of spring, not just to a stimulus per se.

This qualitative difference in response between humans and animals is the reason that Burke thinks that the medieval idea of allegorical, tropological or anagogic meaning is more apt for studying human behavior than studying the responses of chickens on electrified plates. Burke asserts that objects have secret identifications (associations) with the judgement of status; here he hints at the system being evaluative and, consequently, hierarchical (219). As we saw in Chapter Two, hierarchy and teleology are crucial concepts in systems theory in general, and Burke makes much of it in examining symbolic action in social systems in the present volume. In order to fully appreciate the systemic nature of Burke's thinking, a brief examination of his ideas about hierarchy and telos is in order.

4.4.3 Hierarchy

Hierarchy is central to Burke's conception of system. He declares that hierarchy is inevitable in complex human thought, and seems to ground hierarchy in both language (279-80) and the brain, observing that the expression of some impulses

requires the suppression of others (330). But most of Burke's thinking about hierarchy comes about in his analysis of social systems. According to Burke, the hierarchy of social classes came about because of property and the division of labor. Thus all social systems are hierarchies, and hence create mystification, which in turn requires social courtship and "consubstantiation" (Consubstantiation is compensatory to biological separateness as well as social.) (21). But not only is there a hierarchy of social roles, there is also a hierarchy of social concepts and goals. The possession of symbol systems makes such abstract goals possible (and possibly inevitable: that is why Burke will later claim that human beings are "rotten with perfection," and that hierarchical quality space is a goad to action) (1966 16). As Burke and Bertalanffy both assert, the existence of levels provokes efforts to transcend them. This brings us to teleology.

4.4.4 Entelechy

Perhaps it is not that odd to find words like "purpose," "rounding out," "perfection" and "completion" in a volume of the Motivorum, the analysis of purpose. But empiricists typically regard such ideas as mystical and useless. Their models and representative anecdotes are chosen specifically to exclude such problematic concepts (as Burke demonstrated in his examination of Darwin; even biology attempts to mechanize living systems, and reduce them to physics) (61). But, as we noted in Chapter Two, teleological terms are essential when one begins to study systems of any complexity. And when dealing with a study of human systems it is very difficult to ask questions about the function of a system without asking questions about purpose. This explains Burke's preference for biological models over mechanical

ones. A machine is designed with a function (e.g., to refine oil or count red blood cells), whereas a living system's rudimentary purpose is to perpetuate itself. A human system, however, seeks to perfect itself (here again we find the crucial distinction between self-awareness and self-consciousness--between thinking and thinking about thinking). Entelechial ideas like perfection, which Burke calls "end-of-the-line thinking," are possible only in human symbolic systems (14). Burke and Bertalanffy's accord on this issue will be examined in the next chapter.

4.4.5 Culture as System

Part Three of A Rhetoric of Motives is devoted to order, by which Burke seems to refer to social order, but he makes frequent references to linguistic, ideological, psychological and economic systems as well. Clearly Burke's interest in culture demonstrates his systems approach: he describes a society as a "superentity," a term used in General Systems Theory (130). Burke asserts that human society is cooperative, so it should not be regarded as an aggregate of isolated individuals (an atomistic, Newtonian view), but rather as "a superentity involving principles of inter-dependence that have been called rationality, consciousness, conscience and 'God'" (130). By whatever name, these are the systemic aspects of human social cooperation.[30] Though humans are biologically separate, they will aspire to unity and order. These ideas are more fully developed in Language As Symbolic Action.

4.4.6 Reviews

In reviewing The Rhetoric of Motives, Richard Chase makes the now familiar complaint that Burke overlooks reality in favor of words. He complains (not alone and not entirely without merit) that Burke's work is "uncontrolled" and "centerless,"

perhaps a reference to Burke's synthetic method (Rueckert 1969 252). In fact, a number of critics dislike Burke's synthetic method, since it dissolves distinctions they find necessary (e.g., R. P. Blackmur). Others recognize that it is this creation of unity which leads to a unified critical apparatus.

Philosopher Kermit Lansner sees some value and validity in Burke's methods, but he also finds Burke's reduction of science to positivism annoying, infuriating and even malicious (Rueckert 1969 267). In addition, he feels that Burke's work is "bad philosophy," in part because he does not define his terms clearly. Marie Hochmuth Nichols admits that Burke uses various vocabularies and neologisms (and converts old terms to new uses), but asserts that the flaws found by others critic are also the source of Burke's strengths: compactness, unique organization, insight and breadth (283). Cowley too admits that Burke writes to be read twice, but holds that he is worth the effort (250). The reviews of the last two books have been mixed, perhaps because Burke's attacks on scientism were, to use the scientific stoicism, "premature." While there is some merit in the criticisms, systemic thinking requires concepts not used in the mainstream.

4.4.7 Summary

In A Rhetoric of Motives Burke returns to his consideration of the Wrangle which occupied him in the Thirties, but this time he is fortified by a more sophisticated systems theory set forth in the Grammar. Here Burke wants to find out how the resources afforded by the paradox of substance are used and to what end. The essential function of the symbol system is evaluation, but when one person attempts to get another to accept a certain way of seeing a situation, we are in the realm of

rhetoric. This is undoubtedly why Burke devotes the first half of the Rhetoric to the traditional lore of rhetoric.

But Burke is not content with the traditional approach to rhetoric. He seeks to expand the scope of rhetoric by introducing identification (which Chapter Six will argue is a subspecies of metaphor). The flexibility of the symbol system created by the paradox of substance makes identification possible. Identification is a key term in this text, synonymous with sociality itself (or perhaps with symbolic action, since the goal of both is consubstantiation--the overcoming of biological division and social stratification). Clearly, Burke is working in system theory when he contends that identification is compensatory to biological division, since compensation, transformation and hierarchy are basic systems terms. When Burke refers to language as a motive force, he is dealing with entelechy, another systems concept.

At this point in his career, Burke has a very nearly complete system theory which encompasses mind, language and culture. Had Burke proceeded according to plan, his next book should have been the Motivorum's poetics or ethics. Instead, he begins to chart the structure and transformation of part of a cultural system--a theological system. He might have opted for this because to chart an entire cultural system is logistically nearly impossible, whereas a religious system is only a fraction of a cultural system. In addition, religious systems are the least susceptible to real-world "resistance," and thus have the greatest clarity and symmetry.[31] Theological systems are also interesting to Burke because they allow the freest use of symbolic action.

4.5 The Rhetoric of Religion

The Rhetoric of Religion (1961) is often seen as a good introduction to or review of Burke because so many of his ideas are distilled in it. Certainly many of the ideas Burke has about system and scientism are present in this volume. He asserts that the goal of this book is to show that any terminology or description of language which excludes symbolic action is doomed to inadequacy (14). Burke chooses to study symbolic action in theology because it is the realm in which the resources of symbol systems have freest range and ultimate expression. Theology, in contrast to scientism, uses words to refer to things that do not exist, at least empirically; it is all metaphor. (If metaphor is the heart of symbolic action, then Burke's choosing to study it cannot be considered entirely coincidental.) Theological language is also useful to Burke because it is the realm of pure action and creation (as opposed to simple labelling or mere motion).

Because they are not subject to real-world "resistance," theological systems are cleaner and more symmetrical. This makes them attractive to Burke because a theological doctrine is a system of words which can be more readily charted. Such a system is simpler, smaller, more static and more self-contained than a culture as a whole. Though Burke has been advocating the charting of a culture for some time, and has made some attempts to track down key terms, the task would be daunting even if the cultural system were not in flux. However, as complex as even a theological system is, it is much more manageable. In addition, this microcosm reveals much about the use of symbol systems in general, since it has all the transformational strategies of the cultural system as a whole. One of Burke's main

assertions in this book is that what is said about words in the empirical realm can also be said of God in the theological realm; that is, by studying a doctrinal system we can discover the resources of the larger symbolic system (2-4).

Somewhat paradoxically, dealing with the smaller theological realm also gives Burke greater scope for his analysis; his goal is to study human motives with a complex theory of transcendence, not with the terminology of simplified laboratory experiments (5). While "transcendence" seems like a purely theological or metaphysical term, it is really a systemic term. As we saw with "purpose," when dealing with the most sophisticated systems, the real emergent properties of these systems require such terms. Burke must deal with transcendence because it is essential to symbolic action.

Transcendence is important to Burke because language allows humans to transcend the level of animal or machine. Hence Burke asserts that language is the source of everything distinctly human. It allows transformation and hence symbolic action, the creation of order, the ability to question and evaluate. Because symbol systems allow for systematic thought, human beings can create ethics, social unity (or rebellion), and socio-economic systems in general, an idea that we shall shortly see seconded by Bertalanffy. Because of language, the human world is fundamentally different from the animal world. Whereas animals have rudimentary classification abilities (e.g., this is good to eat, or that is dangerous), humans live in a symbolic world of their own creation: even physical things stand for something (signify) because they are situated in a system of concepts (301). To an animal, a berry does not stand for food, it <u>is</u> food. For a human being, a steak is food, but it also stands

for wealth or celebration. This fundamental difference is why Burke objects so strenuously to laboratory experiments with animals being used to explain human behavior.

4.5.1 Contra Scientism

Burke's stated aim in this book is to show the limitations of positivist methodology. Why does Burke feel the need to continue his attack on positivism? One answer might be found in his choice of subject matter and his methodology (theology and analogy, respectively).[32] Both are scientistically suspect. One could also argue that by choosing thus Burke is placing himself so far beyond the scientific pale into philosophy that he is out of range of scientistic attack. This makes sense when we recall that the early Sixties were the high water mark for techno-hubris and Skinnerian Behaviorism. But the nature of Burke's project discussed above provides a plausible explanation for his choice of subject matter as well.

Burke uses some of the same strategies to derogate positivist approaches that we have seen in his previous two or three volumes: 1) positivism is too limited to be useful because it does not provide a full and apt description of human actions and motives. 2) Positivism is not as positive as it claims to be. Burke argues that positivism is too limited in his assertion that "quasi-scientific reductionist theories, with their caricatures of perfection, will not only not see it [the role of symbolic action] in the first place, but will be so constructed that they never miss the loss" (301). By "caricatures of perfection" Burke means that all humans are driven by purposes inherent in language. Scientists seeking fame, perfecting a system, or just answering a question are not immune to such influence, though they may be the last

to realize it. Burke also demonstrates the limitation of positivist method by pointing out the "trained incapacity" of scientistic methodology, returning to his favorite example (or representative anecdote) of symbolic action: games. In order to play a game a person must understand both its rules (form) and its purpose (38-39).

Burke's second strategy is to demonstrate that positivism is not positive: pseudo-objective accounts often smuggle in "shall" (279). For example, the most objective of scientists looking at ozone depletion might conclude that we "ought" to stop it. Moreover, he repeats his assertion from earlier books that any generalization (i.e., interpretation) moves us from the realm of the positive to "quasi-positives" (24).

But perhaps Burke's strongest argument against reductionistic scientism is itself scientific: Burke wants to argue that the human mind really works more analogically (as in theology) than by mechanical association or conditioning (i.e., one should study symbolic action and dreams not because they are the way the mind should ideally work, but because the mind <u>does</u> work that way).

4.5.2 System

As in previous works, Burke investigates different systems and their interactions. <u>The Rhetoric of Religion</u> argues that not only is a culture as a whole a system, but all contending doctrines within a given culture are as well (301). Both systemic and structuralist thought are exemplified in Burke's assertion that human beings are not just individual identities, but fulfill a social role: i.e., they are a function of a social system (310). Systems thought is also evident in Burke's observation that a society will seek to maintain order, which requires rules and the repression of disorder. Rules lead to violations (intentional or accidental) and hence

to guilt, and to redemption, which in turn requires sacrifice (314). Again, as with transcendence, these seem like purely theological terms, but these are essential strategies that can be found in any culture at any time. For example, political scientists and psychologists both must deal with the concept of guilt and its consequential compensatory devices. Compensation, transformation and substitution are systemic phenomena.[33]

4.5.3 Reviews

Reviews of The Rhetoric of Religion were disgracefully few, according to Rueckert (1969 420). However, in the reviews that were written, he points out that no one felt the need to defend Burke or argue for his importance as had previously been necessary. In his review Joseph Frank acknowledges the systematic nature of the book, which he characterizes as a "remarkably thorough and ingenious study" attempting to integrate all types of vocabularies into one framework (Rueckert 1969 402). Sociologist Hugh Dalziel Duncan finds a great deal of what Burke says about religious systems insightful about social systems as well. He states that Burke now has a finished system which provides a method for showing how language affects social relationships (408).

4.5.4 Summary

In The Rhetoric of Religion Burke continues to clarify the contrasts between Dramatism and scientism: scientism deals with epistemology: what is it and how do I know? It is the realm of motion and knowledge. Dramatism, on the other hand, is ontological: its concerns are what transformations brings this term or concept into being? What goes with what? What does it do? This is the realm of action and form

(39). Sometimes the theoretical distinction between human action and mechanical motion gets blurred (and will become more so as computers become more complex), but in practice it is not so problematic: usually people are fairly certain about who will respond to petition and what will not.

4.6 Language As Symbolic Action

Several of the themes we have seen are repeated in Burke's last major text, Language as Symbolic Action (1966). This repetition is not surprising considering that Burke's life's work has been the study of symbolic action (coupled with the fact that this book is an anthology). And though there will be some later revisions and refinements, this volume may be viewed as the culmination of the development of Burke's system. In this text Burke summarizes many of his earlier ideas, a number of which are distilled in his well-known definition of (hu-)man:

> The symbol-using (symbol-making, symbol-misusing) animal
> inventor of the negative (or moralized by the negative)
> separated from his natural condition by instruments of his own making
> goaded by the spirit of hierarchy (or moved by a sense of order)
> and rotten with perfection. (16)

We are especially concerned in the present context with the idea that humans are separated from their natural condition, since they are separated by being enclosed in the quality space which is made possible by language. Thus human "reality" differs from its scientistic conception.

4.6.1 Contra Scientism

Another very familiar theme to which Burke returns here is his opposition to reductionistic scientism. He continues to assert that in trying to reduce reality to the sensory, scientism attempted to purge symbolic action by reducing it to motion. Having accomplished this reduction, the scientistically-minded could plausibly use the machine model as its representative anecdote. Burke claims that if we cannot get rid of the mechanistic scientistic model altogether, it must at least be supplemented. So it appears that after a third of a century of attacking scientism almost single-handedly, Burke is willing to settle for a truce.

Burke softens his position towards scientism somewhat, either because he is not so much the lone voice in the wilderness anymore, or conceivably because he has made his point. Also, with the mechanistic view being abandoned even in the hard sciences where it has its greatest successes (cf. Einstein, Bohr, Heisenberg et al.), perhaps that methodology could not be applied with so much authority in the human sciences as it had earlier. By way of a peace parlay, Burke shows the realism in his position and the poetry of positivism, as he did in A Rhetoric of Motives (379).

Although Burke is always willing to look for common ground with his opponents, he is in no way retreating from his fundamental position. In fact, he cannot, since the professed aim of this volume is to track down the implications of symbolic action (vii), and the mechanistic methodology of his opponents is not compatible with this goal. Actually, in retrospect it is apparent that this pursuit of symbolic action has been the aim of Burke's entire career. But in order to understand symbolic action, one must understand the system that underlies it and how that system

operates; similarly, in order to understand the system's function, one must understand transformation. That is why Burke devoted so much of The Grammar to the paradox of substance. Accordingly, Burke's opening salvo in Language as Symbolic Action is the claim that substitution (read: transformation) is a "rational resource of symbol systems" (7, 66). Burke's privileging of this idea lends support to the idea that symbolic action is essentially transformation of quality space.

We have noted that in dealing with complex phenomena, science prefers to deal with the smallest and least complex "building block" and study it in isolation, preferably in a static condition, as when a biologist prepares a thin cross section slide for a microscope. Because of the limitations of mechanistic methodology, scientists tend to become a bit nervous when something becomes something else; Burke claims that classical science prefers to think in terms of what is and what is not, not what does something else become. What becomes what and what goes with what, however, are the central questions of Dramatism. In a religious system, for example, gods merge and divide, just as entities in a symbol system do (407). But by examining the system of texts, and by tracking terms in all sorts of discourse, Burke has learned that transformations are bewildering, but, as with substitution, they are not random (7).

Along with Lévi-Strauss, Burke has discovered that not only is change systematic, but also that transformation is the essence of systems (431). In a symbol system, a word can change, and give up part or all of its function to another term in the system (367). These sorts of changes have long been demonstrated in linguistics and structuralist studies. In fact, Burke's methods, particularly when he talks of

hierarchy, polarities, and the Negative, share many structuralist methods and assumptions.

Another important and related anti-scientistic strategy that Burke uses is to derogate the utility of making one-to-one correspondences between words and things. For Burke, context counts. The relations between things are as important and real as the things themselves. When perspective or scope changes, the name for a given situation will often change as well. Though science seeks to provide one unambiguous term to define an entity, different people, with different experiences and associations will name the same thing differently, particularly in the realm of the contingent. Hence, naming and definition cannot be purely objective (360). Burke's shorthand "trade name" for the phenomenon of a vocabulary acting as a filter for perception is "terministic screen" (44-46).

Burke has been working on his distinction between scientism and Dramatism for some time, but he makes the argument the most clearly and succinctly here. He repeats his claim that the epistemological scientistic methodology has "side-tracked" the older ontological way of thinking (23). But then he wants to argue that the two are not mutually exclusive, though their paths do diverge, and that it is important to identify the point of divergence. The two overlap in that both are grounded in definition. Definition (which he declares to be the basis of science) is a symbolic act. But the two -isms are different in that they view language differently and have different aims. Whereas scientism views language as the label for a thing, Dramatism sees the essential function of language as attitudinal or hortatory (i.e., a word is a label used to reinforce or alter the way one feels and acts with respect to an entity or

situation). Furthermore, the end of scientism is symbolic logic, whereas the end of Dramatism is symbolic action (44-45).[34]

Burke makes the distinction between action and motion over and over in each of the last several volumes because this dichotomy is both problematic and crucial. Its importance is evident when we recognize that for Burke symbolic action is the basis for everything human, everything important. In the essay "What are Signs of What?" we find the culmination of Burke's reclamation of the importance of language after its scientistic denigration. Presumably aware that this essay could prompt outrage from those who want to minimize the importance of words, Burke asks his audience to consider this a thought experiment: What if we reverse our common sense notion that words are signs of things? Here again he employs the argument that the really important uses of language are generalizations which cannot be empirically verified.[35]

4.6.2 System

Systems thinking in Language as Symbolic Action is evident in Burke's continued discussion of entelechy. He observes that there can be no action without an end, i.e., a goal or purpose (483). We noted in Burke's definition of human in the introduction that one important result of humans' existing in a symbol system is that they are "moved by a sense of order." Burke claims that because human beings are sensitive to patterns, they are driven to complete them (19). The perfectionism inherent in symbol systems makes humans want to "round out" or act in terms of such systems and culminates in God-terms (456). Entelechy only makes sense in terms of systems: humans exist within a system, and thus will tend to behave systematically,

no matter how unpredictable or irrational the behavior seems from outside the system.[36]

We can also see Burke's concern with system in his interest in context and interrelationship. To examine an entity in context is to consider it in terms of a system of interactions. Burke is interested in how clusters are formed, how a "whole family circle" of terms interrelates, how these clusters modify one another, and how they combine into larger networks (General Systems Theory demonstrates that the size and complexity of a network are important; as we shall see in the concluding chapter, even the simple yes-no switches in a computer can achieve remarkable results if enough of them operate quickly enough) (65). We can also see Burke's systemic contextual concern in the Pentad, which is a device for examining context and interactions.

4.7 Conclusion

Burke's interest in a systems approach is apparent in his influences, his methods, and in his philosophy of language as a whole. Because of Burke's immense scope and synthesizing abilities, he was able to incorporate systems ideas from philosophy (e.g., Nietzsche, Bergson, Whitehead), sociology (Marx, Weber), anthropology (Mead and Malinowski), biology (Woodger), literary criticism (Richards, DeGourmont) and psychology (Freud, Gestalt psychology). Some of these thinkers influenced Bertalanffy as well, and all share a concern with context and/or function characteristic of systemic thinking.

Burke's systems approach is evident also in his methods and terms. His Dramatistic Pentad allows for a full account of both function and purpose, and for the

interrelationships in a given situation. Dramatism is supplemented by Logology, the study of how a system of terms functions, transforms and interrelates (47). The charting of this system of terms, and their endless associations and dissociations was a prime goal for Burke. His interest in structure, hierarchy, "courtship," mediation, order, transformation, epistemological crisis, entelechy, and identification also demonstrate his systems thinking. Burke's characteristic methods overlap with his major terms, both of which demonstrate his concern with systems.

Drawing on the works we have surveyed so far, Burke's systems theory of symbolic action may be summarized thus: humans are fundamentally different from other less complex systems such as machines and animals because humans have language. Language is a symbol system that leads humans to create complex models of the world. In fact, humans inhabit a symbolic world of their own creation. Symbols allow people to name and thus evaluate and adjust to a situation. Proverbs are exemplary names which a culture codifies to name situations (e.g., a stitch in time saves nine).

Over time, as a culture becomes more complex, the number of names needed to account for the new and more complicated situations increases. However, there cannot be a new term for every situation, so some terms must be used to cover a number of situations that are classified as similar. Because of the terministic screen afforded by a term, a sort of template can be applied to two very different situations in order to make them similar; e.g., Saddam Hussein is Hitler. Eventually through the accumulation of terms an orientation or frame of acceptance evolves. This system, when healthy, is never static; terms arise and wear out, or become irrelevant.

When a given system cannot adequately adapt in order to classify what is going on, however, epistemological crisis is the result. Such crises can lead to the repair of the system, chaos, or defection to a rival system.

Now that we have an understanding of Burke's theory of symbolic action, we can compare his work to General Systems Theory in order to see how the two can be mutually elucidating. Fundamentally, Burke and Bertalanffy are complementary because they are both systems thinkers, and Burke takes up where Bertalanffy leaves off. Though he managed to extend his thinking from the workings of the body to the mind, he could only point the way for others when it came to the study of culture. Bertalanffy concluded that at the social level

> we must concern ourselves with the content and meaning of the messages, the nature and dimensions of value systems, the transcription of images into a historical record, the subtle symbolizations of art, music and poetry, and the complex gamut of human emotion. The empirical universe here is human life and society in all its complexity and richness. (1975b 29)

Even Norbert Wiener, the founder of the cybernetic branch of General Systems Theory, comes to very much the same conclusion in his assertion that "society can only be understood through the study of the messages and communication facilities which belong to it" (Davidson 204). Burke undertakes precisely this task. We can only assume that Bertalanffy would have approved of Burke (as some of his disciples in fact have), since Burke's interpretive system is comprehensive, his methods are pluralistic, non-reductionist, and systematic, and his task is to understand the systemic

nature of symbolic action and the system in which it is grounded. Each point deserves further consideration.

Burke's theory constitutes a valuable interpretive system. Burke's critical system is valuable because it is comprehensive yet utilitarian. It provides methods for studying a text in context (e.g., he traces the interrelationships within a text, between texts, between the author and a text, between the reader and a text, between a text and the environment, etc. Moreover, his Dramatistic Pentad allows full description of any human situation, real or literary). William Rueckert asserts that Burke's system "is a coherent and total vision, a self-contained and internally consistent way of viewing man, the various scenes in which he lives, and the drama of human relations enacted upon those scenes" (1963).

Burke's system is comprehensive because he has managed to synthesize so many methodologies of different fields. As a result, Burke has at hand all the tools (or "speculative instruments," in Richards' excellent phrase) to analyze nearly any aspect of any situation. He is often the first to use a given speculative instruments, and he hesitates to discard a method even when he has found its limits. For example, he was one of the first to employ the formalism that would give rise to the New Criticism, though he refused to limit himself to formalism alone, and was often attacked for this. He has long employed structuralist methods, but again avoided the sort of reduction in literary criticism that led to post-structuralism (in many respects he anticipated deconstruction as well).

Burke's method is plausible and systematic. We noted above that Burke applies quite a number of different methods, but his aim finally is to chart the system

of quality space and its transformations. Of course, because of the vastness of the task, he must choose something manageable. Consequently, often his immediate object is a literary or persuasive text, but such a subject can be a "representative anecdote" that gives important clues to how the system as a whole operates. In some of the earlier books, he could not show the correlations among the strategies of symbolic action, so he had to content himself with merely providing lists (e.g., the Lexicon Rhetoricae, or the Dictionary of Pivotal Terms), but as his interpretive system developed he was much better able show the interrelations of terms and strategies (Chapter Six will offer some refinement of this possibility).

Burke's subject matter, symbolic action, is itself systemic. Burke asserted that symbolic action is the functioning of the symbol system. We know this is true because symbolic action is essentially transformative, and transformation only happens in systems. Burke's intuitive account gives us a solid foundation to work from, since he describes the origin, structure and function of the system. The precise origin of language will probably never be known, but Burke asserts that it is inextricably bound up with the Negative, which does not exist in nature (1966 18). The Negative is the difference between the verbal and non-verbal (and hence the human and the less than human). The "linguistic marvel" of the Negative leads to many human capabilities, the most important of which is metaphor, as the concluding chapter will argue.

Burke also begins to account for the structure and development of quality space: it is made up of associated concepts, which increase in number and interconnectedness with time. The function of this system is the evaluation of a given situation. The next chapter will build on and refine Burkean theory in order to put

forth some ideas about the nature and operation of this system. These ideas might seem as mystical as transcendence once did, but they are in line with a new paradigm emerging in many fields. In any case, mysticism, as Burke points out, is nothing but the farthest reach in the search for new perspectives (1984b 223).

CHAPTER FIVE

The Systemic Basis of Burke's Theory of Symbolic Action

5.1 Introduction

The previous two chapters have distilled out the systems ideas in Burke and concluded that Burke's theory of symbolic action is plausible, systematic and systemic. This chapter will continue to argue that despite the fact that Burke was sometimes dismissed as an idiosyncratic "Yankee crank," in truth he was a precocious systems theorist. General Systems Theory will provide an empirical basis for many of the ideas for which Burke was dismissed as a mystic: transcendence, teleology and emergent properties. The ultimate aim of the present chapter is to show that Kenneth Burke has a plausible systemic theory of symbolic action which, mutatis mutandis, may provide the foundation for a kind of unified field theory for rhetoric.

The present chapter will argue for the systemic nature of Burkean theory and for the plausibility of that theory by showing that it has many affinities with the General Systems Theory delineated in Chapter Two. Furthermore, we will observe important parallels in Burke's and Bertalanffy's careers and works. These parallels are not accidental; since both had similar goals (i.e., understanding systems), they drew on common influences, and developed similar concepts. Not coincidentally, both had the same enemies, and both were subject to the same attacks and employed similar counterattacks; even their acceptance parallels, coming late to both.

But more telling than their parallels is their convergence: both privileged language. As we noted in the introductory chapter, Bertalanffy points out that

independent creation is an important source of verification in the human sciences. When two thinkers from two so very different fields as biology and rhetoric come to the same conclusion, that consensus is not to be lightly dismissed.

Though Burke and Bertalanffy have striking commonality, there are differences. Burke has a top-down, intuitive approach, and he is strongest on language and culture; however, Bertalanffy is more empirical and more bottom-up, using his observations of material systems to inform his later and more speculative theories of mind and language. Happily, the two thinkers' different emphases make them complementary. For example, the greater precision of Bertalanffy and his followers on structure and development is very useful for refining the more intuitive account of Burke. Moreover, the isomorphisms of General Systems Theory make us feel on surer ground with Burke's ideas.[37]

After we have established the common ground between Burke and General Systems Theory, Burke's systemic theory of symbolic action can be clarified by General Systems Theory. General Systems Theory is particularly helpful on how systems evolve, and to lesser degree on structure. The chapter will then assess the strengths and weaknesses of Burke's theory of symbolic action. This assessment will provide the basis for an extension of the theory which will be essayed in the concluding chapter.

5.2 Burke-Bertalanffy Affinities

Burke and Bertalanffy were born within a few years of each other at the turn of the century. Both had artistic and philosophical tendencies. Though Burke worked in America and Bertalanffy in Europe, both inhabited and reacted against the same

mechanistic epistemological milieu--the beginning of the breakdown (despite furious salvage attempts) of nineteenth century mechanism. Partly because they were both heretical by their choice of a systemic approach, both were somewhat itinerant in their scholarly careers, and for both recognition came relatively late (in the 1960's, when mechanism was losing its grasp on the biological and human sciences). Being branded a heretic was in some respects more of a problem for Burke, since Bertalanffy could provide empirical support for his assertions in a way that was not open to Burke. Nonetheless, Bertalanffy felt obliged to shelve some of his more audacious systems ideas until after the Second World War, when the climate was much more receptive.

5.2.1 Common Influences

Because Burke read French and German, had interdisciplinary interests and worked as a reviewer, he drew on a wide array of materials for his project. Bertalanffy also read widely, and General Systems Theory is by its very nature interdisciplinary in that it compares systems from many fields. (For example, Bertalanffy began with biology and extended his theory into psychology and philosophy.) Moreover, both Burke and Bertalanffy were reacting against their period and were working on similar kinds of problems. So it is not remarkable that Burke and Bertalanffy were influenced by many of the same thinkers. For example, Henri Bergson's Creative Evolution is a book that is cited frequently by both, though Bertalanffy was more critical of it than Burke. Other influences that both men share are Aristotle, Alfred North Whitehead, Gestalt psychology, Jean Piaget and Oswald Spengler.[38]

While there is no evidence that either Burke or Bertalanffy read the other, there may have been some indirect influence through the biologist J. Henry Woodger, who (it may be recalled) was Bertalanffy's translator. In Permanence and Change Burke cites Woodger's Biological Principles, which incorporated many of Bertalanffy's ideas. Not entirely coincidentally, many General Systems Theory ideas are articulated in Permanence and Change: one can only explain a partial event with reference to the total event (i.e., one must view the system as a whole), and one should examine interrelationships as well. Burke also devotes a great deal of space to arguing for an organic model which accounts for the teleological. In fact, so important are the systems ideas Burke is importing from biology that he calls this text a "metabiology," rather than a metaphysic (230-62).

Though we have no evidence of direct influence of Burke on Bertalanffy, we know that many of Burke's ideas on symbolism were paralleled by Ernst Cassirer and Suzanne Langer. In Cassirer and Langer, Bertalanffy finds someone dealing with symbol systems with the sophistication and emphasis they deserve (1981 43). While Bertalanffy is apparently unaware of Burke, later General Systems theorists who are concerned with language are not; James McFarland notes the similarity of Burke's Dramatistic model to General Systems Theory:

> Burke feels that the social or interpersonal dramas do not occur in a vacuum, [consequently] they must be studied in the context of their social setting as an organic event rather than as a static event. The concern is not with observing any two segments, such as the relationship between act and scene, but the function of the act itself. Burke

> centers his attention on the interrelationships of the communication rather than on any one aspect such as speaker, message or receiver. All this is in the spirit of systems analysis. (179-80)

5.2.2 Consensus on Symbolism

Though Burke and Bertalanffy start in very different fields with different assumptions, methodologies and problems, they come to startlingly similar conclusions about the importance and nature of symbolic action: it is symbolism that makes us human. Symbol systems influence human thought and perception. Human reality transcends biology. Consequently, human behavior and the evolution of living systems cannot be accounted for by a mechanistic approach, but rather require a pluralistic, interdisciplinary methodology. Each of these conclusions will be considered in turn.

Symbolism makes us human. Without a doubt, the most astonishing congruence of thinking of Burke and Bertalanffy is the privileging of language. Of course, the assertion was not unprecedented (e.g., Aristotle, Coleridge, Shelley, and in some types of structuralism), but it was still rare in the 1930's when Burke propounded it, and even rarer for a scientist in the 1950's when Bertalanffy did. Burke was frequently criticized for paying too much attention to mere words and thereby neglecting the "real" world by resorting to "verbal trickery" in order to solve real-world problems (though no one was clearer about the difference between words and things and their respective capabilities than Burke).

Bertalanffy, however, granted very nearly the same status to language as Burke did. As we noted in Chapter Two, there are really two significant breaks in

Bertalanffy's hierarchy: the first between open and closed systems (essentially life and non-life), and the second between humans and animals (the main difference being a capacity for symbolism). According to Bertalanffy, because of symbolism human beings are not merely reactive, like plants and lower animals, but active (or even proactive, in that human beings can anticipate and shape the future). Unlike simple organisms, human beings do not respond to a stimulus but to a model in the brain into which the stimulus is integrated.

Symbol systems structure thought and perception. The model mentioned just above is a system of categories predicated on the ability to use symbols. Language allows for the evolution of this system of categories, which in turn creates this model of the world. Hence both Burke and Bertalanffy subscribe to the Whorf-Sapir Hypothesis that language categories structure thinking to a degree, i.e., language leads us to divide reality in accordance with the categories encoded in our language (Bertalanffy 1968 222-3). Both draw on Kant's work on categories. Following Kant and Cassirer, Bertalanffy concludes that each language builds up a system of categories, some rooted in biology, others learned as part of the culture. These categories are relative, and thus can be altered to reflect changing conditions and needs (1981 82).

Burke is also very interested in categories, particularly since they allow human beings to evaluate a situation and then advocate a given interpretation. Burke deals with the importance of the concept of categorization in all his works: in Permanence and Change he notes that all organisms discriminate for the purposes of evaluation, though only humans do this based on verbal categories (5-6). In A Rhetoric of

Motives Burke states that even though the mind can only see in terms of categories (1969b 190), to see a situation in terms of a given category means not seeing it in another, so a given perspective leads to blindness and trained incapacity as well as insight.

Plentiful corroboration of Burke's and Bertalanffy's ideas on classification is available. Following Lévi-Strauss, Prof. Worsley asserts that "in classifying, man organizes his experiences, and locates the classified raw material of his experience within a framework of meaning" (Schwartz 28). In fact, perception, understanding and action (physical as well as symbolic) all depend on being able to recognize a collection of stimuli as a category of thing.[39] Bertalanffy asserts that perception is altered by these "spectacles of symbolism," which Burke calls a "terministic screen." Bertalanffy recognized that the perception which grounds empirical study is an interaction between knower and known; thus the world is a theoretical construct. Observation is therefore problematic, not purely objective (1972 37). Consequently, Bertalanffy is skeptical of scientific claims to objectivity (as is Burke, for similar reasons). This skepticism forms part of the basis for his objection to the hegemony of the scientistic paradigm, which will be examined below.

Human reality differs from the merely biological. Bertalanffy shares Burke's objection to human systems being treated in terms of chemistry. He disputed this reductive approach because "except for the immediate satisfaction of biological needs, man lives in a world not of things but of symbols" (1968 215). This statement seems like a paraphrase of Ernst Cassirer: "No longer in a purely physical universe, man lives in a symbolic universe" (1945). Nearly identical passages could be found in

Burke as well. In fact, the idea is so crucial in Burke that it appears in the second clause of his definition of human beings: ". . . separated from his natural condition by instruments of his own making [i.e., language]" (1966 16).

Bertalanffy provides strong theoretical as well as empirical evidence to show that symbolism enables a kind of "quantum jump" to a new level.[40] He shows many examples of higher level systems with greater complexity producing emergent properties that are not possible in lower level systems. Human values are one of the emergent properties that come about from humans with symbol systems to store and manipulate information. Bertalanffy holds that humans are more than animals or robots because symbolization gives humans the capacity to strive for the "realization of values" (1968 217).

Burke, of course, was also quite adamant about the importance of values in human behavior. Burke emphasized that human behavior cannot be accurately described by ignoring language, since language leads to values, which affect motives and subsequent action. As Burke puts it somewhat colloquially: "ideology [i.e., a system of values and thus evaluation] makes our bodies hop in peculiar ways," which is to say that being a member of a cultural system leads to actions that may or may not be in the best interests of an individual person and often will not even be congruent with biological needs (1966 6). Because mechanistic theories such as Behaviorism could not account for ethical behavior, Burke and Bertalanffy felt they needed to be supplemented or discarded. This brings us to our next point.

<u>Human behavior cannot be accounted for by a mechanistic approach</u>. Because Burke and Bertalanffy were opposed to the hegemony of the scientistic approach, it is

not remarkable that they both attacked Behaviorism, as it was the psychological subspecies, and it was applied in the domain to which the mechanistic approach was least appropriate. What is more remarkable, however, is the similarity of the attacks: both objected to computers, animals or infants being used as models for human behavior. Furthermore, both Burke and Bertalanffy felt that the Behaviorist stimulus-response model was inadequate because human beings are clearly active, not merely reactive.[41] As a kind of empirical support for his opposition, Bertalanffy pointed out that according to Behaviorism the stress of World War Two should have produced more neurosis and psychosis, though exactly the opposite was true (except in the extreme cases of battle fatigue; the neurosis seemed to come with post-war affluence) (1968 207).

Mechanism cannot account for development or evolution. One of the most troubling shortcomings of the mechanical metaphor is its failure to account for growth or evolution of a system. This deficit is felt keenly by both Burke and Bertalanffy because they are interested in the development and evolution of systems. Burke's interest in systemic change presumably stems from his interest in epistemological crisis. Consequently, he wanted to know how a system decays and how it can be rejuvenated. Similarly, Bertalanffy was interested in the life cycle of cells (later he became involved in pathological growth and cancer research). So both Burke and Bertalanffy had systems problems on their hands, yet many systems terms and concepts essential to such problems, e.g., telos, transcendence and wholeness, were dismissed by mainstream science as mystical.

Bertalanffy was able to demonstrate that these properties were not mystical but systemic. His biological studies led him to assert that in higher level systems the import of energy led to the ability to increase complexity. Such systems do not maintain homeostasis or equilibrium, as the mechanistic model stated, but rather increase disequilibrium with increased complexity. Furthermore, Bertalanffy held that sometimes increased complexity crosses a threshold which creates a new level of complexity with attendant emergent properties not seen at lower levels. For example, a culture has attributes not found in families, just as a cell has properties not found in a virus. Increased complexity in a system is invariably accompanied by increased hierarchy and specialization.

Burke's account of how a single human being (as well as a culture) develops has strong systems theory affinities: biological unity is disrupted by birth, which leads to the replication of language by the infant (literally "no language") in order to overcome the biological separateness. Language also leads to more complex social groups, which in turn cause a division of labor (specialization) and so hierarchy. This separation must also be continually overcome through the use of language (resulting in what Aristotle called kairos and General Systems Theory would call a steady-state). These ideas will be developed below.

Even though hierarchy is an acceptable scientific term, it becomes suspect and mystical when one speaks of moving from one level to the next level, which implies transcendence and teleology. Hierarchy and transcendence are extremely important concepts in Burke's philosophy, important enough to include in his definition of human: human beings are goaded by a sense of hierarchy or a sense of order (1966

16). Order and hierarchy would appear to be conservative forces, but this is not invariably true, at least in human systems: we know from General Systems Theory that in any system there is flexibility and stability. Hierarchy actually contributes to both. Social stability can be maintained by force from the top, or when people all through the hierarchy compensate for their lowly position by identifying with those at the top. Moreover, if anyone can rise in the hierarchy, there is change (flexibility) but also stability (in that the system itself remains unaltered).

But the hierarchical nature of all systems leads to a kind of instability as well--an impulse to develop and even transcend a given level of organization. In A Rhetoric of Motives, Burke holds that language is a motive force that allows human beings to transcend nature, and in fact all classes in the hierarchy are striving for perfection of their kind, which leads to transcendence of that level (192). As we noted in the last chapter, in the Rhetoric of Religion, transcendence is an important term, but even there it is not exclusively a theological term. Transcendence is simply making the quantum jump to the next higher level, and thereby acquiring the emergent properties of that level.

Burke and Bertalanffy both asked the question, What causes a system to become more complex? Bertalanffy's basic answer to the question is that the import of free energy allows living systems to evade the Second Law of Thermodynamics. Burke and Bertalanffy respond in a similar way to the particular question of why human society becomes increasingly complex: language leads to values, which in turn lead to very sophisticated kinds of reasoning and action.

Despite its suspect status, teleology is an important concept permeating Bertalanffy's work. He felt that the scientific method puts too much emphasis on causes, rather than ends, and that Aristotelian telos was replaced by a search for causal mathematical laws beginning in the Scientific Revolution of the seventeenth century (1972 22). The vitalists at the turn of this century tried to smuggle telos back in, but making it a mystical entity was not much help, according to Bertalanffy, and it was dismissed as supernatural or a pseudo-problem. Bertalanffy tries to reassert teleological ideas in biology, and though he might be a bit uneasy about Burke's seeing language as a motive force, he agrees with Burke that purpose in human beings is grounded in symbols. Bertalanffy states that even though animals have goals, it is only human beings who have true purpose, since their symbol systems allow them to strive to realize values (1968 217).

Mechanistic/scientistic methods are too limited. Despite the fact that they were both lifelong opponents of mechanistic reductionism, both Burke and Bertalanffy are remarkably tolerant in terms of methodology. For both Burke and Bertalanffy, even intuitive models are fine; the only test of a model is its utility. Both advocate following a model to see how far it will go (Davidson 196). What both objected to, however, was the monopoly of the scientistic perspective which sought to reduce all phenomena to a level of simplicity which could be accounted for by classical physics (the "clockwork" level). On this point Bertalanffy liked to quote his friend Aldous Huxley: the world is like a Neapolitan cake; one can't reduce strawberry to chocolate, or biology to chemistry. All one can do is look for similarities between levels or

systems (1975 16). Hence both Burke and Bertalanffy advocated a pluralistic, interdisciplinary approach.

Bertalanffy called his broad interdisciplinary approach "perspectivism," which sought to avoid the errors of both absolutism and relativism (1981 83). (Similarly, Burke's organic model sought to avoid those of both materialism and idealism.) As we have seen, Burke is also interdisciplinary, drawing on anthropology, economics, politics, literary criticism, biology, history, psychology, and sociology. It is not surprising, then, that there are some methodological parallels (or perhaps convergences). One similarity is an interest in function: both Burke and Bertalanffy tended to ask not, What is it made up of (i.e., its smallest constituent), but rather, What does it do? The stated methodology of General Systems Theory is to look at the overall function and the interrelations of a system. General Systems Theory seeks to find similar functioning, isomorphism, between systems.

Burke too is analyzing systems, sometimes in passing as an analogue (e.g., the Poetry Exchange), other times in depth. His stated goal is to chart the symbol system and the transformations made possible by that system (1984a 232). Burke's models show his interest in dynamic systems: market, drama, game, organism.[42] In describing the behavior of these systems, Burke tries to account for context, which is precisely the sort of multi-variable problem addressed by General Systems Theory. Also like General Systems Theory, Burke attempts to deal with interrelations (cf. the Pentad and its ratios). Burke even occasionally employs the concepts and terminology found in General Systems Theory, such as "superentity."

5.2.3 Differences Between Burke and Bertalanffy

The agreement between Burke and Bertalanffy on the nature of symbol systems is quite remarkable, even taking into account the similarity of temperament, influences and programs. In fact, the only real difference is a rather minor one: language acquires a motive force in Burke (which is the sort of vitalist association that Bertalanffy tries hard to avoid), but there is no doubt that teleology and hierarchy are fundamental to Bertalanffy's systemic theory of development and evolution, as we saw in Chapter Two. And there is no doubt that Bertalanffy grants very nearly as central a place as Burke to language.[43]

Though apparently unaware of Burke, Bertalanffy wholeheartedly embraces Cassirer's work on symbol, so there is little reason to think that he would have had any violent disagreement with Burke. All three subscribed to the idea that language was central to human life, that symbols structure perception and thus world view, that thinking is essentially categorical, that language distinguishes humans from animals, and leads to the creation of culture. Burke and Cassirer would also agree that the purpose of culture, including art and science, is the interpretation and transformation of experience through symbolic means.

So the differences between Burke and General Systems Theory are more like differences in emphasis than disagreements. We can thus use the two in a dialectic which surpasses either one in isolation: General Systems Theory is more empirical and better on development, while Burke is more speculative and deals with language and culture as systems more than General Systems Theory does. Consequently the next section will present Burke's theory of symbolic action and his conception of the

system that gives rise to it. Burke's theory will then be clarified and supplemented by General Systems Theory.

5.3 Burke's Systemic Theory of Symbolic Action

In Attitudes Toward History Burke suggests that the purpose of symbolic action is the creation (or recreation) of an identity that fits into a culture (263-4). (This assertion is seconded by anthropologist James Fernandez, who was influenced by Burke.) Hence symbolic action involves the creation of an integrated world view (or recreation of a culture) and finding a place in that system. Such an accomplishment allows one to "feel at home," to size up situations, and to avoid epistemological crisis (Note that these assertions easily translate into General Systems Theory concepts: wholeness, replication, steady-state, etc. Cf. J. Miller.).

At its most basic, then, symbolic action is any strategy for encompassing a situation. Burke asserts that language is a symbol system, the function of which is the evaluation not so much of entities (i.e., the classification of objects in themselves, as in the scientistic view) as of the situations in which entities occur. Thus for Burke a name (symbol) is a means of adjustment to a situation. To name a situation in a given way leads to a corresponding attitude and action.[44] But naming is never wholly unproblematic since it is never disinterested, but reflects the desires of the competing groups or individuals. Therefore, there will always be disagreement on how to name a given situation (and thus act towards it, since different names suggest different models).

The system of evaluation (i.e., quality space) is composed of symbols, arranged in a hierarchical network. Each symbol stands for a pattern of experience

(1968 149). According to Burke, these symbols become associated with one another to form clusters or equations. Since the purpose of the system as a whole is evaluative, terms tend to be polar (essentially good/bad) and arrange themselves accordingly in the network. The hierarchical nature of the network has a good theoretical support from General Systems Theory since all complex systems are by their very nature hierarchical (as we shall see presently). Burke holds that this system grows through analogical extension, and can make progressively finer distinctions.

Each infant recreates this hierarchical network through interaction with the tribe. As a person matures, and the replication of the system becomes more and more complete, the system becomes relatively stable. However, there must always be a degree of flexibility so that the model can account for novel situations. Therefore, as with all systems, the quality space has the ability to transform constituents. Transformation is possible because naming of complex phenomena is never certain; the system has a number of concepts that can account for the same phenomena. The paradox of substance, examined in Chapter Four, is Burke's concept for how this slippage or flexibility occurs in quality space.

Quality space must strike a balance, as General Systems Theory demonstrates that all systems must, between stability and change. Too much change, on the one hand, and the system loses its sense of coherence, and with it its ability to make the world meaningful. On the other hand, with too little change, the system becomes reified and thus vulnerable to epistemological crisis (Burke is much more precise about the dynamic of epistemological crisis than is General Systems Theory).

As Thomas Kuhn shows in his well-known account of paradigm shift, occasionally enough anomalous phenomena can trigger a reorganization of the system. Such an epistemological crisis can occur in an individual or to a group as a whole. Burke states that these crises arise when the system becomes too rigid to adapt to a changing environment; in that event, it will lose its predictive power and come to be seen as unreliable (1984a 32-4). At that point it will be modified, radically altered, or abandoned. Often in an epistemological crisis, individuals and groups will turn to what Burke calls a medicine man, or shaman. A shaman is a kind of bricoleur who is exceptionally adept at manipulating the quality space. The medicine man can create a narrative or metaphor which will reorient the system and thus make the world meaningful again.

5.3.1 The Strengths of Burkean Theory

Burke provides us with a strong foundation for a complete systemic theory of symbolic action. We can be assured of this because General Systems Theory has a parallel concept for virtually all of the components of Burke's theory, offers no contradiction to that theory, and provides support where Burke is tentative or speculative. As we have seen, General Systems Theory privileges language, confirms the fundamental distinction between human symbolic action and subhuman biological or mechanical motion. General Systems Theory rescues several of Burke's basic concepts from mysticism: telos, transcendence, values etc. Moreover, General Systems Theory seconds Burke's assertion that we must be concerned with the interrelations and function of components (including the most fundamental one, the interaction between organism and environment). In addition, General Systems Theory

suggests that Burke's ideas on classification, transformation, and the structural nature of systems are correct.

Despite the clear strengths of Burkean theory and the many parallels to General Systems Theory, as we have noted, the later can be useful in refining and extending Burke's ideas about systems. General Systems Theory can be particularly useful in refining and supplementing Burke on development and structure. General Systems Theory and its descendent, Self-Organizing Theory (SOT), can enhance Burke's account of system evolution (or anamorphosis) a great deal.

The study of self-organizing systems can be seen as a branch of Chaos Theory and of General Systems Theory that is particularly concerned with how complex systems evolve.[45] This new and very promising outgrowth of the General Systems Theory movement examines the emergence and growth of molecular, biological and social systems (based on the work of Heinz von Foerster, Ilya Prigogine, Herman Haken and Manfred Eigen). According to one of its foremost proponents, Vilmos Csànyi, Self-Organizing Theory (SOT) is related to Catastrophe Theory in that both are trying to account for how systems can make the "quantum jump" to the next level of complexity. (In particular, catastrophe theory provides the mathematics for describing such behavior.) Csànyi calls crossing these complexity thresholds "symmetry breaks" (111-12). In theory, these jumps take place when fluctuations are reinforced until they become strong enough to drive a system over an instability threshold to a new structure. This can only occur in an open system far from equilibrium.

Self-Organizing Theory has been bolstered by the discovery of self-organizing (also called "dissipative") structures in chemical reactions. These "prebiotic" complex chemical compounds occupy the border between life and non-life. Though not a cell, they take in energy, and can form membranes and templates. Computer simulations of one such compound, the Chemoton system, show that it is highly stable, that it can grow and even reproduce (Csànyi 57). Such research can provide models to help refine Burke's intuitive ideas about how cultural, linguistic and mental systems grow.[46] This is our next task.

5.4 Mental Systems

SOT offers insight into how mental systems may have evolved. Csànyi holds that cognition is fundamentally a matter of association and dissociation. This ability is grounded in the very basic neural functions of sensitation and habituation, respectively. In sensitation, stimuli that routinely happen together become linked, so that one automatically elicits the other (e.g., a bell alone will get response gotten earlier by bell and shock). Similarly, dissociation is a more sophisticated version of habituation: a stimulus repeated too frequently will lose its ability to get a response. Csànyi holds that over time sensitation and habituation causes continual and irreversible organization of neurons (115). Permanent patterned clusters of neurons develop in response to repeated stimuli which are then used to recognize a signal pattern of stimuli--the beginning of learning and memory. Learning causes the structure to develop, leading in turn to increased capacity to store information, and more complex representations of the world, and correspondingly more complex behaviors.

The function of the brain, then, is to construct concepts for recognition. Dynamic organization of these concepts leads to predictive models. As with any complex system, the goal of a mental system is a steady-state. In order to survive, an organism must be able to perceive and adjust to changes in the environment, requiring a dynamic model of that environment. According to Csànyi, cognition is essentially the ability to construct models (116-7). The more complex the model, the more predictive ability it has. The most complex models include a model of the organism itself (which allows for self-awareness and ultimately self-consciousness). A model is not a picture, but a hierarchically ordered abstract organization of information (121).

As any system grows, it begins a division of labor. Burke clearly shows that this is true in the social realm. SOT, however, provides an account for how hierarchies in systems in general come into being: progressive segregation makes a system more heterogeneous. As the number of components increases, one part may become a trigger mechanism for another part; in this way a leading part assumes a higher position in the developing hierarchy (183). Thus the system becomes more hierarchical as it becomes more complex. Increasing complexity does not appear to be a smooth curve; it is rather more like punctuated equilibrium: a system will maintain a steady-state for a comparatively long period and then a symmetry break will occur. That is, disequilibrium becomes reinforced until the system reorganizes at a higher level of complexity, with resulting emergent properties. In human beings emergent properties include: language, self-consciousness, values, dreams, play creativity and symbolic action.

Not only is Csànyi more precise than Burke on development, but on the nature of the components of mental systems as well. He theorizes that concepts are associated replicative structures (125). Concepts are replications (perhaps isomorphic) of parts of the environment. These concepts are not static (137), can be combined to solve new problems, and can be further replicated and transferred to other parts of the brain. Csànyi does, however, agree with Burke that these concepts are arranged in a hierarchy. Also like Burke, he feels that the sum of the concepts is a model, which he calls cognitive space. Csànyi further hypothesizes that the structures of cognitive space can be transformed according to certain rules. (These intriguing but intuitive ideas will be dealt with in more detail in the concluding chapter.)

5.5 Culture as System

We noted above that a mind forms a model of the world. Burke holds that our concepts that make up this model have two sources: biological make-up and experience, and social experience. Through social interaction (mostly linguistic) we replicate the supermodel of a culture. This supermodel grows and is transmitted (mostly through language) to successive generations. Csànyi holds that a culture is learned environment within which a group operates. It is a structure which constantly composes and decomposes as a result of energy flowing through it (160). That is, models that are useful are reinforced and developed (and enshrined, as Burke would point out, in proverbs), while those that are not so useful wither. This organic model has been found useful in describing linguistic system evolution as well.

5.6 Language as System

Granting that a mind and culture are systems, it is even easier to see a language as a system as well. Chaos Theory's discovering system in ostensibly random processes and Self-Organizing Theory's showing how very complex behavior can grow out of simple systems fortify Burke's assertion that language and its operation is systematic and thus describable. In fact, a number of systems theorists have noted parallels between language and biological development. In retrospect, it would be odd if there were no parallels, since language presumably evolved through the same process as any other system and does inhabit a biological entity. Language apparently developed in the same sort of bootstrap operation found in prebiotic cellular automata (such as the Chemeton system referred to above) and in starting up a new computer system: in the case of language, more names make more concepts and behaviors possible, which lead to more names, etc.

Evidence that language is a system can also be found in Bertalanffy's observation that spelling anachronisms resemble vestigial organs, and that natural selection operates in language and culture as well (1975a 49). In semantics, for example, if two words have the same meanings, one will either drop out or take on a different meaning or connotation. Similar systemic behavior has long been noted in phonology: a shift in one part of the sound system causes all the others to shift as well (e.g., the Great Vowel Shift).

So though language is a non-material system (at least until it is written) it has many similarities to living systems, and definitely has all the attributes of Bertalanffy's "soft" definition of system: it maintains itself over long periods, has a

structure of interrelated heterogeneous parts, maintains its identity in a changing environment, and grows or decays.[47]

5.7 Quality Space

Granting that language, culture and mind are all systems, a systems approach demands that we consider how the three interrelate. Burke makes some suggestions in various places, but never deals with the question explicitly. Neither does Bertalanffy, though General Systems Theory shows that as systems become more complex, with increasingly complex interrelations, they can form subsystems and supersystems. General Systems Theory also asserts that language, mind and culture are all systems. Consequently, it is safe to argue (as the rest of the dissertation will) that mind, language and culture can all be seen as subsystems of a super-system: quality space (analogous perhaps to Csànyi's cognitive space). Though Burke did not explicitly propose the existence of a supersystem, an anthropologist who was influenced by Burke did, James Fernandez. According to Fernandez, quality space is best imagined as a three-dimensional hierarchical space made up of associated concepts (39-41). In totality, these concepts constitute a supermodel of the world. Language is a system of labels for these concepts; language allows for the acquisition, dissemination and collective refinement (self-correction) of the supermodel. The quality space model constitutes an important part of the conceptual foundation for a systemic theory of symbolic action, since what Burke lacked was a workable cognitive model.

5.8 Limitations of Burke's Theory of Symbolic Action

Even fortified by General Systems Theory and SOT, Burke's theory of symbolic action has some deficiencies, not the least of which is the lack of a precise

definition of symbolic action. As we noted in the introductory chapter, even though the study of symbolic action is Burke's life work, he never defines the term with precision. According to William Rueckert, Burke uses the term in three senses (1963 59). The first sense more or less equates symbolic action with any use of language. In the second sense, Burke uses the term almost exactly as Freud does, to mean symptomatic (e.g., someone having trouble deciding whether or not to marry might manifest this in a hesitancy to cross a street). In this sense symbolic action is "symbolic autobiography: acts symbolizing the essential self" (1963 59). The third way Burke uses the term refers to the purgative-redemptive: since human beings live within a system of values, there must be a way of discharging the guilt of deviations from that system.[48]

With the addition of the concept of quality space, we are now in a position to state more precisely what symbolic action is: the operation or manipulation of the quality space. Burke says as much in a 1977 interview: "By symbolic action in general I mean the use of any conventional symbol system" (Woodcock 709). This statement seems far too general to be of any use until we reflect on how much of human activity is devoted to communicating our interpretation of what is going on in the world.

5.9 Conclusion

Fortified by parallels and supplementation by General Systems Theory, we can be fairly confident about the Burkean theory of symbolic action as far as it goes. However, we still have some problems: What precisely is symbolic action? How does one manipulate quality space? What are the components of quality space and

how do they interact? We have noted that Burke is seriously hampered by the lack of an adequate cognitive model. Such a model could not come into being until the mechanistic paradigm was overturned. This has only recently happened. The demise of mechanism began when it was found that it could not even account for physical phenomena such as sub-atomic particles. Later Chaos Theory showed that it did not even work for simple mechanical systems. Currently questions about classical science's ideas about categorization are raising doubts about the validity of its idea of cognition being the mechanical manipulation of abstract symbols. As the usefulness of the mechanical model is exhausted in cognitive science and AI, a shift becomes possible that yields Connectionism and neural networks, which along with schema theory may provide answers to the questions posed above. This is the task of the final chapter.

CHAPTER SIX

The Metaphorical Basis of Symbolic Action

6.1 Introduction

The purpose of this concluding chapter is to examine to what degree current cognitive theory supports Burke's theory of symbolic action and to see how Burke's thinking can be refined and extended in order to answer the questions posed at the end of Chapter Five. As we concluded in the last chapter, Burke's theory of symbolic action is plausible, but limited. His systemic theory of symbolic action has been overlooked because the mechanistic hegemony kept others from seeing its value and capitalizing on it. Now that a systemic approach (e.g., schema theory and Connectionist models) has replaced mechanistic theories of mind, we can extend Burke's theory, particularly with respect to the nature and function of symbolic action (and the structure of the quality space system that gives rise to it).

One major limitation of Burke's theory of symbolic action is that he does not adequately define symbolic action. This chapter will define symbolic action as the operation of the quality space for persuasive ends. (Persuasion is shared evaluation, i.e., the schema selected by the speaker to characterize a situation is accepted by the hearer.) Furthermore, this chapter will argue that such symbolic action is generally accomplished primarily through metaphor, since metaphor is the most common and efficient way of evoking and modifying a schema.

In short, this chapter seeks to use recent research in cognitive science to answer the questions raised at the end of the last chapter: What is symbolic action?

What is the nature of the system (i.e., quality space) that it is grounded in? What is the function of quality space? After attempting to answer these questions, the final section will assess the ramifications for rhetoric of accepting a systemic theory of symbolic action, suggesting that such a theory could provide a kind of unified field theory for rhetoric, in that it could show how rhetorical strategies work and interrelate. Because the argument is long and draws on a number of disciplines, an overview may be useful.

Section 6.2 will show why the mechanistic paradigm had to be superseded before metaphor and symbolic action could be explained. We noted in previous chapters the vociferous criticisms made by both Burke and Bertalanffy against mechanistic, reductionist methodologies such as positivism and behaviorism. Those methodologies had limited utility in the physical sciences, and even less for studying high level systems. Such methods have now been abandoned, even in physics, in favor of more systemic approaches (Bertalanffy 1975a 6-7). Chaos Theory, for example, came about when anomalous data accumulated to the point where the mechanistic paradigm had to be abandoned. A similar shift is occurring in the human sciences, where, as we have seen, the mechanistic assumptions were especially debilitating. The anomaly encountered in the human sciences was categorization. George Lakoff, as we shall see below, noticed that a number of researchers in various fields were finding that the traditional conception of category was inadequate, which led to a kind of paradigm shift towards more systemic and less mechanistic approaches--Connectionism and experiential realism. Connectionism is the name applied to a loose confederation of cognitive scientists and artificial intelligence researchers who

are using a "neurally-inspired" analog computer model. This model may be useful in understanding the quality space system, and will be examined below.

During the hegemony of the mechanistic paradigm, the mind as slate model gave way to the steam engine, to the telephone switchboard and finally to the digital computer. (Each of these is a more sophisticated model, but still retains a mechanistic, passive conception of cognition.) But after a fertile period, the digital computer model is now being seen as a dead-end. The alternative Connectionist model is an analog computer which turns out to behave similarly, in some respects, to brains. Connectionists are coming to realize that thinking is primarily analogical and categorical, as Burke and Richards have long contended. With the demise of the mechanistic paradigm, at last an adequate model for Burkean theory (and quality space) is coming into being.

Section 6.3 will show how Connectionism provides a non-mechanistic (i.e., a systemic) model to guide speculation about the structure and function of quality space. This section will argue that its overall function, as Burke stated, is evaluation. It accomplishes this through classification. Connectionist models have abilities to generalize and classify, abilities which biology and psychology suggest are indispensable. Even more provocative, Connectionist models can learn, and have many of the strengths and weaknesses of brains. Connectionist models, for example, have learned to create the past tense and to read aloud in English. These models give support to the ideas that thinking is largely a matter of categorization and analogy.

The third section (6.4) will examine the role of categorization and metaphor in cognition. Here we will begin to incorporate schema theory, which holds that the

mind is composed of small interactive packets of information. Lakoff has used schema theory in his studies of metaphor and categorization. Section Three will conclude that the function of quality space is evaluation by means of categorization. Symbolic action will be defined as the manipulation of quality space for a persuasive end. Essentially this is a matter of the speaker getting the hearer to apply the speaker's interpretative schema to a given situation (i.e., to categorize it the same way). The primary way of evoking a schema in a hearer for persuasive purposes is through metaphor.

In order for our hypothesis that symbolic action is the manipulation of quality space to be accepted, an account of the constituents of that system (schemas) and how they are transformed must be provided. Such an account is yielded by cognitive science in the form of schema theory, the basis of section 6.5. This section will use schema theory to answer the questions of what quality space is made of, how it is structured, and how it can become restructured. This section will posit that quality space is made up of schemas, skeletal structures of knowledge distilled from experience. These schemas allow sense to be made of incoming stimuli; for example, a thrown ball is identified by a trajectory schema. However, if a situation occurs that cannot be accounted for by an existing schema, the closest match must be found and modified for the purpose. This is the essence of metaphor: metaphor evokes a schema so that an amorphous entity can be seen in terms of one better understood. Such a metaphor categorizes an entity as a kind of thing, structuring perception, inference, attitude and action.

Section 6.6 explores the rhetorical ramifications of the theory sketched above. In discussing anything of importance, people must operate in the realm of the contingent. If a group cannot come up with a coherent and acceptable interpretation (i.e., a workable schema) of an important situation, an epistemological crisis can result. During such a crisis, typically a shaman (i.e., someone adept at manipulating the quality space) will emerge with a metaphor to make the world meaningful again. Studying such crises is important in understanding the quality space because a shaman will frequently fall back on basic metaphors (e.g., Hitler and Churchill) or create new metaphors (Roosevelt).

The dissertation will conclude with some directions for further research in rhetoric. The systemic theory of symbolic action provided here may develop into the rhetorical equivalent of a unified field theory, in that we may be able to go beyond a taxonomy of rhetorical strategies and account for how they work and interact. For example, the topoi can be viewed as inferences based primarily on bodily schemas, whereas enthymemes are those based on learned or cultural schemas. Identification, in the strict Burkean sense, is a metaphor in which the target and the donor are people. Furthermore, God-terms can be seen as the most highly placed, but also the most amorphous of schemas. Their amorphous nature allows them to provide an umbrella for many other schemas, so we begin to see how strategies can interact. The functional and interactive properties of the schemas underlying rhetorical strategies will be demonstrated with a brief analysis of a persuasive discourse sample, which will suggest the utility of a systemic theory of symbolic action and provide a starting point for subsequent research.

6.2 Contra Mechanism

We noted in the first chapter that because of the difficulty of reading Burke, and because many of his ideas were ahead of their time, his influence has been until relatively recently profound, but restricted. Burke's ideas were resisted for so long in part because they contradicted the mechanistic assumptions of the time. For many reasons, the mechanistic paradigm is currently being discarded, and systems thinking is becoming more acceptable in more and more fields. Mechanistic assumptions are being abandoned because the limits of their usefulness have been reached.[49]

The mechanistic ideas that excluded metaphor are currently being discarded by some linguists and cognitive scientists in favor of more systemic approaches. The scenario of the paradigm shift is remarkably Kuhnian: researchers find themselves confronted with problems with which the dominant paradigm cannot assist. The researcher will try an alternative approach, which is generally considered somewhere between idiosyncratic and professional suicide. Then, various divergent approaches are recognized as convergent. This happened with General Systems Theory, and more recently in Chaos Theory (meteorologists, physicists, mathematicians, biologists and economists finding similarities in phenomena once considered random). Chaos, Catastrophe Theory, Self-Organizing Systems, Connectionism, and schema theory have different foci, but overlap significantly: all are dealing with the same sort of problems (i.e., organized complexity), share certain assumptions, and all have abandoned the traditional mechanistic, linear paradigm; thus they are all evidence of the paradigm shift. In cognitive science, for example, Walter Schneider asserts that Connectionism is indeed a paradigm shift, since it has loosened the rules for normal

research, has led to the isolation of anomalies and theory to account for them which has a degree of overlap with existing theories (Pfeifer xviii-xix).

We noted above that linguist George Lakoff has noticed such a shift taking place after many researchers in the human sciences discovered that the classical account of categories is inadequate (i.e., anomalous). The work by Eleanor Rosch suggested that categories are not clearly enumerated sets of physical features, as classical theory had supposed. To this "objectivist" tradition, Lakoff opposes "experiential realism": thought is embodied, imaginative, has gestalt properties and the mind is ecological (1987 xiv-xv).[50] This new paradigm has led Lakoff to work with cognitive scientists, philosophers, artificial intelligence researchers and others in developing Connectionism (which is in some respects a descendent of General Systems Theory). This movement has led to radical rethinking in linguistics, cognitive science and artificial intelligence. The new paradigm has strong affinities with the new paradigm in the "hard" sciences, primarily the adoption of a systemic approach.

6.3 Connectionism

Connectionism challenges the dominant mechanistic paradigm in artificial intelligence and psychology established after the Second World War (though, as our historical survey in the introductory chapter shows, its roots go much further back). After Donald Hebb's work on neurons in the late Forties, there was a great deal of interest in creating artificial intelligence, since the on-off output of a neuron could be mimicked by a binary computer. This spawned classic cognitive science: the brain is

a logic machine, dealing in rules, symbols and syntax; this is a top-down approach (i.e., the rules have to be given to the computer).

During the Sixties, this linear and digital approach competed with the analog approach, which is bottom-up (i.e., the machine learns to associate an input with an output, which leads to rule-like behavior). One of the proponents of the analog approach, Frank Rosenblatt, made some rather ambitious claims. These claims were countered by equal zeal in 1969, when M. Minsky and S. Papert's Perceptrons buried the bottom-up, analog approach. But as the initially promising digital approach is encountering limits of its own, the analog approach is currently regaining many adherents. The new analog machines constructed by Connectionists employ a very different architecture and method, parallel distributed processing ("parallel" because the system works on the whole network at once, "distributed" because no neuronal unit carries out a function alone, and "processing" because the machine "thinks") (Allman 1989 101).

Connectionist models have received a good deal of attention lately because they can do some tasks well that digital computers do badly. Moreover, they work in ways that appear to be similar to brains. In addition, they satisfy many of the requirements that biological evolution presents. A. Clark states that real brains must be able to do real-time sensory processing, integrate various sense modalities, deal with conflicting data, and be able to cope with a constantly changing competitive environment (62-3). In short, a brain must be thrifty and robust. Furthermore, Clark theorizes that brains must be capable of recognition, analog reasoning from experience, generalization, graceful degradation, and have prototype, completion and

default capabilities. (Higher level functions of brains include curiosity, play, modelling of self as well as environment, recognition of social rank and the ability to predict and control the actions of others) (73).

Connectionist models do in fact have some of these attributes: they are robust, error-resistant, good at recognition, generalization, completion, and finding prototypes. It is not unreasonable to expect more complex models will acquire more sophisticated emergent properties. It should be noted, however, that such models are "neurally-inspired," and not intended as models of what real brains do. For example, there is little evidence to support the idea that the brain engages in back-propagation, a technique which has been used to speed learning of Connectionist models. However, there is even less evidence that the brain is a machine manipulating abstract strings of symbols.

There are a number of reasons for accepting the hypothesis that a brain is not a computational machine: in brains there is no distinction between hardware and software, no central processor; memory is spread throughout. The brain is not programmed with a set of rules. Rather, brains create models distilled from experience. A computer does not have such experience and could not use it if it did (Carbonell and Minton 406). While a digital computer can find an exact match, it is not good at finding a close match. Moreover, searches in digital computers are arduous in that they are serial; the more data, the longer it takes. In analog computers, on the other hand, increasing data decreases search time (i.e., information becomes <u>easier</u> to retrieve). In addition, analogue computers are good at finding approximate matches.

A digital computer is very good at computation and formal logic, though humans (and neural networks) are not.

Neural nets have important advantages over conventional digital computers in that they are more robust (i.e., are more error resistant and self-correcting), and can assimilate conflicting information. Digital computers are very good at algorithmic tasks, but they tend to use brute force, sometimes performing thousands of operations to carry out comparatively simple tasks. Brain neurons, by contrast are rather slow, yet they can carry out complex tasks rather quickly (hence the famous one hundred step constraint). For this reason Connectionists hold that the brain must be operating on a different principle than conventional serial computers: massive parallelism.

Aside from their resemblance to brains, another reason to consider Connectionist neural networks as a good model for quality space is that they have some characteristics of the self-organizing systems we examined in the last chapter. Such nets demonstrate emergent properties that could not be predicted from their simple architecture: they are composed of simple but highly interconnected units. At first the connections are random, but over time groups that are repeatedly stimulated at the same time become associated (as in real brains, these groups can become specialized, and act as pathways which can eventually produce rule-like behavior).

One of the most remarkable properties of neural networks is that they learn rather like brains. As with brains, neural networks are analogical, rather than digital. Also like neurons in the brain, the "units" that make up the network send out a signal based on the excitatory or inhibiting inputs they receive. Not unlike brains, they can reorient themselves into a new configuration when the proper type of input occurs.

Even more promising, neural networks can form categories and behave in a rule-like way (as opposed to digital computers, which, as we noted, have to be programmed with explicit rules). One Connectionist machine, NETtalk, has even learned to pronounce English, beginning with babbling and becoming increasingly more precise with little coaching (Allman 1989 183). Another network learned to form the past tense of English verbs, even initially overgeneralizing to produce "goed" instead of went, as children do (186).

NETtalk convincingly demonstrates that neural networks can recognize patterns and so can abstract categories (and thus make associations and generalizations). NETtalk reads with 95% accuracy because it can generalize; it hasn't merely memorized (Allman 185). Hinton and Sejnowski's Boltzman machine learned to categorize with similar accuracy. Such models can discover features of the world without being told what to look for and use that information to solve problems (189). Equally remarkable, Connectionist models can produce a generalization (prototype) after seeing only examples. For example, John Anderson made a prototype pattern, then distorted it. Only the distortions of the pattern were shown to the model; when the prototype was eventually shown to the model, it was classified the fastest (167-8). Humans too appear to learn prototype and basic level classifications quickly (Cf. Rosch).

Work with Connectionist models supports Burke's assertions that thought is primarily a matter of analogy and categorization. It is to these subjects that we must next turn our attention in order to understand how symbolic action works. Connectionist theory can provide a model and a general account of how symbolic

action works. Because symbolic action is grounded in quality space, the first question to be addressed from the last chapter is: how does quality space function?

6.4 Analogical Thought and Categorization

A number of diverse theorists in various fields have asserted that categorization and analogical thought are fundamental. For example, Burke asserts that humans are a classifying animals. Similarly, Richards claimed that all thinking is sorting (30). A number of researchers, particularly in anthropology, hold that classification is essential to the creation of meaning: "When the classifications of social life are gone . . . there is no pollution or purity, nothing edible or inedible, credible or incredible. There is no more meaning" (Schwartz 154).

Somewhat paradoxically, anthropologist James Fernandez holds that metaphor is the heart of social life (58). Similarly, Burke claims that "it is precisely through metaphor that our perspective, or analogical extensions, are made--a world without metaphor would be a world without purpose" (1984b 194). Furthermore, analogical thought is often cited as basic to cognition, e.g., Lakoff and Johnson. Linguist Eva Kittay holds that analogical thought is indispensable for some types of problem solving (3-4, cf. also Collins and Gentner). The apparent contradiction or conflict is compounded when we realize that some theorists have argued that both categorization and analogical thought are fundamental: Burke, Richards, Beck and Lakoff.[51] Clearly there is a relationship (some would even claim identity).

Those who have considered the relation between categorization and analogical thought almost invariably conclude that metaphor disrupts conventional categories. Cognitive psychologists tend to hold that metaphor is a temporary and minor

disruption of literal thinking: Johnson and Malgady hold that seeing similarity is the same as forming a category in which two things are said to share membership (264). J.M. Kennedy holds that metaphor is a special purpose classification (119). Others assign metaphor a more profound and enduring cognitive function. These confirm Burke's assertion in Chapter Three that metaphor creates a disorder that leads to the restructuring of the cognitive system. P. Ricoeur echoes this idea when he states that metaphor is a categorical transgression that leads to the restructuring of a semantic field (1978 233. Cf. Kittay 22). Similarly Mark Johnson holds that metaphor is a cross-categorical experience; metaphor makes connections across domains (103). An account for specifically how this is accomplished will be essayed in the next section on schema theory. First, however, we must establish the centrality of metaphor in cognition.

6.4.1 Analogical Thought

In the traditional objectivist account of cognition, analogical thought was excluded as irrational--associated with emotion, imagination and madness. Formal logic was privileged. But as Rodney Needham points out, human beings do not reason using formal logic very often, or for very long, and they are not particularly good at it when they do use it (69). Human beings are, however, astonishingly good at making fast inferences using analogical thought. Carbonell and Minton define this ability as recognizing that a present situation has a resemblance to one experienced in the past and the use of that prior knowledge to structure an understanding of the current situation (407). Lakoff refines this a bit in stating that when a person encounters a phenomenon which is not structured, metaphor allows the importation of

structure (303). And so Lakoff opposes objectivist theory in asserting that rational thought involves the use of metaphorical models (cf. also Johnson and Malgady 263). Such models make it possible to reason without logic. A great deal of what we know about memory also suggests that thinking is analogical.

We have seen a number of researchers in different fields assert the primacy of classification and/or metaphor in cognition. There must, therefore, be a connection between the two. In accordance with the General Systems Theory of the last chapter (which held that all systems must have devices for stability and flexibility), we can hypothesize that the connection is that metaphor increases the flexibility of the system of categorizations referred to here as quality space. The idea goes back at least to Kant (who was also important with reference to schemas and categorization), who held that metaphor is language's "intrinsic capacity to surpass its own [putative] limits" (Johnson 1981 62). Chaim Perelman asserts that metaphor allows the fusion of spheres (i.e., schema or semantic domains) and the transcendence of traditional classification (403-4). Current cognitive science supports the idea as well: Johnson and Malgady assert that metaphor augments the word/thing relationship, which leads to creativity (264). Kennedy also notes the role of metaphor in reclassification (119). Lakoff and Johnson (1981 123-4) and Lakoff (1987) note the imaginative use of metaphor to alter categorization for some purpose (371).

We are now in a position to state some provisional answers to the remaining questions posed at the end of Chapter Five: quality space is an evaluative system. This system evaluates by classifying incoming stimuli as a kind of situation. Thus thinking is more analogical recognition than calculation. The system not only

functions analogically, it grows analogically in order to adapt to changing circumstances, as Burke maintained. Thus metaphor gives the system flexibility. For example, if a situation arises for which there is no matching schema in the system, the system will adapt a close match (or will import a schema from a different realm). Both of these strategies involve metaphor. Through metaphor, new schemas are formed and take their place in the system. Thus metaphor leads to the reconfiguration of quality space. This account is in accord with General Systems Theory, Chaos, schema, and Connectionist theories.

With this support from cognitive science, we can be sure that Burkean theory is a solid foundation on which to build. But though we have a model of quality space, we are not clear on its constituents (schema), nor do we have an account of how metaphor alters the system. The next section will try to establish what schemas are and more precisely how metaphor recategorizes quality space.

6.5 Schema Theory

In order to understand categorization, we must understand something about schema theory. Lakoff and many other linguists, anthropologists and cognitive scientists are investigating the categorical implications of schemas. Cognitive psychologist John Anderson, for example, defines schemas as "large complex units of knowledge that encode the typical properties of instances of general categories" (103). Linguist Eva Kittay also holds that schemas allow for the recognition of categories (22, 326). But what are schemas, and why is schema theory implicated in both metaphor and categorization?

Fundamentally, a schema is a mental code for representing experience, embodying rules and categories that make the flux of sense data meaningful. While all people have memories of experiences, schemas are not memories of specific experiences, rather they are abstracted from an experience or distilled from many. David Rumelhart defines a schema as "a kind of informal, private, unarticulated theory about the nature of events, objects and situations which we face" (Goleman 76). Rumelhart points out that schemas operate at all levels of abstraction: "Just as theories can be about the grand or the small, so schemas can represent knowledge at all levels--from ideologies and cultural truths to knowledge about what constitutes an appropriate sentence in our language to knowledge about what patterns [of sound] are associated with what letters of the alphabet" (77). More technically, schemas are self-testing, interacting knowledge structures which contain a network of interrelations (Rumelhart & Ortony 3).

The total set of schemas we have available for interpreting our world "in a sense constitutes our private theory of the nature of reality" (Goleman 76). So our minds and quality space can be regarded as a collection of schemas. Schema theory suggests that Burke was correct in asserting that analogical thought is primary. Many metaphor theorists believe that a metaphor acts as a template, placing the features of an entity or action under discussion into slots, which organizes thinking and perception. George Lakoff and Mark Turner regard schemas as skeletal forms of knowledge having slots which are then instantiated with elements from the situation at hand.[52]

Schema theory is very useful for explaining why metaphors are perspectives, as Burke maintained. Because metaphor structures our understanding and guides our perception, it can also restructure our perception; any schema emphasizes some features and de-emphasizes others. As Max Black put it, with reference to his example "Man is a wolf": "Any human traits that can with undue strain be talked about in 'wolf language' will be rendered prominent, and any that cannot will be pushed into the background. The wolf-metaphor suppresses some details, emphasizes others--in short, organizes our view of man" (Johnson 75).

J. D. Sapir and J. Crocker, building on Burke, make the connection between metaphor and schema explicit: a metaphor is a hypothesis that makes some features relevant and others not, imposing a schema (127). These schemas are important in learning and in persuasion: we only have to use a schema once to subsequently use it effortlessly, unconsciously and automatically to structure our knowledge and to guide our inferences (cf. Collins and Gentner). In addition, once we have learned a schema, it can be modified, extended, and transported to different realms and problems. This is the essence of metaphor, analogical thought, and symbolic action. Comprehension is essentially the finding of a metaphorical schema that works, i.e., that can solve the problem at hand, or at least generate good evidence for itself (Rumelhart & Ortony 49). Using schema theory, we can be more precise about how metaphor works.

6.5.1 How Metaphor Works

Though the finer details differ with the approach, consensus exists on the broad outlines of how metaphor works: one problematic domain is restructured by a

better understood domain; metaphor is a transfer of a mapping structure. In general, then, a situation arises which requires attention. The mind seeks a previous experience (i.e., tries to classify the situation as a kind of situation encountered earlier). If no match is found, the mind will search for a relevant previous situation with similar salient features. When found, a schema is applied to the new situation in order to see if it can account for it (i.e., can the situation be classified as an instance of the concept that the schema represents). If the schema suggests useful solutions, it will be tested (instantiated; that is, the elements and relations of the target domain will be structured by a kind of template from the donor domain). The search might seem arduous, but memory is associational (not random); moreover, Connectionist models have shown that networks are good at classification.[53]

Schema theory can be helpful in seeing how the search could be constrained. We just noted that Black stated that metaphor selects, emphasizes, suppresses and organizes. Schema theory may be able to demonstrate in some detail how metaphor performs these functions. When a metaphor applies a target schema structure to the donor domain, the features that fit will be selected and those that do not will be suppressed. Moreover, the schema organizes in that it shows the relations between features. In addition, some features will be given prominence and thus emphasized. This account is in accordance with interactional theories of metaphor, and in fact adds little. However, the process becomes clearer when case grammar is employed, as it is in Kittay and Lehrer (1981). Using case grammar makes sense if we accept that the principle use of language (or symbolic action, at any rate) is to evaluate human activities in the human world. That being the case, it useful and natural to default to

concepts such as act, actor, instrument, goal etc. A schema can emphasize a feature by placing it in the important actor slot. Relations can also be accounted for by verb, manner, patient, and instrument slots. For example, if we take a common political metaphor, the Prime Minister wants to jumpstart the economy, the actor is the P.M., the patient is the car, the instrument is jumper-cables, the goal is to activate a temporarily stalled (but not fundamentally damaged) machine (these features are selected and emphasized by the jump-start schema and lead to certain inferences). What is suppressed is the complexity of an economy, and the fact that the source of the power is not specified (perhaps the source is another economy, thus implying free trade. Or the source might be the government treasury). Here we begin to see the strategic or rhetorical use of metaphor, which is the subject of our final section.

6.6 Implications for Rhetoric

How is metaphor used to restructure the interpretation of a situation? And how can the use of metaphor contribute to the reorientation of quality space? This can be most clearly seen by defining the "shaman function." The term is akin to Burke's "medicine man," but structuralist anthropological studies demonstrate that a shaman is concerned with reorientation, solving crises and resolving paradoxes. When an individual or a group encounters a situation that it cannot ignore, yet which resists classification, a shaman may be needed to avoid epistemological crisis. "Shaman" is a Siberian word widely used by anthropologists to refer to medicine men who treat physical and psychic illness largely through symbolic means.

As we shall employ the term, then, a shaman is anyone who is expert in manipulating the quality space of the culture, i.e., anyone who can make and break

connections with great dexterity, and who can propose credible metaphors to make a situation understandable, meaningful and thus tolerable. In short, a shaman offers symbolic cures for social ills. The medicine dispensed by such a medicine man can be crude or refined, effective or poisonous (an ambiguity inherent in the word "pharmakon"). The shaman resolves paradoxes (and can in fact prove opposites: e.g., Hitler argued that German survival is good and noble, while Jewish survival is despicable), and offers credible interpretations of how the world works to people who have lost confidence in their own ability to create meaning. Invariably the new interpretation is based on a metaphor (cf. Darrand and Shupe).

The best time to observe the operation of the shaman is during an epistemological crisis for several reasons: first, because that is when the shaman's role is most crucial. Second, the methods employed are at their most crude and discernable. Third, during such a time, the most basic core metaphors and values of the culture are often invoked.

The biggest crisis in living memory was the Second World War, and in fact it was precipitated by an epistemological crisis. Adolf Hitler rallied a confused nation, mostly by taking a religious schema and turning it to political purposes, as Burke demonstrates in his brilliant analysis (1973 191-220). Hitler's opponent in England used primarily orientational metaphors (i.e., biologically grounded metaphors such as light/dark up/down, as in "broad sunlit uplands"). Franklin D. Roosevelt used analogy, many of which have become standard (e.g., naval blockade as quarantine). Metaphor is essential to political discourse because it takes something abstract and invisible (i.e., the current political situation) and makes it concrete.[54] The brief

analysis of persuasive discourse below will illustrate workings of the shaman function and the metaphorical basis of persuasion.

6.6.1 Application of a Systemic Theory of Symbolic Action

The theory essayed just above provides the beginning of a unified field theory for rhetoric. Despite his insight into form, Burke had to content himself with cataloging symbolic action strategies that are used in persuasion because cognitive science did not provide a systemic account of the structure and function of quality space. Now that we have such an account, we can begin to investigate how these rhetorical strategies work and support one another. Schema theory can help account for many of these strategies: an enthymeme is analogical reasoning grounded in cultural (i.e., learned) schemas, whereas topoi are grounded in more basic bodily schemas (orientational metaphors). God-terms such as family values and democracy are abstract schemas highly placed in quality space. Identification (in the strictest Burkean sense) is a metaphor in which both the donor and target are humans or groups of humans (identifying with someone higher in the quality space allows one to symbolically share status). Metaphor itself is the application of a well-understood schema to a situation that is difficult to understand. Each of these ideas will be examined briefly below, with examples drawn from one of the most familiar pieces of persuasive discourse, Martin Luther King's "Letter from Birmingham Jail."

Above we noted the importance of a shaman in epistemological crisis who reorients the system so that it can account for changing situations. This is King's task: he must make and break associations in order to reorient the system. His goal in reorienting the system is to promote his ideas and his people in quality space.

Because the primary method of establishing an associative link is metaphor, King employs a number of metaphorical strategies. The most obvious can be called novel or one-shot metaphors. For example he speaks of the "anaesthetizing security of stained-glass windows." He also likens the church to a "irrelevant social club."[55]

Another more basic metaphorical strategy that King uses, very heavily in fact, is orientation metaphor. The text is saturated with light-dark and (not coincidentally, as we shall see) up-down metaphors: "shadows of deep disappointment, dark dungeons to bright hills, bogged down" etc. A number of reasons for employing this strategy can be posited. First, as we noted above, orientational metaphors are useful and effective in an epistemological crisis because they are easily understood, and unequivocal about how we should think. Second, these metaphors are copious in the Southern Baptist oratorical tradition, and of course they are plentiful in the Bible as well. But perhaps the most important reason is King's shamanistic goal of reorienting the quality space. If he can associate what he wants to promote with what is already valued (e.g., pioneers, light, UP metaphors and God-terms), then his arguments compel acceptance.

It is tempting, and potentially useful, to consider orientational metaphors as the source of topoi, particularly if we take the definition "the natural channels of the mind" somewhat literally, particularly the "natural" portion. Topoi could be regarded as schemas that are grounded in bodily experience, and thus do not have to be learned. Enthymemes could then be seen as inference based on learned or cultural schemas (which are generally more complex than body schemas, but probably ultimately grounded in them). This cultural connection is bolstered by Aristotle's

associating enthymemes with maxims; maxims and proverbs are mnemonic devices for storing cultural schemas that have been found useful in evaluating situations. King uses the enthymeme oppressors never give up power voluntarily. (And he must neutralize another enthymeme: outsiders should not meddle in local affairs).

King uses other metaphorical strategies which Burke calls identification. Burke uses the term in a broad sense to mean metaphor in general (he uses "association" and "equation" as well). But he also uses the term in a more specific sense of a metaphor in which both the target and donor are human. An example of the latter more specific sense of identification is when King addresses his audience as fellow clergymen; here King seeks to have himself classified as one of them (which Burke refers to as consubstantiation). This is a strategy crucial to his goal of establishing a reasonable, rational, pious ethos. If successful in classifying himself as one of them, these stereotypical features of clergymen would transfer to him.[56]

A more indirect and thus sophisticated kind of identification is employed when King identifies himself with Jesus and Paul, and his coworkers with the early Christians. These are figures that are placed exceedingly high in the quality space. Having made the metaphorical connection, the audience has little choice but to reorient quality space and reclassify the Civil Rights workers. Note how these new associations break previous unfavorable ones; e.g., King and his followers are no longer fanatical, irrational, Communist-inspired rabble-rousers, but martyrs. King points out that the early Christian martyrs eliminated the social evils of gladiatorial contests and infanticide. In linking the Christian martyrs to the Civil Rights workers,

King breaks the dissociative linkage that separates religion from politics (cf. also the linkage inherent in "the gospel of freedom").

Not only are people such as Jesus, Thomas Jefferson and Socrates in privileged positions in quality space, but concepts are as well. These are God-terms, which schema theory can help explain. In Chapter Five we theorized based on General Systems Theory and SOT that quality space must be hierarchical. Most schema theorists hold that schemas are arranged hierarchically as well, in that any complex schema will have a slot that connects it to a higher level schema which is more general and abstract (as well as slots to connect to lower level schemas that are more specific and concrete). God-terms are schemas so abstract that nearly anything can be attached to them, even opposites. King uses the God-terms justice, freedom, equality and Constitution (placing an un- in front of these produces the corresponding devil-terms). King must also demonstrate that he does not fall into the class of the demon-term "outside agitator." He breaks this association by stating that, as a Christian clergyman, he is bound by duty and charity to respond to a call for aid, as St. Paul did. Enthymematically (or by definition), an invited guest cannot be a meddler. Furthermore, King is a member of local organization, a Southerner, and an American, and thus an insider. Moreover, the "blame" for his presence ultimately lies with the oppressors: "I am in Birmingham because injustice is here."

It should be evident by now that Burke is correct in asserting that persuasion is largely a matter of making and breaking associations in order to reorient the quality space. King demonstrates his shamanistic virtuosity most brilliantly in his privileging of demon-terms such as "tension" and "extremist," and his breaking of the linkage of

law and justice.[57] He accomplishes this by splitting or subclassifying tension into violent, destructive and non-violent, creative types. The latter type leads to negotiation and thus negates violence. It is both rational and pious. It exposes the festering boil of racial injustice to the healing "light of human conscience" and the "air of national opinion." We see here how various rhetorical strategies become integrated: topoi, enthymeme, orientational metaphor and God-terms. The disease metaphor is a basic orientational metaphor, though the treatment of a boil is cultural knowledge, and so is more towards the enthymematic end of the continuum. Also implicated is the enthymeme regarding national opinion (i.e., two hundred million heads are better than one). "Conscience" is clearly a God-term, and so effortlessly can be linked to light. The strategies in even so short an example are surprisingly dense, as are the interrelations between them, but a fully developed systemic theory of symbolic action must be able to account for them.

In section 6.5 we noted that schemas are by their very nature interactive. And in the analysis of King's discourse just above we began to see how these different strategies can interrelate. The fact that these strategies can combine suggests that an underlying system is in effect. The most compelling evidence can be found in the correlation between God-terms (and their corresponding devil-terms) and Lakoff and Johnson's UP and DOWN metaphors, respectively:[58]

UPgood =	forward =	future =	light/vision=	life/health/consc.
DWN devil	back	past	dark/blind	th/sick/unconsc.

happy/hope	= substance	=	action/power	= rational
sad/despair	narrow/little		impotence	mad/emotional

Notice that all the God-terms line up and can be hybridized, i.e., combined without cognitive dissonance (e.g., we can retreat or fall into a dark despair, but not into a bright future).

The combination of these different strategies is readily accomplished by the speaker and understood effortlessly by the audience, with profound unconscious resonances. We can think of a resonant metaphor as one that effectively and broadly activates the quality space; it is akin to what Eco calls an open metaphor:

> That metaphor is "good" which does not allow the work of interpretation to grind to a halt, but which permits inspections that are diverse, complementary and contradictory. This does not appear to be different from those criterion of pleasure cited by Freud (1905) to define a good joke: thrift and economy, to be sure, but such that a short-cut is traced through the encyclopedic network, a labyrinth which would take way too much time if it were to be explored in all its polydimensional complexity (1983 249).

Schema theory can be very useful in explaining how King's stylistic strategies work as well (e.g., parallelism, anaphora, antithesis, and phonological strategies such as alliteration and assonance, which King uses profusely). Indeed, linguists such as

Samuel Levin and Geoffrey Leech already have detailed accounts of these formal strategies which may serve as a basis for schema theory.

6.7 Directions for Future Research

To summarize, we have now established that symbolic action is grounded in the quality space system. The function of this system is evaluation. We also have concepts and terms for discussing the structure and transformation of this system. The system is made up of interconnected schemas which can be quickly accessed and cross-referenced. We know too that metaphor is the primary device for the extension and transformation of schemas, and finally for the system as a whole.

The task of future research will be to make more explicit and formal how metaphor transfers structure across domains. Ultimately of most interest to rhetoricians is the question of why some metaphors are accepted and others rejected. Booth's rubric of metaphorical effectiveness distilled from traditional rhetoric would be an excellent place to begin to formulate a schematic account (1979 54-5). Moreover, the increasing capacity and complexity of Connectionist models should allow us to begin to begin to chart the quality space itself, at least the most basic and static parts of it. For example, virtually the only metaphor we have for political campaigns is war or sport. As it is unlikely that this particular portion of quality space will change any time soon, it would be an excellent candidate for modelling.

While charting the quality space, as Burke wanted, seems an overwhelming, even impossible task, it is an important one. And it can be done as Burke did it: analyzing a text, a doctrine, an individual author. Any text is, to a degree, going to mirror the model of the world of its author (and will show how the author construed

the supermodel of the culture). Moreover, the emerging paradigm will continue to provide theoretical and empirical input into the nature of the system as well. Richard Weaver likens the buildup of the quality space system to the accumulation of wealth: "If we knew how this capital is accumulated, we would possess one of the secrets of civilization. All we know is that whatever spells the essential unity of a people in belief and attachment contains the answer." Thus Weaver feels that understanding metaphor and the system that gives rise to it "offers the fairest hope of restoring our lost unity of mind" (1970 53).

Notes

[1] Though Burke often analyzes systems, he does not use the term with any frequency except in the phrase "symbol system," which is apparently synonymous with language and is not used in any specific technical sense (i.e., "language" could be substituted without any loss of precision, though Burke is clearly aware of the systemic nature of language). Naturally Burke does have many terms for systems (e.g., network, cluster, culture, mind, text, Poetry Exchange) and many terms for systemic behaviors (equation, linkage, compensation, identification, dissociation, transformation, redemption, consubstantiation) as demonstrated in Chapters Three and Four.

[2] An important part of Burke's project to account for symbolic action is the reclamation of rhetoric, and the study of metaphor has always been a central concern of rhetoric. Metaphor has been under scientistic attack since the seventeenth century beginnings of modern science (The ultimate product of classical science, Logical Positivism cannot deal with metaphor, since it is by its very nature not testable by truth conditions). The history of the scientistic attack on metaphor is summarized in Chapter Six, but a more explicit account can be found in the appendix.

While mentioning Eco, we should consider semiotics and deconstruction. Burke and semioticians do share some common ground: both are concerned with the systematic study signs as social forces, and study anything that can be used to lie, tell the truth or gossip. In practice, however, perhaps because of the influence of structuralism, semiotics tends to concern itself more with langue, whereas rhetoric is interested in effects of discourse (parole). Umberto Eco, for example, spends a great

deal of effort to explaining how metaphor is produced, but almost nothing on how or why it is used. He also attempts to subsume rhetoric to semiotics by misreading Aristotle, and reduces rhetoric to a "semiotics of conversational interaction." Rhetoricians have not obliged him, however, and continue to extend the scope of the discipline to include many kinds of texts (e.g., commercials, news conferences etc.)

Burke anticipates not only semiotics and structuralism, but also deconstruction in a number of respects. Burke understands that there is no one-to-one relation between words and things, that language is a dynamic system, and his Perspective by Incongruity (or temporizing of essence) is precisely the same strategy that Jacques Derrida uses in stating that writing is prior to speaking. Derrida attacks Logical Positivism, as had Burke, though by the time Derrida gets around to it, it is something of a straw man. Both exercise freeplay ("joycing") but for Burke the goal is new perspectives, whereas Derrida strives for a paralytic aporia. Moreover, Burke holds that language is action ("equipment for living)," and that we use language (though it does at times "make our bodies hop in peculiar ways"), whereas Derrida holds that language is a closed, self-contained and self-referential system (i.e., language uses us); writing is about writing. For Derrida meaning is impossible; for Burke, it is virtually inevitable.

[3] Burke shows the reductive nature of General Semantics and the stimulus-response psychology of the day. He also continues his defense of analogical thought, arguing that the only way to test a metaphor such as "New York City is in Iowa" is to apply it; there is no formal procedure, much less applying positivism's truth conditions (1973 144). Finally, Burke dismisses scientistic objectivity because it relies on a

static one-to-one relationship between words and things, which can never exist. Such stasis would make symbolic action impossible.

In The Philosophy of Literary Form is one of Burke's most important and well known essays of political analysis, "The Rhetoric of Hitler's 'Battle.'" For our purposes this essay is important because Burke is documenting what happens to a cultural/ideological system which is failing. We have already noted that the mind is a classification system to evaluate and fix entities with minimal disruption of system. Hitler provided a comprehensive and comprehensible world view for people who had seen it piecemeal i.e., Hitler repaired the ideological system after an epistemological crisis (or he provided an alternative system when the first one failed).

[4] We have noted that the ultimate purpose of the collective frame of acceptance and rejection, the quality space, is evaluation. Because of the power of the negative, we see differences in entities--we can discriminate. In this respect "all living things are critics," classifying entities as one kind of thing or another (1984 5). But although all organisms make distinctions, only human beings make them based on symbol systems. Because of ideology, human bodies "hop around in peculiar ways," that is, in ways that animals without language would not (1966 6). A worldview or ideology is a classification system (the quality space) that humans replicate from their culture which must be capable of change, just as any map must be altered to reflect changing circumstances. Explanations for how these changes occur are to be found in Burke's concepts of transformation, which are rooted in the paradox of substance, treated in Chapter Four.

[5] The symbol system has transformational powers because, according to Burke, all distinctions "arise out of a great central moltenness where all is merged" (1969a xix). These distinctions are thrown up and reabsorbed so that A can become not-A, but not by a leap from one to the other but by returning to a point where the two are consubstantial. So "substance" can come to mean nothing (just as "sanction" can mean both something permitted and forbidden). Burke demonstrates that terms can be stretched to cover different cases, which increases the overlap between terms. These overlaps make alchemic transformation possible; for example, pirates can call themselves purveyors in an attempt to reposition themselves in the quality space (i.e., the pirates return to a level of generality at which there is no distinction between legitimate and illegitimate transportation of goods).

[6] Semantics appears much less systematic, "a hornet's nest of bizarre and arbitrary usages." However, we are now evolving new ideas about what constitutes system and proof. Chaos Theory, for example, has radically altered our ideas about order. Chaos theorists have found random behavior in simple systems (e.g., a swinging pendulum) and order in phenomenon considered chaotic, such as turbulence. The latter gives us encouragement to assume that "the hornet's nest" is, in principle, understandable. Chaos Theory also states that complex behavior can come from simple origins (for example, a simple equation repeated many times and plotted will create an image of a fern recognizable by botanists).

The related study of self-organizing systems also provides models for how simple systems can jump to a higher level of complexity with new emergent properties. Catastrophe Theory provides the mathematics to account for such

phenomena. All of these theories share many attributes with Burke and GST (e.g., anti-reductionist, teleological, and interdisciplinary), not the least of which is discarding linear, mechanistic assumptions.

[7] Metaphor appears essential to recategorization. Burke asserts that man is the classifying animal (though all organisms discriminate, only humans do it based on verbal categories). Eric Lenneberg confirms that all animals can categorize to a degree (e.g., a frog will strike at any object that moves like food), but only the higher primates can categorize things which have little physical resemblance (11-12). Human beings alone categorize based on schemas, so no physical resemblance is required at all. Humans can associate things based on function (e.g., nylons can be used as a fan belt), the feelings we have about two objects (a faithful dog and VW bug) or resemblance of words (the joy of six[-pack]).

[8] Bertalanffy and others have suggested that in the East the I Ching, the Upanishads and the Gita suggest a systemic approach.

[9] Heraclitus, a contemporary of Anaxagoras, also has some ideas that suggest a systemic approach: panta rhei (all in flux), structure is the result of function, and an organism is more like a flame than a crystal. (This last statement is a rather remarkable observation in that Bertalanffy identifies flames and rivers as the simplest kinds of open system.) Heraclitus also held that sense impressions are relative, but there is an underlying unity of all things. He was opposed by the Eleatics whose ideas influenced both subsequent materialist (mechanism/atomism) and idealistic thinking, including Plato and Aristotle (Bertalanffy 1972 21-22).

[10] Aristotle's holistic and teleological worldview was eclipsed by the Scientific Revolution in the sixteenth and seventeenth centuries. Aristotle's conception that the celestial was fundamentally different from the terrestrial was overthrown, and the forces observed at work here were applied there, leading to Newton. At the same time the deductive-theoretical approach was displaced by Bacon's inductive-empirical one, and analysis replaced analogy and synthesis. But this is not to say that Aristotle did not do empirical studies as well. His former pupil Alexander the Great equipped and staffed a laboratory, and sent him species from his travels for dissection, over five hundred in all. Aristotle's anatomy text was unsurpassed for two thousand years. Nevertheless, Aristotle was a favorite target of seventeenth century scientists, who eliminated act, one of the fundamental categories in his philosophy. However, act has recently been reintroduced in communication theory, the New Physics, and it has always been central to Burke (Bertalanffy 1975b 22).

[11] Another medieval scholar, Ibn-Kaldun, produced some rather modern ideas. One of the greatest of the medieval historians, Ibn-Kaldun is also cited by Bertalanffy as a forerunner of General Systems Theory (1975b 32). His systemic approach is evident in his studies of group dynamics and the laws of social change. He is sometimes referred to as the founder of sociology and the philosophy of history. He was translated into French in the 1860's and more recently into English. He is in a long line of historians with a cyclical conception of history: Vico, Spengler, Toynbee who undoubtedly influenced Burke's thinking on the systemic nature of culture.

[12] In the most recent cycle, Marx theorizes, the rise of a proletariate recapitulates the rise of the bourgeoisie, though each phase has what a systems

theorist would call emergent properties that earlier stages do not possess. In this case, quantitative changes (disequilibrium and its resulting social tension), will build up until revolution breaks out, which if successful will bring about qualitative changes. In Marx's scenario the state and religions will wither away like an appendix, and society will become classless--the worker's paradise.

[13] The concept of telos is rather impoverished in Freud's notion of life and death instincts. The thanatos instinct is the desire for life to return to a state of inorganic matter (in the beginning, according to Freud, inorganic matter is briefly stimulated into life, a state from which it seeks to regress as quickly as possible). Life viewed as an irritating detour back to death does not make much sense. This view (albeit oversimplified here) is especially odd when contrasted with Freud's rather sophisticated understanding of mental development, which must have been influenced by an understanding of biological development (and parallels Bertalanffy's work rather closely): over time a system becomes progressively differentiated, integrated, controlled and stabilized. However, under the sway of the mechanical metaphor, Freud sees the mature system as a machine aiming for efficiency and stasis. Still, trying to make psychoanalysis scientifically respectable no doubt made his pro-scientistic and anti-vitalistic stance necessary, particularly given the hostile reception to his work over much of his career.

[14] Freud's tripartite division is too well known to rehearse here, but in the context of systems theory, it is interesting to note that his system parallels the hierarchy of GST: the id is the biological, amorphous, and undifferentiated. The ego is a mediator, and requires memory and language. The super-ego shares with the ego

a control function which leads to systemic and social stability. The super-ego strives for perfection (which could be seen as sneaking telos in the back door; however, if the super-ego is simply trying to reduce ension by forcing behavior that is socially acceptable, then it is not much different than instinctively eating to reduce hunger).

[15] The development of the organism leads to questions of the development of species. The ability of systems to evolve was of great interest to Burke and Bertalanffy: if survival is really of the fittest, there should have been no evolution beyond the microbe. Similarly Burke once asked, if elements should not be duplicated beyond necessity, where would you be? Both Burke and Bertalanffy were influenced by French philosopher Henri Bergson, whose Creative Evolution (1907) held that evolution is a vital impulse that continually creates new biological forms (Davidson 92).

[16] Burke makes a fundamental distinction between action and motion, though he frequently adds that action is grounded in motion. The distinction is implied in his work from the beginning (cf. "practical" vs. aesthetic in Counter-Statement), but doesn't really emerge until The Rhetoric of Religion (1961). It appears explicitly in Language As Symbolic Action (1966) and becomes the basis of an article in 1978. There Burke states that symbolic action depends "wholly on the realm of physiological motion" . . . .But "symbolic action is not reducible to terms of sheer motion. (Symbolicity involves not just a difference in degree, but a motivational difference in kind.)" (1978 814). Both Burke and Bertalanffy emphasize that language is the fundamental difference between humans and animals, yet both understand that higher

understand that higher levels of complexity are grounded in lower levels, just as calculus is grounded in arithmetic.

[17] Hans Driesch, a biologist, found at the turn of the century that if a sea urchin is split sufficiently early enough, it will grow into two complete, though slightly undersized adults. Another experiment showed that an eye cell of a salamander could be moved and still become functional (or if moved so far away that connection was impossible, it would simply become skin tissue). Since entelechy was an outlawed concept, he tried to explain such phenomena by borrowing acceptable language of the hard sciences: "force." Still, the idea wasn't accepted (Vickers 22).

[18] Before leaving our discussion of systems levels, we should note that, with each higher level, information, learning, memory, complexity, survivability and law increase, while chance decreases. It must also be emphasized that definite emergent properties come into being at each level which make undeniable and important differences. Though many systems theorists have carved up the levels into different numbers or emphasized different ends of the rubric (e.g., the social scientist is not much interested in the low end), no one alters the hierarchy in any way.

[19] Eventually he will substitute several terms for art, the most inclusive of which is symbolic action, which involves more than literature.

[20] "Metabiology" is not an entirely clear term (he does not use it in subsequent works), but it is closely aligned with Burke's emphasis on entelechy, an idea crucial to systems theory. He claims that "each biological organism has 'purposes' intrinsic to its nature" (168). Burke notes that some philosophers tried to reintroduce <u>telos</u>, but that when science shifted the emphasis from Creator (a teleological process) to

creation as a fait accompli, the wheels were set in motion for seeing everything as a machine (217-8).

[21] I.e., the symbol system is permanent, at least as long as there are human beings, while change within that system is constant. (Cf. Cook on stability and flexibility as the essence of systems.)

[22] How metaphor is fundamental to symbolic action requires some explanation, which is supplied in Chapter Six. Provisionally, however, the symbol system is made up of clusters of associations, arranged hierarchically. Within this system, a term can rise by being associated with terms occupying a high position, or fall by being associated with terms low in the system (which would also mean that they would be dissociated from high concepts). For example, democracy can be associated with other God-terms, including God. But Hitler associated democracy with pointless harangues and squabbles, thus paralysis and death. Hence "A" can become "Non-A," and light can become darkness. This is precisely the kind of "discounting" with which Logical Positivism cannot cope.

[23] Burke's increasing refinement of his theory of system may be indicated in his terminological shift from "orientations" to "frames of acceptance." The terms appear synonymous, but "frame" implies a structuralist conception which "orientation" lacks. He defines frames of acceptance as "the more or less organized system of meanings by which a thinking man gauges the historical situation and adopts a role with relation to it" (5). There are two crucial concepts emerging here. The first is the idea of evaluation (discussed below). The second is adopting a role, which is another structuralist idea (e.g., the 8:02 train is not a thing but a function). Here

Here Burke appears to be thinking along the same lines as Ferdinand de Saussure, that meaning comes from interrelationships in a system, not from substance. The simplest example is a social role: human beings' actions are constrained by the role adopted. This shift from substance to function is the crucial twentieth century development: field and system theory, e.g., Whitehead, Einstein, Picasso, de Saussure etc.

Because of the affinity pointed out above, one may wonder if there was any influence. There is no evidence of any. While de Saussure has been enormously influential in Continental thought (which, not unlike Burke, synthesized Freudian and Marxist theories), his influence in North America is relatively recent and indirect (via structuralism, initially). Though the first of Claude Lévi-Strauss's structuralist works appeared in France in 1949, the first reference I find in Burke to him is in his personal correspondence in 1972 (wherein he notes some parallels between Lévi-Strauss and his own earlier work). Furthermore, de Saussure would not have been of much use or interest to Burke since the former in concerned with langue whereas the latter is devoted to understanding parole.

[24] If paradoxes and anomalies in a system remain unresolved, the resulting epistemological crisis will lead to a quest for certainty. Burke points out that these contradictions can be either internal or external. Internal contradictions, as the name suggests, arise within the system itself. For example, a heretical sect emphasizing one aspect of the total system must be eliminated, or the system must alter to compensate for the new emphasis. Or the contradiction can be external; e.g., when a complete Aristotelian view of the world was discovered, it threatened Church

teachings. Presumably in such conflicts, one system is going to suppress the other, or the two will be synthesized.

[25] For example, Freud explains that a psychic economy compensates for losses. Burke asserts that a social system will compensate for the loss of reasonableness with an increase in sensuality (217). Compensation is transformative or metaphorical because it replaces one kind of thing with another kind (one compensates for lack of food with prayer, whereas one substitutes broccoli for asparagus). So great are the compensatory resources of this system that even the loss of being tricked out of material goods can be converted to a compensatory gain of experience (171).

[26] The Royal Society history is summarized in the first appendix.

[27] While he states that Korzybski makes some worthwhile observations as far as he goes, Burke is suspicious of any effort to reduce action to motion. Burke feels it is no accident that General Semantics had produced no poetics, because poetry is action. Burke feels that Korzybski needs a systematic concern with dialectic (239), by which perhaps he means that General Semantics notes but cannot account for transformation in word meaning. The General Semanticist strategy of numbering or dating words to account for multiple references and changes over time is not terribly practical, but at least it acknowledges that such differences exist. (However, Burke feels that any attempt to stabilize language change is doomed; moreover, simply numbering different senses of a word does not account for metaphor, a primary transformational device.)

[28] This argument can be seen as a dodge, not unlike Burke's stealing the term "statistical" years earlier; it is not unlike arguing that unicorns are real because the

word "unicorn" exists. This tactic does, however, give Burke room to maneuver. The strategy also seems legitimate, particularly in the present context, since Burke's major interest is in what language does; nowhere is language more powerful than in its political and theological uses.

[29] Such reduction is, of course, essential if human beings are to function. So Burke has no problem with reduction, but only with over-reduction. For example, the phenomenon of transference, which behaviorists want to make mechanical, is in fact very complex in human beings because humans can make multiple and purely abstract or linguistic connections.

[30] Burke (1966) will later observe that ideology "makes our bodies hop" in peculiar ways (6); this is a reference to the fact that so much human behavior cannot be accounted for from a purely biological point of view since symbol systems make symbolically inspired behavior possible. Symbol systems give rise to psychological and sociological systems, hence to "unnatural behavior" such as sacrifice. While an animal sacrificing itself to save its young could be explained as instinctual programming designed to perpetuate the species, why would a policeman risk his life to prevent the suicide of an elderly stranger? Such ethical behavior is an emergent property of highly complex systems.

[31] With no "resistance" of real-world necessity, the perfect formal structure does not have to make any concessions to the material world. To use one of Burke's examples to differentiate the two realms, cutting down wood for heat is a real-world necessity, whereas cutting down a tree as symbolic revenge upon one's father is

symbolic. Resistance to the symbolic act might take the form of a dull ax or an ordinance against amateur lumberjacks.

[32] Not only does Burke study analogy, he uses it. So not only would Burke's theological subject matter be regarded as nonsensical or scandalous by positivists, but his methodology would be as well ("fruitful analogies" might be regarded as an oxymoron, but as we have seen previously, for Burke explanatory or heuristic power is the only test of an analogy). For Burke the test of a metaphor is not Does this term refer to a real-word object (the positivist touchstone), but rather Is it useful? To use another of his examples, the square root of minus one does not exist in nature, but it is useful for solving certain kinds of problems (18). Similarly, whether God or free will really exist, they do exist and thus have a function in a theological system; since Burke wants to understand the functioning of such systems, the epistemological status of God is irrelevant.

[33] The more complex the system, the greater the number, types, and complexity of transformations possible within it. Melting ice is about the simplest example, and perhaps does not even merit the term transformation, since it is merely the speed and distance between the molecules changing. Quartz turning into soil is not much more complicated. Much more complex changes are found in living systems (e.g., the proverbial caterpillar into butterfly). But even that spectacular transformation pales compared to those in the human brain, and consequently in symbolic systems.

[34] In Language as Symbolic Action Burke also returns to the old problem of what makes an apt representative anecdote or model for Dramatism. Because of the

tenacity of scientistic assumptions and the progress of "thinking machines," it has remained popular to see humans in terms of machines. Burke asserts, however, that no matter how complex computers become, they are not a good model because they do not feel pleasure and pain. Animals do, in a rudimentary sense, "but animals are too poor in symbolicity, and humans are too poor in animality" to make the analogy apt (64). Since a machine cannot participate in a human dialogue, by sizing up its "drift," i.e., cannot perform symbolic action, Burke asserts that a computer is restricted to motion (63).

Thus neither machines nor animals are apt models for studying symbolic action. He does say that if computers become adept enough at symbolic manipulation, he may have to rethink his position. That time may nearly have arrived with the rather ambiguous outcome of a recent trial of the Turing Test in which some computers were thought to be human, and vice versa, though in the main it was fairly easy to distinguish between the two. And is mimicking a conversation the same as having one? Can a machine really prefer the later Shakespearean tragedies, as one machine professed? The ramifications of recent AI advances will be considered in the concluding chapter.

[35] Burke chooses an example of the most utilitarian, presumably descriptive utterances (stripped of context, the-cat-on-the-mat variety to which the most positivistic approaches to language restrict themselves): "The man walked down the street" (1966 361). Burke claims that even this rather straight-forward utterance could not be illustrated. Burke's point is this: words entitle a complex non-verbal situation; there is not really a one-to-one correlation. Usually language gets at the

essence. It is a summing up, an evaluation of a situation, rather than a mechanical labelling of a thing. The validity of such an assertion is not so much dependant on the accuracy of the correlation between word and thing as the accuracy of the interpretation of the situation.

The thesis of this essay reminds us of Burke quoting T. S. Eliot earlier that "we have no objects without language" (61). This does not make much sense unless we realize that reality is built up from our symbol system, so that real things become "inspirited" (162). Thus a pair of tennis shoes is not simply some matter one puts on to protect the feet but a statement: "I am like my sport hero: victorious, famous, sought after, powerful." So a word is not so much a label for an object as an abbreviated title for a situation (294). The status of a title derives from its position and its interrelations in a system.

We have noted that Burke's central objection to scientism is its reductionism. The terministic screen imposed by its vocabulary leads to its being blind to the systemic attributes of its subject matter. Burke makes this observation specifically with reference to "bold, bad behaviorism" (49). Though behaviorism can afford information about very rudimentary kinds of learning, Burke holds that the use of words as words transcends the conditioned reflex (455). Though the distinction between people and things can be hard to make precisely, Burke points out that even behaviorists treat their colleagues as persons.

Burke further asserts that the empiricist approaches reality in terms of physicality (as an animal approaches a highway) without concern or awareness of rules (i.e., that these cars are not just objects of mass and motion, but are part of a

system which can be understood and predicted). Burke says that consequently the empirical approach to reality is close to the perception of an animal just before it is run over. But Burke's attack might be a bit unfair: is not science trying for descriptions of behavior too? Does not science seek to codify rules that help us understand and eventually predict behavior? Yes, but science goes for the simplest model, short cause-and-effect chains, e.g., isolating aggression centers in the brain as the cause of violence. So Burke objects more to the method than to the general aim of classical science.

[36] Human action is, after all, grounded in a very complex system; and systems can become dysfunctional. For example, what is more systematic than an obsession? Moreover, if someone is operating in an alien system, that person's behavior will seem bizarre.

[37] GST can also give us some important insights into why Burke's career unfolded as it did. We have already observed that Burke's initial goal of understanding the rhetorical strategies in Shakespearean drama set him on the systems path. But we can now see why Burke was susceptible to the influences that he was, and why in particular he needed an organic model to make any progress. Granting this, it is easy to see why Burke was so taken with Woodger's biology (informed by Bertalanffy): here was a system of ideas that he needed: hierarchy, telos, evolution, compensation etc. So important are these ideas that Burke calls his work a "metabiology." Moreover, seeing Bertalanffy's continual attacks on mechanism answer the question about why Burke must carry on a lifelong battle as well: the

mechanistic metaphor must be displaced in order for any systemic approach to be taken seriously.

[38] In the preface to the second edition of Counter-Statement Burke admits that Spengler scared him, but doesn't say precisely why. He does say that Spengler "pictured an invader already here, from within (an invader derived from mankind's best logic, mankind's best genius)" (xiv). Presumably the invader Burke is referring to is the mechanization or regimentation of human beings that Spengler forecast. In addition, Spengler's assertion that our civilization is in decline and his corresponding aesthetic defeatism would have disturbed Burke.

[39] Increasingly the role of metaphor in this process is being investigated. Cognitive psychologist Allen Pavio says that we need metaphor to convert continuous experiential information into discrete symbol systems (Ortony 1978). Linguist Elizabeth Traugott also feels that metaphors organize and interpret experience, usually based on an underlying cultural or conceptual schema (Dirven 49). The role of classification will be investigated in the final chapter.

[40] "Quantum jump" is a bit of a misnomer, as it strictly speaking refers to an electron suddenly making a transition from one stable orbit to another. However, since science does not put much credence in jumps from one level of organization to a higher level, it does not provide a term for the phenomenon (except for the rather obscure and equally misleading term "symmetry break," which will be explained below). "Quantum jump" in its common metaphorical usage is relatively close to the phenomenon referred to here. It is not an accident that the term derives from the branch of the "hard" sciences which the mechanical model was first found to be

inadequate, and which must resort to such poetic terms as "strange" and "charmed" quarks.

[41] Both Burke and Bertalanffy also opposed the Behaviorist approach on political grounds as well. They objected to people being turned into robots in order to make the mechanical culture function more smoothly (Bertalanffy 1968 211, Burke 1968 passim).

[42] Burke has examined many different types of systems, including biological and ecological. We have also observed that he used economic systems as analogical model for quality space. He is also interested in mental, cultural, and symbol systems. He even approaches texts as systems. As we saw in our examination of Counter-Statement, it was his attempt to describe what was happening in a text which led him to consider the social setting and psychological effect on the audience. He is also interested in political and theological systems.

[43] Another possibility for incompatibility might arise when we recall the statement that GST seeks laws that are true of all systems, which appears to contradict Burke's assertion that rhetoric and metaphor are beyond the realm of true-false (Such a move was a not uncommon attempt to protect literature and rhetoric from scientistic attack). This is only a problem if we are logical positivists who confuse truth with truth conditions (Even logical positivists, however, have long since abandoned the verificationist principle since it was itself unverifiable). According to Burke, a major problem with logical positivism is that it can't deal with metaphor. For example, Burke asserts that "New York City is in Iowa" is literally false but metaphorically true (1973 144). Burke and Bertalanffy agree that a metaphor, like a

scientific model, is as good/valid/true as the heuristic distance it takes us (Davidson 162). Bertalanffy began with an empirical basis, looking at biological systems, but found that isomorphisms existed in minds and languages. Thus what is "true" of biological systems is true (to a degree) of psychological and linguistic systems.

[44] The most efficient and effective way to name a complex situation is to employ a metaphor, since a metaphor imposes a schema--a sort of template--over the amorphous set of features presented by the situation being considered (i.e., a metaphor structures our perceptions). For example when President Reagan called the death of the Shuttle astronauts the inevitable sacrifice of pioneers, he displaced other interpretations of the situation, e.g., that America had lost its technological dominance, or that bureaucrats thought their schedule more important than safety.

[45] Chaos Theory came about in very much the same way as GST did: people in a number of different fields were working with irregularities and seeing similar kinds of irregularity in different systems: economics, weather, turbulence, heartbeats. One of the earliest discoveries of chaotic phenomena was by Edward Lorenz, who (in tinkering with a computer weather model) found that a very small change in input created a dramatic change in output. As similar phenomena were discovered everywhere, a paradigm shift was set in motion. The old mechanistic assumptions were altered radically; in fact, they were reversed: the idea that simple systems behave in simple ways, complex ones in complex ways, and different system behave differently gave way to the idea that simple systems were complex (i.e, had chaotic attributes), complex phenomena can come from simple origins, and very different systems can

behave in the same way (the last two assertions being, of course, central tenets of GST).

Chaos Theory has significant parallels with GST and Burke: it looks at wholes, is anti-reductionist, includes notions of hierarchy and telos, favors a process approach over state, and is interdisciplinary. Chaos Theory seconds GST's assertion that disequilibrium is normal and leads to increased complexity; although uncomfortable with anthropomorphic language, clearly chaos theorists recognize teleology: e.g., flow "wants" to realize itself. Chaos theorists also wonder how "a purposeless flow of energy can wash life and consciousness into the world" (Gleick 308). Even more "mystical," though widely accepted, is the Gaia Hypothesis--the conditions for life are created by life itself in a self-regulating feedback process. Its proponents, James E. Lovelock and Lynn Margulis, have created a computer model of the dynamic, a daisy world in which white daisies want warm weather and reflect light, whereas black daisies reflect light and want cooler weather. When the model is set in motion on a computer it demonstrates why the earth maintains a temperature suitable for life.

Chaos Theory is particularly relevant to Burkean theory because it shows that phenomena such as turbulence once considered random are in fact orderly. This is encouraging to those such as Burke who seek to map language, which (aside from syntax and phonology) presents what Edward Sapir called "a perfect hornet's nest of bizarre and seemingly arbitrary usage." Chaos Theory is also relevant to the present context because it finally displaces the mechanism that Burke and Bertalanffy struggled against all their lives.

[46] It is interesting to compare self-organizing structures to Burke's idea of how symbol systems develop: concepts become associated, these form clusters, then networks. When the network attains sufficient size and complexity, it constitutes a model of the world. The shared model of the world (a supermodel) by a group of people (superentity) is a culture.

[47] In fact, as a language decays it undergoes what a physicist might recognize as a kind of graceful degradation (that is, difficult, odd and unusual features of the language will be discarded first). Language also resembles biological systems in that they can combine to form hybrids called pidgins, which can evolve into languages in their own right. Without a great deal of imagination, we can see that a language has many of the attributes of living systems: it exchanges information with its environment (at least its host does), maintains a steady state of negentropy, repairs breakdowns, integrates subsystems, regulates itself and has purposes and goals (at least in the limited sense that it develops preferred states.

[48] Prof. Rueckert, the dean of Burke scholarship, shows that Burke uses the term "symbolic action" in three different senses, which is a bit disconcerting for a central term. None of Burke's definitions are very satisfactory, and elsewhere he defines symbolic action even more broadly to include sculpture and dance. Clearly Burke often uses the term "symbolic action," and he does study it, but that doesn't mean that he defines it. Although there seems to be little debate about what Burke means by the term, a number of scholars do in fact feel the need to clarify and/or define the term (e.g., Henderson 31-4).

Moreover, Burke does not offer a definition for symbolic action which in any way resembles his exemplary definition of human (though he asks that we treat even it as tentative), and asserts that a definition "should so sum things up that all the properties attributed to a thing can be as though 'derived' from the definition" (3). Burke never does this.

Perhaps the lack of a concise and precise definition of symbolic action will not seem so strange when we reflect that no consensus exists for one of poetry or literature, and that Jacques Derrida prides himself on coining key terms which resist definition. Burke may have had similarly strategic reasons for keeping the term vague.

[49] In the first chapter we traced the gradual dismantling of Aristotle's full context theory of metaphor. The nadir occurred when the early empirical scientists attacked metaphor and tried to establish a one-to-one relationship between words and things. The model that informed early science was the machine. These ideas show up in John Locke who held that the mind is a passive recorder (the metaphors for this changed with technology: wax tablet, phonograph, telephone switchboard, digital computer). At the turn of the century the scientistic ideas culminated in Logical Positivism. (Neo-Kantians state that there is no ultimate reality, so reality became equated with the external world) Logical Positivism was an attempt to ground philosophy in empiricism; it was radically anti-metaphysical and had little interest in metaphor. According to Logical Positivism, metaphor could have an emotive meaning, but no cognitive meaning (since it flouts truth conditions).

Metaphor could thus be dismissed as a pseudo-problem. That metaphor had to be marginalized becomes apparent when we see how Logical Positivism defined meaning: the meaning of a sentence is its method of verification (i.e., a statement is true if and only if it is verifiable). This verificationist principle became something of a problem when it was realized that it was itself unverifiable. Thus the principle had to be weakened to state that a proposition is meaningful only if it is possible (at least in principle) to confirm it. Then interest shifted from formal languages to ordinary language; this shift is apparent in the later works of L. Wittgenstein, who urged that we not "look for the meaning, look for the use" (Kittay 8). Despite this shift in philosophy, formal logic continued to inform linguistic studies. One attempt to expand it was possible worlds; George Lakoff thought in the early 1970's that possible world semantics would lead to a natural logic, but he soon came to the conclusion that it is a dead-end if wedded to objectivist philosophy (1987 217).

Then began the creation of a climate in which metaphor study could revive. This shift was assisted by Mary Hesse's demonstration that metaphor was essential to science. Somewhat paradoxically, metaphor study was revived by the analytical philosophy that was closest to logical positivism and thus most hostile to metaphor. Philosopher Max Black took I.A. Richards' ideas and made them intellectually respectable.

[50] This new paradigm is confirming many of Burke's assertions about symbolic action; e.g., that symbolic action is grounded in a system. This system grows through analogical extension, accumulating schemas which act as filters for evaluating

a given situation. As this system becomes more complex, emergent properties appear (e.g., language, consciousness, purpose).

[51] Lakoff claims that both metaphor and categorization are essential, and that both lead to rational thought. He claims that categories are essential to functioning, indispensable to both perception and thought (5-6). A schema is made up of a network of nodes and links, each node being a conceptual category. Schemas in turn can combine to form cognitive models. Concepts are (or have) corresponding categories.

[52] Burke anticipates this idea when he noted that a "terministic screen" leads to a given perception, which in turn leads to an attitude and thus to an act. Burke also anticipates schema theory in his work on form. He notes that forms are biological or learned (Lakoff and Turner would say embodied or cultural). Moreover, Burke anticipates by half a century the assertion of the centrality of analogical thought that Lakoff and Johnson espouse.

[53] Neural networks are good at classification because a small piece of a pattern can elicit the whole pattern. The search for a metaphorical match is also constrained by centrality: the search will begin with default assumptions and core associations. Previous use of metaphors can also limit search (with a frozen metaphor there is no inference required since the metaphor is "precomputed"). Context will limit the search as well. In short, a good interpretation will be the most parsimonious, coherent and specific, i.e., the most useful (Birnbaum 180-1).

[54] Politics is commonly metaphorically portrayed as war, sport or journey. Nicholas Howe examines the pervasive use of metaphors in government and finds that its most common metaphors "are systematically derived from sports and war," the

two metaphors having a good deal of overlap. Sports metaphors are useful in describing a rule-bound contest between two opponents, in which one side can lose but cannot be eradicated. TEAM, as in "Ehrlichman can be trusted, he's a team-player," is a good example. Political strategy is often discussed in football metaphors (e.g., carry the ball, have running room, end run, blind side). Baseball can also be used to a limited extent for tactics (especially hardball vs. softball, but Howe finds that it is more often used to assess performance: e.g., big leagues, a long ball, the Babe Ruth of deficits).

We have noted that metaphor creates a perspective which leads to certain information and thus actions being seen and others obscured. Donald Schön has specifically examined the role of metaphor in policy-formation and problem-solving. He argues that this process begins with a narrative, which often engenders a metaphor that will account for the situation. For example, in discussing the shortcomings of social services, coordination is often proposed as a remedy for fragmentation (note the enthymematic basis here; that which is whole and orderly is good). Not surprisingly, the proposed solution will very often reflect the metaphor used in naming the problem. For example, Schön examines the two competing metaphors used to discuss urban renewal. The first sees a slum as a blight or disease which needs to be removed and replaced with new "healthy" buildings. The second metaphor views the neighborhood as a healthy, functional community, which merely needs upgraded housing. Clearly these two different models lead to very different methods (and attitudes); unfortunately, the government adopted the first model, which led to enormous waste.

[55] It is interesting to employ Charles Osgood's tri-dimensional system for determining the position (in what we are calling quality space) of a term based on evaluation, potency, and activity; an ineffectual social club would rate rather low on all three criteria. Also intriguing in this context is A. Luria's claim that he can measure the distance between semantic domains.

[56] The term metaphor itself means "carrying across," but what was carried and from what to what has only recently been begun to be understood. Aristotle knew that metaphor was the principle of transference itself. Chaim Perelman also devotes considerable space to transfers of value deriving from structure. Probably it is not features that are transferred so much as slots for features which are instantiated with features from the target domain.

[57] In his reorientation of "extremist," King displays a similar strategy of "verbal atom-cracking" (as Burke likes to call it) when he uses two God-terms to split another: one can be either an extremist for love or hate. However, he also demonstrates that he is not really an extremist because his is a moderate between the blacks who submit to injustice and those that want to oppose it with force. His grabbing of the term moderate is a bit odd, since he demotes or demonizes white moderates as ineffectual, cowardly fence-sitters who do more damage than his outright opponents. When we understand King's overall strategy, however, this does not seem paradoxical.

It is instructive to examine how King breaks the linkage between law and justice. Essentially, this is the inverse strategy of making associations. He subclassifies laws into just, moral, democratic laws which it is our legal and moral duty

to follow, and unjust laws which it is our moral duty to break. King's efforts to break such a strong linkage requires the full rhetorical arsenal: logic, quasi-logic, enthymemes, God-terms, orientational metaphors, identification etc. An full analysis is not possible here, but can be readily accomplished employing the terms and concepts enumerated in this chapter.

Not only can King split classes which appear indivisible, he can unite entities which are separated in quality space. For example, he rather skillfully equates blacks with American destiny (enthymeme: if two are one, what harms one harms both).

[58] These God-terms were distilled out of a study of presidential speeches. Though no formal quantification was involved, it is very probably that anyone examining the same texts would extract the same God-terms, and nearly as probable that given an arbitrary number of categories, would come up with similar categories. What is much more certain is that these categories would align with Lakoff and Johnson's UP metaphors (15-17).

Appendix

History of Metaphor

Metaphor has always been central to traditional rhetoric. This correct assessment of the importance of metaphor was displaced by scientistic, mechanistic assumptions which could not account for metaphor, and so dismissed it. It can also be seen that the best theory of metaphor includes mind, language and culture (Aristotle). Second best includes mind (Renaissance and Romantics). The most impoverished and incorrect theories reduce metaphor to language alone (Logical Positivism).

Aristotle had a substantially correct, systemic, and complete theory of metaphor. He understood that metaphor involved mind and culture, and not just language. He held that metaphor was heuristic, the mark of genius in fact. He also knew that persuasion was based in enthymemes, which are grounded in the opinions of the people (and thus that thinking does not always proceed according to formal logic). He also understood value transfer and its role in persuasion. Unfortunately, Aristotle's Rhetoric was lost for centuries, and even when it was available, Roman rhetorics were preferred. In Roman rhetoric, metaphor loses some status, but it is still central. The idea of metaphor being deviant is introduced, but it is seen as positive (eventually this deviance will be instrumental in the denigration of metaphor). We also begin to see the emphasis on metaphor as style, which will eventually reduce it to ornament.

In the Middle Ages, the opportunities for political and judicial rhetoric were severely restricted, so rhetoric was largely restricted to letter writing. The figures were still important in the schools, however, though their heuristic function declined. The deviant nature of metaphor caused some debate about its correctness, but its utility went largely unchallenged.

The opportunities for political and judicial discourse reappeared with the Renaissance, and so rhetoric revived as well. In fact, there was tremendous interest in metaphor, including in how it worked. So again, the heuristic value of metaphor is acknowledged. These theorists would influence Giambattista Vico, and thus the Romantics, and eventually I. A. Richards, who would reassert the role of mind in metaphor. This, however, would not be the dominant view. In the late Renaissance, metaphor was still highly valued; one's intelligence was largely judged by one's ability to use metaphor (e.g., Shakespeare and Donne), and so the Figurists, with their elaborate taxonomies of tropes of speech and thought, were quite popular. Despite their interest in style, they still accorded metaphor a heuristic function.

In the seventeenth century, however, the status of metaphor declined rapidly. Peter Ramus vilifies Aristotle for his "stultifying errors," and in his pedagogical reform simplifies the taxonomy of figures so that schoolboys can learn them more readily. At the same time, however, Ramus divides metaphor from logic, and metaphor become the sugar applied to the pill after the thinking is done.

Paul Ricoeur claims that Francis Bacon, one of the founders of the scientific revolution, separated metaphor from the "philosophical sensibility that animated the vast empire of rhetoric" (1977 10). However, Bacon acknowledged the value of

rhetoric (and metaphor), though his even-handedness did not extend to his followers. Aristotle was their favorite target. Empirical observation and measurement replaced intuitive and analogical modes of inquiry. Ramistic doctrine was espoused by Gabriel Harvey and other scientists.

Walter Ong sees in Ramistic rhetoric an affinity with the scientific goal of "the marriage of words and things" (Corbett 611). Reason was associated with formal logic and intellect, which relegated metaphor to the fancy and the passions. One of the first orders of business of the newly chartered Royal Society of science was to establish a committee for the purification of the English language (satirized by Swift). Failing that, they sought to eliminate metaphor. There were a number of hysterical attacks on metaphor, which were invariably rather blatantly metaphorical: e.g., metaphor leads to being lost wandering among "fantasms," or in the murky ink of the sepia fish, or being caught in a lime bird trap. At this time, Samuel Parker called for an Act of Parliament to outlaw "fulsome, lushious" and divisive metaphors (perhaps because metaphor was thought to enflame the passions of the ignorant rabble) (Jones 1951 119-120).

With John Locke's faculty psychology reinforcing the relegating of metaphor to the fancy and the passions, and his rather mechanical model of the mind as passive, the heuristic and philosophical elements of metaphor were abandoned. Though Vico was aware of the scientific movement, and shared its goals, he did not accept its methodology, and persisted in privileging metaphor. He influenced S. T. Coleridge, who tried to rescue imagination (creative, synthetic, analogical) by dividing it from the fancy (mechanical). P. B. Shelley also viewed metaphor as fundamental to all

creative activity. Thomas DeQuincey also privileged analogical reasoning. He felt that metaphor made the mechanical network organic.

The Romantics were right to see metaphor as an important part of cognition, but they were not influential (with the exception of Nietzsche, who was himself without influence until rather recently). Eighteenth century rhetoric tried to reconcile the importance of metaphor to the tradition, and the denigration of it by the ascendant sciences, and so was rather schizophrenic on the subject.

On the Continent, in the nineteenth century, rhetoric declines into academic formalism, the "shipwreck of rhetoric," though metaphor survives. It is, however, largely restricted to pedagogy and even there reduced to caveats about mixing metaphors, as it is in the Anglo-American schools as well.

In our own century comes the New Rhetoric, with its accompanying revival and updating of traditional rhetorical knowledge. All New Rhetoricians give a central place to metaphor. Richards revives the Romantic view that metaphor is primary: thinking is analogical, categorical; cognition is essentially recognition. Many years later philosopher Max Black made the study of metaphor intellectually respectable, setting off a flurry of metaphor study unseen since the Renaissance. (Richards knew metaphor was a systemic phenomenon, but could not prove it for lack of an adequate cognitive science for support.)

While Richards is largely responsible for reviving the cognitive status of metaphor, it is Kenneth Burke who completes the recovery of the full Aristotelian context by bringing back culture, and by his systemic approach.

Applications to Literary Criticism Pedagogy

Burke has written well over four million words, a good many of them, particularly early on, were devoted to literary criticism. He has been called the finest critic alive, the most important since Coleridge, one of the truly speculative American thinkers of his era, and one of the major minds of the twentieth century. I therefore hesitate to second-guess what Burke would say about any given work, especially since anyone willing to consult an index can find what he did say. Moreover, trying to distill Burke immense interpretive apparatus for a freshman literature class would be daunting, as the eclectic and pluralistic Burke employs so many methods: structuralist, deconstruction, Freudian, Marxist, formalist etc.

However, reflecting back on the three long works I generally teach when I have the opportunity to offer a literature course, Hamlet, Othello and Heart of Darkness, I do see a way of employing some concepts from the present work. All three works are about epistemological crisis, though in varying degrees and in slightly different ways. Hamlet, for example, does not know whom or what to trust: the virtuous seeming queen, the ghost which is exactly as his father appeared in life, or even his own eyes (thus employing Horatio to provide a second objective opinion) when observing Claudius at the play-within-the-play. Similarly, Othello struggles with what seems and what is. In his agony, he turns to and comes to depend increasingly on "honest Iago" (a shaman figure). Finally, Marlow in Heart of Darkness undergoes an epistemological crisis of sorts when everything he knows is questioned: Europeans are savages, cannibals are honorable, and the world becomes uninterpretable (what do the drums mean?). Marlow's way of classifying the word

becomes disrupted: white is death and darkness is fecund. The ending of the novel is often faulted for being too vague, but what if Conrad is trying to induce a benign and temporary (but edifying) epistemological crisis in the reader?

Many of the strategies employed in the analysis of the political text at the end of Chapter Six could be used on a literary text as well. For example, Conrad makes and breaks association in order to reorder (or at least disrupt) quality space: light = good. One could track key terms, some of which would function as God-terms (e.g., the horror, progress, pilgrims, civilization), metaphors (especially orientational ones) and identification (particularly Marlow's identifying with Kurtz).

Another possibility suggests itself. A basic and well-known Burkean concept is his Dramatistic Pentad. This is a tool that could be used to analyze any work of literature. For example, if we wanted to explore Marlow's lie to the Intended we could answer the following five questions:

What was the act: an exercise in etiquette gone wrong? Marlow keeping his word to Kurtz? Or purging himself of Kurtz (he wanted to "...surrender personally all that remained of him with me to that oblivion which is the last word of our common fate"). A cowardly failure to release her from her thralldom? A laudable sacrifice?

What is the agency: (i.e., by what means was this act committed?) Words? A lie (An easy retreat into chivalry? A difficult upholding of principle?)? The truth (She is the embodiment of European civilization, of self-deception, and thus of the horror?)?

Who is the agent: Marlow? ("culture shock," feverish?) Kurtz? The Intended?

What is the scene: back in the "whited sepulchre," civilization, in the funeral house of the Intended (massive chiaroscuro). Scene for Burke includes time, which in this case

would be more than a year after Kurtz's death and Marlow's return. We might also want to consider that the story is set at the end of the Victorian era, during which the missionary efforts to aid "our little brown brothers" were exalted.

What is the purpose: To save her, to save himself, to keep his word, custom, curiosity, or the desire to remain loyal to Kurtz to the end?

The more ambitious student or critic can select one answer from each category (all compatible) and construct twenty question ("ratios") for further exploration: What does what we know about the act (e.g., sacrifice) tell us about the agency (lying). What does what we know about the act tell us about the agent (Marlow)? What does what we know about the act tell us about the scene? What does the act tell us about the purpose? What does the agency tell us about the act, etc.

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