CHAPTER ONE

The Dialectical Paradigm

As I have indicated, the concerns of this study are neither strictly theoretical nor exclusively empirical in nature. Although my primary purpose is to pull together the various strands of an emerging theoretical perspective in the social sciences, I also wish to illustrate the value of this approach for empirical analysis. Thus, I will begin by presenting a systematic and detailed description of a theoretical and methodological approach I call the dialectical paradigm. This will be followed by an analysis of the U.S. health care system according to the principles of the dialectical method.

The dialectical paradigm as a whole is based on assumptions that are direct negations of certain positivist premises. This provides a convenient organizing strategy for presenting the main elements of the dialectical approach. In the process of analyzing the problems and shortcomings of an existing paradigm, an alternative approach is often crystallized, one that holds the promise of resolving the inherent problems of the existing approach by negating some of its basic assumptions. The discussion of the dialectical paradigm will be structured in accordance with this "critical method" of presentation.

THE DIALECTICAL PARADIGM-THE NEGATION OF POSITIVISM

The history of the discipline of sociology has as an overriding theme the constant struggle to shape itself in the image of the "hard sciences." Consequently, most sociological analysis is firmly rooted in an epistemological tradition that relies primarily on the rules of the "logico-deductive method" of positivist science. In the context of the present work, what is most important about this epistemological tradition is its distinctive approach to the process of analytical abstraction. Despite claims to the contrary (cf. Albrow 1974), all forms of scientific analysis (including the dialectical approach) make use of the process of abstraction. But while all analysis

depends on abstraction, epistemological traditions often employ very different assumptions about the nature of abstract theoretical categories. A central feature of the positivist epistemology is its reification of the products of the abstraction process (Ball 1979, 787).

Positivist epistemology maintains a clear separation between the world of mind and the world of matter but establishes the possibility for a science of nature by assuming that subjective categories can be made to correspond to elements of objective reality. As a direct consequence of this assumption, the objective world takes on the characteristics of the subjective world; if abstract theoretical entities exactly correspond to what exists in objective reality, then the "elements" of objective reality must possess the same qualities that abstract categories possess.

The assumption of correspondence between the subjective and objective domains creates some important problems. The first is defining the units of analysis: the method of systematic delineation and categorization allows one to produce strictly delimited analytical units; therefore, it is assumed that the objective world also consists of distinct, clearly specifiable units. Hence, an exact correspondence between the abstract, subjective "thing" and the concrete, objective thing can be established. Secondly, since a central goal of scientific analysis is to produce abstract theoretical categories that apply to all times and places, scientists tend to view the objective conditions to which theoretical concepts refer as being stable and unchanging as well. Universal concepts imply universal conditions. Among the few positivists that have been troubled by the obvious discrepancy between this position and the phenomenon of ubiquitous change in the natural and social order, a modified version of the same idea has gained currency—the notion that nothing ever stays the same but change always consists of the re-patterning of stable universal units (Albrow 1974, 184).

Positivist epistemology attempts to deal with more complex objective phenomena by creating equally complex conceptual systems. These are produced by using the rules of formal logic to integrate abstract categories for the production of entire conceptual systems. Like the elements of which they are composed, these conceptual systems are assumed to apply to all times and places, to be universal. Ideally, the system should also be logically closed—every logical implication of all combinations of propositions should be explicitly stated in some other propositions in the same system.

Again, the assumption of correspondence results in the characteristics of abstract conceptual systems being imposed on the objective phenomena to which they refer. Not only are natural systems assumed to be relatively changeless, it is also assumed that the relations between the units of objective reality conform only to the kind prescribed by formal logic—that is every

entity must be either a cause or condition of every other entity. This latter assumption has been modified somewhat by "systems theory," which posits that objective entities always exist in a network of relationships with other entities and, therefore, determinant relations assume the form of "reciprocal causation" within systems. While the systems approach does free itself of the limitations associated with the assumption of unidirectional causation, systems theorists have, by and large, ignored the further implications of this modified conception of causation. The idea of "interrelation" (reciprocal causation) implies that the character of the thing or entity changes when its relations change. This idea clearly undermines the positivist assumption that objective reality consists of discrete, well-defined entities. Insofar as systems theory has remained squarely within the positivist camp, it has eschewed this latter notion.

Where the positivist approach becomes more problematic, however, is in dealing with features of objective reality that do not lend themselves to organization by subjective categories. Certain kinds of natural phenomena defy our efforts to impose subjective characteristics upon them. Hence, they often appear to the scientist as anomalies. During the last decade or so, several such anomalies have been identified within the social realm by sociologists attempting to demonstrate the shortcomings of the dominant paradigm in social science.

The most commonly discussed stumbling block for traditional sociological analysis is the phenomenon of social change. Most social scientists recognize the ubiquity of change in all social systems (recognizing also that some social systems undergo more change than others). Despite the widespread awareness of social change, most traditional sociological theories lack a logical basis for dealing with change. Traditional social scientists' efforts to account for "emergence, creation and novelty," and with "the determination of objects over time as they are formed and decay" yield what can best be described as "ad hoc explanations"—explanations that are tacked on to the theoretical system rather than following as a logical implication of the theory's basic premises (Albrow 1974, 185).

Social change is not only inconsistent with the logic of traditional social theories, it also challenges some of the most fundamental epistemological assumptions of these theories. Richard Ball (1979, 782) notes that the "law of identity," which is a principle of formal logic embraced by almost all existing social theories, does not accord with the observation that "an existing thing is never the same from one moment to the next." Theoretical categories are, by design and in their actual usage, much more enduring than the objective phenomena to which they refer. Moreover, the positivist assumption that theoretical concepts have universal applicability fails to take

into account a form of social change that derives from scientific enterprise itself. One of the greatest contributions of the sociology of knowledge to general sociological theory is the insight that social scientific knowledge itself becomes an element of the very social system it attempts to explain (Friedrichs 1972, 266). Hence, in the act of generating universal propositions about the social system, scientists destroy any possibility of those propositions having universal applicability.

This phenomenon is at least partially responsible for some additional anomalies confronted by social science. First, there is the problem of prediction. While positivism emphasizes the importance of predictive accuracy, this goal has been rarely achieved in the social realm. Alluding to this problem, Martin Albrow (1974, 197) points to the further implications of Popper's contention that we cannot predict future history for we cannot know today that which we shall know tomorrow:

This [contention] . . . has a wider set of ramifications than Popper allows and limits the possibility of producing the kind of sociological laws he favors. Any propositions which include reference to states of knowledge (and this does not mean simple scientific knowledge) must be limited in their relevance to just those states and with increments in knowledge cease to be relevant.

The contradiction between the changing nature of social reality and the rigidity of theoretical categories is not the only thing that accounts for the partial and distorted character of those categories. The reification of the units of analysis blinds us to the possibility that the qualities of an objective element change when there is a change in its spatial configuration. Traditional social scientific analysis has been persistently plagued by its inability to develop concepts that apply transituationally. Moreover, the effort to establish clear and distinct theoretical categories in a manner that follows from the either/or logic of the "law of the excluded middle" simply cannot be reconciled with the ambiguities of empirical contextual relationships (Ball 1979, 788). The notion that an empirical thing may reveal features that characterize its opposite in nonsensical if approached from a dualistic epistemological stance. Consequently, positivist social science cannot effectively deal with the phenomena of contradiction, opposition, negation, dilemma, and paradox within the social realm (Schneider 1971).

If the incompatibility of the Aristotelian-Cartesian method of abstraction with time and space variation in empirical content represents one class of phenomena that positivist social science has difficulty dealing with, a second broad category of anomalies derives from the positivist assumption of unidirectional causality. These kinds of anomalies often become most

apparent in statistical analysis. For example, in quantitatively based social science (commonly recognized as the most rigorous form of social analysis), radically different theoretical explanations emerge from or are supported by the same set of "hard" quantitative data. This confusion derives, in part, from the feature of quantitative methodology that is widely recognized as one of its most serious limitations: while statistical manipulation can allow us to establish "correlations" between different factors, it cannot tell us anything about the direction of causation. As all introductory statistics texts note, determining the direction of causal arrows is usually a theoretical issue, not an empirical one. But this by no means resolves the issue. Regardless of one's choice of particular causal direction, there will always be empirical support for the opposite choice. This paradox may lead us to question the positivist assumption of unidirectional causation.

A related issue concerns the problem of ranking variables according to their explanatory importance. In quantitative analysis one can determine empirically which variables correlate most highly with the "dependent variable," but the problem of determining the factors that are most important for *explaining* variation in the dependent variable is always a theoretical matter. One has to decide whether "proximate" factors deserve more attention than "ultimate" ones, whether highly correlated independent variables can be regarded as conceptually distinct from the dependent variable or simply artifacts of measurement. Again, issues such as these can be approached in two different ways: they can be left to theoretical discourse and treated as problems that offer no hope of empirical resolution (the traditional approach), or they can be used as a basis for questioning the causal premises of positivist epistemology.

Finally, a third anomaly for positivist social science involves an issue closely associated with the statistical problems just discussed. In the attempt to determine the degree of causal influence of a set of independent variables upon a given dependent variable (through the technique of regression analysis, for example), social statisticians often confront the phenomenon of "interaction effects": several independent variables, when taken together, explain much more of the variation in the dependent variable than the sum of their independent influences. This effect resembles the phenomena that Karl Mannheim termed as principia media, the tendency of critical trends to come together in such a way as to create an entirely new subsystem that has an independent effect on the system as a whole. As Ball (1979, 794) notes, these phenomena indicate that "... change is not propelled by analytical variables taken one by one but rather by conjunctions of forces which form new and powerful configurations whose strength is largely a matter of interaction effects."

Such phenomena are problematic for positivist science because they contradict the reductionist premises of this approach. They belong to a class of empirical events that cannot be adequately explained by reducing them to their component parts. Component factors within a relational network constitute a "whole" with features that cannot be predicted by summing up the characteristics of the individual factors taken separately. Thus, the effort to analyze "systemic" or "holistic" phenomena by reducing them to their component parts and identifying the dominant causal influences is an approach that inevitably falls short of the goal of "complete" explanation.

In discussing these anomalies, my goal is not to provide an exhaustive review of problems confronted by the positivist approach, but rather to illustrate the general nature of these problems. I will now attempt to show that these problems disappear when social scientific analysis is structured in accordance with an alternative paradigm, one based on epistemological assumptions that negate some of the assumptions of the positivist paradigm. The following discussion of the philosophical system underlying the alternative paradigm, including a brief look at its historical roots, should lay the groundwork for advancing the primary agenda of this chapter—the description of dialectical social scientific paradigm.

THE PHILOSOPHY OF INTERNAL RELATIONS

Historical Roots

Throughout the history of thought, the development of positivism has been paralleled by the development of an epistemological system that, in many ways, can be regarded as its antithesis. This viewpoint, which has variously been called "holism" (Smuts 1926), "holism of content" (James 1984), and the "philosophy of internal relations" (Ollman 1976), has a history almost as long as that of positivism. The beginning of a philosophy of internal relations can be found in the work of the early Greek philosopher Promenades although it was not until the modern period that this perspective emerged in a systematic and comprehensive form. Spinoza's emphasis on unified nature (God) as the "single substance" of which all material entities, thoughts, social forms, are partial reflections, contrasted sharply with the more popular mechanistic view of each thing as possessing a logically independent character. Spinoza's conception of reality was scorned by his contemporaries and his contribution denigrated even by those who later elaborated these ideas (Russell 1945, 569), but his emphasis on "totality" served to introduce an important philosophical issue into the world of ideas.

Leibniz presented the issue in another form with his concept of the

"monad." Although he differed from Spinoza in his preference for emphasizing the parts over the whole, he shared Spinoza's conception of things (monads) as being defined or determined by their relations to other things. Hence, both of these philosophers made a radical departure from existing conceptions of reality by suggesting that things are more than they appear to be. Through its relations to other entities, a thing consists of more than a collection of specific characteristics or qualities; it reflects the larger whole to which it is related.

Although the philosophy of internal relations existed in primordial form in the work of Spinoza and Leibniz, the first systematic examination of the issues raised by these two thinkers was undertaken by G. W. F. Hegel at the beginning of the nineteenth century. Many reformulations and substantive applications of this viewpoint would follow Hegel's initial effort, most notably the work of Marx and Engels, the late nineteenth century philosophers (Bradley, Taylor, McTaggart, Whitehead), the systems theorists and the Gestalt psychologists; but it was Hegel who first outlined a coherent and complete "theory of internal relations." Because of Hegel's central role in the development of this philosophical system, his work will serve as a starting point for the present description of its basic features, although the ideas of other scholars will be included wherever they are pertinent.

The Core Elements of the Philosophy of Internal Relations

A good starting point for a review of the philosophy of internal relations is to consider the conceptualization of the relationship between the whole and its parts within this system. Stated in the simplest terms possible, this approach holds that "the whole is more than the sum of its parts" (Phillips 1976, 6).

This idea finds expression in the Hegelian system in the form of statements about "organically articulated systems." Such systems incorporate many "notions" (or elements of the notion) whose connections with one another are intimate and "organic" in the sense that they are self-contained, their unity indissoluble. In the words of Hegel himself, "the organic being is, in undivided oneness and as a whole, the fundamental fact" (1966, 301). Hence, any attempt to reduce the whole to abstracted units or parts will produce distorted and partial knowledge:

The essential nature of what is organic, since this is inherently something universal, lies altogether rather in having its moments equally universal in concrete reality, i.e., in having them as permeating processes, and not in giving a copy of the universal in an isolated thing." (Hegel 1966, 310)

In a particularly clear statement of this idea, Hegel writes:

[I]n relating the organic to the different facts of the inorganic, elements, zones, climates, so far as regards law and necessary connexion (sic), observation never gets further than the idea of "great influence." (1966, 327)

Hegel's conception of the whole presents us with an immediate problem however. If, as Hegel claims, the whole is the "fundamental fact," then how can we legitimately speak of "parts" in the first place? If the whole cannot be defined as the sum of its parts, then what can be said about the whole that broadens our understanding of it?

The relationship of the whole and its parts is described in several different ways within this philosophical system. As one scholar notes, the analytical technique of breaking the whole into its component parts ignores the importance to the system of the interrelations among parts (Weiss 1967, 802) and the way the "particular structure" of the whole influences our conception of the parts. A visual analogy can be helpful in developing an alternative conception of the relationship of the whole and its parts.

Representing the whole as a "hologram," is an alternative to the "parts and their interrelations" view of divisions within the whole. Careful examination of the hologram reveals a structure consisting of many distinct but related facets. The idea of facet differs from the notion of part in one important way: a facet can never be logically independent of the whole or the other units of the whole. Each facet is but one unique aspect or side of the whole; when one peers into a particular facet, the whole can be seen in its entirety, albeit a view of the whole that differs from the view seen from any other facet. Hence, the idea of removing a single facet from the whole is manifestly absurd because it is impossible to know where one facet ends and another begins. The structure of the hologram is such that we can always distinguish its individual facets but we can never separate them from the whole of which they are a part.

The hologram analogy helps to identify another feature of the relationship between a whole and its parts. While the whole is more than the sum of its parts, it is also true that "the whole determines the nature of the parts" (Phillips 1976, 6). In other words, each individual facet of a hologram reflects the whole in its totality. These ideas suggest a new conception of "identity." While an identity between two things is typically thought of in terms of mathematical equality (1 = 1), relational equality involves a form of identity "where the entity in question is considered identical with the whole that is relationally expressed" (Ollman 1976, 32). Relational equality or identity between the whole and each of its parts has been one of the central theoretical concerns of many scholars working in the holist tradition. For example, Hegel's project has been described as an effort to analyze the

abstract notions by which we make sense of organic reality, a plurality of categories that "form a system so organically connect that any one category involves all the others, and can be clearly interpreted only in light of the entire system. Each mirrors the whole system in itself" (Baille in Hegel 1966, 49).

Another scholar who embraced the holist orientation was Karl Marx. In his analysis of economy and society, Marx makes repeated reference to economic categories as "abstract, one-sided relation[s] of an already given concrete and living aggregate" (1904, 294). It was the Marxist philosopher, Joseph Dietzgen, however that presented the clearest statement of this idea, noting that the qualities by which we know a certain entity to exist are simply its relations to the other elements of the whole of which it is a part. In his own words, "any thing that is torn out of its contextual relations ceases to exist" (1928, 96). Hence, in order to understand the nature of any one part, we must also understand the nature of the whole.

One implication of the idea that the whole is reflected in each of the parts has become a core element of the holist tradition. An application of these ideas to the domain of "consciousness" suggests that mental constructs be treated as parts of the whole of social life. Despite Hegel's designation as an idealist, the logic of his system forces us to consider ideas as individual facets of the social whole. Consequently, one can find numerous references in his work to the "facet-like" character of theoretical concepts:

For since *itself* maintains *itself* in relation to another, it is just that kind of natural existence in which *nature reflects itself into the notion*, and the moments of necessity separated out—a cause and effect, an active and a passive—are here brought together as combined into a single unity. (1966, 296, emphasis added)

As Hegel suggests, concepts are not a priori categories that can be applied to certain aspects of reality; they are not entities generated in a social vacuum to correspond to elements of an objective reality. Theoretical concepts and categories exist in an intimate relationship with the social conditions of their existence. They are components of the society itself, facets of the social whole that, by necessity, reflect the whole in its totality. As Marx notes in his analysis of the prevailing theories and belief systems of capitalist society, bourgeois categories and concepts are not simply devices for describing capitalist society; they constitute specific forms, manifestations or aspects of their own subject matter (1904, 294). In contrast to the scientist's belief in the nomothetic character of theoretical concepts, this perspective emphasizes the cultural and historical specificity of all concepts.

Following these ideas is a third element of the philosophy of internal

relations—the notion that "the parts cannot be understood if considered in isolation from the whole" (Phillips 1976, 6). We have seen that the individual parts or facets of a whole reflect the whole in its entirety, assuming that the part is allowed to remain integrated within the whole. However, when a part is individuated from the whole through the process of analytical abstraction (or through the simple act of perception) the thing produced constitutes only a partial representation of the unabstracted part; the part abstracted cannot be equated to the part unabstracted. In Hegel's view, human cognition, by its very nature, involves the arbitrary abstraction of a part from its whole. Despite the indeterminate character of the organic whole, "observing consciousness" inevitably perceives it as "moments in the form of existence and duration" (1966, 300). We make sense of the world around us by breaking down "formless multiplicity" into distinct, but partial, categories and their causal connections. Consequently human cognition renders, at best, only partial knowledge about objective reality.

Each of the terms Hegel uses to represent the idea of abstracted parts, i.e., "determinations," "moments," "phenomena," etc., suggests something partial and unfinished. In the common-sense view, these things come to be seen as the elements of an objective system, which is nothing more than the total summation of these components. For this reason, the partial character of each moment goes unrecognized. The partiality of individuated things may contribute to the ambiguity that often arises about the direction of causation in a set of related factors or it may help explain the existence of residual categories in nominal systems. Hegel enjoins us to avoid accepting abstract categories uncritically and, in the words of his follower F. H. Bradley, to realize that conceptualization is "the violent abstraction of one aspect from the rest, and mere confinement of our attention to a single side of things, a fiction which takes a ghost for solid reality" (1920, 14).

Hegel addresses a related issue by noting that any aspect of reality "can be selected equally right [or] equally wrong, to stand as representative of the entire other aspect; one as well as the other would merely 'represent' or stand for the essential reality (Wesen), but would not actually be the fact (Sache) itself" (1966, 321). This statement calls attention to the arbitrary nature of the determinations with which the human mind organizes objective reality. Hegel argues that the notions of difference and identity, of dichotomy and distinction, and the like, belong to the domain of human consciousness and are not inherent features of organic reality. "Organic existence is this absolutely fluid condition wherein determinations, which would only put it in relation to an other, is dissolved" (Hegel 1966, 293). The indeterminate and fluid character of organic reality is not captured by the categories of human consciousness.

As Bradley points out, such distinctions as "primary and secondary qualities," and "substantive and adjective features" arise and are assigned great importance only through the inevitable and necessary connection of the objective and subjective domains (1920, 16). Although human beings believe these distinctions to be given in objective reality, they actually exist as arbitrary determinations. Bradley posits that anything we take to be a primary quality or core feature of a particular phenomenon cannot be distinguished from a quality that is viewed as secondary (1920, 14). Moreover, he concludes that despite the central place of "facts" in scientific discourse, they are more ephemeral than usually supposed; the facts of every historical period are actually mere "appearances" (1920, 21).

The partial and arbitrary character of mental categories suggests the need for a more thorough examination of the relationship between subjective perception and objective reality. Determining the exact nature of this relationship has always been a concern of scholars working within this intellectual tradition. For example, Althusser (1965) deals with this problem by dispensing entirely with the "subject" as the ontological source of knowledge categories. Dietzgen, writing decades before Althusser, confronted a similar dilemma, an issue that has been called "the problem of individuation." This issue involves the following concerns: does the conception of reality as a unified whole preclude the existence of those separate structures or parts in which we see this unity? If not, how do we decide which units of the whole to treat as parts since the number of ways of dividing up the whole is endless (Dietzgen 1928, 103). Dietzgen answers these questions by positing the existence of "common qualities" or "like characteristics" among the elements of external reality. He believes that perceptual categories are relative and unstable but that within "sensual reality" we can identify broad similarities from which we can make generalizations (Dietzgen 1928, 119). Ollman (1976, 39) summarizes this position in the following way:

If individuation is not an arbitrary act but one governed by broad similarities existing in nature itself, there is a necessary, if vague, correlation between such natural similarities and the structures conveyed by our concepts.

An objective reality, consisting of like characteristics, does exist but "conceptual activity of human thought is responsible for the precise forms in which we grasp the world" (Ollman 1976, 39).

Dietzgen's notion of common qualities in nature as a resolution of the problem of individuation is difficult to accept because the process of distinguishing like characteristics is not unlike the process of distinguishing parts of the social whole. Neither of the two concepts can be reconciled with

the characterization of external reality as "formless multiplicity," relative, transient, and fluid. A different way of resolving this problem can perhaps be found in considering another holist proposition, the notion that "the parts are dynamically interdependent or interpenetrating" (Phillips 1976, 6). Central to this idea is the concept of *relation*, which may serve as a more useful conceptual device for capturing the essential nature of reality than the terms entities, things, or parts.

In considering the distinction between parts and their interrelations, one may ask, Where does one part end and another, to which it is related, begin? Moreover, is it possible that a change in the relations of a part means a change in the part itself? These empirical queries have prompted several scholars to suggest that we conceptualize a thing's "qualities" as its relations to other things. Dietzgen (1928, 96) was one of the first to argue that the existence of a particular thing is revealed by its qualities, which he defined as "its relations to other things." Perhaps the most explicit expression of this idea though is Bradley's conceptualization. Time and time again, he affirms that qualities cannot exist without relations: "Relations presupposes quality, and quality relation. Each can be something neither together with, nor apart from, the other; . . . Qualities are nothing without relations" (Bradley 1928, 21).

The equation of qualities and relations allows us to dispense completely with the term *thing* and explore the usefulness of conceiving of the basic units of reality in terms of Relations¹ By taking this step, we can dispense with many of the problems associated with thinking of reality as an aggregate of things (which are defined by their qualities). While the notion of a thing involves the ideas of distinct boundaries, stability and endurance, the notion of a Relation suggests interconnectedness, instability, and dynamism. The former concept is most appropriate to the idea of system while the latter is essential to our conception of the whole or the crystal.

One of the best descriptions of the concept of Relation can be found in Bertell Ollman's (1976) analysis of the Marxian theory of alienation. Ollman defines a Relation as a given factor and its relations to other factors. Relations are viewed as "containing in themselves, as integral elements of what they are, those parts with which we tend to see them externally tied" (Ollman 1976, 14). In contrast to the systems approach, which assumes that system components are externally tied to one another, this perspective holds that relations are internal to each factor (hence, its designation as the theory of internal relations). External relations are contingent while internal relations are necessary.

The latter distinction is essential to our understanding of the philosophy of internal relations. Systems theory assumes that social wholes consist of

components that exist in dynamic interrelation with one another, and while in actual practice separation of a given component from its relations to other elements may be impossible, "components" are not considered to be the same (logically speaking) as relations. Within the philosophy of internal relations, however, relations are ontological rather than logical; the interdependence of components is interior to each component itself (Ollman 1976, 26). In treating a Relation as the irreducible minimum of all units of our conception of social reality, the intention is not to reify the idea of "togetherness" or "connection"; rather, it is to show that this basic unit of analysis can be "extended to cover what is related, so that either term [thing and relation] may be taken to express both in their peculiar connection" (Ollman 1976, 26).

The notion of Relation can be used to deal with a number of paradoxical phenomena. First, it resolves much of the confusion over "causes" and "conditions." Instead of viewing both terms as opposing ends of a dichotomy (what is not a cause is a condition and vice versa), the relational view "finds as internally related parts of whatever is said to be the cause or determining agent everything that is said to be a condition, and vice verse" (Ollman 1976, 17). Thus, the concept of "internal relations" incorporates the form of causality suggested by the terms *mutual interaction* or *reciprocal effect*.

The idea of Relation can be applied to a second paradox, one that was of particular interest to Hegel. He variously noted the difficulty that traditional knowledge systems have with the phenomenon of the "interpenetration of opposites." Observation and the development of knowledge is continually confounded by one basic feature of organic reality—the fact that "what is determined must by its very nature get lost in its opposite" (Hegel 1966, 288). As long as organic wholes are broken down into stable and distinct categories, human observers will confront a world in which things possess characteristics that directly oppose the features that are taken as their "defining" characteristics. Despite common-sense beliefs to the contrary, entities never exist as "either one thing or another." As Hegel (1966, 311) states, organic reality involves "the relation of those opposites and this relation is a pure process of transition."

While the relation of opposites challenges mechanistic assumptions about the nature of reality, this phenomenon is entirely consistent with the relational viewpoint. Conceptualization of a particular entity as existing in "internal relation" with other entities enjoins us to always treat the entity as an element in a network of identical and opposing elements (cf. Bradley 1928, 17). Hence, with the notion of Relation as our basic concept, the connection of opposites need not be seen as a paradox but as an inevitable feature of organic reality.

A final example of a paradox that disappears when interpreted in terms of a Relation is the "transformation of quality into quantity." A Relation can be thought of as a network of *continua* between several subjectively defined terms. If we focus exclusively on the terms and ignore the continuous nature of the Relation, then the network will be manifested as two or more nexus of similar and/or different qualities. If, by contrast, we break the Relation down into arbitrarily defined categories specified according to quantitative additions or subtractions along the continuum, then what we initially regarded as a qualitative distinction becomes transformed into incremental changes in quantity. This relationship, which can be expressed as the law of transformation of quality into quantity, is specifically addressed by Hegel (1966, 305):

But when . . . they [two terms] are also set down as different, qua existent and for thought, as they might be if made aspects of the law, then they appear quantitatively distinct. Their peculiar qualitative opposition thus passes into quantity.

While I have touched on only a few of the main elements of the philosophy of internal relations, the preceding discussion provides a general introduction to the epistemological system that undergirds the dialectical paradigm. This epistemological framework is "anti-positivist" in the literal sense of the word: its central premises directly negate the basic premises of the positivist framework. The tactic of negating these positivist assumptions reflects a desire to provide an effective way of dealing with the anomalies that confront traditional social science. Having reviewed the philosophy of internal relations, I now wish to discuss ways of elaborating theoretical and methodological principles of sociological analysis based on this epistemological position. In the section that follows, I describe two such theoretical/methodological systems.