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ANALYSIS-EPISTEMOLOGICAL BASES OF COMMUNICATION THEORY

A CRITICAL ANALYSIS OF THE AMBIVALENCE IN THE EPISTEMOLOGICAL BASES OF COMMUNICATION THEORY

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Résumé

Une science de communications vraiment humaine n'est pas encore une réalité mais c'est une tendance de toute évidence dans les études en communications. L'étude ci-jointe essaie d'esquisser certaines conditions sous-tendant l'émergence des théories de communications en fonction desquelles on pourrait établir le fondement d'une science des communications vraiment humaine. On suggère qu'une "aporétique" existe donc entre ces facteurs émergents et les efforts faits pour envisager les études en communications strictement comme une "behavioral science".

A la suite de la description des systèmes d'action rivaux avancée par Karl-Otto Apel et Jürgen Habermas, on peut distinguer entre les versions instrumentales et communicatives de l'activité théorisante. Cette distinction est par la suite reliée aux efforts dominants des études en communications faits pour confronter les relations entre les procédés de connaissance et les problèmes sociaux. On propose que ces types de systèmes d'action rivaux dans les études en communications peuvent être analysés en fonction des limitations qu'ils imposent sur le processus de "réflexion".

Finalement, on suggère une convergence possible de perspectives théoriques. Et les conditions possibles pour l'émergence d'une science des communications vraiment humaine sont liées à la nécessité d'envisager la convergence de perspectives comme une première étape dans la restructuration des fondements épistémologiques des théories de communications contemporaines.

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Abstract

A humane science of communication is not yet a reality, but it is a tendency in communication studies for which there is evidence. The following paper is an attempt to trace out some conditions of emergence for theories of communication, in terms of which the possible basis for a humane science of communication can be realized. It is suggested that an aporetics exists, therefore, between these emerging factors and those efforts to view communication studies strictly as a behavioral science.

Following the description of competing action systems put forward by Karl-Otto Apel and Jürgen Habermas, a distinction is made between instrumental and communicative versions of the theorizing activity. This distinction in turn is related to the dominating efforts of communication studies to come to grips with the relationship of cognitive processes and social problems. And it is proposed that these competing types of action systems in communication studies can be analyzed in terms of their constraints on self-reflection.

Finally, some convergence of theoretical perspectives is suggested. And the possible conditions for the emergence of a humane science of communication are tied to the necessity of seeing the convergence of perspectives as a first step in the restructuring of the epistemological bases of contemporary communication theories.

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It is easier to assess the help of those students and other friends, whose spirit and community I have shared, for their contribution was continuous with my own.

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PREFACE

Communication Study and the Problem of its Social Practice

In a quixotic anticipation of the perils of communication study, Franz Kafka has contributed a maddening little parable in which a man comes to the gatekeeper of one of the many gates to the law and begs for admittance. But the gatekeeper responds that he cannot admit the man at that moment. The man receives assurances that he may be admitted later on; and, although the gate stands open at all times, he heeds the warnings of the gatekeeper that it is only the first of many such gates, each with its own keeper. So the man resolves to wait. Days and months and years pass. The man appears to forget about the other gates and concentrates all his attention on this one barrier. At first he is bitter at his fate, but as the years pass he grows childish and obsessed, muttering, pondering and waiting until finally he senses that his life is drawing to a close. One last time he beckons the gatekeeper and asks him a question that has preoccupied him through the years of waiting. Why is it, he asks, that in all this time no one but me has come to this gate to seek admittance? The gatekeeper, perceiving the man to be at the

end of his strength, replies simply: No one but you could gain admittance through this gate, since this gate was intended only for you. And now I am going to shut it.[1]

It is probably unkind to suggest that the activities or the compulsions of communication studies have been of this order. But the emphasis on input-output relations and relations of governor, gatekeeper, or the more metaphoric helmsman forms a consistent thread through the half century or so that significant academic and critical attention has focused on the broad range of communication problems. In essence this emphasis has centered on the observed characteristics of messages and control. This can be seen in the early studies of mass media as much as in the later developments of information and cybernetic theories.[2] In fact much of the basis for claiming

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1. Kafka, "Before the Law," from The Trial.

2. Sources for this scientific metaphor are seemingly endless: for instance, Clerk Maxwell's original description of James Watt's steam engine, David Manning White's gatekeeper hypothesis of newspaper editors, Kurt Lewin's two-step flow hypothesis of opinion leaders and information dissemination, Norbert Wiener's feedback models of cognition and behavior, Shannon's information theory of message exchange, numerous models of information and decision in government, as well as the broad influence of computational and communications technology which often made input-channel-output relations de rigeur.

that communication studies have attained the status of a professional discipline could be argued to rest with the perceived potential these new theoretical tools held out for representing and explaining those communication phenomena previously agreed to be of social significance.

But, if the gatekeeping function that early media studies were able to measure in the actions of editors, networks and so on seemed to find some partial confirmation in the concepts of self-regulation and control advanced by cyberneticians, subsequent developments tended to weaken the force of this analogy considerably. Crudely stated, the distinction that has emerged most strongly in recent times stressed instead the difference between the communication-behavior of observed systems and the communication-behavior or cognitive processes of observing systems.[1] This distinction in turn brought out many of the difficulties with the strict paradigm of observation and its assumed world of objects. Accordingly, communication problems of social reality were redefined to lie not so much in representing the array of behaviors, which could seemingly be matched by increased descriptive capacities, but in accounting for how these activities related to cognition, or intelligibility. To some, the reflexive capability

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1. This distinction is usually attributed to Heinz von Foerster. See The Cybernetics of Cybernetics.

of communicators suggested that these relations could not be accounted for with sufficient subtlety within a paradigm of observation at all. In radical form this suggested a refutation of mechanistic behaviorisms. But, in any case, once "observed communication" was attached to the uniqueness of human agency in this way, the emphasis within communication studies changed: more and more the cognitive processes themselves, not the problems of detached messages and selective social controls, became that which was to be understood.

This latter dichotomy has remained a persistent source of confusion. In fact it is apparent that the dichotomy itself is the source of no broad agreement, for although it has created a tension in communication studies over the nature of the object domain, it remains a much less articulated tension than that provoked by the original competing semiotic perspective of the cultural-hermeneutic sciences. Perhaps by way of introduction it is enough to say that, within the positivist image of objective science, the rise of the study of communications has tended to repress reflection in two directions: on the axis of its professional development, it has failed to examine the relationship between explaining the communication of observed systems and explaining the communication of cognitive or observing systems. And, on the axis of social and historical

action, it has failed to deal theoretically with the relationship between the twin tasks of explaining cognitive processes and understanding their socially embedded contexts. This "repression of reflection," as I would like to call it, seems to derive from several key sources: ideologically, from the prevailing image of science and society; institutionally, from the division of intellectual labors; and, of course, from the growth and significance of theoretical and technological manifestations of man-machine interaction.

What interests me in this is the consequent ambivalence that has been created in the knowledge paradigm of communication studies. The rise of mathematical-experimental formalisms, most significantly those of information-measurement and testing, has served both directly and indirectly to repress those earlier efforts to view the problem of communications as part of an ongoing critique of language and culture. This "repression" could be loosely characterized as a repression of reflection in the face of the perceived potential for subsuming problems of meaning, interpretation and interaction under the growing capacity for formal theoretical description. Yet, paradoxically, it seems that this very logic of development has served to reassert these concerns by forcing back into focus many of those same problems long considered appropriate to the tasks

of a more strictly hermeneutic perspective. I would like to explain this by proposing that, following the methodological lead of Jürgen Habermas and Karl-Otto Apel, the antinomies generated by this development can be traced to the epistemological differentiation of attitudes toward the object domain generated by these two competing types of scientific activity. Habermas' distinction of purposive-rational action systems and systems of symbolic interaction forms the basic working premise for the study that follows; and provides a basis in theory for my distinguishing two competing communications paradigms of observation and dialogue.[1]

The study that follows, then, attempts a critical evaluation of this hypothesized ambivalence through examination of several communication theories considered to be characteristic of the dominating methodological approach in Anglo-American circles over its past quarter century of development. The viewing perspective is suggested by the recent epistemological work of several European scholars, of whom Apel and Habermas

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1. Habermas, Knowledge and Human Interests; see also Technik und Wissenschaft als 'Ideologie' (partly translated as Toward a Rational Society). Where possible I will give sources in English. Apel, The Analytic Philosophy of Language and the Geisteswissenshaft, also makes use of these same distinctions, but in a more properly philosophical mode.

have been mentioned, and, in this sense, approximates more closely the position of a "critical" cultural science, for which the broad problem of science and reflection has had a lengthy importance.[1]

The juxtaposing of these two competing perspectives suggests a reconstruction of communication theories according to three basic stages or types: manipulative-technical, adaptive-systemic, and reflective-dialogical. This latter stage constitutes a reading together of several recent tendencies, which I consider to be an important first step toward a theory of interaction. In this latter orientation some convergence of the "systems" position and that of the "hermeneutic" approach is attempted. This convergence in turn serves to delimit some contributions of these perspectives and to demonstrate that the growth of the concern for social concepts of practice is a key to understanding this development. To this end the work of Gregory Bateson and Jürgen Habermas is suggested as exemplary of that mediation between the explanation

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1. In addition to Apel and Habermas, the works of Gerard Radnizky and Paul Ricoeur, as well as the earlier work of the Frankfurt School, should be mentioned. In my uses and interpretations of these works much credit is due to several friends and colleagues, especially Bob Scholte, John Clippinger, Michael Cuthbert, and Richard Howe.

of behavior and intersubjective understanding made necessary both by the logic of research and the historical context of communications-in-society.

The particular themes of the work of Habermas and Bateson have been selected in terms of their relevance for critically analyzing three primary theses advanced by communications research: the thesis of monologism, the thesis of apriorism, and the thesis of immitative-physicalism. Each of these theses, I will argue, bears less validity than the collection of insights and propositions that have arisen as a consequence of their application. Moreover, I hope to show that the insights and propositions themselves argue for the need to conceive a theory of communications as a necessary first step in understanding the institutions of our social interactions and self-formation.

The development of a theory of communications as a theory of the institutions of interaction is a tendency in communication studies for which there is evidence.[1] I have

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1. Several qualifications are in order here. I prefer the use of "communications" over "communication" when I wish to suggest a concern with rules and theory. "Institutions of interaction" designates a concern with the preconditions of communication rather than with specific institutions. And, the term communication studies is an Anglo-Canadian convention that I have adopted because of its affinity with cultural studies; it is intended as a broader term than communication science. In this regard, see Raymond Williams' remarks in the Journal of Communication, Summer, 1974.

called this emphasis communication pragmatics; and its development signals a potentially significant shift in the role of communication studies. Essentially, the placing of the game of interaction in the center of concern compliments the transition from observed systems to observing systems; and, in such manner, re-establishes the primacy of an emphasis on cognition. I have designated this shift as one from a concern with the relations of communications to a concern with the interaction of communicators. And it is a further contention of this study that this concern with interaction, almost in spite of itself, has brought the problems of the meaning-dimension back into focus. And hence, the conditions for a mediation of the competing paradigms.

Ideally, communication studies must recognize that the game of interaction is a profoundly reflexive activity; and one that cannot be studied in isolation from its practice. Herbert Brün has beautifully stated this as a precondition for research. "It is necessary to recognize," he argues,

> that he who sets out to study and to act upon cognitive processes and social problems is himself a member of the set of his objectives. The time-honored distinctions, therefore, between theory, practice, fundamental and applicable research, development, etc. no longer hold, when the subjects are cognitive processes

> and social problems. In fact, all active attitudes, scientific and creative must move simultaneously and together, none emphasized at the expense of the other, each emphatically appropriate at a given moment to a given observation or purpose.[1]

For the most part communications research has strayed far from this ideal. Yet, if "communications" is defined as both cognitive processes and social problems and if theoretical and practical concerns cannot be separated, it becomes necessary to ask how these objectives can be facilitated. I want to argue that the division Brün wishes to bridge between the scientific and the creative--and which I assume to have been reified for communication studies into the object domains of quite separate types of knowledge-production and action systems--similarly brings us to the problem of the repression of competing perspectives. In this case the repression can be posed as a question of why it was necessary for communication studies to have so emphatically emphasized the narrowness of the behavioral and empirical perspectives to the detriment of all others. Answering this question, I believe, takes us not directly toward a McLuhanesque revisioning of the modern image space as some have suggested,[2] but in the direction of the

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1. Brün, Herbert, "The Need of Cognition and the Cognition of Needs," in The Cybernetics of Cybernetics, p. 336.

2. See Donald F. Theall's even-handed treatment of the McLuhan metaphor in The Medium is the Rear View Mirror.

therapeutic mode, where an epistemological critique of feedback-monitored behaviorism first emerges as a critique of the concept of control.

In this sense, it also returns us in the direction of Kafka's parable. That parable, with which I began, did not end there. Instead, the encounter between the man and the gatekeeper formed the basis for a discussion of their behavior. What were the motives and meanings behind their actions: was the gatekeeper deceitful or merely obedient to a fault? Was he simple-minded? And the man: Why did he wait? Was he deluded? One argument put forward suggests that the gatekeeper could have been neither deceitful nor simple-minded because he was an extension of the Law; and, therefore, to fault the gatekeeper would be to fault the Law itself. An argument which would seem to lead to accepting everything said by the gatekeeper as "truth"--or, if not as truth, at least as <u>necessity</u>. A conclusion, Kafka notes ruefully, that turns lying into a universal principle.

Yet, the problems of distinguishing the "necessary" from the "unnecessary" describes with perfect clarity the limitations of a knowledge paradigm built upon all those behaviors, observations, and explanations of our social interactions--in short, all our empirical enclosures. Within a

paradigm of observation, what is deviant, deceitful, or even "distorted" becomes that which is seen to be ruled by necessity. It appears incontestable today that the compulsions, fatuities and constraints of our actions can be made to appear most clearly to the repetitive sensitivity of behavioral measures.[1] But the altering of these boundary conditions cannot itself be the result of observations and explanations alone; for, in such circumstances, the change would be mere substitution--and the act one of dictatorship. The case for understanding, let alone altering, the limitations of our empirical enclosures must always involve a return to the intersubjectivity of communicators themselves in whose creative awareness the possible emancipation from unnecessary compulsions can first appear as something. Wherein, of course, lies the dilemma of all neo-classical empiricisms; and their social problem.

Are there any indications that a way out of this impasse can be suggested for communication studies? The last section of the present study raises this question immanently as part of a critique of research strategies.

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1. Kariel, Open Systems. See especially pp. 114-116. Kariel is concerned with the limits of systemic analysis. I agree with his contention that open-ended systems about men as purposive and symbolic agents do not square with those of North American social science.

It is tentatively suggested that the model able to mediate our knowledge of necessary and unnecessary conditions of communications may be derived from the model of the psychoanalytic encounter. Epistemologically, this process would be undertaken through a mediation of the "systems" and "hermeneutic" perspectives as they serve to facilitate our knowledge of the constraints on self-reflection.

Both Bateson and Habermas have proposed versions of this model as an elaboration on the basic Freudian framework. Their model of knowledge production in the psychoanalytic encounter is suggested as an example of the possible mediation of those two types of action systems which have been argued to constitute the competing paradigms for communication studies at this time. In delimiting the uses of the "systems" and "hermeneutic" perspectives, such a model points toward an idealization of the uses and responsibilities for future communications research: to mediate the extended control of information and knowledge in terms of the possible extension of the community of communicators.

If this latter model seems more like a warning than a proposal, this too has its logic. A model of mediation conceives its own task neither as a method for social therapy, nor merely as an idealization. Its intention is always to

provoke a renewed interest in reflection on the state of the subject field--and by implication, to renew interest in the kinds of questions that its study allows. As such, this present work can be no more than prolegomena to a theory of communications in society. The real work of communication studies resides in viewing the essence of communication not as control over human nature, but as mastery of the relationship between nature and humanity.[1]

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1. See Walter Benjamin, Einbahnstrasse, especially pp. 123-25, where he deals with the problems of control and responsibility in the growth of scientific techniques.

PART I

INTRODUCTION:

The Dialectic of Control and Cunning

CHAPTER I

COMMUNICATIONS AND CONTROL

The Myth of Helmsmanship: Ulysses or Palinurus

The trichotomy of theory, praxis and process has emerged with as strong a hold on western thought as the figures of captain, helmsman, and ship at sea held for its classical origins. For the Greeks especially, the primary dualism of nature and culture generated an automatic concern for external reality versus society that easily translated the collective behavior of society into a metaphor for survival.

In this sense it is the helmsman who maintains the position of mediation, whose responses are determined not only by the values and aims of ship and captain, but by what actually happens. He is the governor, the total sensory being at the edge of information and action. Thus, although it is Alcaeus who first seems to have turned the metaphor of the ship of state,[1] it is blind Homer who first approximates its cunning. In the seventh century (B.C.) Hymn to Dionysus, the idle young god is seized by Tyrsenian pirates and held for ransom. But

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1. Especially the translation of Denis Page, Sappho and Alcaeus. See his commentary, p. 182, for a bibliography of this well documented image.

his bonds slip away and the helmsman is the one who sees it is no mortal they have captured. He pleads that they release him, "lest he rouse against us masterful winds and rushing storm," but the captain rebukes him. The ship proceeds and strange things commence: fragrant wine scent fills the air and vines fill the ship with flowers and fruit. The prisoner takes various forms and the terrified crew cower behind the "observant" pilot. In the form of a lion Dionysus seizes the captain; the crew throw themselves overboard and all are transformed into dolphins. The ship returns to normalcy. Dionysus, out of pity Homer says, spares the helmsman--the suggestion is, because he is the only one who sees.

Helmsmanship was thought to be a mission fraught with danger, because the challenge "to see" is a demand for sensory control that unites reason and dispassion. In the voyages of Odysseus the claims made against the helmsman are always for culpability. Elpenor, the young helmsman of the Odyssey, after a drunken sleep ashore, forgets where it is he has fallen asleep and, on rising, falls and breaks his neck. In the Aeneid, Palinurus, the helmsman of Aeneas' ship, is thrown into the sea when he falls asleep at the helm. Virgil, never one to overlook the ironic, has Palinurus float safely ashore on a broken piece of the rudder (helm), where he is murdered

by the natives for his clothes. Nor is the general image of helmsmanship lost on Virgil; for whereas Elpinor's soul later appears and persuades Odysseus to find his body and give it a proper burial, Virgil's Aeneas takes over the vacant helm with wry reflectiveness: "O Palinurus, too trustful of the tranquil sky and sea, you will lie naked on an unknown shore."[1]

Beyond these narrative images, it is Plato who seems neither to have accepted the heroic dimensions of Odysseus nor the ironies of mastering human nature, who nevertheless provides the basic rationalization for the relations of captain, helmsman, and ship of state. In the Republic the role of the philosopher is positively identified with that of the helmsman. Against the interested cunning of the captain cum politician, the philosopher-helmsman is the embodiment of noûs; it is he who ought to guide the enlightened course of society. This well known contradiction in classical thought of claiming universal cognition and yet arguing for restricted decision-making is precisely the condition by which Plato rationalizes

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[1] I would like to thank Arnold Rockman for drawing my attention to this classical image and to Cyril Connolly's interpretation in Palinurus, The Unquiet Grave; and George Hildebrand, for helping me to understand its meaning. All must share some responsibility for the present usage.

the helmsman to the status of a steering elite in whom reason and vision are argued to legitimate power and control.

In book six of the Republic, Plato begins by using the parable of the useless pilot to set up the dichotomy of politics as the activity of the majority and reason as the activity of the often berated few. But, he argues, the proper steering of the ship of state cannot abide such dichotomies: "the true pilot must pay attention to the year and seasons and sky and stars and winds, and whatever else belongs to his art, if he intends to be really qualified for the command of a ship, and that he must and will be the steerer, whether other people like it or not" (VI, 488D). This "union of authority with the steerer's art," as Plato calls it, provides the basic rationalization for the concept of a "steering elite": "The ruler who is good for anything ought not to beg his subjects to be ruled by him; although the present governors of mankind are of a different stamp; they may be justly compared to the mutinous sailors, and the true helmsmen are those who are called by them good-for-nothings and star-gazers." What is demanded of the philosopher, that constant attention to the knowledge of essences, is identical with those demands made on the helmsman in his struggle with nature and on the hypothetical ideal head of state. The rule of reason must first

be endowed with authority, freed from politics as it were, that "the keen edge will not be blunted."[1]

The Science of Helmsmanship

Though it is variously claimed that Hegel refuted the separation of reason and passion (and therefore the linking of reason and dispassion for Plato's helmsman) and that Marx voided the contradiction of a permanent steering elite for society, it is more than ironic that the image of man and society erected by science in this century has taken over its basic imagery from classical philosophy and often in the name of that potential identity of the individual in harmony with his social order believed accomplished by the role of myth in early societies.[2]

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1. Quotations are all from Book Six, Republic, Benjamin Jowett translation, third edition, volume two.

2. This theme has persisted down to recent times. The Frankfurt School's critique of the enlightenment and the modern role of science is exemplary of this. See Horkheimer and Adorno, Dialectic of Enlightenment. More recently Jürgen Habermas has explored these issues philosophically as an analysis of epistemological attitudes toward the object domain. See Habermas, "Wozu noch Philosophie," in Philosophisch-politische Profile. The situation above is a well known one. The separation of reason and passion was the standard dichotomy of the British empiricists. It was Hume who most bluntly made the split in his theorizing; and Hegel's refutation is directed principally at him. Marx, of course, was refuting the Social Democrats.

Claims that modern man has transformed techné (craft) into technological mastery over nature hold validity if one restricts the reference only to purpose or goals. If human action is considered always and only vis-à-vis goals, then nature appears to fall an easy victim to human domination. Norbert Wiener, in a famous essay titled The Human Use of Human Beings, tried to puzzle out this set of relations. In the basic dualism of nature and culture, Wiener argued, it was nature's misfortune never to have learned to bluff:

> To discover the secrets of nature requires a powerful and elaborate technique, but at least we can expect one thing--that as inanimate nature goes, any step forward that we may take will not be countered by a change of policy by nature for the deliberate purpose of confusing and frustrating us.[1]

> Nature plays fair and if, after climbing one range of mountains, the physicist sees another on the horizon before him, it has not been deliberately put there to frustrate the effort he has already made.[2]

Wiener does not claim the opposite qualities hold for human society, or animate nature, though this aspect has been

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1. Wiener, The Human Use of Human Beings, p. 256.

2. Ibid., p. 257. The game-playing image that Wiener makes use of for explanatory purposes is taken over from Roman Jakobson. Following Jakobson, communication is defined as a game played in partnership by a sender and a receiver against the forces of confusion. An element of this relationship is the technique of bluffing; essentially a technique for preventing the other side from being able to act on a firm knowledge of the technique of the one side.

read convincingly out of his work since its appearance.[1] Wiener proposes that nature holds still for human purposes to the extent that "purpose" is represented by a rational scientific dialogue:

> The devil whom the scientist is fighting is the devil of confusion, not of willful malice. The view that nature reveals an entropic tendency is Augustinian, not Manichaean. Its inability to undertake an aggressive policy, deliberately to defeat the scientist, means that its evil doing is the result of a weakness in his nature rather than of a specifically evil power that it may have, equal or inferior to the principles of order in the universe which, local and temporary as they may be, are probably not too unlike what religious man means by God. In Augustinianism, the black of the world is negative and is the mere absence of white, while in Manichaeanism, white and black belong to two opposed armies drawn up in line facing one another.[2]

What Wiener was doing was no more than giving greater recognition to that same faith in science and abhorence of political economy that the classical period conceded to philosophy: in a manner similar to that traditional view of philosophy for which Plato is only an ample spokesman, Wiener repeated the idea that science was not one form of knowing, but the identity of knowing itself. It was not that society

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1. See especially Berne, Games People Play.

2. The Human Use of Human Beings, p. 261.

and its political activity represented a different or cognitively false world, though this aspect has been convincingly read out of his work too; rather, that the Augustinian utopian moment toward which society must move resided already within the discourse of science and scientist. But it was perhaps no more than masterful afterthought that Wiener should have titled his own scientific contributions "cybernetics," from the classical Greek term for "helmsmanship."[1]

The Helmsmanship of Myth and Science

It is amongst the most paradoxical problems of observation that the concepts of change and of stability are seemingly opposite and yet identical. Stability is most often thought of as a state wherein changes are held within prescribed limits; and change is usually conceived of as the altering of the limits of some stable state.

This mechanical puzzle had its cybernetic explanation in the servo-mechanism of the machine. The helmsman in

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1. Cybernetics is frequently used to designate the self-steering of social entities. This view seems to champion the mechanical aspects of behavior, where mechanisms of social activity are identified as the steering characteristics of an observed system. A second use of cybernetics concerns the steering characteristics of observing systems. This latter usage constitutes a concern for cognitive processes and environmental relations and, as such, resembles more closely the classical helmsman.

James Watt's steam engine worked not by intentions but by the more reliable means of feedback. Feedback represented the results of previous behavior in the form of information and the result of feedback represented some control over future behavior:

> Feedback is a method of controlling a system by reinserting into it the results of its past performance. If these results are merely used as numerical data for the criticism of the system and its regulation, we have the simple feedback of the control engineers. If, however, the information which proceeds backward from the performance is able to change the general method and pattern of performance, we have a process which may well be called learning.[1]

The edge between machine and man lay in man's capacity to derive policies and purpose. Unlike the pre-established harmonies of clocks and machines, the organism innovates and establishes new equilibriums. The edge between information and action for man, then, suggested two types of action: direct action and coded or symbolic action. This symbolic system in turn suggested two basic forms of discourse: communicative discourse (language intended primarily to convey information); and forensic discourse (language intended primarily to impose a point of view against a willful opponent).[2]

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1. The Human Use of Human Beings, p. 84.

2. Ibid., pp. 125-27.

Thus, for Wiener, the link between stability and change was feedback by means of which change at a lower level was stability at a higher level--say, a level of policies. The content of feedback was information and the point of their relationship was purposiveness.[1] It is this aspect of the theory of sensory control that seems to complete the claims of Charles Morris for a universal semiotic that links language through formal description to actual behavior.[2]

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1. The Human Use of Human Beings. It is the existence of local and temporary islands of decreasing entropy in an otherwise increasingly entropic universe that allows Wiener to assert the existence of progress (p. 52). Not a progress as unreflected as that of the Enlightenment, but of that doubt introduced from Malthus to Darwin. In Wiener's view it was Darwin who turned the Lamarckian "spontaneous ascent" on its head, asserting the reciprocal relationship between organism and environment instead, thus placing the emphasis on a "residual pattern of forms of life" which assumes the "appearance of universal purposiveness" (pp. 53-54). And, of course, the machine-learning formulation of Ashby which asserts that "a machine designed to avoid certain pitfalls of breakdown will look for purposes which it can fulfill" (pp. 54-55).

2. Morris, "Foundations of the Theory of Signs." In Otto Neurath, R. Carnap and C. Morris (eds.), International Encyclopedia of Unified Science, Vol. 1. Communication studies take many of their basic assumptions from this major work of neo-positivism. Though Morris lacked a formal concept of control and communication, he pointed the way toward an instrumentalist view of semiotics that would later constitute a foundation for modern behaviorism in the social sciences. I am indebted to Bob Scholte for pointing out this connection.

Feedback monitored action constitutes the basis for a theory of communicative performance, and it is this theory of performance that consolidates the image of the helmsman with the possibility of scientific control:

> It is my thesis that the physical functioning of the living individual and the operation of some of the newer communication machines are precisely parallel in their analogous attempts to control entropy through feedback. Both of them have sensory receptors as one stage in their cycle of operation: that is, in both of them there exists a special apparatus for collecting information from the outer world at low energy levels, and for making it available in the operation of the individual or of the machine. In both cases these external messages are not taken neat, but through the internal transforming powers of the apparatus, whether it be alive or dead. The information is then turned into a new form available for the further stages of performance. In both the animal and the machine this performance is made to be effective on the outer world. In both of them, their performed action on the outer world, and not merely their intended action, is reported back to the central regulatory apparatus. This complex of behavior is ignored by the average man, and in particular does not play the role that it should in our habitual analysis of society; for just as individual physical responses may be seen from this point of view, so may the organic responses of society itself. I do not mean that the sociologist is unaware of the existence and complex nature of communications in society, but until recently he has tended to overlook the extent to which they are the cement which binds its fabric together.[1]

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1. The Human Use of Human Beings, pp. 38-39.

Thus, the role of communications, formally identified by Wiener, coincides with that function of myth thought to maintain the identity of the individual with his social order.[1]

The Promise of Communications

If the thesis that the control of nature was really a veiled interest in the further control of man was too large an analogy to be empirically confirmed,[2] the link between the steering of communication (information) and the possible

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1. As a theory of society, Wiener's cybernetic metaphor is a bit wanting. Thus, Jonas, in The Phenomenon of Man: "according to cybernetics, society is a communication network for the transmitting, exchanging, and pooling of information, and it is this that holds it together. No emptier notion of society has ever been produced. . . . Grim old Hobbes showed himself infinitely better informed than the information specialists. . ." (Quoted in G. Radnitzky, Contemporary Schools of Metascience (1973), p. 328).

2. This ambitious but conjectural link between the domination of nature and the control of man, which had been argued to represent the consequences of transposing the image of natural science into the domain of social studies, finds some uneasy confirmation in the ease with which various technocratic modes of social research have taken over the machine metaphor of cybernetics. An eloquent treatment of some roots to this development is to be found in William Leiss, The Domination of Nature; and in the earlier work of the Frankfurt School. An aspect of this broad problem is dealt with in Part II of this study under the theme of techno-empiricism and the rise of the new communications. I suspect that the view taken of the scientific community as technocratic rationalists is as important as their instrumentalist views of man and society.

guiding of social behavior was perceived to hold true empirical promise. This cybernetic turn generated two powerful themes. On the one hand, it extended an instrumental promise for the technocratic steering of society: if the changes in the political economy at one level could be seen to represent stability at another level, the descriptive power of "stabilizing mechanisms" promised that the increasing complexity of the social world could be matched by the increasing complexity of systems analysis. But, here again the classical contradiction intrudes: for a theory of stabilizing mechanisms in the form of an unreflected theory of society must also be seen as it further rationalizes the role of a technocratic steering elite.[1]

On the other hand, the cybernetic turn extended a strategic promise: the marriage of the metaphor of cybernetics (man as a machine) to the metaphor of evolution (man as an animal) gave rise to the possibility that the steering of information might constrain the steering of human nature. Within the power of these metaphors the helmsmanship of human nature was thought to rest in some set of universal deep structures. The strategic promise here was that, if human

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1. I am indebted to Jürgen Habermas for pointing out to me the importance of visualizing the problem in this way. See especially his debate with Niklas Luhmann in Habermas and Luhmann, Theorie der Gesellschaft oder Sozialtechnologie (Social Theory or Social Technology).

nature were constrained by deep structures, its function might be disclosed and mastered in the media of communication itself.[1]

In all this, the metaphor of steering emerges as that toward which the logic of communications research and the fact of its technological development have been most powerfully drawn. If man were analogous to machine, the logic of research sought its mastery in the technological forms of communication in society; and, if man were an animal, the logic of research sought its mastery in the performance of communication itself. It is perhaps the achievement of science in this century to have reduced communication to behavioristics and behavior itself to problems of steering and regulation; but it is the metaphor of the helmsman that has dominated the self-image of

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1. The problems of deep structures is also the problem of determinism generally. There is, I think, much to be said for the biological existence and significance of hierarchy, for instance. But, as Paul Weiss had pointed out, just how far this concept can be applied toward an understanding of human actions and human society is very debatable (Paul Weiss, "The Living System," in Arthur Koestler and J. R. Smythies, eds., Beyond Reductionism). What disturbs me most in these visions of control is not so much the normative assumptions as it is the painful absence of the democratic voice. The fact that the steering of society or individuals could be on the order of a democratic steering subject to intersubjectively determined consent seems nowhere to have a bearing on the abstractions advanced. The whole of politically won rights of self-determination, consensus and responsibility pales before the blind abstractions of natural history.

science and society in this instance and, more cunningly, the discourse of the communications scientist who, when he chose to speak, spoke as if communication were an isolatable, technical problem.[1]

Information, Steering and the Formation of Will

What the positivistically defined "empirical" aspect of communication studies only hesitantly approached is that utopian aspect of all communications without which the dialectic was inconceivable.[2] Utopian aspects were banished by modern positivism to the Manichaean realm of historicism and

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1. As long as the activity of control theorists of communication was not meaningfully confronted with the larger process of technological development in which their logic of research was embedded, the self-image of objective science, measurement of performance and helmsmanic concepts of "black box" observation and external nature seemed sufficient. Control and domination were conceived of as aspects of the separate universes of science and technology; or, more tellingly, as separate as reason and passion were for earlier empiricists. In this way, the problems of communications were perceived as technical problems.

2. Much of this essay owes a large debt to Hiram Haydn who time after time tried to make me see the way in which an age co-opts terms like "empirical" to its own preconceived ends. In the present case, what is empirical must be viewed within that primary dualism of the present century whereby what appears as a first-order naturalism is brought under control by recourse to a second-order logicality. As I hope to show, this has had some severe consequences for communications and its social problem.

psychology; or worse, to the vagaries of imagistic literature and its interpreters. That relationship, which the positivist programme of communications from the beginning sought to see reduced to behavior, was designated as the "meaning" dimension. Thus, Charles Morris in the definitive Encyclopaedia of Unified Science concludes:

> In the preceding discussion the term "meaning" has been deliberately avoided. In general it is well to avoid this term in discussions of signs; theoretically, it can be dispensed with entirely and should not be incorporated into the language of semiotic.[1]

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1. Morris, International Encyclopaedia of Unified Science, Vol. 1, Number 1, p. 43. Morris claims to have derived his language of semiotic from the original materials of C. S. Peirce. His most radical contention about semiotics is that it provides the basis for replacing the problem of meaning and intention with a "scientific" concept of significance. His system of analysis, purportedly consistent with the tenets of neo-positivism, is briefly defined as follows: "The process in which something functions as a sign may be called semiosis . . . [and is] commonly regarded as involving three (or four) factors: that which acts as a sign, that which the sign refers to, and that effect on some interpreter in virtue of which the thing in question is a sign to that interpreter. These three components in semiosis may be called respectively, the sign vehicle, the designatum and the interpretant; the interpreter may be included as a fourth factor." Morris' influence on the development of semiotics, especially the structural-aesthetics of film, art, and popular culture forms, is considerable. (See especially the articles by Tzvetan Todorov and Julia Kristeva in Kristeva (ed.), Essays in Semiotics). This present study is not directly concerned with this aspect of culture studies, but with the sense in which Morris' system relates to the general milieu of North American communication studies. In North America, it is the behaviorists who have most accurately developed his original groundplan in the direction of quantitative measures and statistical dispositions to respond in predictable ways (see Morris, Foundations of the Theory of Signs, p. 3).

Yet, even such stolid contemporaries as Freud, who took over his positivistic image from hydraulics and whose ego-helmsman doggedly plied the straits between the impulses of the id and the sanctions of the super-ego, nevertheless knew that explaining the nature of human cognition was unlikely to explain or master social reality--especially by seeming to exclude its meaning. What Freud knew, that even his own followers often chose to turn away from, was that the relationship to be mastered was not confined to either nature or society, but was, in fact, the relationship which obtained between them.

This insight, too, had its narrative equivalent. For although the "natures" faced by the protagonists of Homer's Odyssey and Joyce's Ulysses were indisputably the same nature, it is equally the case that Joyce did not write to confirm this fact nor to plagiarize a myth. In contradistinction to the positivist view of man and society, the distance from Odysseus to Leopold Bloom turns the metaphor of helmsmanship progressively inward, historically through monotheism to the psychopathology of everyday life. Imagistically, steering is seen to focus not to control, but to something like its opposite. Communication completes itself, but this time the modern helmsman speaks more like Palinurus than Aeneas, more like Bloom than Ulysses. The edge with pathology and creativity involves something more than stability and control: loss of balance between

inner and outer nature, like the search for it, raises repeatedly the question of the formation of the will.

If, as often behaviorists believe, the formation of will is considered identical with that of public opinion, this could only be possible in some future consensus, freed of present historical forces, not in some positivist reduction of internal and external natures to propositional contents.[1] Conceptions of this sort can only lead to the ideology of universal belief systems or to the visions of consciousness shaped in mass media. Theory unable to imagine its own pathology is theory turned away from all utopian moments, become adjustment, adaptation, an obsession with rules at the expense of the repression of questions.

The raising of questions of the formation of the will involves questions that transcend those representable in languages of control. The question raised by Joyce in the transition from Ulysses to Finnegans Wake, or metaphorically from steersman to information, cannot be answered by positivism in this instance; because the questioning context is one of the

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1. This aspect of how behaviorist assumptions have been taken over by media studies has recently drawn attention. See, for instance, Jürgen Habermas, Strukturwandel der Öffentlichkeit.

dialectic between personal and media image-space, not that of its causality.[1]

These questions of relationship can only be articulated in the pain of a language directed at the exploration of its own limits; or in the recovery and reconstruction of lost meaning that constitutes the special dialogue of psychoanalysis. These aspects of language and theory require a reflexivity that cannot be subserved under any known observer language.[2]

It is in this sense that the centrality of language to communication studies is seemingly rendered paradoxical. For those who construct control theories of communication, it appears resolvable within a process of enlightenment seen as the purposive steering of society and the behavioral guiding of its members. Thus, far from being unaware of these reflexive dimensions of communications, control theorists have responded by trying to reduce them to the monologic of goal-directedness. In this they have deviated little from the early forthright overview of Charles Morris:

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1. In this regard, see Theall, The Medium is the Rear View Mirror.

2. Cassirer, The Logic of the Humanities, especially the introductory essay, "Naturalistic and Humanistic Philosophies of Culture."

> Corresponding to the various purposes which signs serve, there have developed more or less specialized languages which follow to some extent the various dimensions of semiosis. Thus the mathematical form of expression is well adapted to stress the interrelation of terms in a language, letting the relation to objects and interpreters recede into the background; the language of empirical science is especially suitable for the description of nature; the languages of morality, the fine arts are especially adapted to the control of behavior, the presentations of things or situations as objects of interest, and the manipulation of things to effect desired eventuations.[1]

But the helmsmanic image does not wash. As the issues of the unquiet grave of Palinurus mock the possibility of captaining one's soul, the captaining of souls itself must be seen to constitute a dialectic that turns in the power of reflection. Between castaway helmsman and soul's captain, the mediation between internal and external natures, between will and public opinion, between the particular and universal of communications can aim either at possible adjustment vis-à-vis pre-established goals, or at the knowing of unnecessary compulsions vis-à-vis existing norms, or at creativity vis-à-vis the limits of expression.

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1. Morris, International Encyclopaedia of Unified Science, Vol. 1, Number 1, pp. 57-58.

Thus, my general pre-understanding is this: that if science contrives to steer society and to master human nature by focusing only on purposiveness and manipulation toward goals as the defining value of human activity, the process of the formation of the will can only respond by receding further behind the backs of those who presuppose its content.

A theory of control is only possible vis-à-vis a domain of purposive rational action. A focus directed only at "purposiveness" is likely to rule out the considerations of creativity and pathology in favor of recommendations and adjustments to norms that can be said to direct the formation of the will, but are removed from question and therefore operate like rules. Such a view of the formation of will assigns the whole process to some idea of human nature, which is presumed manipulative, but also without a history.

The Language of Control

If the language of communications that the helmsmanic metaphor designates assigns too much emphasis to the function of communications as overdetermining all other social forms, it must be acknowledged that the theoretical impetus for communication studies is strongly indebted to that primary dualism of this century that purports to bring under control

a first-order naturalism by recourse to a second-order logicality. Nor is the technological development of communications neutral in this instance. It has at least reinforced the possibilities of the method, if only because the regularities of machine-technology, occupying some middle ground between nature and culture, appear to operate with the rule-regularity of nature, but also constitute objectifications of social man.

What is to be emphasized is that the behaviorists' programme as it has coopted both semiotic and cybernetic has repeatedly emphasized and greatly contributed to the refining of formal description within a language of control. Against this self-image it appears that the search for rules has served to repress historical and interpretive questions of the formation of communicative consensus and individual will--in other words, the role of the human subject as an active socially and historically situated agent.

The search for rules superserves the issues of "identity" and "legitimation" that underlie any communication process by removing from discussion the possible conditions of the formation of rules themselves. Accordingly, such a monologic must be seen to attempt to cancel what is essential to

human communications--its condition of reciprocity.

It is in this compulsion to explain "the world as it is" that the study of "communications" (especially its technological and informational aspects) coincides with the superceding of the domain of practical control and rational dialogue by "the attempt to attain technical control over history by perfecting the administration of society."[1] This, rather than the seeming coincidence of technological advances for communication potentials[2] and the emphasis on problems of consciousness,[3] would appear to be the proper context. This, moreover, is the sense in which the myth of the helmsman mediates the transformation of the image and ideal of scientific control over nature into the possible scientific mastery of communications in society.

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1. Habermas, "Dogmatism, Reason, and Decision: On Theory and Praxis in Our Scientific Civilization," in Theory and Practice, p. 254.

2. Fuller, Utopia or Oblivion.

3. Enzensberger, The Consciousness Industry.

CHAPTER II

COMMUNICATIONS AND LOST MEANING

If the mastery of communications in society has its naive explanation in the development of the second-order logicalism of twentieth century social science, the general process of enlightenment in which it is applied raises repeatedly the problem of its manipulative uses. Some clarification of the consequences of the behaviorist programme for the reduction of meaning to a language of control can be found methodologically in the competing perspective of those who have sought to produce knowledge about communications pathology.[1]

It has been variously suggested that the euphemism "control over communication"--especially in its mass and interpersonal usages--is really a veiled interest in the control of man. From the position of social theory this hidden motive

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1. My basis for calling this a competing perspective is briefly as follows: the production of knowledge about pathology is not necessarily the same as the knowledge produced as a by-product of "curing" a pathology, or even finding a pathology of behavior. These latter terms are closely allied with the professional practice of psycho-therapy and psychiatry in present society. The dominating "knowledge-value" of these "quasi-naturalistic" forms of practice is that of "health." I will try to make these distinctions in Part Three. In this, the model suggested by Carl Lesche has been of substantial assistance. See his article, forthcoming in The Psychoanalytic Study of the Child, 1972.

was to be found in the instrumental aims of science itself: to the extent that scientific investigation concentrated upon the disclosing of regularities in society as in nature, this descriptive model would appear powerless to distinguish between those aspects of society that were the results of historical orientations and those that belonged to the natural or cognitive history of the species.

Only within the Hobbesian world of mass communications is there much evidence for this one-sidedness; and, even then, it is more on the order of grand illusions than empirical realities: within the special domain of mass media inquiry, issues of the privatization of language (psychosis) and the deformation of public opinion (neurosis) are seen to turn the dialogic norm of interaction back on itself. In the monologic of the media the asymmetry of passive receivers and active transmitters conceive the flow of messages in one-dimensional channels and society emerges as "wired city" and "global village." Beneath the instrumental vision of such communication specialists, appearance and essence seemingly converge; the world is revealed as being the way the media is.

Metacommunication

The mastery or control suggested by the concern for a pathology of communications is not of these dimensions. Rather, its appearance is more akin to that of the confidence game. In a confidence game the con man manipulates by his ability to control his interaction not just on the conscious levels of conversation, but through control of body movements and anticipation of expectations. The con man reads and manipulates the context, which his victims take for granted.

The enthusiasm of audiences of the Middle Ages for the metaphor of the ship of fools and its role in traditional morality plays disclosed a masterful theatrical combination of dialogue and metalogue: for actors, too, however knowingly, utilize the unconscious performatives of behavior that seemingly operate behind the backs of individuals. The theatrical tradition from Stanislavski to Grotowski has consisted in nothing less than forcing an actor to come to terms self-consciously with his behavior and to use it manipulatively to create a role for himself and an audience. The masterful little book by Boleslavsky called Six First Lessons in Acting is chilling proof of the "cunning" that resides in the context of relationships. In an ironic twist on Hegel's phrase, this power of sensory control over those behavioral cues that

operate behind the backs of individuals could be thought of as the cunning of unconsciousness. Thus, that the psychiatrist, sociologist, and communicologist in pursuit of pathology have taken a keen interest in what has long been the professional province of confidence men, actors, advertisers and others should not appear entirely without its logic.[1]

This continuum of behaviors that operates behind the backs of individuals does so as part of the dialectics of interaction that Wiener called secondary feedback (a feedback of policies), Bateson designates as the level of relationships and Birdwhistell refers to as kinesic context. As a part of practical discourse it functions to maintain the on-going authenticity of the relationship between communicators. It is generally referred to as the level of metacommunication.[2]

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1. Some accounting for this dimension is to be found in the dramaturgical analysis of Kenneth Burke, especially Language as Symbolic Action; and also in the work of Erving Goffman and to an extent the ethnomethodologists such as Harold Garfinkel and George Homans. Alvin Gouldner has pointed to the seeming debasement of this perspective through its incorporation into the bourgoise practices of "impression management" (Gouldner, The Coming Crisis of Western Sociology, p. 382).

2. Wiener, The Human Use of Human Beings; Birdwhistell, Kinesics and Context; Bateson, Communication: The Social Matrix of Psychiatry (with Jurgen Reusch).

Metacommunication, in this sense, constitutes a theme as central to communications in society as that of helmsmanship. But, whereas helmsmanship designates a theory of sensory control based upon a restricted view of purposiveness and rationality, the theme of metacommunication resides largely on the side of reflection or cunning.

Strategic Interaction

The cunning of interaction that metacommunication discloses in context has its pathological component in the role of strategic behavior. Strategic behavior is action directed at ends that either have been agreed upon and are therefore removed from all further questions; or, conversely, strategic behavior is action directed at ends which have become inaccessible and therefore operate as commands. This latter case is very much like the situations in which "schizophrenics" are ruled by their "voices."

In the well known collaboration of Wiener and Bateson over the issue of schizophrenic communication, the two scientists developed a schizophrenic telephone switchboard: when one requested a number one was duly connected to that number and all proceeded normally. But, if in conversation one happened to mention another number, the switchboard immediately

disconnected the first number and re-connected the party to the new number. For Wiener and Bateson, the inability of the switchboard to distinguish between information and its meaning, or, more correctly, between meaning and the particular context of meaning was precisely the dilemma of the schizophrenic.[1]

This description and that of the double bind hypothesis that followed constituted the first formal representation of that seeming universal of schizophrenic interaction wherein all attention focuses to "being right in the relationship" with another, to the virtual exclusion of the specific content of an interaction. The increased sensitivity to this metacommunicative level, in essence, rules out the possibility of acting pragmatically--that is, of allowing the questions of relationship to recede at least partially behind one's back. Confined to the level of metacommunications the sensibilities of the confidence man and the schizophrenic seemingly converge: this difference being that what is "reportage" to the former is "commandment" to the latter.[2]

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1. Bateson, Personal communication, 1974.

2. The "report-command" character of communications is generally credited to insights developed by Bateson; but, see also Haley and Hoffman, Techniques of Family Therapy, for a more elaborate treatment. Two books by schizophrenics writing about their own conditions seem to add further evidence to the value of this distinction: O'Brien, Operators and Things; and Percivil, Percivil's Narrative.

Manipulation and Transparency

It is grimly ironic that the psychiatrist and even the psychologist insist that they are doing something different from the actor, the confidence man, or the advertiser when they choose to act strategically in the manipulation of another.[1] It is perhaps true that there are compassionate aims, but this is no less true of the actor and the artist; it is also much less certain that the patient is as willing a partner as is an audience. In the encounter with strategic behavior of actors, doctors, ad and con men, the manipulation of another must be seen in terms of its aims.

Every manipulation involves some form of objectification. In objectification, a member of a partnership is treated as if he were an object. His relationship to those contexts which provide him with meaning and identity are openly examined; expectations are not met, anticipations go unsatisfied and the whole process focuses attention from content to context--to the question of the relationships of interaction.

Similarly, in Grotowski's "poor theatre" the automatic relationship between audience and actors is called into question

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1. See Goffman's treatment of role behavior in hospitals, in Asylums.

by the actors.[1] Placing this most basic context of theatre--that is, the institutionalized roles of actor and audience and their combined expectations about the relationship--into question, brings about the possibility of examining these relationships and one's own part in them. Potentially, the focusing of attention to such institutions of interaction can be productive of creativity; and may even lead to the developing of reciprocity and dialogue freed of former constraints.

The production of knowledge in the psychoanalytic encounter is also of this order. In the situation of transference and counter-transference, the analyst objectifies the relationship obtaining between himself and the patient in order to bring into consciousness aspects of these past relationships which appear productive of pathology. The particular pain of such a process aims at the recovery of a dialogue freed of its pathological components.[2]

Thus, we may say that, in the necessary objectification of a partner in communication, the particular manipulative

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1. Grotowski, Towards a Poor Theatre.

2. Ricoeur, Freud and Philosophy. I shall be following the reading of the psychoanalytic encounter offered by Ricoeur, Habermas, and Apel in some detail throughout parts of this study. See also Habermas, Knowledge and Human Interests; and Apel, Analytic Philosophy of Language and the 'Geisteswissenschaften'.

moment can serve either to create a greater transparency of relationships, or it can be used unreflectively for the manipulation of behavior,[1] or as part of a "con."[2]

This further distinction of the uses of manipulation designates the special problem of theory and therapy. Psychiatrists and behaviorists can be reflective about their aims; but this reflexivity is neither immanent nor operative in

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1. The special cases of autistic and physically disabled individuals would be exceptions here on the grounds of compassion. But, even these classifications of behavior, as obvious as they may seem, should be viewed with suspicion. The remarkable little book by E. A. Tinbergen and N. Tinbergen, Early Childhood Autism: An Ethological Approach, is only one case in point. Using the methods of ethology, the Tinbergens were able to demonstrate that the particular autism of a child was almost perfectly reinforced by the context of attentive family life and the relationships and performance of its members. Moreover, they observed many of the so-called "displays" of autistic behavior amongst normal children. The chilling possibility that roles and relationships sanction behavior as deep seated as autism should cause us to at least pause at the crude and often effective activities of behavioral and chemotherapies. The reconstructed patient, after all, returns to a society and to personal circles which are potentially the historical origins of his pathology.

2. There is strong reason to believe that animal behavior exhibits similar situations. John Lilly tells the story of how he and his trainer, John Hunt, conspired to get some pictures of the potential use of dolphins to assist those in distress. While Lilly filmed, Hunt appeared to fall into the dolphin tank and to lose control. Promptly, the dolphin appeared and pushed Hunt to the edge of the tank and over the rim. Whereupon Lilly discovered that the lens cap was still on the camera and persuaded Hunt to leap back into the tank and repeat the whole scene. The dolphin beat him up. See John Lilly, Mind of the Dolphin; and Gregory Bateson, "The Double Bind, 1969" in Steps to an Ecology of Mind. I am grateful to Gregory Bateson for this anecdote.

therapy itself. It can be so, of course, within the psychoanalytic form of discourse, but here it is only at the successful termination that the necessary reciprocity for practical discourse is restored.[1] In its clinical practice therapy is as oriented toward the presupposed value of "health" as the fine art of selling is pre-bound to the value of "profit." These values can be reflected upon; but, internal to that special discourse, which I have called strategic behavior, these values operate behind the backs of their agents.

In no sense can transparency be considered an opposite to manipulation. Transparency, it would seem, often involves some moment of manipulation in the objectifying of a particular relationship. Putting a mammal in the wrong regarding its relationship to you, Bateson claims, is a pre-condition for pain. Yet, if the pathology inherent in such interaction can be avoided (cancelled, superceded, etc.), the moment of objectification can be productive of some greater understanding.

Transparency compliments the concept of false consciousness, or rather, it designates positively the condition of its supercession. In this way it is related to all those

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1. Cf. the following: Apel, "Die Entfaltung der sprachanalytischen Philosophie und das Problem der Geisteswissenschaft," in Philos. Jahrbuch, 72. Jg. (1965). Also, Habermas, Knowledge and Human Interests, chapter eleven.

cognitive studies which aim at the belief systems of communicators, not for purposes of "manipulation" or "adjustment," but as part of an interest in furthering our understanding of human agents and the constraints on their self-reflection and self-formation. Manipulation cancels this interest by injecting values of efficiency, economy and adjustment into an open-ended condition. And it is at this point that "compassion" is coopted into the rationalization of therapeutic action as being for the "good" of another. When the rationality of society is not transparent to its members, it appears as the result of causality or the forces of nature. This appearance is false consciousness.

Explanation and Understanding

Methodologically speaking, this apparent contradiction in aims of manipulation and transparency can be seen to demarcate the split between humanistic theory involving dialogic norms and the naturalistic versions of its praxis (therapy). This split along the axis of theory and praxis--rather than the formulations of humanist versus empirical concerns, cultural versus natural scientific interests, and intellectual versus professional activity--would appear to be the compelling context.

A "quasi-naturalistic" version of praxis must always involve both objectification and manipulation. To the extent that reflection on the method itself is blocked, the problems of greater understanding are removed from consideration. Blocking of problems of understanding is the decision by which strategic behavior is justified in purely formal terms and the whole process of inquiry is reduced to "causal" explanations. The view taken that the aim of praxis is strategic behavior (manipulation) toward pre-established ends coincides with that view which claims the end of theory to be explanation. Explanation viewed as the end-point of theory superserves all understanding, which in turn becomes mere "heuristic," and all final justifications extend no further than the community of investigators itself.

In contradistinction, the view that the aim of praxis is the unity of practical and theoretical discourse (transparency) coincides with the view that the end-point of theory is to further understanding. As the end-point of theory, understanding is subserved by explanation, which becomes a moment of objectification in a process of increased awareness whose final arbitrators are potentially the widest possible community of communicators. In this sense, the final justification of manipulation or transparency cannot be determined formally

or within a closed professional questioning of values. Though explanations are often an indispensable turn in the process, the more general process of understanding in which they are embedded suggests that determination must ultimately rest within an on-going open-ended community of communicators. Professional strategies must themselves be reflected upon and understood as part of that purposive and symbolic social reality in which we are situated as historically bound agents.

This concept of "communications community" is not mere idealization. Neither is it a total institution.[1] A communications community constitutes the pre-condition for that form of discourse which is directed at the unity of practical and theoretical forms.[2] Some insight into this can be taken from Gregory Bateson's analysis of the cybernetics of self-knowledge and transparency in the pathology of alcoholics.[3]

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1. The idea of the total institution is the basis on which Skinner and most behaviorists insist that, since people cannot help but behave as situations direct them, they are wholly the products of these situations.

2. Habermas, "Practische und Theoretische Rede," unpublished paper.

3. Bateson, "The Cybernetics of Self: A Theory of Alcoholism," in Steps to an Ecology of Mind.

In the epistemology of Alcoholics Anonymous, Bateson describes the way in which the curious western concept of the "captaining of one's soul" is pointedly identified with a process of the formation of the will which is distorted and, therefore, productive of pathology. In the AA version of a therapeutic discourse the alcoholic is brought to see for himself that he can no more "beat the bottle" than, like a modern Ulysses, pit himself against the caprice of the gods. If he can be convinced of no exit, the alcoholic is deemed able to enter into a community of communicators committed to producing transparency and awareness about a pathology, by which they will not be manipulated, but which they cannot control. AA attempts to understand the seemingly internal condition of the alcoholic in terms of his beliefs and his relationships with others as much as with the bottle. Encouraged to refuse the bottle as he usually is, an alcoholic is encouraged to set up a vicious opposition of his drunk and sober selves. The escalation that results becomes the basis for AA to demonstrate the split character of these competing selves and to examine the kind of beliefs upon which such a schizophrenia is predicated. Moreover, this antimony whereby one side reinforces the other side of the personality is itself often reinforced by those members of family, friends and even

therapists around the alcoholic; if only because of that convention whereby it is believed that what appears to be a self-inflicted mental condition is "cured" by helping the "patient" to deny it. In the face of what appears to be matters of the forces of nature and blind causality, self- and social manipulation coincide. In the absence of transparency, cunning is the con man's bluff.

In the reflective potential of the dialogical moment, the epistemology of helmsmanship reveals its own cunning; that we are prisoners of seeing the world in terms of opposites, poles, binary choices. Like victims of the bottle we oscilate between the choices we ourselves contain. And this report too contains its command. In the shadow of a modern Olympus the transcendental mind becomes immanent. Ulysses and Palinurus are joined. And with this result: what is to be understood is that we are not either, but something containing both.

Within this dialectic of "control" and "cunning," then, my thesis is this: that, in the face of a twentieth century dualism of naturalism and logicalism, the movement toward a second-order logicality serves to repress the meaning dimension of communications in society in the attempt to formulate

a language of control. This apparent repression of the meaning dimension has consequences, which are themselves asserted by this very process of formulating a language of control and which, in turn, bring the issues of this repressed dimension back into focus. Communications in the power of reflection forces meaning to the mastery of its metacommunicative forms.

Whether this mastery of metacommunicative forms is to be used for manipulative ends or as an objectifying moment to increase transparency is not merely a matter of its application. It depends in part upon the relationship of the communicative discourse to the process of enlightenment and the community in which it is embedded. Following the suggestions of Jürgen Habermas, we can give some, but not complete, clarification to this trichotomy of relationships in terms of the epistemological distinction of instrumental and communicative forms of action.

PART II

COMMUNICATION:

Systems of Purposive Rational Action

Introduction

The concepts of "control" and "cunning," which account metaphorically for two sides of the communications concern in the first part of this century, are themselves part of deeply rooted philosophical themes.[1] In nineteenth-century thought, both the broad tradition of German social theory and American pragmaticism confronted the issue of communications within the larger contextual themes of behavior and domination. Charles Saunders Peirce is often credited with the first important treatment of communications as a behavioral theory of semiotic.[2] Similarly, the Frankfurt School, whose roots are strongly in Marxian-Hegelian thought, extended their critique of domination to cover both the institutionalization of forms of mass communication and the study of authority and interaction

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1. Recently, the study of "communications" has become concerned with these questions. Ironically, it seems to have been the work of McLuhan that has sparked much of this interest, at least in humanist circles. Exemplary of this trend is the work of D. Theall, whose work proceeds at least partly from a critique of McLuhan. Theall, The Medium is the Rear View Mirror.

2. See Morris, Foundation of the Theory of Signs, pp. 1-5.

in the family.[1] Though at the extremes of communication studies, both nevertheless were efforts to define and develop their respective themes against a general philosophical and historical understanding.

The characteristic situation of the approach to communication studies generated in England and the United States, largely since the war, has been disturbingly otherwise. It is paradoxically as if the war provided an amnesia in which the particular scientific achievements of communication theory that followed were linked solely to the general neo-positivist tradition of social science without much indication that the preceeding century had even existed.[2] What particular attempts

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1. For the best analysis of the Frankfurt School in English, see Martin Jay, The Dialectical Imagination. Jay gives several chapters to the above themes of institutionalized communications (see especially chapters 4, 6 and 7). Two of the founders of the school, Max Horkheimer and Theodor Adorno, took this theme broadly into their social philosophical critique of domination when they were exiled in the United States during the 1940s. Their analysis of mass communications and popular culture is somewhat abrasively represented in Dialectic of Enlightenment; Dialektic der Aufklärung. (Where possible I will give sources in their original language and English counterparts).

2. Afterthoughts and forewarnings: This general reaction against the nineteenth-century critique of knowledge takes several key forms that are all bound up in some way with an embrace of "science" and a rejection of the "Geisteswissenschaften." William Leiss argues that this convergence of rationalism and science effectively rejects competing knowledge claims and so paves the way for the identity of technological progress and enlightenment as such. Karl-Otto Apel has . . .

there were to relate these formal theories to philosophical and historical understandings tended to discover links with

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2 (cont.) examined the isolation of the analytic philosophy movement, in which the problem of interpretation and intersubjective understanding were banished by the logical positivists and equally as emphatically reasserted by ordinary language analysts, as evidence for a methodological solipcism that blocks ongoing reflection on its method and establishes its most basic presuppositions by fiat. Jürgen Habermas has documented the way in which the rise of science as a major productive force and its lack of self-reflection has provided for the convergence of science and decisionism in which politics and especially public opinion become mere objects of scientific observation--and management. Gerard Radnitzky has traced such decisionism, in turn, to the ideology of neopositivism itself, in which the checking of hypotheses is the sole form that empirical validity takes; thus discouraging direct concern for either dialogue or the formation of democratic consensus.

All these concerns, to my mind, represent a theoretical concern for the way in which scientific knowledge in the form of unreflected theories and technical recommendations have formed the basis of modern social praxis. A theoretical concern for praxis, immanent to the logic of science itself, is what I consider to be the work of a critical and reflective activity, such as the foregoing scholars represent. A critical research activity responds to the context of scientific praxis by calling for more theory--a fusion of theoretical and practical questions. Praxis cannot be safely regarded as merely application or the "operationalizing" of theory. Empirical validity cannot be confined to hypothesis checking, nor to the approval of the community of scientists and scholars. Not when universally acknowledged critical historical circumstances demand more than new techniques and intervention.

Communication study is a concern for praxis. Its concern for praxis cannot be of the same order as that of communications technology or it becomes decisionism. Communication study is practical and theoretical at the same time. It cannot reduce social reality to narrow definitions of empirical reality or it becomes superficial positivism. Communication study is a concern with improving communication. It cannot arrogantly assume that with every explanation of communications, communication is automatically improved or it becomes superficial . . . /

the much older traditions of empiricism and rationalism. Even in the obvious problems and parallels of the cybernetic metaphor of "man as machine" with the Darwinian metaphor of "man as animal," the initial scholarship preferred to make the connection to the historical evolutionism of Leibniz and his logic of the monads; leaving largely unacknowledged the strenuous nineteenth-century critique of their implicit themes of empiricism and rationalism.[1]

In the seeming lack of continuity that these theorists of communications perceived with both the major American and German nineteenth-century traditions is a rather large clue

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2 (cont.) rationalism. This paper takes as its theme that growth of the concept of praxis which does not deny or avoid reflection on these aspects of communications-in-society, but insists on it. Leiss, The Domination of Nature; Apel, The Analytic Philosophy of Language and the Geisteswissenschaften; Habermas, Toward a Rational Society; Radnitzky, Contemporary Schools of Metascience.

1. Wiener, The Human Use of Human Beings; MacKay, Information, Mechanism, and Meaning, especially chapter one. Subsequent scholarship has begun to correct this imbalance. And it is part of the thesis claim that this has begun to provide the convergence necessary to appreciate the significance of the earlier work and to sort through their exaggerated claims. Though Gregory Bateson has not pursued these connections systematically, his work is a good source for those who have. In this regard, the Wenner-Gren conferences held throughout the 50s and 60s are a fruitful and as yet untapped storehouse of data on this; see Mary Catherine Bateson, Our Own Metaphor, for a thoughtful treatment of the conference on human purpose led by Gregory Bateson.

to the absence of dialogue that characterizes the position of their contemporaries. It is almost as if communication theorists, in their quest to be like the natural sciences and to say something important about the human condition, had to throw out other contemporary or historically contingent forms of knowledge.

In its origins the paradigm of observation constructed by communications theorists was not unlike the neo-positivist version that had taken hold earlier in the century. Both reflected a dislike of the caprice and lack of formal rigor that characterized the methods of the cultural sciences; the lack of any general mediating language by which some coherent set of concerns could be delimited made the resulting tower of babel a basis for despair. What was needed to get beyond such an impasse was a break with the older forms. And the methods and concerns generated by the logical positivists of Cambridge and the Vienna Circle seemingly provided such a possibility. The attention to formal representation of structure and form that this new set of principles generated gained even greater prominence against the insecurities of the age. Taken together they provided for a partitioning of disciplines in the name of greater unity at least as compelling and opposite as the concomitant partitioning of continents and the forming of

uneasy alliances had been solicitous of despair.[1]

The theorists of information who emerged at the end of the second world war in the United Kingdom held a strikingly similar view of science and society. In a curious rejection of the more contemporaneous position of ordinary language analysis and its often explicit critique of the earlier logical positivists' work, the information theorists returned to the original promise of the logical atomism of Russell and Wittgenstein. The problems of communication that afflicted the century, they believed in part to derive from the failure of science to effectively develop this domain. What Principia Mathematica had done for logic in its time, it was believed the theory of information would do for the post war world. Information was that linguistic tool which fulfilled the earlier promise of "objective substitutes for intuitive

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1. Just how crucial this juxtaposition of psychological despair and methodological promise was to the original logical-positivists is illustrated pointedly by Toulmin and Janck's brilliant analysis of Wittgenstein's Vienna. Read in common with recent literature of Weimar Germany and its aftermath, the revised interest of the philosophy of science in the broader context of the logical-positivist movement and its more empirically oriented American counterpart, the compelling power of this movement seems to be in no small part the result of social and historical factors.

criteria and subjective prejudices."[1]

The situation in the United States was equally messianic. Like their British counterparts, many of the original theorists had been involved with problems of communication and its technology during the war.[2] In its aftermath, they turned their training as scientists to the elaboration of theory and to its application to other domains. Almost to a man their early writings reflect a prophetic calling: men in the worship of progress were inevitably becoming "shipwrecked passengers on a doomed planet."[3] Norbert Wiener, perhaps the central figure

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1. The quote is from MacKay, Information, Mechanism and Meaning, p. 17. MacKay made this statement in 1950. By the late 60s much of this optimism remained: "I have not lost hope of a fruitful link between physical and logical atomism in fundamental physics, and it should perhaps be emphasized that the discrediting of logical atomism in the domain of ordinary language has done nothing to diminish its relevance to theoretical cosmology. . . ." (Ibid., p. 6).

2. Exemplary of the ironic aspects of this is the fact that Wiener spent time during the war repairing gyroscopes for the Navy and MacKay did research on radar and guidance systems.

3. Wiener uses this phrase. The prophetic voice is almost a constant to this group of scientists, largely trained in mathematics, but also highly skilled in the various technologies that involved communication theories, especially those of computing machines, telephone exchanges, steering and monitoring devices of all kinds. Buckminster Fuller uses the image twenty years later as the primary metaphor for his Operating Manual for Spaceship Earth. Its connection to the ship of state, while somewhat problematic, is also evidence of the sustaining power of this broad metaphor to which cybernetics is only a formal description in a technical mode.

in the cybernetic and information movement, expressed their profound skepticism of a process of enlightenment in which the sustained scientific contribution to the production of "new techniques for the controlling of the human environment" was pronounced to be an apparently limitless ethical good:

> We are the slaves of our technical improvement and we can no more return a New Hampshire farm to the self-contained state in which it was maintained in 1800 than we can, by taking thought, add a cubit to our stature or, what is more to the point, diminish it. We have modified our environment so radically that we must not modify ourselves in order to exist in this new environment.[1]

It is an oversimplification to suggest that the prophetic voice was characteristic of all the early advocates of these first formal theories of communications or that this discloses some unifying psychological factor behind their work. If there was one, the unifying factor was perceived to have much less to do with potential anarchy of the social order, and much more to do with an image of a unified science able to grant coherence and cohesion to the language of science itself. In this it was close to the original poetic vision of positivism:

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1. The Human Use of Human Beings, pp. 65-66.

> We have seen in (cybernetics and information theory) the fundamental unity of a complex of ideas which until recently had not been sufficiently associated with one another, namely, the contingent view of physics that Gibbs introduced as a modification of the traditional, Newtonian conventions, the Augustian attitude toward order and conduct which is demanded by this view, and the theory of the message among men, machines, and in society as a consequence of events in time which, though it itself has a certain contingency, strives to hold back nature's tendency toward disorder by adjusting its parts to various purposive ends.[1]

In retrospect the naive characterizations of the historical context and the overlarge claims for a new systematic language of science seem to be a curious misreading of the texts of that day. The limitations of the mechanical model that cybernetics originally proposed has been skillfully documented; and the overwhelming problems of broadly applying the cybernetic analogy to politics and society have contributed both a sustained critique and some important efforts to go beyond its initial limitations. In this sense, the new theories of communication were both more limited and less different from preceeding ideas than their originators imagined. The point remains, however, that the early theorists did conceive of their activities as being a radical departure from the past; and an adventurous addition to the impetus of the

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1. The Human Use of Human Beings, pp. 38-39.

original logical positivist and analytic movements.

In the flurry of theoretical productivity that followed the early contributions the problems of praxis, which became an increasing concern for later communications research, were hardly acknowledged. Similarly the older cultural theorists, those responsible for the "intuitive criteria and subjective prejudices" that the "objective substitute" of information would replace, were seldom mentioned. Although there was a kind of continuing dialogue with linguistics throughout, it was usually confined to the issue of linguistic models. In all, the particular problems of interaction and historical dialogue were seldom confronted directly. Communications theory, split off from the problems, hoped, as the logical successors to neo-positivism should have, to develop and cohese in the absence of social and practical concerns--that is, by itself.

Though later theorists moved to correct the excessive reductionism implicit in this early position, the splitting off of theorists interested in studying communications by itself served to set powerfully in place what has emerged as the most persistent and characteristic dichotomy of communication studies. Confined to separate domains of inquiry, the question of communications has since tended to be raised either on the

level of the relations of communications themselves or on the level of the interaction of communicators.

These two levels, I believe, constitute a major dialectic for communication studies. I am terming it a dialectic because, as will be argued, there is a recurring trend that strongly suggests the possibility of a synthesis. This superceding or synthesis of the former opposition is both a response to the reductionism of the initial theorists and a re-examination of the formulations of those who, roughly speaking, represent the position of the cultural sciences.

Communication studies, it appears, has moved through several stages or emphases and it is both to clarify and hopefully advance this aspect of the dialogue that an epistemological focus seemed appropriate. In this sense, an inquiry into the relations of knowledge is not external to communication studies, but central to the question of its future direction. Both sides of the communications divide that I have suggested are guilty of excesses and both have made substantial contributions from their own positions of orthodoxy. Increasingly though, new scholars seem to be conscious of the worth of issues raised on both sides. Most recently this phenomena seems connected to a realization that the problems

of the interaction of communicators could not be resolved purely by recourse to theoretical questions aimed at the relations of communications themselves. Conversely, the growing concern with problems of distorted and disturbed interaction has questioned the sufficiency of the "clinical experimental model" amongst other forms of social praxis. Moreover, these concerns have helped to bring back the kind of historical and philosophical questions, raised significantly in the last century, that cultural scientists saw banished from the communications programme by the too ardent hopes of the information specialists of the post war period.

Theoretical inquiry is practical, becomes practical in any case when the sciences enter the larger social reality through the technical exploitation of their information. Recent scholarship has argued that scientific information can only enter social reality as technological knowledge serving an expanded power of technological control.[1] Practical issues can be made external to theoretical concerns by limiting the community of scientists itself; but it can remain so only so long as the problems of that externality can be avoided without a retreat into scholasticism.

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1. Habermas, Toward a Rational Society, p. 52.

Wiener's leading prophetic question of how the force of technical control could be made subject to a rational process of scientific enlightenment was answered for him by the promise of the new theories of information and cybernetics. But this, for cultural and critical theorists, was an inadequate answer: not merely an article of faith, but one more indication of the general scientific tendency to resolve complex social and historical issues in isolation and by recourse only to itself.

The question raised persistently against the communication "specialists" stressed the faultiness of viewing the direction of enlightenment as proceeding from scientific advance to social practice. The problem of control, they argued, always had to be asked within the context of the unplanned, pre-existing relations of technical progress and social reality themselves:

> The direction of technical progress is still largely determined today by social interests that arise naturally out of the compulsion to reproduce social life without being reflected upon and confronted with the declared political self-understanding of social groups. In consequence, new technical capacities erupt without preparation into existing forms of social activity and conduct. New potentials for the expanded power of technical control make obvious the disproportion between the results of the most organized rationality

> and the force of unreflected goals, rigidified value systems, and obsolete ideologies.[1]

This is the sense in which the relations of theory and practice are not external to the new communication theories. Moreover, it has been persuasively argued that the placing of theoretical concerns above and beyond those of its social practice involved no theoretical understanding or practical decision whatsoever. Theoretical activity is always practical activity in that the social reality frames such activity and exists beyond it. To be interested in theory is to be interested in a form of praxis. Its separation leads to a collapse into methodology. The collapse into methodology focuses the concern of the information specialist on the explanation of rules of correct and successful procedures. Epistemology, as reflection on the constitution of communicable knowledge, attempts to respond to this imbalance by reasserting the importance of the relations that obtain between on-going practical and theoretical understandings in the face of the interruption of new theoretical explanations into these pre-existing forms.

Epistemologically speaking, the communications divide that I have been suggesting, is most often perceived to describe

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1. Habermas, Toward a Rational Society, p. 60.

a separation of professional dialogues from the context of social dialogues in which, as acting agents, we are historically situated. On the axis of professional pasts, development tends to be seen in terms of acquired skills and the advancement of the particular school of thought through its professional practice. In this way professional practice comes to be seen as an isolatable activity, answerable largely to new theoretical advances within its community of consenting scientists and cut off from those questions of the social dialogue that cannot be directed to its professional expertise.

To gain a general idea of the kinds of issues that have been generated over this division of intellectual labors, it may be helpful to take the clear-cut characterization of this divide offered by Jürgen Habermas in Knowledge and Human Interests. In distinguishing the two basic interest areas of the "cultural" and "empirical" sciences, Habermas presents an outline of the ways in which the questions of communications must be raised from pre-existing and opposing knowledge interests:

> The hermeneutic sciences are anchored in interactions mediated by ordinary language just as are the empirical-analytic sciences in the behavioral system of instrumental action. Both are governed by cognitive interests rooted in the life contexts of communicative and instrumental action. Whereas empirical-analytic methods aim at disclosing and comprehending

> reality under the transcendental viewpoint of possible technical control, hermeneutic methods aim at maintaining the intersubjectivity of mutual understanding in ordinary-language communication and in action according to common norms. In its very structure hermeneutic understanding is designed to guarantee, within cultural traditions, the possible action-orienting self-understanding of individuals and groups as well as reciprocal understanding between different individuals and groups. It makes possible the form of unconstrained consensus and the type of open intersubjectivity on which communicative action depends. It bans the dangers of communication breakdown in both dimensions: the vertical one of one's own individual life history and the collective tradition to which one belongs, and the horizontal one of mediating between the traditions of different individuals, groups, and cultures. When these communication flows break off and the intersubjectivity of mutual understanding is either rigidified or falls apart, a condition of survival is disturbed, one that is as elementary as the complementary condition of the success of instrumental action: namely the possibility of unconstrained agreement and non-violent recognition. Because this is the presupposition of practice, we call the knowledge-constitutive interest of the cultural sciences "practical." It is distinguished from the technical cognitive interest in that it aims not at the comprehension of an objectified reality but at the maintenance of the intersubjectivity of mutual understanding, within whose horizon reality can first appear as something.[1]

Such a statement necessitates a close reading. I will return to the various assertions made here in detail, but it is the clearly perceived "divide" between the two positions that should be noted: the claim that the differences in

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1. Habermas, Knowledge and Human Interests, pp. 175-76.

professional activities are rooted in the cognitive universals of communicative action and instrumental action; the claim that the practice of the empirical sciences is aimed at extending technical control through objective explanations; and the prior claim that there is a real and not merely perceived dichotomy between the two kinds of science. This latter claim, if it is valid, brings into question whether the whole notion of a unified and rigorous science of human communications based upon the original model of natural science and physics is at all possible.

These are all heady claims. In part they serve to show the antagonisms that constitute the two sides of the communications question. Beyond that, they raise a serious set of questions for the practitioners of communication science. If the model of natural science, as it is understood by the early communication theorists, is considered inadequate or inappropriate to the domain of human dialogue and social institutions, what does this imply for those concerns with disturbed and distorted human communications that, at least in the behaviorists programme, have aimed not only at the formal description of human behavior according to mechanistic principles, but at a praxis committed to the reconstruction of human behavior itself?

I will term this paradigm of the empirical and

analytical social sciences the paradigm of observation. The programme of this paradigm, as seen by its cultural critics, is the reduction of the complexity of the social world (especially its physical, ideational, and linguistic aspects) to manageable components within a unifying language of explanation. The success of such a programme is indicated by the achieved extension of control over social and historical processes. It is fair to call it a paradigm for the moment because I want to emphasize some stylized features of its position against the particular issues of human communication.

The position articulated by Habermas is, in this sense, only one type of argument against the reductionism implicit in this paradigm. As such his position is much less extreme than some within the cultural sciences who reject out of hand the possibility of the empirical-analytical method.[1] Within moderate limits, culturalist exponents of interpretation and interaction claim that there are aspects to human communication that cannot be reduced to the monologic of unified science. These types of argument I will term generally the dialogic paradigm; and those directly concerned with the interaction of communicators, the new interactionists.

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[1] For instance, Peter Winch, The Idea of a Social Science; but see also the critique of this work by Apel, The Analytic Philosophy of Language and the Geisteswissenschaften; and Habermas, Zur Logik der Sozialwissenschaften.

These new interactionists are proposing that, to the extent that theory and the experience of social reality are not split, the understanding of meaning and intention has precedence over observation and explanation. Moreover, they claim that it is specifically the intrusion of the paradigm of observation that serves to block reflection and that this, in turn, blocks the possibility of professional self-understanding. Confined to separate domains of inquiry, as I have suggested, the study of communications has tended to proceed in isolation on the level of the relations of communications themselves or on the level of the interaction of communicators.

The set of theoretical developments that erupted into the post war world over the question of communications achieved its initial success in part because of the promise of its methodology. It filled a gap that the cultural sciences had themselves been unable to fill and opened up the problems of communication to a new paradigm. The rise of information theory, cybernetics, and systems theory carried with it the belief that the human communicational issues of meaning and interaction could ultimately be explained within the reductive moment of analysis. To its opponents, this appeared to be nothing less than an attempt to repress the meaning dimension and human agency of communications itself. In this, it

was reminiscent on a lesser scale of the divide created over logical positivism earlier in the century.

CHAPTER III

TECHNO-EMPIRICISM AND THE NEW COMMUNICATIONS

Some clearer focus of the way in which the key concepts functioned for the early communication theorists can be grasped by looking at one of their more exemplary works, Donald MacKay's Information, Mechanism, and Meaning. In the introductory chapters, originally presented on the BBC's Third Programme (1950), MacKay typifies the élan that characterized so much of the work of the early informationalists:

> . . . I have given you only some very inadequate glimpses into this new subject and its implications; but, we have, I think, seen how it has spun a connecting thread through many disciplines which are otherwise widely separated. At the same time we must beware of the temptations to over-estimate its significance. The theory of information is first and foremost a linguistic tool. It enables us to speak precisely and quantitatively where previously we have had to speak vaguely and qualitatively. It provides objective substitutes for intuitive criteria and subjective prejudices.
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> But its conclusions are seldom surprising; and it would, I think, be a mistake to place it in the same category as physical theories such as quantum or relativity theory. This is not of course to decry its value, but only to safeguard the theory from mistaken appraisal. If its contribution to science had been only linguistic, their practical results would have already justified the effort which has been expended. But the subject is young, and I think we can

> confidently work for further developments which, in the end, may even succeed in surprising us.[1]

This is a "surprisingly" bold statement. It suggests the clear synthetic thrust of these new concepts. The theory of information would allow us to speak "precisely and quantitatively" and to avoid the previous pitfalls of speaking "vaguely and qualitatively." The designation of the theory as a unifying one for many disparate disciplines bares a strong hint of similarity to the logical positivist's programme, especially as it was articulated in the International Encyclopaedia of Unified Science. The fact that he is careful to distinguish it from "quantum or relativity theory" and to pronounce it both a "linguistic tool" and its contribution more than linguistic ("If its contribution had been only linguistic . . .") suggests that the metaphor sought was on the order of unified science.

The way in which this precise and quantitative model was to be accomplished, MacKay believed to be through formulation of "central notions of information theory which are

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1. MacKay, Information, Mechanism, and Meaning, p. 17. The fact that the "information" revolution was sufficiently attractive to warrant the BBC's coverage on its most prestigious public interest programme is evidence of the broadly conceived social promise of this new set of concepts was believed to hold.

operational" and which can in turn grant a system for description of the "representational activity" of communication: "In any question or debate about 'amount of information', we have simply to ask 'What representational activity are we talking about, and what numerical parameter is in question?' and we eliminate most of the ground for altercations, or we ought to do so if we are careful enough!"[1]

MacKay explicitly situates his model between the two conflicting schools of analytic philosophy--the radical logical atomism advocated by Russell in Logic and Knowledge and the repudiation of this view offered by Wittgenstein in Philosophical Investigations. The position of the former MacKay terms "structuralist" and that of the latter "operationalist." Their split, MacKay believes, derived from the lack of a "representational" theory able to translate between these poles of "structure" and "use": "I believe that the mechanistic analogies we have been considering may help us to see not only the justice of these rival contentions, but also the possibility of a unified approach that finds room for both."[2]

To appreciate the importance of MacKay's claim for a

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1. Information, Mechanism, and Meaning, p. 42.

2. Ibid., p. 27.

representational theory of communications and to see the way he envisions such a theory mediating the schism between such heady antagonisms as the early Russell and the later Wittgenstein, some clarification is needed as to what is meant by "mechanical." MacKay provides the following:

> We have been thinking of human communication in terms of the mechanical pattern of cause-and-effect that we have assumed to embody it from start to finish. We have considered the human recipient's brain as a physical system, with at any time a certain (statistical) "state of conditional readiness," roughly analogous to what we called the "state of conditional readiness" of a railway shunting yard. The object of communication is to select some particular conditional readiness in the recipient from the range of states that are possible. The intended meaning of the communication is then definable as the selective function that it is intended to exercise on the range of possible states. Its effective meaning is the selective function that it actually performs.[1]

MacKay is careful not to take sides in the great "analytic" debate; he readily concedes that both are adequate to most of the problem areas that they isolate. The real object of MacKay's argument is the position of those who, claiming to derive their position from the later Wittgenstein, argue against the possibility of mechanical explanations of meaning and human behavior. Their counter claim that in the

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1. Information, Mechanism, and Meaning, p. 28.

brain the laws of mechanical causation give way to "something else--associated with the action of mind," is, for MacKay, a claim based entirely on the contemporary state of ignorance about the physical organization of the brain's activity. To "insist on regarding meaningful and mechanical as mutually exclusive," he argues, is tantamount to claiming that "to describe something as 'mechanical' implies automatically that it is 'meaningless'." The programme MacKay envisioned for information theory, in a return to the original prospects of the analytic movement, would show that "this opposition of 'meaningful' and 'mechanical' is false," and would, in turn, provide a theoretical system in which "the momentum of the whole debate between 'mechanists' and 'anti-mechanists' disappears." Even at this stage of development, it is possible to see in these claims of mediating the conflict of "structure" and "use" the laying of the basis for a further subsumption of "meaning" under the increasing sophistication of mechanical explanations.[1]

The point of such a development is simple. If we

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1. Information, Mechanism, and Meaning, p. 21. It is clear that MacKay does not see the later Wittgenstein in the same terms as the more recent appraisals of ordinary language philosophy do. The reading that MacKay subscribes to has been carefully documented as a misreading. See especially Habermas, Zur Logik der Sozialwissenschaften.

could establish the relationship between the "amount of information" and the "measurable change" it caused, we would have a comprehensive basis for making judgments about "the *efficiency* of methods of gaining or communicating information."[1] Again, reminiscent of the earlier analytic period, MacKay is claiming that the possibility exists that the so-called psychological fact of human communications is reducible to and recoverable within the framework of mechanical concepts.[2] As I shall show later, the theorists of communications have been able to make a great deal out of this initial groundplan, especially in the area of a human communications pathology.

It is a commonplace of analytic criticism to note how rationalistic the movement was despite its contrary claims to be empiricists advancing empiricism. This claim holds up surprisingly well against early information theorists, like MacKay, who purport to be concerned with everything from

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1. *Information, Mechanism, and Meaning*, p. 156.

2. The similarities with the logical positivists is not merely coincidental. MacKay explicitly ties the "Mathematical Theory of Communication" of Claude Shannon (1946; and with Weaver, 1949) to the "Semantic Information" proposals of Bar-Hillel and Carnap (1952) and to his own "General Theory of Information" (1950, 1951). In this regard, see especially "The Place of 'Meaning' in the Theory of Information," MacKay (1956).

brains to broadcasting. The belief these scientists shared that communication was reducible to "abstract features in common" constituted the basic problem-interest of the early discipline. MacKay provides the following analogy of how the "meaning of a communication" could be "abbreviated" to its "selective" or "orienting function":

> At the risk of oversimplification we might liken the meaning of a message to the "opening power" of a key in relation to a given lock. To turn the key has the effect of opening the lock, but the opening (a change in the lock) merely betokens the opening power of the key (in relation to the lock) which could in principle be established by inspection of lock and key, even if the key were never used.
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> Similar objection can be made to the dictum that "the meaning is the use." Its intention to be "operational" is laudable; but it fastens upon the wrong operation. In the case of our key, the operation required is to look inside the mechanism of the lock, and see what would happen if the key were used. In the case of a human recipient, the corresponding operation may well be impractical for good social and surgical reasons; but this is no excuse for Procrustean distortions of the conceptual picture. Not even the most hardened operationalist pretends that all his "operations" could be performed in practice; what matters is that they are possible in principle; and in principle (if our notion of the causal organisation of behavior are at all valid) the orienting function of a message (qua potential input) could be determined just as readily by advance inspection of the brain, as the opening power of a key by advance inspection of the lock.[1]

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1. Information, Mechanism, and Meaning, pp. 108-09.

Or, consider MacKay's skillful turn on the standard example of the chess game:

> Simply by asking what gives any physical event sequence the status of a communication, we can detect the reference to specific goal-complexes implicit in even the most artificial "languages" of the logician. Thus, for example, it is not the rules that give meaning to the moves in a game of chess. What introduces the element of meaning is surely the agreement of players to abide by those rules: that is, to adopt a standard pair of (sub-) goal-complexes. The moves can be said to have their chess meaning (selective function) only in relation to those goal-complexes. The movement of a black pawn may mean to the "white" player a threat, to the "black" player a relief, and to an ignorant onlooker the displacement of a piece of carved wood. Each reveals his goal-complex (artificial or natural) by the meaning he assigns. In each case, at the mechanical level, we may expect corresponding differences between the respective "states of readiness" upon which it impinges, to account for the diverse effects of the same physical stimulus.[1]

This is a clear statement, it seems to me, about the concept of meaning and communication. "What introduces the element of meaning is . . . the agreement of players to abide by . . . rules." This might appear reasonable to both sides of the communications divide. But, MacKay goes on, this means "to adopt a standard pair of (sub-) goal-complexes" or over-determined purposes. It is not questioned whether this is an

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1. Information, Mechanism, and Meaning, pp. 109-110.

adequate notion; nor is there any hint of the possible difficulties in actually discriminating such "complexes." Moreover, he declares that, as such, communication can be said to have "meaning (selective function) only in relation to those goal-complexes"; and that this provides us with a mechanical explanation sufficient "to account for the diverse effects of the same physical stimulus." It is not my purpose to examine these claims in detail, though one cannot help wondering what would be the nature of rules and goal-complexes if one of the players happened to be schizophrenic. These aspects of information have been critically dealt with elsewhere. It is the commitment to "mechanical" explanations that I want to emphasize; a commitment that continues the older paradigm of logical positivism, but in the name of a seldom demonstrated mediation of "structure" versus "use" conflicts.

It is worth noting that the "mechanical" model MacKay proposes is, for all its sophistication, basically a refinement of the fundamental behavioral belief that "conscious awareness" can causally be represented by an explanation posed solely in terms of what goes on internal to an organism. MacKay's input-output model refines the older model of stimulus-response only in terms of a deeper set of structural properties: "but the essential suggestion stands, that the correlate of

awareness should be sought in an internal adaptive matching response, rather than in the mere arrival of sensory stimulation at a particular internal point."[1]

Relative to the model, the question of whether the elementary notion of spontaneously active monad responding to redundancy in its environment was sufficient for a description of human communication is assumed to be answered affirmatively. The degree to which the monadic metaphor applies is brought out by the rather curious distinction that MacKay makes between "representations" in communication and "representations" in scientific activity. The communications imaginable within a monadic universe of independently programmed players depends upon the pre-givenness of significance:

> Representations commonly originate in two distinct ways. The difference between these is the essence of one of the most important distinctions in information--between the <u>theory</u> of communication on the one hand and what for want of a better term we may call the <u>theory of scientific information</u> on the other. Both a scientific-process and a scientific observation-process result in the appearance of a representation in the "representation-space" of the receiver or observer. But what distinguishes communication, I suggest, is the fact that the representation produced is (or purports to be) a <u>replica</u> of a representation already present to (within-the-mind-of) the sender. Communication is the activity of <u>replicating representations</u>.

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1. <u>Information, Mechanism, and Meaning</u>, p. 55.

> This is to be contrasted with the typical activity of a physical scientific observation of which the goal is the making of a new representation, representing some additional knowledge of that-which-is-physically-the-case concerning some unique space-time tract not heretofore represented anywhere.
>
> We might put it crudely as the distinction between the replication and the formulation of knowledge.[1]

The monadic world of information reproduces itself through levels of goal-complexes which produce a consciousness of which consciousness can know nothing. "Successful communication depends on symbols having significance for the receiver, and hence on their being already in some sense prefabricated for him." If one is to be able to say anything for certain about the psychological aspects of human communication it can only be by recourse to the "monadic," "autopsychological," "abstract" construction of hierarchies of "goal-complexes."

Just how crucial these assumptions are for the system that MacKay is building becomes apparent in the attempts to build upon these basic elements. The "construction" proceeds from the basic elements (goal-setters) and the basic relations (goal-conflict or goal-sharing) to the forming of "shared information" into "organising sub-routines," "images of the world," "self organising systems," and, at the highest levels

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1. Information, Mechanism, and Meaning, pp. 42-43.

of organization, "social units," "linked by communication channels" to form "goal-directed social networks." At this level, the "elements of the system" become "individuals capable of forming concepts of the system," and the "concepts they form, in so far as they affect their goal-complexes, are liable by the same token to affect the nature of the system."[1] It is especially over the kinds of descriptions offered at this level of analysis--which one might roughly designate as a level of interaction--that critics have suggested cannot be handled by mechanical explanations. To return to the favorite example of the chess game, MacKay provides the following anthropomorphised schema:

> Simply by asking what gives any physical event-sequence the status of a communication, we can detect the reference to specific goal-complexes implicit in even the most artificial "languages" of the logician. Thus, for example, it is not the rules that give meaning to the moves in a

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1. In the article from which these "conceptual building bricks" are drawn, MacKay actually suggests--one does not know how inclusively--that the "formation of a social unit" from independent monads is due to the "necessity for communication channels to develop between them to prevent deadlock or mutual destruction." The prophetic voice and the entrophic metaphor, or so it seems, runs as deep as the basic notions. See MacKay, "Communication and Meaning--A Functional Approach" in Information, Mechanism and Meaning; see especially pp. 115-119 on social groups as information systems. I hope to deal later with the narrowness with which the concept of "function" is used.

> game of chess . . . The moves can be said to have their chess meaning (selective function) only in relation to those goal-complexes . . . Each (player) reveals his goal-complex (artificial or natural) by the meaning he assigns. In each case, at the mechanical level, we may expect corresponding differences between the respective "states of readiness" upon which it impinges, to account for the diverse effects of the same physical stimulus.[1]

The critics of this kind of mechanistic reduction object that this is not sufficient grounds to account for meaning, communication or interaction. The new interactionists have largely come to focus on the problem of reciprocity in the relationships of communicators. The reduction of the problem of reciprocity to the monadic description of "diverse effects" resulting from different "states of readiness" to "the same physical stimulus" is claimed to be inconsistent with the dialogical formulation of individuals in social interaction.

The objections are complex and I will put off any detailed elaboration of their position until later. The point of most of these objections, it seems to me, hangs not so much on the interactionalists' concern for "reciprocity" as it does on the tendency of information theorists to push the basic existential fact of the linguistic universe in which we both explain human communication and are inextricably joined as

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1. Information, Mechanism, and Meaning, pp. 109-10.

actors and scientist-observers to the absolute peripheries of concern. For MacKay to have imagined that the whole problem of interaction need not be dealt with except as a special case is simply incomprehensible. The hope to be able to define meaning and communication within the framework of the elementary units of "information" and "goal-complexes" was seemingly a disregard of the relevant materials readily available in the cultural sciences. This turning away from especially the linguistic issues cannot be underestimated. It is one thing to claim to be constructing the elements of a new system of analysis, but it is something else to ignore contingent areas of concern. There are only two references to "dialogue" in Information, Mechanism, and Meaning; and both of them represent sharply worded justifications for the monologic of information science.[1] Thus, in a clever and convincing acknowledgment of the "special case of dialogue," MacKay describes the impossibility of a "full mechanical specification" for either member of the interaction, while reserving its future possibility to the scientist-observer:

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1. See Information, Mechanism, and Meaning, p. 154. His reason for ignoring dialogue except as specifiable as a new single system is as follows: "To borrow a metaphor from quantum physics, there are 'interaction terms' which remove any possibility that one member of the dialogue could fully specify another, or be specified by him, as a determinate system."

> The significant feature of dialogue between two agents who understand language in its intentional aspect is (as we have indicated) that in principle the goal-settings of an originator may not be treated as (all) fixed--for his goal strategy will in general depend from moment to moment on the way in which the recipient responds to his utterance. We have, in short, a situation of potential goal-conflict. If sufficiently symmetrical, it may in principle preclude either party from acquiring a full mechanical specification of the other, since the mutual back-coupling can systematically invalidate the attempt on either side.
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> In such reciprocal interactions, then, we can say categorically that a complete analysis of utterances as symptoms would be logically impossible for the interlocutor (though not necessarily for a detached onlooker with access to their internal workings).[1]

MacKay's efforts to prove that "the theory of information has a natural, precise, and objectively definable place for the concept of meaning" must finally be seen against the extremism of the intellectual age. The image of science to which the logical positivist movement had attached such faith made it quite reasonable that the next step in the development of Shannon's original information theory should have been the bridging of the gap between mechanism and meaning. Shannon himself provided the impetus when he declared his theory to be specific and denied, in a charge repeated by linguistic philosophers, that it could have anything to say about the concept

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1. Information, Mechanism, and Meaning, p. 126.

of meaning. That such an attempt at the generalization and unifying of the initial theory should follow, was no more than the deliberate pursuit of the guiding ideal of scientific progress itself.

Even if the growth of formal theories of communication can be seen to follow somewhat naturally out of the general developmental pattern of science and the fact of new communications technology, it remains a very difficult task to accept the power and promise of the methods as a sufficient basis for the reduction of human communications exclusively to the monologic of mechanical explanations. Yet, for MacKay, as for others, this was often the criteria of community; and the programme of a movement that believed the question of human communications, with an assist from the theory of information, could be resolved on the level of the relations of communications itself. Conversely, the rise of renewed interest in the problems of the interaction of actual communicators was accompanied by a metatheoretical questioning of these informationist claims. It is as a result of this latter activity that the formal theories of communication provided the basis for a renewed interest in precisely those epistemological problems that the cultural-hermeneutic sciences had failed to achieve through reflection.[1]

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1. I am indebted to Michael Cuthbert for this particular insight.

CHAPTER IV

COMMUNICATIONS WITHOUT QUALITIES

The particular focus so far has been on the early attempt of MacKay, as evidenced primarily by Information, Mechanism, and Meaning, to formulate a model for the representation of human communication within the formal capacities of a new mechanistic paradigm. This is not to suggest that MacKay's work was basic to the development of communication studies, nor that it set standards for the work that followed. MacKay's work is at best representative. In that it overtly tries to make connections to logical atomism, logical positivism, and to later analytic language philosophy, it identifies and differentiates its position against historical antecedents. MacKay's participation in the original London Symposia and the later Werner Gren conferences on information and cybernetics, as well as his familiarity with the work done in England and the United States, argue for his representativeness in a narrower professional sense. Such works as Shannon and Weaver, "Mathematical Theory of Communications," Cherry's On Human Communication, Wiener's Cybernetics, McCulloch's Embodiments of Mind, even Ashby's Design for a Brain would have served equally well, though strikingly different and original. All manifest the same

basic confidence that the problems raised by the issue of communications could be handled within a formal grammar confined to the level of the relations of communications itself. At few points in these auspicious beginnings is there much evidence of a serious willingness to come to grips with the labyrinth of linguistic and social theoretical issues surrounding actual communications in society. The problem of praxis and of the community of investigators, raised so skillfully on both sides of the Atlantic in the preceding century, were simply not considered relevant. The lack of references speaks for itself. In retrospect, it seems to have been confidence in the revolutionary capacities of these formal theories that reinforced the arrogant neglect for other issues. But, it must also be seen to reflect upon the thoroughness of their scholarship.

These are wide claims raised by the new communications and there is a great deal of diffuseness and conflict within even the early developments. Some, like MacKay, have preferred to see the early works on information as an advancement on the lines of the subsumption theoretical model of Carnap and the logical positivists. In a number of important cases the extension has been drawn further back to the semiotic of Charles Morris and thus to the original impetus and spirit of the

unified science movement. In a paragraph strongly reminiscent of Morris, even down to the style of the Encyclopaedia, Watzlawich, Beavin, and Jackson in The Pragmatics of Human Communication define the subject as follows:

> We want to suggest that the study of human communication can be subdivided into the same three areas of syntactics, semantics, and pragmatics established by Morris, and followed by Carnap for the study of semiotic (the general theory of signs and languages). Applied to the framework of human communication, then, the first of these three areas can be said to cover the problems of transmitting information and is, therefore, the primary domain of the information theorist. His concern lies with the problems of coding, channels, capacity, noise, redundancy, and other statistical properties of language. These problems are primarily syntactical ones, and he is not interested in the meaning of message symbols. Meaning is the main concern of semantics. While it is perfectly possible to transmit strings of symbols with syntactical accuracy, they would remain meaningless unless sender and receiver had agreed beforehand on their significance. In this sense, all shared information presupposes semantic convention. Finally, communication affects behavior, and this is its pragmatic aspect.[1]

According to this schema the work of MacKay would correspond to the relations between syntactic and semantic concerns,

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1. Pragmatics of Human Communication, pp. 21-22. The source behind this basic trichotomy is Charles Morris, Theory of the Foundation of Signs. Its influence is borne out in Alfred Smith's use of it to organize his textbook, Communication and Culture, a basic primer in the field.

while constituting an advance on the original purely syntactical concern for, one assumes, "meaningless" information measurement.[1] Like the original theorists, the assumption of symmetrically pre-programmed senders and receivers is accepted without any discussion of the basis for such a claim. But, it is in the pragmatic considerations that the authors move substantially beyond the older positions of information content and quantification. They tell us that "the two terms of communication and behavior are used virtually synonymously" because "the data of pragmatics are not only words, their configurations, and meanings, which are the data of syntacts and semantics, but their nonverbal concomitants and body language as well." Older psychological conceptions showed a "strong trend toward a monadic view of man and, consequently, toward a reification of "more

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1. The authors quote with approval the similar schema of F. H. George, The Brain as a Computer, who says "in many ways it is true to say that syntax is mathematical logic, semantics is philosophy or philosophy of science, and pragmatics is psychology, but these fields are not really all that distinct." Ludwig von Bertalanffy, whose prophetic speech is often delivered in his own private language, advances the same sort of claims of a unifying methodology: "there are recent developments, loosely circumscribed by the concept of system, which try to answer the demands mentioned. In contrast to the progressive and necessary specialization of modern science, they let us hope for a new integration and conceptual organization. Speaking in terms of natural philosophy, as against the world as chaos, a new conception of the world as organization seems to emerge" (Robots, Men and Minds, Part Two).

complex patterns of relationship and interaction" for which "human behavior may one day find its adequate expression in mathematical symbolism."

There are times at which that which lies outside the methodological domain of the paradigm of observation with its fixed and knowing eye cannot seem to be of much significance. There does not appear to be much concern with the problem of whether these levels of relationships can be vertically interrelated with each other; it is simply assumed that they must be.[1] Reflection is not a large part of the programme of communications. This is especially obvious in light of the fact that the movement from syntactics to pragmatics, as from the early theories to the later practices, represents a shift from a quantificational theory toward a view of the theory, for instance as articulated in biology and human interaction studies, as purely qualitative and descriptive.[2]

But, it is not these internal problems that I want

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1. It is my contention that apriori constructs of this sort have bedevilled communication theory and especially its application.

2. MacKay himself acknowledges this split, but does not seem to see any need to reflect on what this might mean. It is seen as just one more indication of the potential for scientific progress. See especially Information, Mechanism, and Meaning, p. 18.

to emphasize. It is again the programme and the spirit of the undertaking. Theorists of the new communications saw themselves breaking with past forms of science. "Materialism," Norbert Wiener said, "had apparently put its own grammar in order, and this grammar was dominated by the concept of energy."[1] Conversely, the concept that would order the grammar of communications was that of "information." Information was the "explanatory principle" of human behavior. To past forms, for which the concept of energy-entity was appropriate, the new concept of information-relation stood in the position of a conceptual discontinuity. Placed within the philosophy of science, the theory of information "opened the door for the construction of higher-order (i.e. error-controlled, goal-directed) machines and led to the postulation of cybernetics as a new epistemology."[2]

Lest it seem that the programme envisioned for communications was confined to formal theories and social scientific versions of practice, some philosophical aspects of these claims seems appropriate. The issue of structure versus form that MacKay believed he was bridging with his proposals for

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1. Wiener, "Time, Communication, and the Nervous System," in Miner, ed., Teleological Mechanisms, p. 199.

2. Pragmatics of Human Communication, p. 30.

information measurement, was generally designated within analytic philosophy as the debate between "determinism" and "teleology." That debate, centered essentially about the problem of language, revolved basically over the possibility of explaining human actions. In its more extreme form, reductionists and behaviorists insisted on the possibility of complete description of behavior and the teleologists insisted equally strongly that behavior involved prior understandings of social rules and interactions. Both, as Richard Bernstein points out, were given to apriori beliefs in the possibility of their own method and the impossibility of each other's.[1]

The new communications shared a similar apriori faith in the viability of their method; and, at least so far, a similar resistance to reflection on these prior claims. What significant claim the communication theorists advanced was the claim, obvious right from the earliest work of MacKay, that in the power of cybernetic explanation this dichotomy dissolved. The key concept in this explanation was provided by the "discovery" of feedback. In a deterministic linear system of causation the process is represented by a chain of events in which A effects B and B effects C and so on. If,

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1. Bernstein, Praxis and Action, chapter 4.

however, C or any other event leads back to A, then the system is circular and functions entirely differently. This new configuration of behavior, so it was argued, provided an analogy for those phenomena that had defied a strictly linear deterministic analysis.[1] The phenomena referred to were, of course, the aspects of human and organic behavior generally thought to be outside the reach of the older mechanical and natural scientific explanation.

What is to be emphasized is that this is no argument against the natural scientific method and ideal, no more than it is an argument against logical positivism or reductionism. Its claim, in fact, appears to be directed at their teleologist critics. Mechanistic explanations of the older forms of behaviorism were inadequate to the phenomena of human behavior. They were guilty of a reduction that was not in fact possible; and the teleologists rightly pointed this out. Conversely, to those teleologists who insisted on the impossibility of giving mechanistic explanations to human behavior, the new communications presented their model of a feedback monitored behaviorism. Feedback, it was claimed, represented "the secret of natural activity"; or, more moderately, that which subsumed

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1. Pragmatics of Human Communication, pp. 30-31. Also, the origin of the above quote.

the objections of teleology under an advance in the ideal of scientific accountability:

> Systems with feedback distinguish themselves not only by a quantitatively higher degree of complexity; they are also qualitatively different from anything that falls into the domain of classical mechanics. Their study requires new conceptual frames; their logic and epistemology are discontinuous from some traditional tenets of scientific analysis, such as the "isolate one variable" approach or the Laplacean belief that the complete knowledge of all facts at a given point in time will enable one to predict all future states. Self-regulating systems--systems with feedback--require a philosophy of their own in which the concepts of pattern and information are as essential as those of matter and energy were at the beginning of this century.[1]

Whether or not this is a Hobbesian leap forward as some critics have suggested, it does seem clear that the programme as sketched out by communication theorists perceives the advance to overcome the antagonism between empiricist and cognitive domains. In this sense it captures much of the earlier spirit of pragmatism, buried so successfully by Charles Morris in this century. I want to stress that it is a "perceived" advance because it is my contention that several of the most eloquent spokesmen for the new communications have gone substantially beyond its mechanistic framework, while others have come impressively close to its initial promise. This is the

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1. Pragmatics of Human Communication, p. 32.

historical arena in which a renewed epistemological interest would help to unravel the past twenty-five years of work from its often ideological pre-understandings. In any case, when theories of this sort are taken over into actual empirical practice--and it is forms of clinical interaction that provide the best sort of example--the scientist and his object of investigation have to forego at least partially the rationalistic pretense of the method and work within an intersubjectivity where both sides can sometimes speak with surprising eloquence.

I am anticipating my argument somewhat in order to stress the comprehensiveness of the framework the new communications has had in mind. Ideally, the theoretical claims would receive empirical validation which in turn would increase the descriptive power of the system.[1] The principles of such a system would be mechanistic, because the human organism is a "self-regulating, purposive mechanism" and the system of

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1. To the present, at least, the empirical confirmations have not been overly impressive; but they do likely constitute the "bulk" of the published materials with regard to the new communications. Generally speaking, they are studies that make recommendations to media, bureaucratic policy-making agencies, and, of course, to the communications-manipulation industries, especially advertising. This problem constitutes a needed area for research, if only because the scientist-bureaucrats have become important and, as Bateson says, have sold themselves for a good price.

organism plus environment would be a deterministic one. Communication, in this case, becomes synonymous with the determination of a subject's behavior by the messages it receives. Thayer, for instance, claims that the relations of communication, thus, becomes the sine qua non of behavioral explanation:

> To the extent that any living system--such as a human--is accurately and completely communicated-to by its environment, that living system is perfectly controlled by that environment. . . . For example, if there were but two persons on earth, and their intercommunication was both fully accurate and complete, those two persons would be perfectly in control of each other, or perfectly controlling each other (neglecting other physical aspects of their environment for the moment). . . . "Effective" communication is thus indistinguishable from "effective" (satisfactory degrees of) manipulation and control.[1]

In one way this description is both a refutation of the simplistic behaviorist view that human behavior can be described by S-R arcs and, chillingly, a more sophisticated recognition of the behavioral ideal in terms of the success of feedback control. The question of whether social constructs can be built up in this way, as the question of whether information, purpose, and control can be sufficiently accounted for in such

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1. Lee Thayer, "Communication--Sine Qua Non of the Behavioral Sciences," in Arm, ed., Vistas in Science.

manner are seldom reflected upon. The fact that there may be conceptual frameworks external to the new communications, or that there could be legitimate aesthetic or non-scientific knowledge about human communications gets no real consideration.[1] Moreover, the question of control--the question that many of the most persistent critics consider to be the only one worth attending to--was consistently thrown aside with unreflected phrases like "satisfactory degrees of." Uncontrol, or so it seemed, was always the other side of the divide.

The spirit and tenacity of the new communications seems finally to rest more with the promise of a feedback monitored behaviorism than with the unifying fact of a significant opposition. The question of whether human purpose, norms, goals and so on were sufficient could for the most part be neither confirmed nor rejected since so much of the work was confined to formal argumentation and to communities of believers. The spirit of the movement gave rise to enthusiastic applications across a wide range of communications phenomena for which the

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1. This is apparently still the case, though the ideological fervor of the method has been remarkably muted in more recent times. Bateson recounts that his attempt to hold a Werner Gren symposia on the subject of aesthetics to supplement the original highly successful symposia on human purpose was anything but consoling (personal communication).

idea that these issues might be confined to the level of the relation of communications itself was doubly attractive in light of the suspicions of social philosophy generated by the social science of the time. To the objection raised traditionally by the cultural sciences that human communication could not be reduced to the study of empirical facts, cybernetics and systems theory had responded by taking the paradigm of observation one step further. They eliminated the problem of objects entirely. This, of course, was the methodological fact behind the claim to be able to confine communications to the level of communications itself. Thus, Gregory Bateson's poetic statement of its metatheoretical programme:

> The difference between the Newtonian world and the world of communication is simply this: that the Newtonian world ascribes reality to objects and achieves its simplicity by excluding the context of the context--excluding indeed all metarelationships--a fortiori excluding an infinite regress of such relations. In contrast, the theorist of communication insists upon examining the metarelationships while achieving its simplicity by excluding all objects.[1]

Perhaps the sharpness of the split with more traditional forms of communication study could be understood by a critique of Bateson's description from yet another perspective: to the

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1. "Minimal Requirements for a Theory of Schizophrenia," Steps to an Ecology of Mind, p. 250.

claim that the theorist of communications ascribes reality to metarelationships and achieves simplicity by excluding all objects, those concerned with the interaction and self-formation of communicators respond that the attempt to objectively account for the existential intersubjectivity of human communication by recourse to some form of deep structural relationships is an attempt to explain communications in the absence of a subject.

PART III

ANTICOMMUNICATION:

Systems of Symbolic Interaction

CHAPTER V

METATHEORETICAL INVESTIGATIONS

I want to forestall a possible source of confusion. I have argued thus far as if communications were a highly visible set of central problems for which a real field of investigation exists. It is true that there is some consensus amongst groups of social and cultural scientists as to what constitutes the basic problem area; equally there are some deep divisions over what kinds of procedures are permissible or necessary. The investigation so far has tried to suggest this. The early concern with the measurement of information and meaning--and the somewhat overlapping interest in the analysis of the information-content of "mass media"--might seem to suggest the centrality of language and linguistics. But, the general issues of communications have always been conceived of as being wider than the concern for language. Nor has the rise of institutions concerned with turning out communications specialists, primarily, though by no means exclusively, for the communications service industries,

done much to assist the raising of questions.[1] In all, the attempt to study the problems of human communications has proceeded very much along the lines suggested by Jerome Ravetz as typical of an immature and ineffective field of inquiry.[2]

In Ravetz' view, the "condition of ineffectiveness or immaturity" is not seen as simply the symptoms of an early stage of development. Inappropriate methods, chosen to emulate the mathematical-experimental natural sciences or to be falsely identified with one, can mediate indefinitely against the hard problems of attaining real maturity. This in turn creates difficulties with attaining quality in on-going teaching and

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1. It is very hard to judge whether the typical concerns of communications schools and their journalistic cousins have worked for the isolation of intellectual interests--and, paradoxically, the hindering of communication--or whether, in their quest for professional status with its seemingly unavoidable emphasis on identity and self-image, they simply drove faculty and students raising the wrong questions into other fields. Research into these aspects of intellectual activity is very inadequate.

2. Ravetz, Jerome R., Scientific Knowledge and its Social Problems. This is an enormously appropriate book to the present state of affairs in the so-called human sciences (I intend this term to refer to both the social sciences and the cultural sciences; it does not merely mean the humanities). It masterfully steers between the problems of sectarian academic strife and the overpompous claims for types of measurement scholarship. In this regard, the work of Gerard Radnitzky has been of great personal assistance in dealing with the task of sorting out the salient issues from the quantitative overestimation of scholarship. See especially Radnitzky, Contemporary Schools of Metascience.

research. Moreover, when immature and ineffective sciences are called upon to deal with practical social problems, the whole situation is compounded by the influences of its "folk-science" associations. Taken together, Ravetz believes, the outcome is most always the submergence of the immature field under the recurrent tension of political and ideological conflicts.[1]

The pessimism of this assessment springs not so much from the obstacles to "maturity" as from the recognition that the increasing complexity of social problems is likely to demand an increasing involvement of immature and ineffective fields in public affairs and social practice. Ravetz finds three characteristics especially compelling: the difficulties of trying to be like the natural sciences, the problems of hypertrophy, and the influence of folk-science.

The difficulty in trying to adhere to the image of natural science is more or less the problem of what constitutes positive knowledge for a given domain. Positive knowledge for mature science is usually measured by the achievement of new facts. In contrast, much of what is most problematical for immature fields is the lack of any good consensus on what

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1. Ravetz, Scientific Knowledge and its Social Problems, pp. 400-02.

constitutes the nature of the facts. This is most evident in the persistence of older "facts" even in the light of their supposed refutation. Indeed, it appears to some that the attempt to study human behavior with the method of mathematical-experimental natural science is for this reason sharply paradoxical.

It is well established that the rise of modern science was, in part, due to its success in dealing with the counter-claims of organized religion and alchemy. In the case of the former, much was dependent upon timing and larger historical contexts; but, in the case of alchemy, natural science held a clear-cut methodological challenge. To the alchemists' assumption that some degree of interaction was always involved with the object domain, natural science insisted that no interaction was possible because no "human" qualities resided in their object domain at all. The paradigm of observation, they insisted, placed reason in the neutrality of the scientific activity; and the alchemists' paradigm of interaction or dialogue was accordingly banished from the ranks of science.

The effort, confined largely to the present century, to apply "science" to the study of human behavior has been more than mindful of the disgrace of the alchemists. On the one hand such attempts to provide objective knowledge are

critically judged to have produced little more than "intuitive generalities dressed up as empirical laws, and insecure theoretical speculations masquerading as fundamental explanations"; while, on the other, each minor success is imputed to inform the sorcerer's apprentice. Studies of human behavior have seldom confronted the realities of these criticisms; indeed, have consistently seen their attention directed elsewhere. And yet, even as some progress is made, the feeling persists about behavioristics that the effort to eliminate the interaction between scientist and his object has always been guided, like a response to the spector at one's shoulder, by the wish to banish the alchemist from that very domain science had left him to.

For many critics, these efforts and the concomitant continuing immaturity of their fields must be seen as the result of methodological failures to produce significant facts. The contemporary history of most social sciences is replete with monumental efforts to produce empirical data and, in turn, to bring these masses under control through the application of computational technologies. The strategies by which such intellectual labor is organized necessitates the construction of highly sophisticated representational schemes and the selection of appropriate methodologies through which the

whole process is rationalized. These efforts, which are themselves seldom justified by the problems at hand, converge in the single-minded attempt to reproduce what Ravetz calls "the crucial feature of an established science." Moreover, since such efforts are themselves bound into the establishment and growth of an institution, subsequent work is usually drawn toward refinements on the original insights of the founders and most often in the name of institutional stability. Nor are these merely quixotic features of growth, for "the condition of ineffectiveness is not an accidental deficiency in some component of the materials of a field, but is a systematic weakness in those materials and in the social activity whereby they are produced."[1]

The weakness discerned here is a weakness in the social aspects of these forms of inquiry, which in a major sense is their legitimate domain. This is especially true when social or practical problems are set up as the basis for research. Here the problem of disproportion becomes evident: for the problems occasioned by interruptions, often of a technologically inspired sort, into the on-going social reality call for the ability to assimilate quantities of information and

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1. Scientific Knowledge and its Social Problems, pp. 368-69.

change which are, for the most part, historically unprecedented. In such circumstances, the monitoring capabilities of society, its mechanisms of direction and control are themselves the most obvious sources of distress. Ravetz refers to this phenomena as hypertrophy; and it is to this kind of social context that the research-activity of modern immature and ineffective science is most often linked.

Placed in the context of increasing social complexity and increasing institutional opportunities for expanded research, the contradictions of a hastily summarized body of essential knowledge are usually heightened. Denied the opportunity for broadly based education and reflection, the tendency has most often been for immature fields to develop along the lines of specialization, where the consultative role of such research is directly connected to possible intervention in the practical and technical problems of human behavior.[1]

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1. Ravetz claims that the institutionalization of this pattern is perhaps its greatest social problem; and to the extent that it is attached to "science," becomes an important factor in public reactions to all the activities of established science: "In the absence of effective controls from within the discipline, or from neighbouring subjects, the worse excesses of entrepreneurial and shoddy science can occur. . . . The growth in volume of research provides an opportunity for an expansion of the institutional apparatus, including an academic base. There soon appears a structure of post-graduate and then undergraduate courses, mainly vacuous in content and largely . . . /

The problems of managing the internal novelty of an immature field is thus compounded by the external tensions of hypertrophy and its inevitable demand for consultative knowledge that weakens the possibility for methodical progress and controlled reflection. This demand for consultative knowledge to deal with practical problems, moreover, seems strongly influenced by the role of folk-science. Folk-science refers to the general and specific role that science occupies in public opinion. In this sense, "science" is itself the leading folk-science of the present century; but it is particularly in the ideologically sensitive areas of human and social behavior,

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1. (cont.) taught by a mixture of mediocrities, philosophers manqués, and entrepreneurs. All the contradictions inherent in the teaching of immature sciences are made more acute, as the small core of successful craft techniques and aphoristic wisdom is embedded in a doctrine imitating a matured science, theoretical and applied. 'Pseudo-science' is not the most appropriate term for such fields, for they are not essentially misconceived in the problems and objects of inquiry. But if we describe them as 'cliche-sciences' we will characterize their distinguishing feature: the genuine insights at their base, which may well be valuable in the education of students whose previous experience is utterly foreign to the area of inquiry, become reduced to cliches as teachers and researchers in the field rub them together in an attempt to produce a plausible fascimile of scientific arguments" (Ravetz, Scientific Knowledge and its Social Problems, pp. 384-85). Communication studies have been afflicted by all these characteristics to some degree. Moreover, this has been compounded by the intrusion of other equally immature sciences into its own development: statistical social psychology, political game theories, behavioral engineering are all examples of ill-defined adventures that have received attention.

where science has become bound up with the inexorable advance of technology itself, that the conflict is sharpest.

In the case of communication studies, the interaction of the "discipline" and the "folk-science" had been of a deeply subtle nature.[1] It is beyond question that the common-sense aspects of "communication" have been broadly popularized by the folk-science tradition that has provided an on-going awareness of especially the technological and industrial side of this phenomena. It seems equally unquestionable that the conventional wisdom of the folk-science has itself considerably influenced the practitioners of the discipline; and strongly affected those relationships between students, bureaucrats, and businessmen who are initially attracted to the discipline by the pervasiveness and promise of the common-sense expositions. Such a feedback of interest cannot be ignored without damaging

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1. At one time I had argued rather strongly that McLuhan represented an appeal to exactly this "folk-science" audience; and that this could be seen in the quick and notorious adoption of his personal consultations by such pseudo-scientific practices as advertising, management, and so on. I argued at the time that McLuhan was acceptable because he presented a Whorfian world view that promised successful intervention and manipulation for the managers of products; or, at least a good line of argumentation for getting new accounts. I now believe this was a real disservice to Whorf on my part; and, moreover, a confusion of the "discipline," which Whorf surely advanced, and the "folk-science," which has followed him like a dogged army of concessionaires.

the life-line of the profession; and it cannot be encouraged at the cost of undermining the status of the research-activity itself. Such a paradoxical interdependency argues that the separate activities of discipline and folk-science perform different functions within the same social enterprise.

This predicament is not atypical of most human and social sciences; and, moreover, seems reinforced by the growing educated sector of society. Certainly communication studies has enjoyed notoriety as a natural concern for the social scientist in the role of liberal reformer; but equally it has served the business-minded and the humanist looking for ways to confront the technological ambience of the age.

The problems of negotiating the interaction between the inner perfecting of scientific knowledge and the outer demands of public opinion and modern expectations place the immature science within a context that cannot be accounted for by recourse to its own myth of positive science. Again, this suggests that the feedback of social conditions is inseparable from those recent scientific disciplines that take aspects of that same social or human condition as their subject. In the case of communication "science," especially as it developed in the United States, an identity was established throughout with the physical technology of communication media. Theories

of the diffusion of information,[1] which had important origins in the activities of newspapers and agricultural innovation, consequently shifted with each new technological advance in radio, film, television, and so on. This trendiness was additionally reinforced by the evolution of computational technology which, often developing from the same theoretical sources and similar engineering competences, provided a set of tools which appeared to further the entire process of legitimation. Armed with computer programmes and other research strategies, the institution of communication science established itself like a parasite on the back of the communication whale.

The inherent dangers of such a relationship are numerous: the overestimation of scholarship brought on by computational wizardry, the lack of a grounding for the recommendations advanced in any firm understanding of history or society, the absence of a theoretical basis in a "mature" discipline. But, perhaps most serious is that characteristic which has dominated recent growth patterns of the social sciences generally--the pressing practical problems attached to the entry of technological change into the life of society and the subsequent

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1. See, for instance, Rogers, The Diffusion of Innovation.

resort to "scientific" analysis and advice. But, the "success" of the natural sciences vis-à-vis the control of physical nature holds out an impossible promise to the scientist of social reality. Society is not objectifiable in the way nature appears to be. Human history does not hold still for analysis, but incorporates such analysis into its own variation of myth. In Ravetz' view, "pseudo-research is one of the symptoms of the diseased state, and sophisticated criteria of adequacy of results (as 'falsifiability of theories') are irrelevant to situations where conflicting purposes and ideologies are central to the problems, and the discipline's function as folk-science cannot be eliminated."[1]

Ravetz' view is an extreme one in its pessimism. The immature and ineffective state of a science is likely to yield up a few aphoristic insights and possibly a few reliable tools and techniques. It is, by the very nature of its age and circumstance, piecemeal and pluralistic. The consultative status accorded it in larger social and political questions can lead to inflated misconceptions of its importance as a body of theoretical knowledge. What needs to be stressed is that the differences within communication studies are of this order;

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1. Scientific Knowledge and its Social Problems, p. 400.

and similarly much too extreme to permit one, except by apriori fiat, to conceive of it as a central body of thought. The growth that has characterized the subsequent development of the new communication took both empirical and cognitive turns that have furthered the idea that some basic change, even revolution, was underway in the study of human communications. This image of development and its spirit constitute the real center, to which the scattered and piecemeal efforts lead. The nature of the problems, the particular subject matter, the methods and what was admissable evidence have all been matters of ebb and flow.

Hopefully some sense of the radical nature of the claims advanced by the new communications has been established. The shift from energy-entity models to information-relation models was seen as having significance far beyond the question of communications. The behaviorists' programme was considered supplanted by a much more ambitious conceptual scheme. Yet, in the light of Ravetz' radical pessimism, if this change is to be understood in terms of its bare quarter century of development, some more basic characterization than those offered by its proponents is needed.

Though the growth of knowledge is an area of no broad agreement, it seems clear that within a given set of problem-interests there are periods when some research-interests have both impetus and exposure and other research-interests remain in the shadows. It is well established that the dominance of a particular research-interest can seldom, if ever, be explained solely by recourse to science itself. Yet, any attempt to widen the context beyond the logic of science involves one immediately in a vast set of historical and socio-political factors. In the face of such perplexity, it has been customary to relate major advances in a particular discipline to the availability of techniques, hypotheses, and research-strategies. Intelligently carried through, such analyses often bring to light features of research not always acknowledged by the principals. In retrospect, it seems, for instance, that such an important communication development as kinesics would have been practically impossible without the technology of film and video.[1]

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1. I am indebted to Donald Theall for this insight. The impact of technological forms on social research is highly evident in areas such as anthropological linguistics (tape and wire recording), ethnological studies (film, video), and so on. In the case of kinesics and context analysis it is the particular assist that communication technology provides that I want to emphasize (Birdwhistell, Kinesics and Context; Schefflin, Context Analysis). An example of arguments that overstate this case is the Whorfian wilderness offered up by Edward Hall in The Hidden Dimension; and, of course, the later works of McLuhan.

This is not, I think, the case with the growth of the central concepts of the new communications. Seen from the side of the new communications itself, the model of scientific revolution offered by Thomas Kuhn is somewhat more appropriate.[1] In Kuhn's schema, a revolution is characterized by a basic change in the paradigm of description and explanation itself. The "paradigm" is a universally accepted model and, under conditions of "normal science," is the object of further articulation and refinement. As such the operation of the paradigm tends to repress innovation and to stabilize attention around the matching of new observations with established theory. It is when "anomalies," or problems, begin to occur with some consistency in this pattern that the conditions for a paradigm "shift" appear. Observations that cannot be handled within the established system become preoccupational, new rules and principles are evolved and violation of the paradigm becomes

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1. Kuhn, The Structure of Scientific Revolutions. I am aware of those more recent claims by Kuhn that his model of paradigm and paradigm shift is not intended to cover conditions of the cultural and social sciences. On the other hand, there are examples of the fruitfulness of such applications; for instance, the modified use demonstrated in Robert Friedrick's A Sociology of Sociology. Since my own intention lies in the direction of explicating salient features of the image of science and the self-image of communications research, some use of the Kuhnian model seems appropriate.

frequent. In such periods a great deal of uncertainty is produced. There does not follow a period of gradual development of a new perspective. The change that does occur is usually a powerful rejection of the old paradigm and a major shift in the evaluation of observations and practices. New hypotheses are advanced and speculative theories put forward, which in turn may lead to the formation of a new paradigm.

What changes then in a Kuhnian revolution are the very kinds of observations, descriptions, and explanations that had previously been accepted as foundational. In this way attention is often focused on aspects which, for preceeding investigators did not even have the status of an interest. This degree of change is what the new communications has always insisted was basic to its programme.

Some appreciation of this can perhaps be gained by locating the kind of historical dichotomy that became obvious with the rise of the new communications. The particular ideal of science to which the new communications attends most readily is that of the convergence of disciplines and the systematizing of knowledge. Against the trend of modern science to overspecialization, they argue, it is possible to see in the development of information, cybernetics, systems and other communication theories a new integration and conceptual organization. This

new conception of the world as organization is the key to a scientific image of man wherein the faultiness of our former perceptual schemes is replaced.[1] Applied to human communication, the paradigm of observation reveals the informational nexus at the heart of human activity.

It may be possible to gain a clearer sense of the image and ideal to which this communication revolution attends by recourse to the competing semiotic perspective of the cultural sciences. In contradistinction to the new communications, whose paradigm of observation attempted to make the communicators' presence in the world no more than a virtual presence, the cultural sciences have always claimed to be concerned with the actual structures of discourse as constitutive of social reality. Though this distinction has traditionally been argued out in terms of what constitutes a proper object domain, what is essentially at issue is the claim that the discourse of the cultural sciences is practical and thus does not need recourse to the

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1. Here is von Bertalanffy's assessment: "there are recent developments, loosely circumscribed by the concept of system, which try to answer the demands mentioned. In contrast to the progressive and necessary specialization of modern science, they let us hope for a new integration and conceptual organization. Speaking in terms of natural philosophy, as against the world as chaos, a new conception of the world as organization seems to emerge." Ludwig von Bertalanffy, Robots, Men and Minds (quoted with approval in Ervin Laszlo, Introduction to Systems Philosophy, p. 13).

privileged limited language of a community of scientists. As such, it is claimed to be both prior to all special languages and its discourse practically linked to the ordinary language of everyday life.

It is worth noting that the origins of communication studies in this century often found their qualitative dimension in the dissenting structures of the social and political environment. For many of the most persistent voices addressed to the issues of communications in society, the conflict of ideas was mediated not by a community of scholars confined to discussions on the level of the relations of communications, but by what actually got communicated. In their interpretations of actual communications, they conceived of alternatives. Their discourse did not claim to represent a world by recourse to a neutral language of objectivity, but contrarily to reveal a world. Thus, on the level of practical public communication, these efforts linked up with the traditional interest of the cultural or "hermeneutic" sciences in renewing and repairing through interpretation "the discontinuous and broken dialogue of humanity with itself."[1]

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1. There are numerous sources that credit the origins of the cultural critique of communications to such a maverick of the symbolic interactionist approach as Kenneth Burke. . . . /

What served basically to inform this practical form of discourse was a concern with action-oriented understanding. The constant object of that understanding was lodged in a dialectic that moved critically between the hypostatized forces of the present and the unreflected forces of the past. Communications in society was to be confronted by a process of enlightenment aimed at understanding its meaning in terms of standards, norms and ideals that were not merely given, but themselves open to question. Necessarily, the discourse presented tended to be both open-ended and seemingly without a sufficient basis for procedural recommendations.

This does not do justice to the subtlety and sophistication of the cultural sciences looking at communications; and I intend it only to present a stylized sense of the traditional culturalist perspective against which the new communications

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1. (cont.) H. D. Duncan, for instance, insists that Burke's efforts to relate symbolic and social experience provide the first important methodology for showing how symbols created their effects as symbolic forms, that is, how they are constitutive of social relationships and communication in society (Duncan, "The Search for a Social Theory of Communication," in Dance, Human Communication Theory). Beyond the significance of his methodology, Burke's work is exemplary of a critical activity that directed itself to the conditions of actual communication and to repairing through interpretation the distortions and misconceptions of its practice (Burke, Permanence and Change, The Philosophy of Literary Form, and Attitudes Toward History). I am indebted to Donald F. Theall for disclosing these dimensions of Burke's work. Quotes are from Michael Cuthbert, unpublished manuscript, 1971.

felt justified in seeking to create an identity with "the scientific image of man and society." In a wider sense, it is also the general condition through which the reflection of the cultural sciences is said to be repressed and, so its critics claim, the reduction of communications to a positive one-dimensionality completed.[1]

These are not merely polemical claims against the programme of the new communications. The development of symbolic interaction theory as a competing semiotic significantly antedates and overlaps the entire period in question.[2] Similarly, the massive studies of the Frankfurt School in the 1930s and subsequently during the war years in the United States could be viewed as an anticipation of yet another variety of claims

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1. Michael Cuthbert, personal communication. It is interesting to note that this theme is consistently developed from the 1930s through the 1960s by such ideologically disparate viewpoints as Herbert Marcuse (One-Dimensional Man), Lewis Mumford (The Pentagon of Power), and C. P. Snow, (The Two Cultures). In the case of the rise of the new communications, much less effort appears to have gone into a critique of the culturalist perspective than into the effort to create an institutional identity for the new communications with established science.

2. See Duncan, Language and Literature in Society, or Communication and Social Order, for the contribution of symbolic interactionists to communication studies.

raised against the positivist turn.[1] In more recent times the set of issues raised by the cultural sciences has been given renewed relevance in interest surrounding the work of several German scholars. Exemplary of this scholarship is the work of Jürgen Habermas, who has attempted to locate systematically the historical antecedents of the split generated by the "scientific image" of man and society.[2] Following several of Habermas' distinctions, a sharper metascientific focus can be attempted.

According to Habermas the basic dispute between formal sciences and the cultural sciences hangs on epistemological attitudes toward the domain of ordinary language communication.

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1. A distinction is in order here. The Frankfurt School did utilize a good deal of empirical and analytic sophistication in their earlier studies (see Martin Jay, The Dialectical Imagination, for their first studies of authority and empirical investigation in the 1940s). By comparison, their work on mass media and mass culture (Max Horkheimer and Theodor Adorno, Dialectic of Enlightenment), completed while exiled in the United States, was strongly polemical and characteristic of the very real despair for all manner of German scholarship then addressing a foreign public. Their real target, while in the United States, seems to have been the unrestricted limits and use of quantificational methods, such as that of Paul Lazarsfeld and others in media studies. I do not intend their example to be a direct anticipation of the new communications, but an example of the antecedents of the competing epistemological interests for communication studies.

2. Habermas, Zur Logik der Sozialwissenschaften and Knowledge and Human Interests.

Accordingly, the basis of mutual understanding in ordinary language communication is, in the case of the strict empirical sciences, presupposed by members of the process of inquiry and, in the case of the cultural sciences, claimed as inquiry's authentic domain. The manifest image of man put forth by the cultural sciences, then, reveals a contradictory situation wherein the "cultural life context is formed on a level of intersubjectivity that is presupposed by strictly empirical science but cannot be analyzed by it." Habermas argues that this distinction is cognitively real and, therefore, holds when the perspective shifts from differences in the languages of the cultural and strictly empirical sciences to that of the empirical-analytic sciences of man and society.[1]

The ideal aspired to by the empirical-analytic sciences may be roughly schematized by the following: (1) Theoretical propositions require a monologic understanding of meaning.

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1. Knowledge and Human Interests, pp. 140-41. Habermas' use of the term "empirical" refers to the experimental-mathematical natural sciences. This is a continental European preference. Those social sciences that adhere to the image of natural science are called empirical-analytic sciences, thereby acknowledging the connection to the early analytic philosophy of language which has so often been drawn upon for philosophical justification. Habermas characterizes this way of facing reality as positivism, or neo-positivism, to distinguish it from its nineteenth century precursors.

(2) All propositions that can be expressed in a formalized language are theoretical. (3) These theoretical propositions are elements of "pure" language--a calculi. (4) Formalized statements are purified of all that is not on the level of symbolic relations. (5) This purification requires the strict separation of propositions and facts. (6) Just as the monologic understanding of meaning is defined by the exclusion of factual relations, so controlled observation is defined by the exclusion of symbolic relations.[1]

By contrast, the cultural-hermeneutic sciences find their ideal within the traditional context of meaning: (1) From the methodological viewpoint the appropriation of traditional semantic content is problematic. (2) This is so because the meaning to be explicated here has the status of a fact; it is empirically given. (3) The understanding of the cultural hermeneutic sciences can never eliminate all contingency, otherwise it would turn into reconstruction. (4) The reconstruction of formal relations is made possible in pure languages by metalinguistic rules of constitution which allow us to reproduce every statement in such a language.

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1. Knowledge and Human Interests, pp. 161-63.

(5) In traditional meaning structures we do not possess such rules of reconstruction so we must apprehend symbolic relations as relations of fact. (6) Thus hermeneutics must be both a form of experience and grammatical analysis at the same time.[1]

The tension between these two seemingly irreconcilable ideals of discourse would appear to reside in their different ways of understanding experience. As ways of knowing (cognition) they stand in a position of conceptual discongruity to one another. Thus, in the case of empirical-analytic sciences, singular experience must always be adapted to the universal expressions of a theoretical language:

> Theories of the empirical sciences contain information about reality from the viewpoint of possible technical control everywhere and at all times under specifiable conditions. This has its counterpart, therefore, in a form of generalized experience that arises in the behavioral system of instrumental action. This experience abstracts from all connections with life history. Experimentally produced phenomena are based on the suppression of all aspects of life experience in favor of a general effect, i.e., one that can be randomly repeated. This specific objectification of reality serves to mold subjectively tinged concrete experience, bringing about its transcendental a priori adaptation to the universal expressions of a theoretical language in which names of individuals cannot appear.[2]

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1. Knowledge and Human Interests, p. 162. But see also Hans-Georg Gadamer's objections and Habermas' reply in Continuum, No. 4, 1970.

2. Knowledge and Human Interests, p. 162.

In contrast, the cultural-hermeneutic sciences attempt to understand experience through adapting the language of the interpreter to the life experience concentrated around individual meaning:

> . . . the quasi-inductive course of the hermeneutic sciences is based on the specific capacity of ordinary language, which makes it possible for the function of general categories to be communicated indirectly in a concrete life context. . . . Ordinary language obviously has a structure that adequately allows what is individual to be rendered understandable through general categories in the dialogue relation. It is this very structure that must be used in hermeneutic understanding as well, which merely makes a methodical discipline of the everyday communicative experience of understanding oneself and others. However, hermeneutics can be elaborated as an explicit procedure only if it is possible to explain that feature of the structure of ordinary language which enables it to do what the syntax of a pure language prohibits, namely, to make communicable no matter how indirectly, what is ineffably individual.[1]

Habermas argues that this dichotomy in the ways of understanding experience stands as a deep epistemological division in the production of knowledge. For some, this has served to demonstrate that our professed concern to explain human activity by recourse to a language of "information-measurement and testing" is surely an illusory one. They counter that the paradigm of observation must always become

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1. Knowledge and Human Interests, p. 163.

at some point a paradigm of dialogue and that, moreover, this must lead to recognition of a basic opposition: that the language of precision must rule out those aspects of experience which communicators themselves agree to be vague and indefinable. The phenomenal character of much that we can experience and describe symbolically, it is argued, is necessarily ambiguous and unstatable within artificial languages.[1]

To such terminal defenses of manifest realities it has been traditional within science to accept the usefulness of such experience to science as a "heuristic," but to argue to be able to mount a language of precision at a deeper structural level which will sufficiently account for such phenomena. Further information about objectified processes in nature and society would still be expected to resolve problems of a first-order naturalism on the level of a second-order logicality.[2]

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1. Precision usually requires the translation of observations into numbers, which then become the available data which the scientist manipulates. It hardly needs to be repeated, but, in the domain of human and social behavior, these numbers do not constitute facts. They are at best estimates; and it is one of the problems of representation, that the data once collected are no longer "raw"--but less capable of resistance.

2. In its most extreme form, earlier varieties of this argument insisted that the "heuristics" of emotion and aesthetics entered into the language of science in the same way as a good cup of coffee assisted the scientist in his activity. The biochemical possibilities aside, Karl-Otto Apel has called this particular example of neo-positivist wisdom "the cup-of-coffee theory." Apel quotes Otto Neurath, a member of the . . . /

I want to make it clear that these metatheoretical problems are not a philosophical digression from my concern with the development of knowledge about communications. It must be recognized how often the dispute over method has come down to territorial imperatives. The metatheoretical divide has been set-up in order to return to the language of information-measurement and testing and to ask what it means to construct such a language in the context of communications-in-society.

Anthropologists[1] describe a variation of the tower of babel myth amongst Indians of the American northwest. One of the tribes of that area, the Quileute, believed that, in the beginning, each individual had his own separate language and that the subsequent creation of a language community was

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2. (contd.) original Vienna Circle, as follows: "Empathy, understanding and the like may help the researcher, but it enters into the system of statements of science as little as does a good cup of coffee, which helped the researcher to do his work" (Apel, Acta Sociologica [1972] 15, p. 14). Again, it is not hard to see the image of the alchemist guiding the neo-positivists' reaction to any possible interaction of scientist and object domain, an interaction that Apel insists constitutes the communicational a priori of all theories of understanding.

1. Bob Scholte, personal communication. But, see also Hymes, Reinventing Anthropology, Introduction; and Hymes, "Speech and Language: On the Origins and Foundations of Inequality Among Speakers," Daedalus (1971).

accomplished by a culture hero or transformer. Though this particular myth does not deal with the further spread of language through organized forms of domination, it seems historically correct to say that the self-image of subsequent conquerors in disseminating their own language has maintained consistently the ideal of cultural ascendancy with that mythologically provided role of the transformer.

In an unfair way, the placing of man's communicative behavior as the central object of concern is very much of this order. Against the older and largely European concern for viewing the products of culture in an historical context, the new communications, as it has taken root in the Anglo-American world, has always been in pursuit of that unity of description and detachment that the paradigm of observation had granted the natural sciences vis-à-vis a physicalistic realm. As such, communications represented more than the transfer of the image and ideal of natural science to a social environment. The programme of the new communications conceived its research-guiding interest to reside in providing that link between the basic inner environment of physiological man and the outer environment in which he behaved. Both these environments were conceded to be the proper province of natural science; but it was the "interface" linking them that simultaneously provided

the science of communication with an object domain sufficiently distinguished from that of natural science and a rationalization for the further extension of its paradigm of reduction and methodological individualism.

The research-guiding interest in overcoming the balkanized voices of concern for communication studies reveals at its base an image of science that is monistic. Exemplary of this is the work of Herbert Simon. In The Sciences of the Artificial, Simon claims that the methods behind the concern for information, communication and system constitute a structure for accommodating those aspects of empirical reality that are "artificial" rather than "natural." The shape of such a science is suggested by the issues of human psychology and engineering design; its goal is the empirical description of the contingent and teleological character of human choice and purpose:

> A man, viewed as a behaving system, is quite simple. The apparent complexity of his behavior over time is largely a reflection of the complexity of the environment in which he finds himself . . . A human being is an adaptive system; his goals define the interface between his inner and outer environment. To the extent that he is effectively adaptive, his behavior will reflect characteristics largely of the outer environment (in the light of his goals) and will reveal only a few limiting properties of his inner environment--of the physiological machinery that enables him to think . . . Specifically, I

> should like to point to evidence that there are only a few "intrinsic" characteristics of the inner environment of thinking man that limit the adaptation of his thought to the shape of the problem environment. All else in his thinking and problem-solving behavior is artificial--is learned and is subject to improvement through the invention of improved designs.[1]

A quarter century of research in this area Simon believes to constitute a new linking of cognitive and empirical dimensions, "an information-processing theory of man's thinking processes that provides an operational, empirically based alternative to behaviorism." Man's objectifications and man himself become part of an artificial system, bound up in a purposive goal-directed relationship with its natural environment. Communication, as part of the domain of the artificial, displays four key limitations:

> 1. Artificial things are synthesized (though not always or usually with full forethought) by man.
>
> 2. Artificial things may imitate appearances in natural things while lacking, in one or many aspects, the reality of the latter.
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> 3. Artificial things can be characterized in terms of functions, goals, adaptation.
>
> 4. Artificial things are often discussed, particularly when they are being designed, in terms of imperatives as well as descriptives.[2]

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1. Simon, The Sciences of the Artificial, pp. 25-26.

2. Ibid., pp. 5-6.

The problem-interest that Simon designates for the artificial sciences is the control of complexity. In parallel with the natural sciences, complexity is seen as a central structural theme, usually hierarchic in form, that displays to the scientist "common properties that are independent of their specific content." The value of such descriptive systems is that they allow a decomposition into subsystems in order to analyze their behavior.[1]

A problem-interest in the control of complexity through the rise of increasingly sophisticated systems descriptions contributes to a research-guiding interest in developing a unified language of science by claiming to link the cognitive and the empirical through a theory of artificial systems said to mediate the interface of inner and outer natures and to overcome the conflict of reductionism and holism.[2] Again, the validity of the particular claims aside, the characteristics presented are those of a "naturalistic approach" for the study of man and society that reveals an image of science that is

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1. The Sciences of the Artificial, pp. 86-88; "The Architecture of Complexity" contains the most fully developed argument for this perspective.

2. Ibid., p. 86. "In the face of complexity, an in-principle reductionist may be at the same time a pragmatic holist."

overwhelmingly monistic: the ideal of a unified science, its imitative physicalism, a componential study of behavior.[1]

The control of complexity as the basic problem-interest was evidenced not only at the level of emerging theoretical and descriptive capacities, but perhaps more cunningly in the potentials of communications technology itself.[2] In an ironic twist on forms of technological determinism, it seems in retrospect that the magnitude of problems of information diffusion generated by the new technologies of mass media was matched overnight by the data-processing capabilities of computers and their programmes. The generative complexity of communicational technology saw itself equalled by a near concomitant rise in the descriptive complexity of computational technology. The fact that the "perceived" means for the generation of complexity and the "perceived" means for its descriptive control are, in fact, of the same machine-technological order does not of itself provide much of a platform to insist, as is not infrequently heard, that to study things in this way is not a form of technological determinism.

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1. But see E. McMullin's critique of this position in "Man's effort to understand the universe," in Roslansky, J. (ed.), The Uniqueness of Man.

2. The Sciences of the Artificial, pp. 13-22.

If one does insist that technological determinism is not of this order, one must know what other order it could describe more accurately. Consider the definitional argument by which Simon resolves a primary distinction of physical and social complexity by recourse purely to technological forms:

> There is one important difference between the physical and biological hierarchies, on the one hand, and social hierarchies, on the other. Most physical and biological hierarchies are described in spatial terms. We detect the orangelles in a cell in the way we detect the raisins in a cake--they are "visibly" differentiated substructures localized spatially in the larger structure. On the other hand, we propose to identify social hierarchies not by observing who lives close to whom but by observing who interacts with whom. These two points of view can be reconciled by defining hierarchy in terms of intensity of interaction, but observing that in most biological and physical systems relatively intense interaction implies relative spatial propinquity. One of the interesting characteristics of nerve cells and telephone wires is that they permit very specific strong interactions at great distances. To the extent that interactions are channeled through specialized communications and transportation systems, spatial propinquity becomes less determinative of structure.[1]

Interaction, in Simon's argument, becomes purely a function of communications technology. Nor is this an unusual aspect of a paradigm of observation that excludes human agency in the quest for control of complexity. The decisions by which

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1. The Sciences of the Artificial, pp. 89-90.

questions of place, in which agency and identity are central, are replaced by questions of space is basic to the entire process by which formal logics bracket out aspects of social reality by fiat and without theoretical justification. Moreover, it is these kinds of decisions that make problems of communication and community appear resolvable to the technocratic-bureaucratic mind purely in terms of decisions restricted to communications technology.

Isolated to a domain of feedback monitored control of complexity, the study of such communicative behavior reveals a clear reductionist ideal. The kinds of insights provided are no doubt of some value in revealing the channel-specific functions of communications technology in society. In revealing certain general characteristics of media, for instance, such research has proved of instrumental value to the development of mass communication. But, aside from these obvious contributions, the problem is that most communication begins where the monitoring capabilities of technological forms of empiricism leave off.

There is a more serious flaw in the well-armoured programme of techno-empiricism. It has been pointed out against universal grammarians that communication in society cannot be

equated with a common language. This criticism holds equally well against the much cruder syntactical and architectonic schemas of communication studies. Structuralists of all guises have always claimed to be able to resolve the problems of social reality by reducing key aspects of that reality to a language, i.e. language of film, language of television, non-verbal languages. Equally, the empiricists have committed themselves to the same programme, not by reducing communications to a language or code, but by first reducing communications to a function of communications technology that is itself reduced to an easy object of the monologic of behavioral science.

Against this overall programme, several species of objection have been raised in recent times. It must be emphasized that these are objections that could not have been possible without the previous accomplishments of communication science in that they take these accomplishments as the basis for their critique. In this sense, the issues raised are really issues raised by communication studies in spite of itself. They are, to some extent, arguments raised from what I have called a concern with the level of the interaction of communicators; and they can serve as an introduction to the general paradigm of dialogue.

To have a direct concern with the interaction of communicators is frequently to adopt an historical or ethnographic approach. This is especially true if the concern is with "meaning complexes." Meaning complexes refers to a primary emphasis on symbolic systems, value systems, and forms of life. Methodologically it tends toward a pluralistic image of man and society: the belief that the behavioral concern with "explaining regularities" is only one form of science; and that the products of cultural activity demand a corresponding concern with "understanding contexts." I would like to examine several of these objections to the questioning context of communications under three broad themes: ways of communicating, uses of communicating, and ways of knowing.

In the context of North American scholarship, the ethnographers especially have questioned both the empiricist and the rationalist claims of communication studies. Following the general ethnological argument, Del Hymes proposes to define communication in terms of mutual intelligibility. A concern with intelligibility, Hymes claims, overturns the traditional positivist separation of normative and descriptive analysis:

> The boundaries between speech communities are thought of first of all as boundaries of communication, but communication or mutual intelligibility as it is often phrased, is not solely

> a function of a certain objective degree of difference between two languages or some series of related languages. One and the same degree of "objective" linguistic differentiation may be taken to demarcate boundaries in one case, and may be depreciated in another depending on the social and political circumstances. And intelligibility itself is not only a complex function of features of linguistic form (phonological, lexical, syntactic), but also of norms of interaction and conduct in conversation, and of attitudes towards differences in all those respects.[1]

Considered in terms of mutual intelligibility, the media of communication would appear to be a constituent of the organization of the ways of communicating, or as ethnographers see it, ways of speaking. The question of whether media have a constitutive role in society, they insist, must be a matter for detailed study, not apriori assumption. The remarkable arrogance of years of media studies in which "causation" has been weakened to "influence" and that in turn to "effects" and "multifinalities" is even more impressive in view of the questionable assumption that media phenomena are constitutive at all. How media are constitutive, for whom they are constitutive, and most of all when they are constitutive all involve reflection on the initial assumptions that cannot be resolved on the level

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1. Hymes, "Speech and Language: On the Origins and Foundations of Inequality Among Speakers," Daedalus (1971), p. 65.

of relations of communication itself, but only by recourse to actual communities and, then, only within the limitations of historically situated subjects.

These are, of course, all questions of the context of communications-in-society that has been ignored until recently in favor of all too fascile schemes of falsely generalized hypotheses and mistaken assumptions of crudely stratified society. Like its architectonic contemporaries, who reduce "place" to questions of "space," an empiricism that reduces the diversity of "communications communities" to the vacuous regularities of "society" does so at the expense of understanding the issues of human agency:

> . . . the use of media and modalities needs to be related to the norms by which a community takes responsibility for performance and interpretation of kinds of communication. My stress here obviously is on the qualitative basis of assessing media as a human problem. Statistics on radios and newspapers and the like barely scratch the surface. I think it entirely possible that a medium may have a constitutive effect in one community and not in another, due to its qualitative role, its social meaning and function, even though frequencies of occurance may be the same in both. We have to do here with the question of identities and identifications. . . .[1]

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1. Hymes, "Speech and Language: On the Origins and Foundations of Inequality Among Speakers," Daedalus (1971), p. 71.

Ethnographers have, of course, long argued against the narrowness of positivist and rationalist versions of what constituted "empirical reality." From the view point of an active involvement within the actual communities of study and analysis, this aspect of ethnographic argument seems to spring from an appreciation of the role of the scientist in relation to his subject. Positivist scholars, in fact, have responded that these arguments are dependent upon the very ethical and moral considerations that science must bracket out initially for the sake of both objectivity and generalizability. Ethnographies, in other words, are built upon a normative and subjective interpretation of the data; and, in this sense, ethnographers are not considered to be practicing science.

It seems to me that this objection holds against highly polemical forms of ethnography; otherwise, it seems in error because it fails to acknowledge or examine theoretically the relationship between the objects of knowledge and the knowledge produced. How, for instance, is that knowledge to return to the community of its origin? This, for ethnographers, is not simply a problem of instrumental uses, for essentially the knowledge of communication-in-society can return to the individuals of that community and can be incorporated, in principle,

into their own self-knowledge.[1] Contrarily, to block the feedback of such knowledge into the community of its origin involves a political decision on the part of the community of scientists that brackets out and thus fails to reflect upon the fact that the objects of investigation are, unlike the objects of natural science, capable of self-knowledge.

Not to consider the capacity of human subjects to be able, in principle, to incorporate knowledge of their behavior into their future performance, is a decision that cannot be theoretically justified; it is a decision that seems to accord more directly with the "ideal of natural science" than with any scientific decision about the nature of the object. It is, of course, true that the ethnographic approach toward the mass communication media, for instance, would still serve an overwhelmingly technocratic-bureaucratic interest; but this itself reveals yet another set of fruitful problems--that of the instrumental role of function of the mass media in an age of extreme inaccessibility.[2]

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1. An example of this level of sensibility can be found in the majority of articles collected in Hymes, Reinventing Anthropology.

2. Study of this latter problem is desperately needed to counteract the claims of media experts who see the media as representing either utopia--the convergence of democracy and technology--or dystopia--the exclusion of democracy . . . /

The objections of ethnography finally come down to two: considered against theorists such as Herbert Simon, they suggest that a theory of communicative performance cannot rest solely on rationalist constructs; or that, in any case, describing communications is not the same as enlightening communicators

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2. (cont.) by technocracy. It is especially this latter view, in my opinion, that needs to be reflected upon because, for every one of those who employ the media as a tool of manipulation there is an opposite and usually academically based scientific voice that decries the destruction of the libertarian ethic. These views demand to be reflected in terms of social and historical evidence. It seems to me unnecessary to ignore the possibility of emergent forces in society in order to speak to either the self-interest or the horror of media uses and abuses. Media are indeed miraculous; but, like all sources of wonder, they are subject to the ongoing scrutiny of society. By making the media more transparent to society, social and human scientists could serve that process of enlightenment which their knowledge, by its current ambivalence, seeks to arrest by serving both manipulation and despair. A good example of the dystopian strain is Herbert Schiller, Communication and Empire, The Mind Managers. Stuart Ewen says of this latter book: "But what one misses in such an analysis is something that is evident even in much of the material that Schiller provides: that is an understanding of the mass communications industries as responsive to as well as (in fleeting episodes) determining of, the social reality and its tensions" (Telos [1973] No. 17, p. 183). Buckminster Fuller and Marshall McLuhan are both good examples of the utopian strain; and, since Fuller holds scientific credentials, one should look especially at the excellent and disturbing articles in Utopia or Oblivion.

or improving communications.[1] And against the techno-empiricists, their methodology suggests that the problem of how communications function involves one necessarily in questions of social relationships for which the strict paradigm of observation may have both serious limitations and contradictory consequences.

Ethnography is only one species of argumentation that defines a rising theme for communication studies: it is that the problem of the interaction of communicators within the medium of ordinary language communication has brought an impressive array of anthropological, sociological, linguistic and aesthetic scholarship in recent times to bear upon the issue of communications-in-society. This new emphasis and awareness, in turn, has been a step in going beyond the older problem-interests of rationalist and narrow empiricist activities--what I have previously referred to as the attempt to resolve the problems of communications on the level of the

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1. I suppose it is not necessary to belabor the point that there is no automatic relationship between the knowledge about some activity and the performance of that activity. Habermas makes the point well with regard to that aspect of language study: "By learning logic or linguistics I acquire theoretical knowledge, but in general I do not thereby change my previous practice of reasoning or speaking" (Habermas, Theory and Practice, p. 23). One could unfairly note that this does not preclude the possibility of worsening the practice of reasoning or speaking in this way.

relations of communications itself. Taken together, I believe this attempt to go beyond the boundaries of former problem-interests and in favor of the problems of communications in society constitutes one basis for the development of a theoretical concern for praxis.

A theoretical concern for praxis has its origin in reflection on the process of enlightenment in which the theoretical activity itself occurs. Process of enlightenment refers to that set of relationships between the logical structures of a science and the pragmatic structures of its possible application. Reflection on this process as such begins from the assumption that the relationships identified are systematic, but not necessarily automatic. A theoretical concern for praxis is thus a response to unreflected and social practice itself that creates the material conditions for a more relevant theorizing. Jürgen Habermas has developed this general position as an analysis of the function or uses of communicating.[1]

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1. "There is a systematic relationship between the logical structure of a science and the pragmatic structure of the possible application of the information generated within its framework" (Habermas, Theory and Practice, p. 8). This has been developed in broad metascientific terms by Radnizky, Contemporary Schools of Metascience. Since improved research methods is Radnitzky's concern, he concentrates on the information flow from social practices back to the theorizing activity; and the consequences of blocking it (Contemporary Schools of Metascience, Book III).

Following Habermas, it is possible to conceive of the uses of communication according to two types: those types of communication that are appropriate to the context of symbolic interaction and those types of communication that are appropriate to the purposes of technological rationality. In other words, these types refer to different contexts of action and experience: they objectify reality from the view point of either intersubjective communication or technical control.

It is the particular condition of a twentieth century form of rationalization, closely identified with the idea of technological progress, that Habermas contends is threatening the social life world by the successful penetration and progressive domination of the context of symbolic interaction.

Habermas is careful to maintain the possibility of a potential mediation between these conflicting contexts. The more extreme views of "scientistic utopia"--in which the production system becomes the paradigm for all forms of practice--and "social utopia"--in which the rejection of scientific-technological progress is claimed as a precondition for human development--are polarities that interest him only as examples of unreflected ideologies. What is of particular concern to him is that modern rationalization of social and political practice that has ended up disconnecting theory and practice

in ways worse than before. In the separation of facts and norms, the general process of enlightenment has provided an ideological veil whereby value preferences are able to masquerade in the language of instrumental necessity and individual, discursive aspects of meaning seem to become progressively less appropriate to an increasingly broad area of social and human activity.

What is basic to Habermas' position is that the inhibitions to communication, which have their origins in this form of rationalization, do not become the basis for polemics, nor for claims that such inhibitions can be removed only through political action. For Habermas, the inhibitions to communication must first be seen as a problem to be clarified theoretically; and consistent with an understanding of the public sphere. A couple of quotations should demonstrate the subtlety of the theory-practice relationship Habermas wants to emphasize against current contexts of action:

> Technical questions are posed with a view to the rationally goal-directed organization of means and the rational selection of instrumental alternatives, once the goals (values and maxims) are given. Practical questions, on the other hand, are posed with a view to the acceptance or rejection of norms, especially norms for action, the claims to validity of which we can support or oppose with reasons. Theories which in their structure can serve the clarification of practical

> questions are designed to enter into communicative action.[1]

The attempt, then, to bring the practice of social reality under control by means of a scientific-technological practice represents a superceding of the domain of practical control and rational dialogue. It is this aspect of the modern form of rationalization--precisely that which the scientistic utopians claim possible and the social utopians declare unnecessary--that Habermas finds a theoretical confusion of control and action:

> It (scientific-technological practice) understands society as a nexus of behavioral modes, for which rationality is mediated solely by the understanding of sociotechnical controls, but not by a coherent total consciousness--not by precisely that interested reason which can only attain practical power through the minds of politically enlightened citizens.[2]

The positivistic interpretations of social science, Habermas argues, have assisted this general process of extended technological control. Under the guise of a positivistic enlightenment the function of modern scientific knowledge has become inextricably bound up with the system of social labor; as such its functions can only be understood

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1. Theory and Practice, p. 3.

2. Ibid., p. 255.

as it extends and further rationalizes the power of technical control over the objectified activity of nature and society. The practical achievement of modern logical-empirical science as the form of twentieth century rationalization consists in nothing less than the reduction of knowledge to a version of instrumental action:

> The methodology of the empirical sciences is tacitly but effectively rooted in a technical cognitive interest that excludes all other interests; consequently all other relations to life-praxis can be blocked out under the slogan of ethical neutrality or value-freedom. The economy in the selection of purposive-rational means which is guaranteed by conditional predictions in the form of technical recommendations is the sole admissible "value," and it too is not seen explicitly as a value, because it simply seems to coincide with rationality as such. In fact, we have here the formalization of one sole relevance to life, namely, the experience of success as feedback control, built into the systems of social labor and already realized in every successful elementary performance of labor.[1]

By technical cognitive interest, Habermas refers to all those behavioral orientations which involve modes of adaptation for coping with and controlling the environment. Termed both purposive rational action systems and instrumental action systems, they refer to all human activity guided by technical rules based on empirical knowledge. In opposition to this is

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1. Theory and Practice, p. 264.

the context of symbolic interaction. Symbolic interaction designates those aspects of social and human science concerned with the broad problems of hermeneutics, or interpretation--that is, with the problems of understanding social-life worlds and the extending of intersubjective understanding.

A further class of opposition comes from these aspects of social and human science concerned with the analysis of "received modes of authority"; and consequently interested in the general and specific problems of emancipation. These forms of analysis are concerned with the hindrance to intersubjective communication; with criticizing those forms of alienation arising from ethnocentricities, from institutions of domination, and from unreflected and therefore unconscious elements of culture.

All these latter concerns, as with the concern for hermeneutics and symbolic interaction, are distinguished from instrumental forms of science by their recognition of the possibility that the objects of research can, in principle, enter into a communication context--or dialogue--with the researcher.[1] It is, of course, true that other forms of

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1. This theme, which I take to be a central one for communications, has been developed significantly in the works of Karl-Otto Apel, Jürgen Habermas, Gerard Radnitzky, and, to a lesser extent, by Paul Ricoeur. Radnitzky provides . . . /

science recognize this potential on the part of the object of research; but, what characterizes instrumental approaches is the attempt to "block" this potential feedback in the name of greater objectivity; or to account for such transgressions (contaminations) of the subject-object relationship by ever more sophisticated corrective procedures. The use of experimental variables to do this "correcting" is at least an ironic confirmation of the fact that the degree of objectivity sought cannot be fairly ascribed to the natural cognitive features of the object at all. This principle characteristic of the potential self-understanding of objects of research, that the

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1. (cont.) the following concise statement, which I take to be an existential fact for the paradigm of dialogue and the reflexive-dialogic relationship implicit in it: ". . . at least in principle, it is possible for the objects of his study to incorporate the information provided by his causal explanations of their behavior (which explanations are provided by means of the empirical human sciences) into their self-understanding and thereby to become capable of changing or modifying their further conduct" (Radnitzky, Contemporary Schools of Metascience [1973] p. xxxv). Overall, Radnitzky is a fine "source" for those metascientific efforts to construct a dialogue between various schools of western thought in the twentieth century. His analysis of the Anglo-American logical-empirical paradigm and the continental European hermeneutic-dialectic paradigm is of particular assistance in the locating of key epistemological issues. To some extent the paradigm of observation and the paradigm of dialogue are distilled from these characterizations and those offered by Habermas and Apel. Radnitzky, Contemporary Schools of Metascience, Volumes I, II (1968), Volume III (1973).

context of symbolic or communicative action openly recognizes and the context of instrumental action seeks to exclude, is what Habermas designates as the practical cognitive interest. It is, moreover, a key feature of what I have been calling the level of the interaction of communicators.

Habermas conceives the major social forces in terms of types of cognitive interests and the problem of their interrelationship. Cognitive interests are rooted in the natural history of the species and in the everyday conduct of life; they are the expression of points of view that result from the imperatives of sociocultural forms of life that are, in turn, dependent upon labor, language, and interaction. Interests express those aspects of the life context in which cognition itself is embedded.[1]

According to Habermas, there are three types of cognitive interests: (1) technological-instrumental; (2) symbolic-interactive; and (3) emancipatory. Each establishes a condition of "unity" between the "constitutive context" and the

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1. Habermas, "Labor and Interaction: Remarks on Hegel's Jena Philosophy of Mind," in Theory and Practice; and "Knowledge and Human Interests: A General Perspective," appendix to Knowledge and Human Interests.

"structure of possible application" of the knowledge of that context. Thus, the technological-instrumental interest expresses the aim of operational success directed at possible control; the symbolic-interactive interest expresses the aim of understanding meaning directed at maintaining consent; and the emancipatory interest expresses the aim of critical reflection directed toward elimination of forms of domination.[1]

Two points, especially, need to be stressed with regard to Habermas' conception of cognitive or knowledge interests (Erkenntnisinteresse). Interests are not related to the motives of individuals, nor do they express the "needs" of society. This seems to be a major point of confusion; and the basis of some critical misinterpretations. Interests do not express actual conditions. Interests are related to the pre-conditions of the possibility of certain types of action; for example, to labor and production or to sociopolitical practice. Thus, in the case of the natural sciences and those sciences conceived in its image, the technical interest expresses the view that there is a science-immanent practice that

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1. For an uncompromising view of the Frankfurt School and of Habermas' attempt to move their critique of society in the direction of an analysis of communication, see Göran Therborn, "Frankfurt Marxism: A Critique," in New Left Review, 63, 1970.

is continuous with technological application. To the extent that the strict natural sciences are concerned, the technical interest does contain an emancipatory potential--that of liberation from the uncontrolled forces of nature. In the case of the cultural-hermeneutic sciences, symbolic interaction is a direct interest in communication, whose emancipatory potential lies in the direction of extended mutual intelligibility and consent. In this way, the emancipatory interest itself is possible only as a development of the other two interests.

On the level of the scientific activity, Habermas' views rest upon several assumptions. He assumes that science is a social enterprise; not that it "ought" to be, but that, as a primary force of production, it does operate within a socially embedded context. Habermas assumes that the principle task of the human sciences is the mediation of communication and understanding, and that this task is continuous with the formation of enlightened public opinion. Moreover, the reverse of this he believes to be characteristic of modern practices.[1]

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1. "The Scientization of Politics and Public Opinion," Toward a Rational Society.

Habermas' work must be seen to represent a rejection of the totalization of both the strictly hermeneutic and the strictly empirical approach. In isolation from each other, there has been little or no opportunity for reflection upon their competing perspectives. In isolation each has fallen victim to the problems of the other: the uncontrolled and excessive growth of technicalities, the overestimation of scholarship (especially within immature and ineffective fields of inquiry), the lack of critical perspective on their own ideological ingredients. But, Habermas' position is concerned with more than critique. His concept of emancipatory interest, as an elaboration of the Frankfurt School's critique of domination, represents an attempt to incorporate and go beyond empirical and hermeneutic concerns. To the problems of the relations of domination, Habermas has suggested that a critical science of man aims at emancipation from the hypostatized forces of society and history. Such an aim must incorporate both technical and symbolic interactive domains: that is, the preconditions of emancipation must entail both communication and control over nature.[1]

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1. See also Gerard Radnitzky's outline of this conception, "Introduction," Contemporary Schools of Metascience (1968).

For detailing the issues in the study of communications, there is simply no equivalent to Habermas' work. Against the narrow parochialism and inflated theoretical claims that have beset these types of study in their continuing infancy, nothing approaches the comprehensiveness of his contribution. With it, the much needed basis for reflection is at least granted a suitable frame of reference. To be able to readdress the positivist and related rationalist conceptions of the problem-interest in terms of the uses--functions, if you will--of communication, recreates the possibility of conceiving of communications-in-society as a basically human problem.

Though it is incredibly difficult to find equivalent sources of criticism within the North American context of communication studies, there is encouraging overlap, as previously outlined, with ethnographies.[1] It is, I think, more than coincidental that both ethnography and critical social theory should have focused on the concept of "communicative competence" to underscore a general critique of positivist

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1. For some explicit treatments of this connection, see Bob Scholte: "Epistemic Paradigms," American Anthropologist, 68 (1966); and "Toward a Reflexive and Critical Anthropology," in Hymes (ed.), Reinventing Anthropology. To my knowledge Scholte has been the most persistent source for this kind of mediatory scholarship. His personal help and encouragement have been appreciated in developing much that has gone into this paper.

and rationalist turns in communication studies.[1] I will come back to the issue of competence later, but it worth pointing out that both ethnographic and critical theories are claiming that one needs more than theories of performance-measurement and complexity-control to deal with communication phenomena in society. Specifically, they emphasize the need to come to terms theoretically with the basic and not unrelated themes of inequality and domination.

To the rationalist constructs of those who have provided decades of general theories of communication, ethnographers like Hymes have stressed the importance of the fact of the basic inequality amongst communicators. Though it may be of significance that all people possibly represent equally complex forms of cultural or social communication--and, in this way, resemble the constructs of general theorists--the historical situation is remarkably otherwise. Inequality is

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1. The term derives, of course, from that Cartesian rationalist, Chomsky, though both authors are intending the term to oppose a Chomskian interpretation. In a way Chomsky occupies much the same ground as communication theorists, who carry out a sustained critique of Skinnerian behaviorism, but allow little space to reflection on their own methods. (See Arthur Koestler, The Ghost in the Machine, for an iconoclastic appreciation of this.) Perhaps this is asking too much of Chomsky and/or communication theorists; in any case, their work has brought about critique and has, in this sense, created both interest and movement for the broad subjects of language and communication.

the basic condition of communication-in-society, Hymes contends, and rationalist constructs do not or cannot confront this.[1] The particular ways in which communication is

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1. Indirectly, it can be confronted. The strict separation of descriptive and normative issues carried over by neo-positivists into the social sciences, has become grounds for such disciplines as human engineering to redirect the problems of social reality into ones of "design"--by which one cannot avoid at least the thought of the sorcerer's apprentice. Herbert Simon has this to say about the role of the artificial sciences: "The engineer is concerned with how things ought to be--ought to be, that is, in order to attain goals, and to function. Hence, a science of the artificial will be closely akin to a science of engineering--but very different . . . from what goes currently by the name of 'engineering' science.

"With goals and 'oughts', we also introduce into the picture the dichotomy between normative and descriptive. Natural science has found a way to exclude the normative and to concern itself solely with how things are. Can or should we maintain this exclusion when we move from natural to artificial phenomena, from analysis to synthesis?" The answer to this question, Simon relegates to a footnote further on: "In order not to keep readers in suspense, I may say that I hold to the pristine positivist position of the irreducibility to 'ought' to 'is'. . . . This position is entirely consistent with treating natural or artificial goal-seeking systems as phenomema, without commitment to their goals." And, in the same note, ties this statement to the work of Norbert Wiener (The Sciences of the Artificial, p. 5).

These works are by no means without highest merit. But, we must learn how to handle such material; and that means reflection at precisely those points where Simon, for instance, is content to make do with positivism in its natural guise. I think that by taking good ethnography, good semiotics, and good social theory a real beginning can be made toward seeing the basic domination and inequality of forms of communication and expression within the context of social, environmental and historical relationships. Ideal constructs are important; but it is not sufficient to make assumptions about the potential equality of communicators, the harnessing of nature, . . . /

constitutive, its uses, its needs and purposes as understood by a community or as forced upon them can be responsible for the abandonment of certain forms of communication, just as much as it can be responsible for various adaptations.

To the positivist hypotheses on the effects of communication, critical theorists like Habermas have argued that the mastery of communications in society requires more than the data of message-exchange and organization schemas provide; and more than the immanent workings of rationalist universals can explain. For such recently institutionalized forms as mass communication, the relations between the general and the particular of communication, that which positivist social science primarily addresses, are themselves part of larger contexts of domination. Domination is a basic problem for communications, Habermas argues, because the extension of

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1. (cont.) and the equalitarian nature of expression when the social, historical, and cultural evidence argue so brutally otherwise. To begin to know something about the uses and abuses of communication-in-society, we must be able to distinguish between what belongs to the natural history of the species and what passes behind our backs as the hypostatized forces of the past and the unreflected forces of the present--to which, if it needs be said, both manipulator and manipulated are unequally subject. Communications and society cannot be adequately explained by "design"; but its "design," and the part our knowledge plays in it, are in danger of not being understood.

media themselves brings the problem of permanent inferiority and permanent manipulation to the fore. And since an increased ability to explain communications does potentially contribute to continued manipulation, the problems of knowledge-production becomes very much a social problem.

The idea that knowledge must be seen as embedded in social contexts of action, argues strongly that the role of communication studies becomes a mediatory one: mediating between the extended control of knowledge and information and the possible extension of the community of communicators. To refuse to acknowledge this role would be to allow the knowledge of the relations of communications to be taken over, independent of the interaction of communicators, into the extension of the control of communications. This, in turn, must be seen to work in the direction of domination; though the evidence thus far represents only a hesitant beginning in the reassessment of the results of empirical investigations.[1]

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1. The idea that the control of communications represents a veiled interest in the control of man seems to me to be a dubious claim at best. Until we know something more of the constitutive nature of communications in society, the uses of seemingly uncontrollable forms of communication for the control of man are likely to meet up with yet more evidence of man's ability to absorb the manipulating-context into his continuing knowledge and behavior.

The manipulators and those who decry them are basing their quite different claims on similar assumptions . . . /

This set of insights on the part of critical theory, and to an extent ethnography, is no eschatological vision. Their work and the particular way in which they emphasize the issues suggests that what they are clearly discerning is a tendency, wherein aspects of the positivist and rationalist approaches assist the invasion of the domain of symbolic interaction by instrumental action under the guise of technological progress. This penetration and subsumption of the domain of symbolic interaction by instrumental-technological rationality

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1. (cont.) about the same scientific practices, the consequences of which can really only be guessed at. An example of this can be found in the widespread application of vaccines. Though so far unexplained, the particular "techniques" involved seem to work successfully. However, what it may mean to intervene in human ecology on such a massive scale is a question largely lost in light of the immediate and obvious humanitarian ends. Champions of technological science point to this as an example of the direct improving of the human condition.

On the other hand, champions of folk-science decry the mass media for spreading commercial values, violence, and alienation. The media, it seems, are able to intervene as readily in the life of the mind as immunologists can in the life of the body. In each case attention is diverted away from the context of interaction in favor of operations restricted to the message itself. Arresting the message, whether of communicable disease or communicable ideas, designates negative communication as that which can be corrected at the level of the solitary organism in isolation from its communicative context. And, although this has attained real short term success in the case of immunology, whether cognitive processes are subject to similar constraints seems to be more a matter of borrowed faith in the scientific ideal than of any substantive evidence on the part of media research.

clearly involves the sciences of man in questions of ethics and the proper founding of the activity of science in society. That the increasing rationalization of communications should not become an instrument of exclusion, inequality, and domination constitutes negatively the interest in emancipation, outlined by Habermas, that importantly characterizes those efforts to deal with communications on the level of the interaction of communicators.

The modern tendency for instrumental rationality to invade and subsume the domain of intersubjective communication provides a systematically drawn distinction with which to view the competing perspectives of positivistic social science and the so-called cultural or humanistic approach. These competing perspectives have suggested the paradigms of observation and dialogue, which I have argued were distinguished primarily by the manner in which they accounted for the interaction of researcher and the object of research. This, in turn, seemed to reveal most clearly the image of science and society underlying the various knowledge-producing activities; and, moreover, served to identify research activity as confined to either the level of the relations of communication or to the level of the interaction of communicators.

From a metascientific point of view, I hope some critical distance has been achieved with regard to the basic foundation of the positivistic versions of social science and their broad and important influence on communication studies. On the other hand, the competing perspective of the cultural sciences has been used primarily as a foil. Partly, this has been because I have wanted to develop the metascientific investigation as systematically as possible. But, it is simply undeniable that the significant work in communication studies in North America has been overwhelmingly on the side of the mathematical-experimental sciences. The cultural-hermeneutic sciences, by comparison, have not succeeded in bringing about a thorough-going development of their position. In fact, it is necessary to turn to European scholarship in order to find a mature modern concern with this perspective. In addition to aspects of the work of Habermas and the Frankfurt School, the metaphilosophical investigations of Karl-Otto Apel are exemplary of this approach. Apel characterizes his work as a concern with semiotics; and it is noteworthy that his work, though heavily dependent on Kant, contains numerous efforts to rescue the pragmatics of Charles Saunders Peirce from its positivist re-interpretations.[1] One of Apel's themes in

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1. See Apel, Transformation der Transzendentalphilosophie, Sprachanalytik, Semiotik, Hermeneutik.

particular--the apriori of communication--can serve to complete the metascientific overview; and provide an introduction to that theoretical concern for the paradigm of dialogue. His approach can usefully be labeled a concern with ways of knowing.

Like Habermas, Apel proceeds from the assumption that for those parts of society wherein technological forms predominate, the instrumental knowledge interest is clearly ascendent. The explanation of society and its communication in terms of instrumental reason has proved spectacularly attractive to this modern need to know. But, these uses of scientific explanation to account for more and more of the domain of symbolic interaction does not mean that the "understanding" of the human sciences should consequently be reduced to an "heuristic device"--even if the complete mechanical explanation of man and society should prove possible.[1]

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1. Apel labels this broad influence of neo-positivism on social scientific explanation the universal deductive-nomological model of explanation. By contrast, the form of explanation he is defending as typical of the human sciences is narrative explanation. In this sense, he offers a more traditionally hermeneutic position, substantially removed from the position of ethnographers, for instance, but by no means estranged from the humanistic views they bring to their work. The mention of Apel's work is intended to counter those objections that the position entertained by Habermas accords too little insight into the subtlety of the hermeneutic perspective. See the criticism of Hans-Georg Gadamer in Continuum 8 (1970); "On the Scope and Function of Hermeneutical Reflection"; and Jürgen Habermas' reply, "Summation and Response."

If I understand Apel correctly, he is claiming that the positivist turns in social science proceed from the mistaken assumption that the construction of a logic of facts about human society is possible strictly on the data. What he finds mistaken here is the belief that between the language of logic and the facts to be represented there is no gap--and that the position of the scientist-observer is always impartially behind or outside this set of relations.

The failure to reflect on this assumption, Apel contends, has meant that those social sciences styled as natural sciences have incorporated the "methodological solipcism" of neo-positivism. Methodological solipcism refers to the idea that one person alone can practice scientific observation and explanation without taking account of the fact that both communication with the objects of experiment (say, for instructions, questions, etc.) and the communication of the results of these observations (say to other scientists, to the public, or to the experimental objects themselves) must involve the scientist in problems of ordinary language-communication. The refusal to seriously reflect on this aspect of the modern research activity is widely believed responsible for contemporary unwillingness to accept the methods of the cultural sciences as a separate way of knowing, and for its designation as merely one more

area to be reduced to a language of "information-measurement and testing." The particular set of methodological biases that accompanies this cognitive form of imperialism constitutes what is critically referred to as reductive scientism.

Just as formalized languages (logics) cannot be practically used for intersubjective communication, the communicative behavior describable from the autonomous position of the scientist-observer has similar limitations. Though this is an old line of criticism on the part of the cultural sciences, Apel gives it an important twist by tying it directly to the role of communicative competence:

> Now, strictly speaking, a description of verbal behavior in a formalized language cannot express understanding of the intentions of the person speaking because this always implies that these persons and the describer participate in a common language game taking regard of the rule-following competence of both sides which again presupposes taking regard of the communicative competence of both sides. The language of science as conceived by the neo-positivistic logic of sciences excludes--in principle--the existence of a language game common to the subjects and to the objects of science. It has to exclude this because the very point of constructing formalized languages for scientific use is to get rid of the hermeneutic problems of communication, that is: of interpreting one another's intentions, by establishing a framework of language which is a priori an intersubjective one and so provides the conditions of the possibility of objective knowledge to be reached by rational operations upon the objects

> of science. In short: The logically reconstructed language of science is destined for describing and explaining a world of objects.[1]

Such a position is based upon a broad interpretation of the ways in which the modern sciences know. But, Apel is going further than most philosophies of science in drawing attention to the essential fact of communication at the heart of the larger dispute over method. Communication, in the sense of understanding human intentions for bringing about the conventions needed for introducing and testing formalized languages, must be presupposed by the constructors and users of formalized languages. And consequently, human beings, as the possible partners of communication--and interaction--cannot be reduced to objects of description and their behavior cannot be reduced to explanation by formalized languages.[2]

Apel is able to conceive of two irreducible types of knowing (cognition): to the positivist claim that one can deal with cognition only by inference and observation, that is as an exchange between man and a world of objects, there is an hermeneutic counterclaim to deal with cognition by understanding

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1. Apel, "Communication and the Foundations of the Humanities," Acta Sociologica (1972) 15: 10-11.

2. Apel, "Szientifik, Hermeneutik, Ideologiekritik. Entwurf einer Wissenschaftslehre in erkenntnisanthropologischer Sicht," Man and World (1968) 1.

and interpretation, as an exchange between men in a communication-community.

The claim that knowledge can be adequately conceived as an exchange between man and a world of objects, which underlies the ascendency of the paradigm of observation, rests upon a longstanding empiricist assumption about the nature of experience. In the positivist sense the concept of experience does not take account of the fact that understanding must always be presupposed for knowing the experience data in the first place. Apel claims that this "primary understanding" is always internally connected to our understanding of language-communication and forms of life.[1]

It is crucially important to realize just how basic this idea of constituted experience is to contemporary forms of science; and to the direction of the critique of these forms emerging in the preceding work of ethnographers, critical theorists, and philosophers like Apel. Consider, for instance, his response to the Kuhn-Popper dispute over what constitutes a "science." To Kuhn's contention that a critical discourse occurs only in periods of crisis when scientists must choose between competing theories and that critical discourse disappears with the transition to a new set of standards, Apel

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1. "Communications and the Foundation of the Humanities," Acta Sociologica (1972) 15: 19.

maintains that this transition to "normal science" as Kuhn labels it is impossible for cultural science; and precisely because "innovative understanding of the world of human affairs in the light of critical discussion belongs to their very method of cognition."[1]

If critical discussion belongs to the very method of cognition of the human sciences, the distinction Apel is offering must rest significantly on the attitudes toward the object domain itself. To the extent that the object domain is objectively definable--by which is most often meant "historically at rest" or passive--the method of natural science is an adequate one; and the dispute between Kuhn and Popper is at least arguable, if not resolvable. Disputes over method and procedure are constrained by the prior agreement on what constitutes the object of scientific interest. The scientists are historically moving, their objects are not. The historically resting or unchangeability of the object domain of natural science is the precondition for the talk about critical discourse and transitions to new standards. Because the object remains unchanged, the observations of the scientist are repeatable by himself or by others. The knowledge

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1. "Communications and the Foundation of the Humanities," Acta Sociologica (1972) 15: 19.

of repeatability constitutes the basis of law-like regularity, pattern and predictability. To have the knowledge of regularity, pattern and prediction vis-à-vis an object domain is theoretically to have control. Scientific control thus facilitates the very type of instrumental action implicit in its own method.

By contrast, the object domain of the cultural or human sciences cannot be accounted for in this way. For Apel, the empirical facts of natural science are not the direct representations of facts, but the result of instrumental operations, themselves dependent upon the unchanging nature of the object domain. Instrumental operation, or technique, is thus a precondition for the observational-experimental form of science. It is precisely these aspects of means (instrumental action) and ends (control, prediction) that the cultural sciences reject as inappropriate to their object domain.

The interpretive activity of the cultural sciences begins from a "pragmatical understanding" of the signs, actions, and circumstances occurring within the context of a "common sphere" of social life. Between language and social reality there is no gap equivalent to that generated by empirical

data.[1] The interpretative activity must approach meaning in terms of its use in practical contexts, its embeddedness in social phenomena. In turn, human behavior must be seen as existentially bound up with conceptual forms. Behavior that is bound up with conceptual forms constitutes a situation wherein the object domain cannot be conceived independent of the concepts formed about it.

This interdependency of meaning and behavior seems to suggest that the separability and unchanging character of the object domain of natural science is highly problematical for other forms of inquiry. The object domain of the cultural sciences must presuppose communication between subject and object. Furthermore, reciprocity in communication must, of necessity, make both sides privy to the results of interpretation. A knowledge-producing activity in which both sides

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1. This does not mean language and social reality are identical. Apel and Habermas have both made this point against Peter Winch, The Idea of a Social Science and its Relation to Philosophy. Winch appears to identify language and social reality completely; and thus to lose sight of the fact that language does not "exhaust" social reality. This particular failure is not an uncommon one amongst linguistic analysts. Apel treats this problem in detail in The Analytic Philosophy of Language and the Geisteswissenschaften, as does Habermas in Zur Logik der Sozialwissenschaften. It is also one of the main lines of criticism by ethnographers against the rationalism of linguistic analysis confined solely to the isolation of logical operations (see Hymes, "The Use of Anthropology," in Hymes (ed.), Reinventing Anthropology).

are capable of self-knowledge in this way designates both the object and subject as historically moving and existentially linked. This is the basic fact of the sphere of symbolic interaction that the interpretive activity acknowledges at the outset. A knowledge of symbolic interaction facilitates the extension of communication, which its very method presupposes.

These two knowledge-producing activities would appear to be non-reducible forms of cognition: cognition by inference and observation attempts to gain control over the exchange between man and a world of objects by offering explanations and techniques. Cognition by interpretation and understanding attempts to bring about consensus in the exchange between men and women in a communication-community by extending the basis of intersubjectivity and mutual intelligibility.

Following Apel, then, it can be said that the failure to recognize this additional form of cognition has resulted in the mistaken attempt to reduce problems of meaning to behavioristics and to regard the aim of intersubjective understanding as merely seeking explanations. All cognition of objects presupposes understanding as a means of intersubjective communication; and this means that the real failure is a failure to acknowledge that "metascientific function of understanding

which is already presupposed in all describing and explaining of science." Apel calls this the a priori of language-communication and claims that this adequately accounts for both the social function and the methodology of the cultural sciences, whose cognitive interest is "the interest in improving communication in its own dimension of intersubjectivity."[1]

There are important implications in this view of the relation of communication and cognition. For much of its brief history of development communication studies has been subject to the belief that the rational improvement of communication was only possible through the objectifying of communications itself and subsequently "explaining its functions." Since much communication during this modern period has been assisted by technology, the explaining of the functions of communication has often emphasized characteristics of the instruments themselves. In this way, the knowledge of instrumental action and technique has directly assisted the means toward scientific control and prediction. And, though this may potentially represent a means of improving communication-in-society, it is becoming increasingly evident that the relationship is not an automatic one.

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1. "Communication and the Foundation of the Humanities," Acta Sociologica 15: 21 and 22 respectively.

Concomitant with this emerging skepticism toward the "reductive scientism" in these efforts has been the renewed interest in the pragmatic aspects of communication. From a metascientific perspective this skepticism seems to converge with the long-standing claim of the cultural hermeneutic sciences that the explaining of instruments and functions of communication through objectification is not the only way, nor necessarily the best way, of improving communication. Hymes has claimed that such schemas are an insufficient basis to account for variety and depth of communication phenomena. Habermas has argued that, in fact, the methods of reductive scientism are inappropriate to the object domain of symbolic interaction. And Apel has claimed that the irreducibility of meaning-intentions at the heart of human communication establishes the fact of competing types of knowing and explaining. These are not claims that the scientific explanation of communication is impossible or unnecessary, but that there are competing or rival types of knowledge-production. They are claiming that these competing types of knowledge have domains appropriate to their methods; and that, therefore, neither domain is reducible to the other. Moreover, in quite different ways they are all claiming that some appreciation of the pre-givenness of communication-in-society must always bracket the

attempt to objectify and explain such communication phenomena:

> That there is a decisive difference between this kind of hermeneutic rationalizing of communication and scientific objectifying becomes clear by reflection on the fact that all objectifying sciences already presuppose the result of rationalized intersubjective conventions about the meanings of their language and about the aims of their practice. Thus, the hermeneutic preliminaries to meaning-conventions are a condition of the possibility and validity of scientific objectivity and, for this reason, cannot themselves be objective.[1]

Although Apel's statement refers to the primary role of language-communication in all forms of objectification, it has clear implications for the broad range of interests referred to as communication studies. If the "hermeneutic preliminaries to meaning-conventions . . . cannot themselves be objective," the positivists are all in danger of misunderstanding. All those efforts to construct a behavioral science of communication implicitly incorporate the positivist model. But, the question to be asked of such systems--as, for instance, Simon's science of the artificial--is not one of their explicit value to the explanation of behavior; the question to be asked is the narrower one of just what role such systems serve. Again, following the ethnographic critique, Simon seems to

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1. "Communication and the Foundations of the Humanities," Acta Sociologica (1972) 15: 22-23.

claim that the ideal system he presents can provide the basis for "design" of human behavior that will be an improvement on our present condition. And our present "design" must only approximate that of Simon's ideal "artificial system." What is at issue here is not the choice of scientific enlightenment or humanistic waffling, nor the choice of mathematical-experimental method versus hermeneutic method, nor natural versus cultural science; but simply what is the best basis for clarifying the problems of communication and how is such knowledge to be produced and employed?

As the metatheoretical criticisms have suggested, the skepticism toward "reductive scientism" has negatively constituted greater agreement than has been created by any clear alternative to it. If, however, the difference of "objectivity" suggested by Apel can be clearly recognized, it becomes possible to view the cultural-hermeneutic approach as a complementary orientation to that technological relationship existing between objectifying science and social practice. The hermeneutic rationalizing of communication provides for this in two ways: firstly, by ensuring the on-going understanding of meaning-intentions among individuals; especially between scientists and technologists and between such experts and the larger society. Secondly, complementarity is assisted

through avocation of values and aims for practice as a basis for rational criteria discussion about the uses of science and technology.[1] This is more than idealistic conjecture about "oughts"; what is being identified is the sense in which the cultural sciences inform the formation of public opinion. It is precisely at the point of goal orientations, which the mathematical-experimental sciences must presuppose, that the cultural sciences fill the need for intersubjective understanding. And, in an age of science as a primary productive force, this would represent something like a complementary re-emergence of methods appropriate to the domain of symbolic interaction.

Again, this is not simply an argument against the further objectification of man and society. The argument for intersubjective understanding in the place of unreflected goal-orientations directly challenges a key aspect of reductive scientism: it proceeds from the claim that social technology, which increasingly becomes a pragmatic possibility of behavioral orientations, can be "counterchecked by intersubjective

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1. "Communication and the Foundations of the Humanities," Acta Sociologica (1972) 15: 22-25.

understanding, complementary to objectifying and manipulating men."[1]

The masterful subtlety with which Apel presents the case for the competing perspective of the cultural-hermeneutic approach serves to identify the scope of this renewed interest in the pragmatic dimension of language and interaction. Its most immediate significance is that it moves us beyond the debate over the totalizing approaches of strict empirical-analytic science and that of purist hermeneutics. There are, however, severe implications in such a position; it does, despite its refusal to reject the empirical-analytic approach, stand to inhibit the development of artificial languages. It broadens the scope of what is to be permitted as "empirical" possibly to the point where the language of "information-measurement and testing" becomes irrelevant. And the complementary role suggested for the hermeneutic rationalizing of communications remains problematical. Despite all these objections, it still remains that one of the most persistent problems for communication studies has been the dispute between those who continue to champion the rational reconstruction of the

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1. Apel, "Wissenschaft als Emanzipation?" in Zeitschrift fur allg. Wissenschaftstheorie (1970), No. 1, Vol. 2; quote is from "Communication and the Foundations of the Humanities," Acta Sociologica (1972) 15: 24.

relations of communication and those who prefer emphasizing the language and interaction of communicators.

These metascientific perspectives constitute several species of argument against older forms of the explanation of communications. Generally they expose the naivete of older mechanical explanations restricted to the "image of natural science"; and, equally, insist that the concern for human communications must take account of the nature of the object domain itself and those concepts of explanation and action appropriate to it. So far, the discussion of the object domain of communications-in-society has been restricted to critique; that is, the case has been presented negatively. But what alternative is there? And, beyond polemics, what evidence is there for taking this choice seriously?

Apel's alternative to "reductive scientism" proceeds from an acceptance of those modern forms of behavioral science committed to some degree of social engineering and motivation control. But, he says, this must always be supplemented by communication "complementary to objectifying and manipulating men." What that way is, Apel believes to follow from a proper understanding of the potential reciprocity in all human communication. The reason why he labels this approach "inter-subjective understanding" is that "in most cases, the human

objects of science and social technology show that they are not mere natural objects in their relations to science; for, if they are able to understand the very theories by which their behavior is objectified and explained, they are able to join--at least in principle--the communication-community of the scientists and social engineers and thus they may emancipate themselves from the status of mere objects of science and technology."[1]

Apel's observation of the potential reciprocity of objects is a key insight which leads directly to issues of practice. I will come back to these implications later, but it is important to realise that all of these metascientific arguments are tied into a single conviction: that we must come to see that our most basic ways of thinking about the world cannot be freed of the context of action in that world; and that, because we will not or cannot recognise this, some of these ways of thinking are deeply contradictory.

When we turn to question just how much evidence there is for this in communication studies, some sense of the "revolution" that has been claimed emerges. The fact is that the development of a counterposition to that of behavioristics is

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1. "Communication and the Foundations of the Humanities," Acta Sociologica (1972) 15: 24.

strongly attached to exactly that set of developments concerned with the appropriateness of ways of thinking to their object domains. Exemplary of this awareness in communication studies is the aphoristic insight and work of Gregory Bateson. For Bateson the dilemma of explaining human communications hinges on a deep conceptual confusion over the appropriateness of "energy" metaphors to the domain of form and communication:

> In the hard sciences, effects are, in general, caused by rather concrete conditions or events--impacts, forces, and so forth. But when you enter the world of communication, organization, etc., you leave behind that whole world in which effects are brought about by forces and impacts and energy exchange. You enter a world in which "effects"--and I am not sure one should still use the same word--are brought about by differences. That is, they are brought about by the sort of "thing" that gets onto the map from the territory.[1]

It follows, for Bateson, that the older "cause-effect" explanation must be countered. He tells us that "we must change our whole way of thinking about mental and communicational process." Like Apel, he is arguing for a restriction of causal explanation because of what we know of the object domain itself: "The ordinary analogies of energy theory which people borrow from the hard sciences to provide a conceptual frame upon which they try to build theories about psychology

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1. "Form, Substance, and Difference," Steps to an Ecology of Mind, p. 452.

and behavior--that entire Procrustean structure--is non-sense. It is in error."[1] In bridging the gap between the data of behavior and the fundamental insights of science and philosophy, we must reconsider our methods:

> . . . my critical comments above about the metaphoric use of "energy" in the behavioral sciences add up to a rather simple accusation of many of my colleagues, that they have tried to build the bridge to the wrong half of the ancient dichotomy between form and substance. The conservative laws for energy and matter concern substance rather than form. But mental process, ideas, communication, organization, differentiation, pattern, and so on, are matters of form rather than substance.[2]

If our "whole way of thinking" is inappropriate to the object domain of communications, this is not a rejection of natural or hard science. The arguments of Apel and Bateson can be fairly characterized as arguments for a revised role for our basic concepts in the explanation of communication-behavior. And, for Bateson, the key to that role lies in understanding the transformation necessary in the relation of energy and information:

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1. "Form, Substance, and Difference," Steps to an Ecology of Mind, pp. 452-53 respectively.

2. "Science of Mind and Order," Steps to an Ecology of Mind, p. xxv. This is, of course, a reconstruction. But, it does not do harm to the aphoristic argumentation that Bateson is fond of making.

> I suggest to you, now, that the word "idea," in its most elementary sense, is synonymous with "difference." Kant, in the Critique of Judgment--if I understand him correctly--asserts that the most elementary aesthetic act is the selection of a fact. He argues that in a piece of chalk there are an infinite number of potential facts. The Ding an sich, the piece of chalk, can never enter into communication or mental process because of this infinitude. The sensory receptors cannot accept it; they filter it out. What they do is to select certain facts out of the piece of chalk, which then become, in modern terminology, information.[1]

The facts of communication proceed from our appreciation of what is informationally or conceptually real. Perhaps it can be seen in some larger perspective how the notion of "revolution in thinking" which forms part of the self-understanding of communication studies relates to the broader epistemological context. The conceptual dichotomy of form and substance offered by Bateson is a characteristic one in philosophy. There are, in fact, similarities between this up-dated Kantian approach and the older defenses of alchemy against hard science. But it is the interdependency of the conceptual and the behavioral[2]--

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1. "Form, Substance, and Difference," Steps to an Ecology of Mind, p. 453.

2. Bateson prefers to see the interdependency as an interdependency of relationships. The clearest statement of what he means by this is the following: "The whole matter of induction and deduction--and our doctrinaire preferences for one or the other--will take on a new significance . . . /

that is, of our ways of thinking and our ways of acting--that constitute the problem-interest to which the new programme of communication pragmatics leads. It is not unexpected that those who attempted to study human communications in this way should have tried to resurrect the traditional philosophical concerns for interaction and cognition in the language of information science.[1]

The development of these latter insights has been a key one for communication studies. But the development is a confusing one at best; and the problems of critical perspective necessitated the metascientific excursus. The metascientific overview has direct relevance to the concern for practice. It is in the investigation of communication phenomena relating to interactions that the new "way of thinking" about communications

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2. (cont.) when we recognize inductive and deductive steps not only in our own argument but in the relationships among data. Of especial interest in this connection is the relationship between context and its content. A phoneme exists as such only in combination with other phonemes which make up a word. The word is the context of the phoneme. But the word only exists as such--only has "meaning"--in the larger context of the utterance, which again has meaning only in a relationship" ("Cybernetic Explanation," Steps to an Ecology of Mind, p. 402).

1. I am claiming that the CONCERNS FOR THE CONTEXT OF INTERACTION is what should be emphasized, NOT the method of "message analysis" of information theory. This shift holds the real importance for epistemological developments.

made its most impressive conceptual contributions and confronted its most severe limitations. The renewed concern for the problems of interaction is part of that shifting orientation in communication studies that I have been trying to suggest all along. But the development of new concepts of interaction arose only when the restrictions emanating from older forms of behavioristics had been overcome. It is to be emphasized that this development was more the result of growing skepticism toward older forms of analysis--combined with the possible promise of new tools from metamathematics--than it was the result of the discovery of any new set of problems. The skepticism that resulted from the earlier reductive efforts of positivists and rationalists to account for communications on the level of the relations of communication led eventually to the development of techniques for investigating and treating the problems of communication in their own domain of interaction. Interaction brought with it the problem of reciprocity and reflexivity; where the earlier positivistic concerns had been along the lines of performance-measurement, the issues of competence-cognition now predominated. Problems that had been ruled out a priori for earlier theorists now became the central problem-interest of communication pragmatics.

This theme of communication pragmatics has implications

for the whole range of communication studies. But, before turning to examination of this theme, there is a further aspect of the metascientific focus that needs to be stressed. This particular issue, which has been touched on already in the critique afforded by Habermas and Apel and to which I will return later, concerns the problem of the mediation of methods.

If, following Habermas, the methods appropriate to the domain of technological rationality are appropriating more and more of the domain of symbolic interaction--and, if these are both primary forms of cognition--the problem of the relationship of these methods becomes effectively a question of how to restrict the explanation of behavior. Since the method appropriate to the domain of symbolic interaction is claimed to be concerned with the improving and extending of communication in its own realm, and since this domain is considered threatened by technological rationality, it is possible to ask specifically what role the explanation of human communication is then to serve? This question becomes necessary because, while the claims of the new interactionists do proceed from a critique of the "reductive scientism" implicit in older forms of behaviorism and, contrarily, do seem receptive to overlapping interests with the cultural-hermeneutic approach, it

still remains possible that these concerns for interaction can be subsumed by an advance in purely behavioral explanation. In fact, this very possibility has become the raison d'être for several of those scientific endeavours that have taken their basic impetus from that set of insights centered around the original efforts of Bateson.[1]

There are important reasons for taking seriously these possible advances in behavioral explanation for the realm of human communication. The interest in improving human communication through the extension of the paradigm of explanation and its language of control challenges the emphasis on human agency that the older methods of symbolic interaction had considered central and irreducible. Moreover, if the explanation of communications promises the possibility of control, the claims that we must "change our whole way of thinking about mental and communicational process" becomes a sort of conceptual

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1. Exemplary of this trend is the growth of what is generally called systems-therapy. Based loosely upon the principles of cybernetics and systems theory, this method is a form of feedback-controlled behaviorism, employed primarily to guide the therapist in recreating untenable interaction patterns which can then be manipulated by the therapist to bring about "change." As radical behaviorists, these theorists claim that the origins of human communication pathologies are essentially trivial and all change is merely adjustment to the performative system (Watzlawick, Weakland, and Fisch, Change: Principles of Problem Formation and Problem Resolution).

irrelevance. To the extent that the control and reconstruction of human communication becomes a pragmatic possibility of its explanation, this must challenge the right of claiming that the science of mind proposed by Bateson has any logical basis for telling us anything about the nature of man. That is, if the further objectification of human communication promises the possible reconstruction of communication-behavior, the fundamentals of human communication become largely a question of design.

As good as this argument is, the total metascientific focus seems to suggest that such views of scientific (or mechanical) explanation are mistakenly naive. In the case of the positivistic misunderstanding of communication pragmatics, it can, I think, be demonstrated that such proponents of behavioral explanation do not take the hermeneutic implications of their own feedback-monitored model seriously. Their efforts to objectify the interaction of communicators forgets rather than eliminates the fact that self-reflective knowledge is itself a possibility of feedback circuitry; and it misconceives the possibility of subsuming the dialogic conditio sine qua non of communications within the moment of observation.

The interdependency of the behavioral and the cognitive, which broadly constitutes the recent interest in communication

pragmatics, describes an epistemological ambivalence wherein the possible intervention in social problems constitutes a theory of human communication as a concern for the process of socialization. Communication pragmatics, then, would appear to proceed from the assumption that the explanation and improving of human communication must take some account of the institutions of socialization. But, as we shall see, to take account of interaction in this way is ultimately to raise some serious questions about the concept of practice.

CHAPTER VI

THE NEW INTERACTIONISTS:

The Edge Between Information and Action

The concern with communication pragmatics proceeds from the central assumption that the description of human communication must take some account of the institutions of socialization. These institutions are not considered to exist for the domain of the natural sciences and therefore do not enter into strict empirical science. But, although nature is not socialized, it does seem to be the overall intent of the mathematical-experimental method to bring nature under control. Bringing nature under control is thus immanently connected to theorizing about the physical universe as the pragmatic possibility of its application or practice. And consequently, technique and technology can be argued to constitute the fundamental tools of this practice. It has been said that such a conception of practice describes a process in which the cunning of physical nature is turned against nature itself. Or, stated in a manner relevant to a theory of society, such a "naturalistic" version of practice seems to involve directly aspects of manipulation

and control.[1]

It could be anticipated that, when such theories are taken over into the study of human behavior, the social implications of practice would become more sharply drawn. This has, in fact, been the case. Especially in the efforts to apply the mathematical-experimental theories of the relations of communication to the description of the interaction of communicators--and by extension, to a "praxis" aimed at their restabilization or change--the whole range of interventionalist issues associated with the scientific image of man has been raised. What, is has been asked, are the consequences of acting manipulatively in the fact of as yet incomplete and faulty behavioral knowledge? What, moreover, does it mean to turn the cunning of consciousness, under the guise of scientific enlightenment, against human consciousness itself? Most often these issues have been raised polemically against the growing preoccupation of the century with intervention to "correct" distortions of communications or to "cure" distorted communicators. But, significantly, they

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1. This theme has been developed by the Frankfurt School. I am particularly indebted to the reading given to their work by William Leiss in The Domination of Nature. A naturalistic version of practice is thus considered to be one designed theoretically for a world of objects and consistent with strict empirical analysis. To this extent a naturalistic version of practice is validated by the measure of its operational success.

do also serve to set out unmistakably that irreducible dialectic of control and cunning wherein the concern of the new interactionists to develop a grammar of interaction situations can be viewed in retrospect as a first attempt to tell us something about the problematic relationship of cognitive process and social problems.[1]

I have referred to the ambitious work of Wiener and other early exponents of information and cybernetic in creating the belief that some form of revolution was underway in the study of communication and behavior. Those who followed these early theorists were responsible for a continuing critique of seemingly more "reductive" forms of behaviorism and for turning the initial theories into conceptual contributions to other fields of interest, especially those centered on human interaction. Though most of these efforts acknowledged the initial metamathematical formulations as an extension of the basic neo-positivist paradigm, some insisted with equal vigor that the traditional natural scientific model had been supplanted by that of information science. It was the claim of these

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1. I am indebted to Herbert Brün for helping me visualize communication pragmatics as an attempt to relate cognitive processes and social problems (Brün, personal communication).

informationists that we were no longer dealing with a naturalistic version of theory because the model suggested by cybernetic and system placed the relations of information in that role formerly occupied by energy-entity relations. Though the implications of this distinction remain problematical, the most immediate consequence of the "split-off" from reductive forms of analysis associated with the energy-entity model was the emergence of a new area of study that included an important emphasis on the problem of mind. The possibility of a concern with mind for earlier periods, where more strictly positivist positions predominated, had been a non-existent one. And, even though the early cyberneticists were convinced that information-measurement would disclose the relation between brain and perception, throughout the 1950s and 60s there was a small but steady development of studies concerned with the relations of mind and cognition. The work of Gregory Bateson is exemplary of this development in terms of both time-span and content; and, although no clearly discernible school of thought has yet emerged around him, his influence remains constant to the growing attention to this aspect of communication studies.

Much of this work has focused on the new approach to interaction suggested by the information-relations model. In

sketching the outline of this development, I want to emphasize the "shift" away from the technological-empirical focus to one directly concerned with the immediate context of communication--to precisely those aspects of community and the reciprocity of behavior that both ethnographers and symbolic interactionists had always insisted upon. To shift the theme of communication studies in such a radical sense, while adhering to a more or less orthodox image of science, has resulted in a good number of confusions. Within the larger dialectic of communication studies, several of the most auspicious advances in our "fundamental ways of thinking" have proved to be deeply problematic. The distinctions and dichotomies suggested in the first heat of the informational revolution have since been tempered; and the long-standing problems of the object domain have reappeared. The form of this dialectic has revealed that the edge between information and action is a crucial one in the efforts to come to grips with the interaction of communicators. And, if the content of the nature of human behavior remains illusive, the dialectic does provide some interesting sorts of recognition of that condition of interaction long argued by the cultural sciences to constitute the conditio sine qua non of human communication.

In Pragmatics of Human Communication, Watzlawick, Beavin, and Jackson maintain two basic arguments about the concepts of information and action. On the one hand, they continue the critique of older forms of behavioristics in which behavior was seen as the result of the "hypothesized interplay of intrapsychic forces considered to follow closely the laws of conservation and transformation of energy in physics." By way of establishing the grounds for their argument, Watzlawick, Beavin, and Jackson want to demonstrate that there are real differences between an older psychodynamic (or psychoanalytic) model and the "conceptualization of organism-environment interaction" considered appropriate to communication theories. The difference, they insist, is one of conceptual discongruity: whereas psychodynamic theories concern "intrapsychic processes," to which "interaction with outside forces" was considered secondary, the interdependency of individual and environment is precisely what the communicational model is intended to explain. Though such a position would appear to suggest that these are separate forms of explanation appropriate to separate domains, it is clear that the issue is more complex and the validity of "energy" explanations to human behavior less secure.

The authors provide the following analogy for these competing types of explanation:

> If the foot of a walking man hits a pebble, energy is transferred from the foot to the stone; the latter will be displaced and will eventually come to rest again in a position which is fully determined by such factors as the amount of energy transferred, the shape and weight of the pebble, and the nature of the surface on which it rolls. If, on the other hand, the man kicks a dog instead of the pebble, the dog may jump up and bite him. In this case the relation between the kick and the bite is of a very different order. It is obvious that the dog takes the energy for his reaction from his own metabolism and not from the kick. What is transferred, therefore, is no longer energy, but rather information. In other words, the kick is a piece of behavior that communicates something to the dog, and to this communication the dog reacts with another piece of communication-behavior.[1]

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1. Watzlawick, Beavin, Jackson, Pragmatics of Human Communication, p. 229. Though this is another variation of the "ideas influence events" theme, the authors are drawing upon the cybernetic turn in mathematical explanation, wherein the informational dimension (probability) is said to constitute a "zero" dimension in the explanation of quantities of real dimensions (such as mass, length, time and the derivatives of force, energy, etc.). Bateson offers the following concise statement of this key aspect of "energy-causation" in cybernetic explanation: "The status of energy is of special interest. In general in communicational systems, we deal with sequences which resemble stimulus-response rather than cause-effect. When one billiard ball strikes another, there is an energy transfer such that the motion of the second ball is energized by the impact of the first. In communicational systems, on the other hand, the energy of the response is usually provided by the respondent. If I kick a dog, his immediately sequential behavior is energized by his metabolism, not by my kick. Similarly, when one neuron fires another, or an impulse from a microphone activates a circuit, the sequent event has its own energy sources.

"Of course, everything that happens is still within the limits defined by the law of energy conservation. The . . . /

In normal circumstances, it might be possible to account for the man-dog interaction in terms of a loosely constructed stimulus-response explanation. The fact is that we often provide such explanations for similar events; and these appear to be quite adequate to our needs. This is confirmed by the absence of controversy such explanations provoke in everyday life. That is, although we may argue the substance of an unexplained event, explaining events in this way is considered the conventional means for doing so.

On the other hand, it remains equally certain that to explain even a simple event in this way involves a large number of complex assumptions. We would, for instance, assume different explanations adequate for the action of the man and for that of the dog. Moreover, these explanations would vary

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1. (cont.) dog's metabolism might in the end limit his response, but, in general, in the systems with which we deal, the energy supplies are large compared with the demands upon them; and long before the supplies are exhausted, 'economic' limitations are imposed by the finite number of available alternatives, i.e., there is an economics of probability. This economics differs from an economics of energy or money in that probability--being a ratio--is not subject to addition or subtraction but only to multiplicative processes, such as fractionation." It is Bateson's contention that there are restraints built into the dog-environment relationship that operate in a "meta" relationship to the constraints of energy and which are central to the explanation of its behavior. In addition to the economics of alternatives, there are those of feedback and redundancy. Bateson, "Cybernetic Explanation," Steps to an Ecology of Mind, p. 403.

according to factors of ownership, custom, biography and so on. What is important, is that we do make explanations by taking account of the context of conventions which, in turn, are attributed to the individual's actions.

If, rather than a man-dog interaction, we were to consider the "kick" in the context of a man-man relationship, it is clear that the number of conventional assumptions is greatly increased. Even the task of accounting for the meanings, motivations or intentions in this circumstance necessitates the broader general knowledge of social practice and the assumption that all share this knowledge. The "kick" could have been inadvertent or part of a performance or ruse; in which case, it would be indispensable to know something of the rules and norms that underlie such an activity. The pattern by which we are able to fit a piece of behavior to a context involves what Watzlawick, Beavin, and Jackson call the rule-governed, goal-directed model. It is the authors' contention that such a model describes the way in which members of society have and employ a knowledge of communications "to evaluate, to influence, and to predict behavior."

The rule-governed, goal-directed model discloses the patterns that constitute the context of all interaction. Many of these patterns may be beyond the conscious knowledge of the

interactors themselves. In fact, the authors argue that the power of the model lies in its ability to appropriate "patterns of interaction" that are "in the nature of axioms and theorems of a calculus":

> What is suggested here, then, is that all interaction may be definable in terms of the game analogy, that is, as sequences of "moves" strictly governed by rules of which it is immaterial whether they are within or outside the awareness of the communicants, but about which meaningful meta-communicational statements can be made. This would mean that . . . there exists an as yet uninterrupted calculus of the pragmatics of human communication whose rules are observed in successful, and broken in disturbed, communication.[1]

Besides the rule-governed nature of interaction that is disclosed in redundant activity there is a much more powerful claim for this model. The authors contend that all human interaction involves problems of self-regulating systems (systems with feedback) for which "traditional frames of reference are clearly inadequate":

> Our main point is that interpersonal systems--stranger groups, marital couples, families, psychotherapeutic, or even international relationships, etc.--may be viewed as feedback loops, since the behavior of each person affects and is affected by the behavior of each other person. Input into such a system may be amplified into change or may be counteracted to maintain stability, depending on whether the feedback mechanisms are positive or negative.[2]

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1. Pragmatics of Human Communication, pp. 42-43.

2. Ibid., p. 31.

This claim could, of course, be read as simply a case for a greater degree of descriptive complexity. The authors, however, go much further in claiming that such explanations are qualitatively different from former "mechanical" explanations: "their logic and epistemology are discontinuous from some traditional tenets of scientific analysis, such as the 'isolate one variable' approach or the Laplacean belief that the complete knowledge of all facts at a given point in time will enable one to predict all future states." It is noteworthy that this claim is justified in a purely formal manner on the level of a second-order logicalism, not as something requiring confirmation in the actual analysis of social reality. And, it is on this basis that the authors claim that "the concepts of pattern and information are as essential as those of matter and energy were at the beginning of this century."[1]

Again, I want to draw attention to the belief of Watzlawick, Beavin, and Jackson that there are two competing types of explanation: explanations based upon information-relations and explanations based upon energy-entity relations. For human interaction it is information-relations that are considered to be appropriate to its clarification. This

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1. Pragmatics of Human Communication, p. 32.

belief and the over-riding claim that these types of explanation are "discontinuous" from one another provides a very strong example of the way in which the traditional metaphors of natural science were believed superceded by the new metaphors of information and pattern.

There are, however, some unconvincing aspects to this argument. Watzlawick, Beavin, and Jackson do present a good basic case for an informational model of explanation based upon mathematical conceptions of feedback and redundancy. They carefully point out that the search for pattern is strictly limited by a model that cannot adequately deal with factors of symbolic meaning, past causes, or motivation.[1] On the other hand, they do not deal satisfactorily with the case for abandoning the energy-entity model; and, here, there are two important objections to be made. Firstly, it is not true that because one uses a metaphor such as the energy-entity metaphor that one is necessarily thereby confined by it. When, for instance, the authors of Pragmatics of Human Communication describe the difference between Freudian psychodynamics and their theory of communication as one of "conceptual discontinuity," they again do so by declaring it on purely formal grounds. It is true

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1. Pragmatics of Communication, pp. 44-45.

that Freud took over his model of explanation from natural scientific theories of energy exchange and hydraulics; but it was certainly in the efforts to get beyond the mechanical limitations that the dialectic of his work, however unsuccessfully, moved.[1] It is distressing to see the way in which energy explanations are presented as if they constituted a broad undifferentiated tradition of determinism stretching from antiquity down to the present "informational" turn toward teleology.[2]

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1. Tony Wilden has helped me to see this aspect of Freud's work (see Anthony Wilden, The Language of the Self; and "Analog and Digital Communication," in Structure and System). Freud employs the energy metaphor and the hydraulics metaphor at precisely those moments when he is trying to get beyond them. The attempt to break out of the mechanistic metaphors of his day mark Freud off as a highly creative thinker. Stanley Edgar Hyman in The Tangled Bank also makes this point. Hyman claims that it was Freud's simplicity of character combined with his skepticism toward the elaborate turns in scientific explanation that was in part responsible for his "creative" leap; and, equally, for his failure to follow-up systematically the implications of his work in light of its empirical anomalies.

Much of the criticism of Freud as scientist has reproached him for introducing entelechies into his "energy" model. Yet, to the modern teleology of cybernetics this appears to have been an appropriate move, and one that surely shows his efforts to get beyond the limitations of his metaphors. Bateson partially acknowledges this when he writes: "That the human body contains numerous independent and self-corrective circuits we now know, and we know the general nature of such circuits. It is therefore easy to imagine in place of such entities as id, ego, and superego, other more complex self-maximating and self-corrective networks. With Freud's energy metaphors, however, nothing can be done except an almost total reconstruction of the theory, starting again from entrophy considerations." Bateson and Reusch, Communication: The Social Matrix of Psychiatry, p. 251.

2. Pragmatics of Human Communication, p. 30.

If psychodynamics clearly belongs to the deterministic school, this is not the same thing as claiming that the causation of Hume or even of the second law of thermodynamics is of the same order as that offered by Freud. And, again, if Watzlawick, Beavin, and Jackson, for their own part, recognize information and feedback as only conceptual tools from the machine metaphor of cybernetics, they do not always say so.

This last point leads to a second objection. Though the relation between energy and information, on one level, may seem relatively clear cut, it is not a distinction that can be maintained with much confidence. The dichotomy that Watzlawick, Beavin, and Jackson insist upon does not apply to causation generally, but to those specific intrusions of energy metaphors to account for the complexity and multifaceted character of social interactions. This is made obvious in light of the fact that the original proponents of information and feedback conceived of their theory as bridging teleological and causal explanations.[1]

What emerges most clearly from the energy-information distinction and the argument over types of explanation and their

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1. Rosenbleuth, Wiener, and Bigelow, "Behavior, Purpose, and Teleology," in Buckley (ed.), Modern Systems Research for the Behavioral Scientist: A Sourcebook.

appropriate domains is the dichotomy of information and action. This dichotomy is closely related to the distinction between information and energy versions of explanation and it is a fundamental one for the new interactionists. Wazlawick, Beavin, and Jackson provide the perennial example of the chess game to demonstrate their version. If the observer is confronted with a game the rules and the objectives of which he does not understand and, if he is unable to ask for explanations, it will still be possible for him to formulate the rules by which the game is played. By noting the alternation of moves, the frequencies of individual moves, the complexity of consecutive plays, and so on, an observer would be able to formulate the "rules of chess, including the end point of the game." And he would be able to do so "without the possibility of asking for information." But, would this mean that the observer has explained the behavior of the players? Here, the answer goes beyond the question of rule-governed actions, for it is the authors' contention that, though one must learn to follow rules, for the most part "we are particularly unaware of the rules being followed in successful, and broken in disturbed, communication." This last point is why interrogation is of limited value; precisely because the rules of communication-behavior are always in a "meta" relationship to the

performance of individual acts. Consistent with the mentalist preoccupation over linguistic rules, they suggest that, although we learn to communicate according to rules, these rules operate behind our backs. The search for the "cunning" of communication becomes, in essence, the basis for its explanation:

> The search for pattern is the basis of all scientific investigation. Where there is pattern there is significance--this epistemological maxim holds for the study of human interaction . . . Roughly speaking, one's rules of behavior and interaction may show the same degrees of consciousness that Freud postulated for slips and errors: (1) they may be clearly within a person's awareness, in which case questionaire and other simple question-answer techniques can be used; (2) a person may be unaware of them, but able to recognize them when they are pointed out to him; or (3) they may be so far from a person's awareness that, even if they were defined correctly and brought to his attention, he would still be unable to see them.[1]

This last issue is a crucial one, that I shall return to presently, because it involves us in the problems of disturbed communication and its pathology.[2] The point of these

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1. Pragmatics of Human Communication, pp. 36-37.

2. There are, of course, lots of reasons why a person will not recognize such "rules of behavior." Amongst them is the problem of demonstrating that these rules are facts and not merely hypotheses. In the case at hand, the proof of a rule occasioning some pathological performance is paradoxically found to lie in the cessation of the pathological performance itself. It is also obvious that AUTHORITY is an expedient means for establishing a fact. Of all those influenced by the . . . /

observations is to provide the basis for what Watzlawick, Beavin, and Jackson consider to be the main challenge to the traditional conceptions of action. It does not matter, they insist, whether an action is accompanied by movement or even awareness. In the positive context of communication-behavior this problematic aspect of action would seem not to exist. There are basic reasons for this. On one level, the informational explanation provides that zero--that which is not or does not--can be a cause; and, in this case, it is argued, no relationship can be established between causality based upon the energy-transfer and actions in which no movement or transfer of energy occurs.[1] But, even if such energy causation

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2. (cont.) interaction-observer paradigm, perhaps only Goffman has explored the way in which roles are mutually reinforced, but in terms usually favorable to the given relations of authority. See especially Goffman's analysis in Asylums, where patient-staff relations are analyzed in punishing and unrelenting detail. The issue of authority is dealt with in Chapter VII of the present study.

1. Of course it is true that some form of energy is always involved. But, in the case of communication by print, for instance, it can be pointed out that there is direct energy transfer only over an extended time; and, in the case of the letter that provokes action because it never arrives, no transfer of energy at all. The point to be emphasized is the discrepancy in action and energy formulations cannot be overcome without recourse to a theory of relationships such as that proposed by metacommunicative perspective of cybernetics and systems.

could be established, the resulting explanation would have to account for what the authors consider to be another basic postulate about communication-behavior--its condition of circuitry and holism:

> While in linear, progressive chains of causality it is meaningful to speak about the beginning and end of a chain, these terms are meaningless in systems with feedback loops. There is no beginning and no end to a circle. Thinking in terms of such systems forces one to abandon the notion that, say, event a comes first and event b is determined by a's occurrence, for by the same faulty logic it could be claimed that event b precedes a, depending on where one arbitrarily chooses to break the continuity of the circle.[1]

Again, these are striking claims that our former ways of thinking about communication and behavior are in error. And implicit in all of them is a major statement about the role of human agency. The pragmatics of human communication remove the focus of explanation from the understanding of individual agents to that of the context within which they perform. Since this context involves other agents, the interface between agents--the so-called domain of interpersonal actions--discloses something of their rule-governed character. Ray Birdwhistell, who goes substantially beyond the position of the above authors, suggests the most radical view of agency implied by the model. In Birdwhistell's view:

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1. Pragmatics of Human Communication, p. 46.

> . . . an individual does not communicate; he engages in or becomes part of communication. He may move or make noises . . . but he does not communicate. In a parallel fashion, he may see, he may hear, smell, taste or feel--but he does not communicate. In other words, he does not originate communication; he participates in it. Communication, as a system, then, is not to be understood on a simple model of action and reaction, however complexly stated. As a system, it is to be comprehended on the transactional level.[1]

This is a curious statement. It is unsettling to know that there is communication, but that one is not or cannot be the cause of it. It violates our common sense assumptions. Gregory Bateson has made use of this same distinction, tracing it back to the original Gnostic proposal for competing types of explanation based upon physical (pleroma) or mental (creatura) domains. It is not hard to appreciate the confusion that arises in communication pragmatics when one considers that Watzlawick, Beavin, and Jackson have in mind some crude variation of "psychic energy" when they declare energy-entity relations invalid for human communication. Birdwhistell, who shares their conceptual model, is concerned only to show that the "exchange" in human communication cannot be handled by

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1. Birdwhistell, "Contribution of Linguistic-Kinesic Studies to the Understanding of Schizophrenia," in Auerback (ed.), Schizophrenia: An Integrated Approach, p. 104.

any variety of stimulus-response psychology. Bateson, on the other hand, looks upon human communication as primarily a problem of ideational space, or mind, in which it is only a special case that information and exchange happen to be matters of energetics. Bateson is actually suggesting a modification of the Gnostic notion of creatura in terms of an informational "causation." In this sense, attempting to explain communicative actions depends upon how one delimits the individual mind from the phenomena to be explained:

> Consider a tree and a man and an axe. We observe that the axe flies through the air and makes certain sorts of gashes in a pre-existing cut in the side of the tree. If now we want to explain this set of phenomena, we shall be concerned with differences in the cut face of the tree, differences in the retina of the man, differences in his central nervous system, differences in his efferent neural messages, differences in the behavior of his muscles, differences in how the axe flies, to the differences which the axe then makes on the face of the tree. Our explanation (for certain purposes) will go round and round that circuit. In principle, if you want to explain or understand anything in human behavior, you are always dealing with total circuits, completed circuits. This is the elementary cybernetic thought.[1]

It may not be wholly convincing to realize that to explain human behavior one must be prepared to look at the

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1. "Form, Substance, and Difference," Steps to an Ecology of Mind, pp. 458-59.

completed circuit of that behavior; and that our views of cause-effect are going to be largely arbitrary, the result of where we break into this circular continuum. But there is a serious argument to be found in this. Historically speaking, the Pythagorean world of form had from the beginning established little more than a limited criteria for the viability of purpose as an instrument of explanation. Without such criteria, the assumption of entelchy immanent in man led to abuses in the name of reasoned explanation; and, accordingly, when modern science was able to produce new concepts for determinism, teleology found itself banished, along with concurrent forms of vitalism, to the edges of scientific respectability. Yet, the new concepts, which represented several key centuries of scientific growth, were not able to completely solve the problems of purpose, adaptation, and change bequeathed by teleology from the Gnostics through the alchemists to Jungian analytic psychology. In spite of the sophistication of modern scientific efforts, the problems persisted in part because the material concerns at the heart of the method could not overcome its foundation in a linear, progressive cause-effect monologic. The persistence of a monadic orientation for the sciences of human behavior resulted consistently in reifications of what were more complex phenomena.

The nature of these challenges by the new interactionists is more than simply an argument that ideas bring about events. Roughly speaking, all their claims are based upon some realization of the limitations of conventional natural scientific method. These new interactionists are not arguing against natural science. They are arguing that the persistent use of qualified success of materialists' assumptions related to the energy-entity model of explanation has prevented us from seeing that its implicit dualism of conceptual and empirical relations is inappropriate to a whole range of human communication problems. Again, no matter how attractive it may be to account for communication-behavior within a monadic psychology, the individualistic assumptions underlying such an approach systematically cancel what is basic to human behavior--its condition of reciprocity. A reciprocity of communicators cannot be built up from unidirectional stimulus-response patterns and the holistic contentions of the new interactionists' feedback-monitored model was intended to make us aware of precisely this sort of tension.[1]

While the differences that exist among the new interactionists are as severe as any within the immature field of

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1. See, however, the final chapter of Pragmatics of Human Communication, where the authors attempt to ontologize this set of observations and analogies in terms of an integration of positivism and existentialism.

human science, there is, nevertheless, some agreement that the condition of reciprocity is a fundamental one for interaction studies. Watzlawick, Beavin, and Jackson confirm this when they point to the paradoxical condition wherein a series of communications can be seen as an uninterrupted sequence of interchanges from the viewpoint of an outside observer (level of the relations of communications), but will appear organized according to "conventions of punctuation" for the participants (level of interaction of communicators).

The "punctuation of the sequence of events" suggests that there is yet another conceptual basis for establishing the relationship between information and action. In this case the reciprocity stands for the correspondence between the content of an interaction and the role relations of the interactors. Bateson and Jackson provide a stylized example of role reciprocity and its consequences for distinguishing information and action:

> The stimulus-response psychologist typically confines his attention to sequences of interchange so short that it is possible to label one item of input as "stimulus" and another item as "reinforcement" while labelling what the subject does between the two events as "response." Within the short sequence so exercised, it is possible to talk about the "psychology" of the subject. In contrast, the sequences of exchange which we are here discussing are very much longer and therefore have the characteristic that every item in the

sequence is simultaneously stimulus, response and reinforcement. A given item of A's behavior is a stimulus insofar as it is followed by an item contributed by A. But insofar as A's item is sandwiched between two items contributed by B, it is a response. Similarly A's item is a reinforcement insofar as it follows an item contributed by B. The ongoing interchanges, then, which we are here discussing, constitute a chain of overlapping triadic links, each of which is comparable to a stimulus-response-reinforcement sequence. We can take any triad of our interchange and see it as a single trial in a stimulus-response learning experiment.

If we look at the conventional learning experiments from this point of view, we observe at once that repeated trials amount to a differentiation of relationship between the two organisms concerned--the experimenter and his subject. The sequence of trials is so punctuated that it is always the experimenter who seems to provide the "stimuli" and the "reinforcements" while the subject provides the "responses." These words are here deliberately put in quotation marks because the role definitions are in fact only created by the willingness of the organisms to accept the system of punctuation. The "reality" of the role definitions is only of the same order as the reality of a bat on a Rorschach card--a more or less over-determined creation of the perceptive process. The rat who said "I have my experimenter trained. Each time I press the lever he gives me food," was declining to accept the punctuation of the sequence which the experimenter was seeking to impose.

It is still true, however, that in a long sequence of interchange, the organisms concerned--especially if these be people--will in fact punctuate the sequence so that it will appear that one or the other has initiative, dominance, dependency or the like. That is, they will set up between them patterns of interchange (about which they may or may not be in agreement) and these patterns will

> in fact be rules of contingency regarding the exchange of reinforcement.[1]

There are ways in which the stimulus-response model appears to offer an adequate description of events wherein "it is possible to talk about the 'psychology' of the subject." However, there is also a sense in which the explanations offered in these terms do not appear adequate to the particular phenomena. Bateson has attempted to provide a critique of those particular epistemological premises (biases) that must be presupposed by the particular varieties of behaviorism that take their understanding of causation from natural science. Basing a theory of behavior in this way, Bateson argues, leads inevitably to a view of interaction as the isolable acts of self-contained monads. Viewing human interaction as such has consequences, most seriously the way in which the explanations offered from the position of observer come to be attributed in some direct way as causing or bringing about the actions of an agent. Such reifications represent a failure to recognize the reciprocity between observer and agent, but they also point out the problematic nature of dividing off cause from effect in the effort to come to terms with human communication.

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1. Bateson and Jackson, "Some Varieties of Pathogenic Organization," in Rioch (ed.), Disorders of Communication, pp. 273-74.

It is Bateson's contention that "in all communication, there must be a relevance between the contextual structure of the message and some restructuring of the recipient."

But what are the requirements of this relationship between contextual structure and structuring of the recipient? Psychologically speaking, the analysis of this relationship has proved to be a deeply problematic one. The implications lead in the direction of the social learning, innate structure, genetic propensities controversy which cannot be meaningfully accounted for within the scope of this discussion.[1] Bateson maintains that the requirements of this relationship depend upon the "qualitative structure of contexts"; and that this means turning away from any concern with the "intensity of the interaction." He offers the following example of a man

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1. See Bateson, " Social Planning and the Concept of Deutero-learning," Conference on Science, Philosophy and Religion, Second Symposium. Bateson argues the problem as follows: "This use of formal contextual structure as a descriptive device does not necessarily assume that the principle discussed is wholly or in part actually learned in contexts having the appropriate formal structure. The principle could have been genetically determined, and it might still follow that the principle is best described by the formal delineation of the contexts in which it is exemplified. It is precisely this fixing of behavior to context that makes it difficult or impossible to determine whether a principle of behavior was genetically determined or learned in that context. . . ." Steps to an Ecology of Mind, p. 321.

felling a tree as elucidation:

> He says, "I cut down the tree" and he even believes that there is a delimited agent, the "self," which performed a delimited "purposive" action upon a delimited object.
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> It is all very well to says "Billiard ball A hit billiard ball B and sent it into the pocket"; and it would perhaps be all right (if we could do it) to give a complete hard-science account of the events all around that circuit containing the man and the tree. But popular parlance includes mind in its utterance by invoking the personal pronoun, and then achieves a mixture of mentalism and physicalism by restricting mind within the man and reifying the tree. Finally the mind itself becomes reified by the notion that, since the "self" acted upon the axe which acted upon the tree, the "self" must also be a "thing." The parallelism of syntax between "I hit the billiard ball" and "The ball hit another ball" is totally misleading.[1]

To argue that the contextual structures could themselves be important forms of messages and information is to be faced all over again with the problem of just what it is that is distinctive about human action. Our thinking about agency, Bateson argues, is always linked to the way in which agency is "delimited" against the context of action. To presuppose this kind of delimited agency as a part of explanation lands one in the dilemmas of a monadic psychology, where, for all

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1. "The Cybernetics of 'Self': A Theory of Alcoholism," Steps to an Ecology of Mind, p. 318.

the complexities of description, the basic systemic circuitry of thought and action remains opaque. To this end the concept of self or consciousness must be seen to lie at the heart of this misunderstanding:

> The total self-corrective unit which processes information, or, as I say, "think" and "acts" and "decides," is a <u>system</u> whose boundaries do not at all coincide with the boundaries either of the body or of what is popularly called the "self" or "consciousness"; and it is important to notice that there are multiple differences between the thinking system and the "self" as popularly conceived:
>
> (1) The system is not a transcendent entity as the "self" is commonly supposed to be.
>
> (2) The ideas are immanent in a network of causal pathways along which transforms of difference are conducted. The "ideas" of the system are in all cases at least binary in structure. They are not "impulses" but "information."
>
> (3) This network of pathways is not bounded with consciousness but extends to include the pathways of all unconscious mentation--both autonmous and repressed, neural and hormonal.
>
> (4) The network is not bounded by the skin but includes all external pathways along which information can travel. It also includes those effective differences which are immanent in the "objects" of such information. It includes the pathways of sound and light along which travel transforms of differences originally immanent in things and other prople--and especially <u>in our own actions</u>.[1]

This last point suggests that the distinction of inner and outer reality is at once a reification the mind-body

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1. "The Cybernetics of 'Self': A Theory of Alcoholism," <u>Steps to an Ecology of Mind</u>, p. 319.

dichotomy and, equally, the way in which that, which is "inner" but removed from consciousness, conforms to the energy metaphor as the essential cause, confirming the appearance of outward linear behavior. That this tenet of popular epistemology converges with the mind-body dichotomy and, in turn, with the dispute over immanent or transcendent explanations forces the entire argument over agency toward paradox:

> . . . if we exclude the unconscious processes from the "self" and call them "ego-alien," then these processes take on the subjective coloring of "urges" and "forces"; and this pseudodynamic quality is then extended to the conscious "self" which attempts to "resist" the "forces" of the unconscious. The "self" thereby becomes itself an organization of seeming "forces." The popular notion which would equate "self" with consciousness thus leads into the notion that ideas are "forces"; and this fallacy is in turn supported by saying that the axon carries "impulses."[1]

If it is accepted that the delimiting of agency is essential to its self-understanding and explanation, then it becomes obvious how inadequate a behaviorism committed to a fixed conception of this must be. If we accept Bateson's axiomatic statement that "the observations cannot be denied, and the fundamentals must be fitted," then what the social sciences have done to this point is largely "heuristic."

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1. "The Cybernetics of 'Self': A Theory of Alcoholism," Steps to an Ecology of Mind, p. 320.

That is, they have collected a series of hypotheses that do not fit with any fundamental law; and, therefore, it is argued, do not qualify as science. This failure to qualify as science, however, is not to be seen in any misunderstanding of the interests of the behavioral social sciences, but in their adherence to certain concepts and methodological procedures within natural science itself. For Bateson, they have, in their passion to be like the natural sciences, forgotten that the objects of investigation are different.[1]

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1. I am well aware that the synchronic bias which dominates Bateson's thinking (and which ties him to Levi-Strauss and others who make the leap from cognition to the nature of man) prevents him from building his system differently from a natural science; and, likewise, from seeing that the subject-object relationship is not necessarily different for his approach. Thus, while the object is inert or "at rest" for the natural sciences and "historically moving" for the behavioral sciences, the relationship to the object remains the same. I will come back to this later. The point here is that Bateson is making a distinction with regard to the appropriateness of the natural scientific method to a non-inert object. This leads into his characterization of these different objects in terms of energy and information metaphors; and to a characterization of what constitutes "adequacy" for each.

Since the object domain of the human sciences generally provides that the observer and the agent are, in principle, interchangeable, there are some severe implications in adhering to the method of natural science where interaction is only conditionally acknowledged and interchangeability outrightly denied. Natural science, it can be argued, claims its legitimacy by reason of its ability to provide context-free laws through which we can take advantage of regularities in nature for purposes of prediction and, technologically speaking, for the control of specific phenomena. The basis for the continued methodological growth of natural science lies in the fruitfulness of the energy-entity model and the on-going social interest in the manipulation of nature.

Conversely, the human sciences (cultural and social) are most concerned with meaning, purpose and the context of action or behavior that occasions it. In this sense, the reliance of the social sciences on the energy-entity model of the natural sciences can be argued to represent a penetration by the methods of natural science into a domain for which it is not intended or appropriate:

> If mass and length are inappropriate for the describing of behavior, then energy is unlikely to be more appropriate. After all, energy <u>is</u> Mass x Velocity, and no behavioral scientist

really insists that "psychic energy" is of these dimensions.[1]

That the conservative laws for matter and energy are separate from laws of information and order is, for Bateson, a separation basic to the development of science. It is precisely the basis of natural scientific advance--the viability of energy-entity relations--that provides the crux of the behaviorists' failure. In the case of applied behaviorism, it is a failure, to be noted, on the level of axiothetic systems.[2]

A proper orientation for the sciences of man generally, Bateson believes, must reside in understanding the relations of life and behavior in terms of the nature of pattern and information. Thus, he says of the strict behaviorists and empiricists, of all those who have looked for the "pushings and heavings," the Hobbesian mechanics, the Humean causes, the

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1. "The Science of Mind and Order," Steps to an Ecology of Mind, p. xxii.

2. Not unsuccessful as creating social facts, however. In fact, applied behaviorism may be favorably compared to the role of organized religion and to alchemy in bringing about widespread and controversial modes of social thought. The fact that many behaviorists claim to have replaced theoretical concerns with operational ones should not blind us to the reality that the statement "It works" is an ideological justification (Bob Scholte, personal communication).

the Freudian urges:[1]

> . . . they have tried to build the bridge to the wrong half of the ancient dichotomy between form and substance. The conservative laws for energy and matter concern substance rather than form. But mental processes, ideas, communication, organization, differentiation, pattern, and so on, are matters of form rather than substance.[2]

This statement from "The Science of Mind and Order" is worth repeating for several reasons. Though it would seem to continue a variation of the Cartesian mind-body dualism, there are important ways in which this issue appears resolvable

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1. This sort of criticism is not unique. It seems to be a part of a general trend amongst scholars exposed to the systems theory approach to get "beyond reductionism" and, at the same time, "to be" beyond any concern with social theory. A quite remarkable example of this "prophetic voice" is Arthur Koestler (The Ghost in the Machine; The Roots of Coincidence; Beyond Reductionism, with J. R. Smythies), who seems to have decided that the fate of the world rests with this new vision of science (a recognition of science as the language of total reconstruction) and the fate of science with the overcoming of the energy-entity model and the behavioral method of the social sciences (to steer, as von Bertalanffy has said, between Skinner and Charybdis). This recognition of science as the language of total reconstruction is a great problem. In one way it is the Lamarkian vision made real; an explanation from the top down, the top being the structures of mind and the ordering premises of living and evolving matter. It rests further on an idea of purpose or design or intelligence in evolution and mind that makes it compatible with some modern varieties of Marxian-Hegelian thinking, though it must be seen that the former are talking about the "natural history of man" and the latter about the "history of man's history." The analogy seems to occur most often over the concern for system and "design."

2. "The Science of Mind and Order," Steps to an Ecology of Mind, p. xxv.

within the methodology of cybernetics and systems. Following the metaphor of cybernetics, the problem of what is communicationally real finds itself more closely analogous to that ancient Gnostic dichotomy of pleroma and creatura. Like Jung, who also wished to escape the mind-matter dichotomies of psychoanalysis, Bateson lets the foundations of his science rest upon assumptions about the nature of mind. In the pleroma, events come about through the intervention of forces and impacts. The nature of its nature is continuum. There are no distinctions or differences to be made in the world of pleroma: it is all there, in law-like regularity, the vast unbroken domain of natural scientific objects.

Conversely, the world of creatura is "difference." What brings about "effects" or change here is precisely the idea of difference. The creatura is characterized by distinctions; in Bateson's terminology, by "differences that make a difference." Creatura is the broadest sense of mind as cognitive structure: the discrete, discontinuous, hierarchic domain of information and communication. The domain of human communications, then, differs in kind. It is attributive, relational, contextual:

> The whole energy relation is different. In the world of mind, nothing--that which is not--can be a cause. In the hard sciences, we ask for causes and we expect them to exist and be "real."

> But remember that zero is different from one, zero can be a cause in the psychological world of communication. The letter which you do not write can get an angry reply; and the income tax form which you do not fill in can trigger the Internal Revenue boys into energetic action, because they, too, have their breakfast, lunch, tea, and dinner and can react with energy which they derive from their metabolism. The letter which never existed is no source of energy.[1]

What characterizes the creatura is not the "pushings and heavings" of "psychic energy," but the hierarchic ordering of discourse and interaction. In this sense, what communication is always about is relationship. The nature of human communication is always such that a part of interaction must be addressed to the specific content and a part to the relationship that makes the discourse possible or necessary. Communications is oriented toward order, toward "the creation of redundancy, meaning, pattern, predictability, information, and/or the reduction of the random by restraint."[2]

We can see in these aphoristic shifts from metamathematics to the interaction of communicators another indication of the seriousness with which the focus upon "the qualitative structures of contexts rather than upon intensity of interaction" is argued. The hierarchical nature of the interaction

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1. "Form, Substance, and Difference," Steps to an Ecology of Mind, p. 452.

2. "Style, Grace, and Information in Primitive Art," Steps to an Ecology of Mind, p. 132.

of communicators constitutes a domain in which organization predominates at lower levels and system at higher levels. This is a most difficult aspect of Bateson's thinking, for through it he is proposing a kind of mental determinism: the proposition that all communication exchange (messages/information) function to inform relationships (interactions/roles) which in turn fulfill culturally embedded patterns (gestalten/cognitive premises). Beyond culture, there is the "natural history of the species."

For Bateson, the stress of contemporary social science on quantity and intensity is the result not only of energy-entity concerns, but of a logical bias for organization at such levels. In any such analysis both the systemic quality of interaction and the significance of higher order experience is lost, because observing feelings and emotions as specific behaviors different from "reason" or "logic" leads to quantitative methods as the only choice. Such methods rule out a priori much that is specific to human behavior. But, he argues, feelings and emotions are complex matters of relationship; and it is in the "patterns of such relationships" that behavior discloses itself with precision and adequacy. One cannot hope to know anything from the discrete units of behavior alone; but only as they disclose the dynamics of relationship:

> The universe, message-plus-referent, is given pattern or form--in the Shakespearean sense, the universe is informed by the message; and the "form" of which we are speaking is not in the message nor is it in the referent. It is a correspondence between message and referent.[1]

Again, if we accept this characterization of "relationship" and the accompanying claim that it is an essential aspect for understanding the interaction of communicators, then any behavioral explanation that fails to take account of this must be clearly inadequate. To get involved with problems of "relationship," is to acknowledge just how basic it is to a whole range of social, political, and ethical concerns. To accept a total separation of observer and agent, as several varieties of behaviorism do, creates a context in which events to be explained can be localized. And, as we have seen, to localize human communication-behavior is to assume that what matters can be specified in this way. What is to be handled by the conventional behavioral paradigm must be definitional, specifiable and isolable within the structure of events. This, Bateson argues, surrenders too much to the descriptive metaphor of energy-entity, to additive-subtractive measurements. Against this and consistent with a neo-Kantian interpretation

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1. "Cybernetic Explanation," Steps to an Ecology of Mind, p. 408.

of creatura or mind, he proposes a relational model of meta-communicative interaction. Such a model becomes capable of dealing with the self-understanding of agents; and also with distinctions dependent upon phenomenological relations such as love, dependency, play, and dominance. These are, for him, issues of form; and, whereas in the behavioral paradigm localization predominates, in Bateson's model form and information are not localized.

Finally, the non-localization of relationships necessitates the concept of "context" to an explanation. With it, Bateson sees all "cybernetics-like" explanations reversing the general reductive direction of behavioral explanation; and, further, redefining the relation of the general to the particular: "The context (or metamessage) classifies the message, but can never meet it on equal terms." In this sense, the function of context is like the use of a map to explain some territory; it serves to classify the territory, but <u>it is of a different logical order than the territory</u>. Its regress is not unlike that of Russell's theory of types in that it can account for its logical order only by appeal to a higher order classification:

> Of especial interest in this connection is the relationship between <u>context</u> and its content. A phoneme exists as such only in combination with other phonemes which make up a word. The

> word is the context of the phoneme. But the word only exists as such--only has "meaning"--in the larger context of the utterance, which again has meaning only in a relationship.
>
> This hierarchy of contexts within contexts is universal for the communicational (or "emic") aspect of phenomena and drives the scientist always to seek for explanation in the ever larger units. It may (perhaps) be true in physics that the explanation of the macroscopic is to be sought in the microscopic. The opposite is usually true in cybernetics: without context, there is no communication.[1]

The differences in types of explanation appropriate to the level of the interaction of communicators becomes more sharply drawn when we realize that, what most behavioral theories assume, Bateson is claiming is impossible. According to Bateson, the stimulus-response, input-output, or energy-entity patterns at the heart of a variety of behaviorisms betray an interest in simple linear control. The problem with such an interest, for Bateson, is that human behavior is not like that. The systemic and reciprocal character of human communication-behavior refutes the wisdom of constructing explanations upon the narrow base of purposiveness and control. To this end, explanations constructed according to a determinism of the intelligibility type would explain an event in terms of why it was necessary. Bateson's contention is that such

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1. "Cybernetic Explanation," Steps to an Ecology of Mind, p. 402.

explanation is itself made necessary by the incomplete nature of interaction itself:

> . . . the cybernetic nature of self and the world tends to be imperceptible to consciousness, insofar as the contents of the "screen" of consciousness are determined by considerations or purpose. The argument of purpose tends to take the form "D is desireable; B leads to C; C leads to D; so D can be achieved by way of B and C." But, if the total mind and the outer world do not, in general, have this linear structure, then by forcing this structure upon them, we become blind to the cybernetic circularities of the self and the external world. Our conscious sampling of data will not disclose whole circuits but only arcs of circuits cut off from their matrix by our selective attention. Specifically, the attempt to achieve a change in a given variable, located wither in self or environment, is likely to be undertaken without comprehension of the homeostatic network surrounding that variable.[1]

There is a rather curious mixing of metaphors in much of Bateson's thinking. It is, I think, arguable just how significant the formal theories of cybernetics and systems are to his own explanations and hypotheses. They are certainly important heuristic devices; but, just as energy-entity relations are argued to be a special case of information-relations, it is possible to see the feedback-monitored behavioristics of cybernetics circuitry as similarly constituting a special case of understanding. On the other hand, the intelligibility type

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1. "Effects of Conscious Purpose on Human Adaptation," Steps to an Ecology of Mind, pp. 444-45.

of determinism he derives from cybernetics is not confined to the phenomena of human communication-behavior. Bateson has demonstrated how such forms of explanation can be applied to the communication of cetaceans and other mammals,[1] to botany[2] and to relations of ecology.[3] What is possibly more important, he has demonstrated the value of such explanations to understanding the communication-behavior of schizophrenics and other so-called insanes.[4] It is on the basis of the breadth of these investigations that Bateson argues for a science of human communication assuming the form of a mental determinism.[5] The subtlety of Bateson's position on this point emerges when we realize that he is not ruling out the possibility that, for instance, though a principle of behavior may be both genetically determined and still best described by the formal

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1. "Problems in Cetacean and Other Mammalian Communication," Steps to an Ecology of Mind.

2. "Style, Grace and Information in Primitive Art," Steps to an Ecology of Mind.

3. "The Roots of Ecological Crisis," Steps to an Ecology of Mind.

4. "Toward a Theory of Schizophrenia," with D. Jackson, J. Haley, and J. Weakland, Steps to an Ecology of Mind.

5. Form, Substance, and Difference," Steps to an Ecology of Mind, p. 465.

contextual structures, a development in genetic explanation might cancel this advantage.[1] Bateson works out this argument within range of interests whose dialectic moves sometimes startlingly between the cybernetic metaphor of man as machine and the Darwinian metaphor of man as animal. What is of importance here, is simply the way in which the difference between energy-entity relations and information-relations would appear to have generated a competing semiotic of the intelligibility type and in terms of which the new interactionists have tried to re-articulate some of the thorniest problems about the interactions of communicators.

There is a further issue to be brought out about the programme of the new interactionists. If the analysis so far has suggested a broad skepticism toward a variety of behaviorisms--and especially toward its restricted views of what is empirical--this skepticism must also be seen in terms of the attitudes it discloses toward the development of a science of human communication. In this the theory of mental determinism that the new interactionists propose reveals some severe discrepancies.

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1. Steps to an Ecology of Mind, p. 321.

The position taken by Watzlawick, Beavin, and Jackson supports the likelihood that a calculus of communication-behavior can be constructed. They temper this belief with the reservation that a knowledge of man's "social relations," while overcoming the limitations of monadic psychology, does not adequately account for his "existential nexus." The particular error of earlier behaviorists, in this sense, was an error, not of logic, but of ideology. The belief in an ultimately specifiable explanation of human behavior built up from increasingly complex descriptions of linear interactions was based upon a naive acceptance of the diadic relation of an individual and environment as unidirectional and primary. By contrast, the authors of Pragmatics of Human Communication suggest that the consequences of Gödel and Wittgenstein's work on the limitations of formal systems of mathematical and symbolic logic make evident the fact that for any system, the problem of its consistency is substantiable only by recourse to methods more general than those generated by the system.[1] A science of man will, of necessity, provide a limited perspective; and this perspective will be determined by what is objectifiable from the observation of man's social relations.

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1. See Pragmatics of Human Communication, pp. 269-71.

Since man's existence is not specifiable in this way "from the outside," the authors are able to distinguish two irreducible domains of the interpersonal and the existential.[1] If this distinction is thought of in terms of explaining human behavior, then the authors contend that social relations are the legitimate domain of a science of human behavior, while allowing that all questions of this context must involve ultimately the on-going reflexive interaction of individual and environment which must, in fact, be related to a domain of meaning. Yet, if this is so, then, what aspect of social relations is not somehow a possibility of self-reflective action? If a behavioral theory of communication is impossible as a complete systemic description and, if the problem of meaning ultimately relates social interaction back to a complex of continuous interactions between the existential organism in its environment, does this not suggest an aporetic in the claim for a

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1. Pragmatics of Human Communication, pp. 261-62; see also p. 258. In a curious blending of these two concerns, they paraphrase the existential statement of man's self-created universe (which existentialism uses to prove one's aloneness) to read "reality is very largely what we make it to be," in which case the "we" serves to reserve agency to men, while seeming to deny agency to the possibility of individual actions. The authors are fond of paradoxes; so it is perhaps possible to view this one as a metaparadox.

calculus of human communication? Exactly what relations could such a calculus disclose? The answer, I think, is that the vast communicative possibilities out of which social relations are formed necessitates that some of these relations will be hypostatized.

Hypostatized relations are frozen, cut off from reflection; in the Hegelian metaphor, they operate "behind the backs" of communicators and sometimes cannot be acknowledged by individuals even when they are pointed out. It is specifically to get at these aspects of communication-behavior that explanations are indispensible and, so it can be argued, necessitate the objectifying method of a behavioral science. It has been conventional to argue this case from a position of concern for "pathological" communication-behavior--where the clinical or therapeutic evidence of psychological and psychiatric practice seem to lend support--but it must be emphasized that the interest in communication pragmatics on behalf of the new interactionists is claimed to be much wider than this.

It has been pointed out about the conceptual analysts of language that the concern over action and movement really involved more basic disputes over reason explanations and causal explanations, and between problems of doing and happening. Similarly with the attempt to come to terms with human

communication, the immediate disputes have also revealed deep underlying connections to far-ranging problems-interests of the sciences and humanities. The efforts of Watzlawick, Beavin, and Jackson to tell us something about the nexus of interaction and behavior, in this sense, confirms a number of basic explanatory principles that the work of the new interactionists suggested. But, perhaps more tellingly, their work has also disclosed the very curious way in which their deeper concern to understand the pathology of communicators reveals a concern with hypostatized relations wherein the interest in explaining communication-behavior becomes intertwined with an interest in control.

This tension between action and control, at the heart of Pragmatics of Human Communication, is not the case with the more subtle position that arises from the work of Gregory Bateson. Bateson's general critique of behaviorism shares with Watzlawick, Beavin, and Jackson the belief that the mechanistic theory of energy-entity relations cannot provide an adequate basis for a theory of human communication. But, whereas Watzlawick, Beavin, and Jackson see, in the development of metamathematic systems from the logical positivists to cybernetics and systems, a basis for linking the explanation of cognitive processes to the solution of social problems

concentrated around interaction, Bateson's concern is to show why the explanation of communication-behavior should take the form of a determinism of the intelligibility type.

W. I. Thompson has called this distinction that between a Pythagorean and an industrial science;[1] others have labelled it variously a dispute between causal or mechanical and teleological sciences, between form and substance, and so on.[2] The point here is that Bateson is taking sides in favor of the Pythagorean, but he is doing so while acknowledging that it is possible and even likely that a mechanical and interventionalist science of human communication-behavior could ultimately become the authoritative form.[3]

Watzlawick, Beavin, and Jackson recognize that the limits of formal systems prescribe a limit to the development of an explanation of communication pragmatics. Yet, what lies beyond that limit they assign to the status of the existential, most significantly issues of meaning, past causes and motivations. These matters are existential; and, on this basis, they

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1. Thompson, At the Edge of History, esp. ch. 6.

2. See especially von Wright, Explanation and Understanding, Chapter 1.

3. "The Science of Mind and Order," in Steps to an Ecology of Mind.

can accept "hermeneutic understanding" as a method appropriate to a different set of problems, while maintaining the primacy of their explanation of human communication-behavior to older causal forms of explanation. Gregory Bateson sees the issue as one of competing semiotics, wherein the mental determinism he is proposing is argued to be most appropriate, but not in any sense ultimate.[1] By contrast to both of these, the position advanced by Birdwhistell is much more extreme.

Birdwhistell was quoted earlier as maintaining that "an individual does not communicate; he engages in or becomes part of communication." From his position that communication must be viewed as a cultural system he is able to take up all those forms of interpretation and explanation based upon assumptions about individual actions and simplified sequences of action and reaction. The stimulus-response or cause-effect exchange model that is at the basis of much behaviorism, Birdwhistell maintains is only a special case of interpretation. Moreover, even the seemingly central position of language to communication is rendered inadequate as a basis for explanation because its vocalization is characterized

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1. "Substance, Form and Difference," in Steps to an Ecology of Mind.

by frequent intervals of cessation and inactivity.[1] If, in quite different ways, these two primary models for the explanation of communication-behavior are inadequate, what alternative is there?

In Kinesics and Context, Birdwhistell contends that the achievement of communication pragmatics in drawing attention to the "patterned interdependency of human behavior" provides the basis for an empirical pragmatics of communication. He, too, attacks the reductive tendencies of physiology and psychology for overly enthusiastic localization of codes and criticizes the cultural sciences for their loosely conceived notions of laws and conventions. Birdwhistell separates the organismic act and the social act and disputes the a priori belief that the relations can be determined between an organism and an

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1. "Some Relations between American Kinesics and Spoken American English." Birdwhistell maintains that: "Signals may appear either in the behavior of a single individual or may be shared in performance by a group of communicants. In fact, it is customary in an interaction situation for the membership to share the message transmission system. Only in highly stylized stage forms to we get the alternating receiver-sender system so often depicted in the dialogue or the attorney-witness representation. To say it simply, the examination of the behavior of a single individual (while it always contains items of kinesic behavior and, usually, will contain full constructions), does not exhaust the kinesic behavior of the interactive scene. The behavior of all participants is significant to the final analysis of the message content of the scene." In Smith, Communication and Culture, pp. 182-83.

event that is social in character. His contention is that:

> Any CODED ACT, regardless of the modality employed for transmissional purposes, gains its MESSAGE identity, its SOCIAL reality, its SOCIAL shape, its relevance to SOCIAL ACTION, not from the modality but from the system which "employs" it. Codification is a function of society and of communication and not of modality.[1]

Social action, in this sense, is learned, systematic, and analyzable. It is Birdwhistell's claim that the two strongest characteristics of social action are language and body movement, each of which is a "learned form of communication, which is patterned within a culture and which can be broken down into an ordered system of isolable elements."[2] Breaking down social actions in terms of the interdependency of body motion and speech he believes will provide an empirical basis for resolving the problem of "social meaning" within a microbehaviorism

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1. Birdwhistell, "Kinesics: Inter- and Intra-channel Communication Research," in Kristeva (ed.), Essays in Semiotics, p. 533.

2. Kinesics and Context, p. xi. Barton Jones has noted the degree to which the empirical character of Birdwhistell's work is dependent upon the technological innovation of movie cameras, slow-motion and freeze-frame projections and, one assumes, video (see the Preface to Kinesics and Context). It would only be a grand example of what Birdwhistell calls the "confusion of levels" to insist that the application of the camera and the subsequent projection occupies a position with regard to empirical science not unlike the repeatability assumptions toward the objects of natural science and rather a lot like the notion of memory and "recherche" in aesthetics. One might call this one of the repressed aesthetic features beneath the empirical mask.

of communication phenomena.[1] Birdwhistell is careful to avoid the charge that this is overly reductive; he reminds us that it is the interdependence of the sensorial and the socio-cultural that will be confirmed by such work.[2]

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1. In Birdwhistell's view there is no science of communication--and those disciplines gathered together under the rubric of semiotics constitute a first attempt to synthesize the study of what he calls the "channels" of communication. His criticisms of the "failure" to thus far arrive at a science of communication comes down to a criticism of his colleagues' belief that a theory of communications would come through some aggregate of these channels. A theory of communication, Birdwhistell proposes, must begin with the assumption that the process of communication is systematic and continuous; and that communication systems--and their sub-systems of vocalic, kinesic, proxemic, olfactory and tactile communication--are "structured by and as culture." His own work has focused on body movement and speech; and, it is clear that he regards these two "channels" as the basic ones. His initial categories of prekinesic (physiological), micro-kinesic (isolable body motion) and social kinesics (communication as interaction) demonstrate his belief that the superstructural dynamics of communication could be explained in the infra-structural analysis of sensory actions. See, "Kinesics and Communication," in Carpenter and McLuhan (eds.), Explorations in Communication (1960).

2. In Kinesics and Context, Birdwhistell tries to make this clear on a number of occasions, while restricting his range of potential behaviors to those sensorily isolatable within the human body: "Any particular sensory modality may have paramount definitional power in a particular communication situation, but these modalities may only be heuristically abstracted for study and analysis. That is, although at any puntiform moment a person may be seen to be moving or vocalizing, the study of communicational scenes reveals that all the abstractable modalities are necessary to understanding the communicational situation."

Birdwhistell's must lucid explanation of what he means by "interdependence" is the following:

> Communication, as a structure, does NOT regulate directly the behavior or the dependencies of organisms, but, rather it provides regulation of the relationship between organisms. All communicational events are, in the final analysis, social relational events and, as relational events, have investigatable reality as derivatives from the orderly processes of social regulation. Thus, communication is to be seen as the structure of regulation, composed of the relationship between infra-communicational structures, each shaped by the conditions of the code and the contingencies of transmission. Thus, although coded body motion and vocal activity can be studied as infra-communicational, the investigator must remember that communication is prior in organization to the structure of audible language, to the visible, tactilely received, olfactorily received, or other "languages." That is, codification (structural relevance) in the sub-structure is derived from communication. Again, communication is more than an amalgram of the codes from the substructure.[1]

In his grand elliptical style, Birdwhistell is making the same point as the other new interactionists in stressing the systematic nature of human communication and the informational-relational quality of interaction. The importance of both the informational and cybernetic metaphor is implicit in his language. But, whereas Bateson sees the relevance of

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1. Birdwhistell, "Kinesics: Inter- and Intra-channel Communication Research," in Kristeva (ed.), Essays in Semiotics, p. 532.

information and cybernetics to communication pragmatics as the basis for a teleological turn in explanation, Birdwhistell sees the possibility of developing a strict empirical pragmatics able to give mechanical explanations in terms of movement, speech and so on.

> . . . COMMUNICATION provides the SOCIAL mechanisms for the through-time, multi-generational aspect of social organization. Communication is a term, then, relevant to the processes of stability and variability, of continuity and change which are discoverable through the comparison of social organizational forms in sequential "presents" or "nows." Used in this way communication is a technical term of a type epistemologically familiar, at another level of integration, in such a concept as "gravity."[1]

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1. "Kinesics: Inter- and Intra-channel Communication Research," in Kristeva (ed.), Essays in Semiotics, p. 531. The "gravity" which Birdwhistell refers to might also be seen in the startling successes achieved so far by these various empirical or mechanical efforts. The incompleteness of word exchange as a measure of social interaction has occasioned a great deal of concern over the interdependency of language forms, perceptible movements, and social environments. Exemplary of this, as it emphasizes specifically human communication pragmatics, is Edward Hall's work on styles of interaction (The Hidden Dimension, The Silent Language); and Scheflen on clinical interaction (Stream and Structure of Communication Behavior: Context Analysis of a Psychotherapy Session); the pioneering work of Trager and Smith on visual and verbal cues and the continuation of some aspects of this work by McQuown, Bateson, and others. Erwin Goffman has looked at these same phenomena from a sociological point of view (especially The Presentation of Self in Everyday Life). Birdwhistell's work was chosen in part because his is the most comprehensive attempt to relate these efforts to a rigorous empirical basis for what I have been calling communication pragmatics.

To the charge that one cannot account for the social and historical factors, symbolic meaning, causation in the past, or numerous other characteristics of human communication in this way, Birdwhistell responds by restating the problem in a distinctly empirical manner:

> To comprehend the social, the communicational, situation, we must investigate the special conditions which permit interaction for a duration by carriers from a single sensory modality. That the conditions for interaction are often invisible is a function of the conditions of observation and not of the conditions of interaction. The investigator may confuse the duration of CONTACT with the duration of interaction. That is, the observed event is only one aspect of the communicational event.[1]

Duration as a special condition? The point, of course, is that by restating the problem in this way, Birdwhistell is able to claim that what cannot be presently specificable about interaction instructs us only on the current limitations of observation. It is also an affirmation that the paradigm of observation will in time be able to contain the interaction of communicators within a theoretical language of control. For communication studies to have focused on problems of agency, on the words, symbols, or meanings that humans exchange was,

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1. "Kinesics: Inter- and Intra-channel Communication Research," in Kristeva (ed.), Essays in Semiotics, p. 532.

for Birdwhistell, to have split the communication process in a way that, while no doubt contributing to our understanding, nevertheless served to "eliminate much of the communicational process from view and, thus, from purposive control."[1] And in the microbehavioral moment of an empirical pragmatics purpose and control become identical.

In all this, there is a sense in which the work of all those I have been calling the new interactionists represents a thematic response to the incompleteness of verbal or language-based forms of explanation be they from the reductive paradigm of a monadic psychology, from modern linguistics, or from the more conceptual efforts of ordinary language analysis and hermeneutics. Placed against these efforts to study human communication, their work constitutes an attempt to emphasize interaction as an intermediate link between purely formal theories and purely descriptive analyses. At times they recognized the ideological image of science and society behind this split, but they shared the belief that the materials of information, cybernetics and system constituted a basis for its resolution. This shared confidence that some resolution of this schism

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1. Kinesics and Context, p. 50.

was possible helped them see their activities as an attempt to gain some middle ground against what they viewed as the professional extremisms of the age. This is borne out further by the degree to which their work is concerned with the critique of earlier behaviorist assumptions and their insistence on seeing their efforts as providing a basis for studying the institutions of interaction. What distinguishes these concerns with the interaction of communicators, on the one hand, is their ability to have restructured the relation of individual to mass in terms of a concern with the metacommunicative relationships of families, therapeutic communities, stranger groups, and so on. On the other hand, they resisted outrightly the attempts to resolve complex issues of communication-in-society in terms of those positivisms of the moment, which tended too easily toward the construction of general theories or toward "empirical" fascinations with technologically-assisted communication that took the "data" of machines as "raw" and "uni-dimensional." For the new interactionists, a concern for human agency was never removed further than the stress upon the smallest interpersonal units of society. Their enthusiasms with the grand metaphors of cybernetics and system, seemingly borrowed largely for their heuristic value, were likewise tempered in the domain of the interaction of communicators.

That this should have led some to move in the direction of a mental determinism and others to see a refinement of mechanical explanation is a significance that itself needs explanation. Broadly speaking, the behaviorism of the energy-entity type was considered inadequate to human communication. Bateson does not dispute that communications can be explained according to a model of purposive rational action; and Birdwhistell emphatically insists upon it. At the same time, Bateson does insist that the mental determinism he advocates has important implications for the linking of cognition and social problems; and it is the thrust of Bateson's argument that the possible consequences of successful behavioral explanation and intervention in interaction dictates the importance of the teleological perspective.

These last points raise some fundamental questions about the competing forms of explanation and their uses. The problem is not simple. It can be said, for instance, that while the energy-entity paradigm of natural science is inappropriate to human communication, because communicators both constitute and are constituted in relationships involving conditions of reciprocity and self-reflection, it does still remain that disturbed or distorted communication seems to be characterized by the "loss" or hypostatization of certain

capacities for reflection and reciprocity. Communicators who do in this way approximate the natural scientific object--that is, appear subject to those kinds of laws or premises that scientists are able to take advantage of to gain control over the processes of nature--do involve the new interactionists importantly in the question of practice. A knowledge of communication pragmatics brings with it certain possibilities for control. It would appear to provide the scientist with the ability to gain theoretical control over interaction--in the Hegelian sense, to acquire the capacity to turn the cunning of consciousness against human consciousness itself. Again, in such stylized situations as the therapeutic encounter, but also in the scientization of advertising and politics, behavior modification, and other con games, this would appear to pit "control" against "cunning"; and which, if operationalized on a large scale, would constitute an attempt to split what I have called the larger dialectic of communication.

In this circumstance a language of control emerges as a grammar of situations linked to practices providing for the manipulation of hypostatized features of communicative interaction. Such orientations to interaction are most often carried out in relation to conventional socio-cultural institutions (families, therapeutic communities, stranger groupings), but

internal to the operations of socio-economic institutions (medical, welfare, media)--and seemingly without reflection on the historical context of these relationships.

I would like to argue that this particular way of conceiving the issues constitutes a partial confusion of action and control. To an extent this is explained by the ideological ways in which the object domain is posited--that is, strictly as objects of manipulation or strictly in terms of a self-reflection referring to changes in attitudes arising from causalities in the past. This dichotomy, in turn, is related to the problematic relation of theory and practice--especially naturalistic versions of practice--and to our tendency to mystify this into an existential choice between ideational and operational perspectives. To view the kind of feedback-monitored behaviorism of the new interactionists in this way is to identify practice and technique in a profoundly disturbing way. Seen against the larger development of communication studies it could be asked whether this is nothing less that the instrumentalizing of Wiener's original communication vision of society as "the cement which binds its fabric together." It is this tension in the work of the new interactionists that must be understood. Moreover, this tension is not exclusive to communication studies, but is immanent in the activity of much contemporary social science.

CHAPTER VII

A CRITIQUE OF THE NEW INTERACTIONISTS:

The Confusion of Action and Control

If the distinctions and the dichotomies set out by the new interactionists seem to derive strongly from the broad procedures of cybernetics and system, the overall development of their work has provided a specific introduction to the institutions of socialization. As severe as the methodological differences may be, they have contributed a strategy for coming to terms with human communication pragmatics. At very least, their work provides powerful evidence for the complexity of information space and the comparative poverty of the energy-entity reductions of earlier behaviorisms. In terms of a theory of knowledge, they have revealed some of the biases and reifications that pervade and distort our most basic efforts to come to terms with human communication. The significance of the way in which information and agency are delimited against context, the concept of relationship, and the systemic homeostatic characteristics of interaction are all central to our way of thinking and acting in society. Many of these insights about the reciprocity of communicators has come by way of a tacit criticism of the superficial

rationalism and the superficial positivism of work confined to formalist preoccupations with the relations of communications. Reflexively, this could be described as the shifting in emphasis away from theoretical refinements along the axis of professional pasts and in favor of comprehending something of our roles as active social agents.

But, in this latter case, there is a way in which the claims of the new interactionists have been much more focused. In discussing the techno-empiricists and the rise of the new communications I wanted to draw attention to the conditions under which an interest in the control of complexity conceived the extension of communicative potentials largely in terms of extended control and that an analysis confined to the relations of communications could become an attempt to resolve the social problems of communications in the absence of communicators. Jürgen Habermas has designated this set of theoretical and practical attitudes as a concern with instrumental action systems. In a problematic way, the concern of the new interactionists has created certain parallels with techno-empiricism.[1]

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1. The fact that they make use of similar materials, theoretical materials for instance, does not interest me in the present study. It is what happens to these ideas when they are taken over into the perceived problems of communications-in-society that the significant discourse ensues. Bob Scholte refers to this as the epistemological split between axiothetic and praxiological forms of analysis (Bob Scholte, personal communication).

The interest in communication pragmatics, while avowed in terms of a more general interest in human communications, nevertheless has become strongly identified with a concern to explain patterns of interaction that are reified or hypostatized and, therefore, it is argued, controlling factors in the production of pathological behavior. It is more than ironic that the analyses of the new interactionists have revealed a great deal about those relationships which systematically repress or manipulate communicators; especially when considered against those preoccupations of techno-empiricists that assumed the control of cognition could be located positively in more or less these aspects of communication itself. The curious dualism here, whereby these aspects of what appears to be the same problem-interest are considered to be unrelated domains of research activity, is maintained largely on the basis of a methodological delimiting of the subject matter. Many of the new interactionists do not consider any meaningful relationship to exist between these problem-interests; or they consider the dichotomy as one of a conceptual discongruity as total as that between energetics and information. Yet, the primacy of human agency--of the interaction of communicators--creates a tension in the work of the new interactionists which might be characterized as a tension between the concern for improved understanding of human communication-behavior and the concern for

its control.

There is perhaps another way of saying this. Pervading the work of the new interactionists is the persistent belief that the conditions of disturbed or distorted communication, identifiable in theory, could become the basis of a therapeutic practice aimed at their elimination. What is problematical about this is that, even as their theorizing sought out some middle ground between cognitive processes and social problems, the "therapeutic practice" was taken over into historically established institutions of professional practice. It is not my intention to examine the vast and complex range of criticisms that have emerged around this "operationalizing" activity.[1] Basically, it has produced two significant lines of development for communication pragmatics. In one case it has led to a concern with the refining of techniques and a rigorous "empirical" turn.[2] The mechanistic dispositions of these developments has tended to leave questions of the larger social context aside. If we were to accept the earlier claim of

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1. For a sardonic treatment of these issues, see Haley, Uncommon Therapy; and his later and much less skeptical Techniques of Family Therapy (with Hoffman).

2. Especially the work of Birdwhistell and Scheflen; their work has generally emphasized the clinical context and the techniques they have developed are closely linked to clinical needs.

Watzlawick, Beavin, and Jackson that their work overturned the energy-entity model of Freudian psychodynamics, it would still remain hard to decide if the "clinical model" itself derived from Freud's initial understanding of psychoanalysis as a natural science, or if it was part of that historically concomitant eagerness to shift the "experimental situation" from matter to mice and men. Or something else again. The point is that this first line of development has tended to view the interaction of communicators and the institutions of socialization in a manner internal to history and largely internal to the primary social institutions themselves. By contrast, it is this characteristic of the first line of development that has become the critical basis for the development of a second more radical type of thinking.

This second line of thought provides a basis for delimiting some of the tacit and unreflected implications of communication pragmatics and its practice. And an excursus at this point into the new interactionists' understanding of the relations of theory and therapy can bring the full range of issues involved here into greater relief.

The value of the metaphor of cybernetics to communication pragmatics is most often argued to hang on the usefulness of the concept of feedback. It is argued that, by connecting systematically input and output, feedback provides a supplementary form of explanation--sometimes characterized as the supplementing of "how possible?" explanation with a "why necessary?" explanation.[1]

A feedback situation typically involves the overlapping of two systems[2]--a primary system and a secondary system--for the purpose of analysis. A "report" about the operation of the primary system is deflected into the secondary system and feeds back into the primary system a "command" which serves to modify the operation of the primary system. Such a system is closed in the sense of completeness or circularity.

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1. Numerous sources make this claim. Among them: Radnitzky, Contemporary Schools of Metascience, pp. 110-20; Lange, Wholes and Parts: A General Theory of System Behavior; von Wright, Explanation and Understanding, chapter four. I am especially indebted to von Wright for several distinctions that follow.

2. This stylization derives from several sources and is intended as a reconstruction. See Deutsch, The Nerves of Government; Buckley, Sociology and Modern Systems Theory; G. Bateson, Steps to an Ecology of Mind; Haley, Uncommon Therapy; Watzlawick, Beavin, and Jackson, Pragmatics of Human Communication.

In the case of negative feedback, the report from the primary system brings about a command from the secondary system such that the activity of the primary system should be modified in the direction of "quieting" the primary system. Quieting is formally regarded as homeostasis, balance, stability, and so on. For any social system, whether the primary system responds to the report-command circle is, of course, contingent; just as is the question of whether the secondary system will itself respond to the reports received. It is this pattern, however, that is seen as the basis for cybernetic explanation in the empirical-analytic social sciences.

It can also be argued that the Marxian-Hegelian concept of the negation of the negation also bears a resemblance to (negative) feedback. If one phrases it in negative terms: the secondary system "denies" the report of the primary system about its operation; and the command of the secondary system "denies" the operation of the primary system--thus modifying or "quieting" the first denial. The concept thus bears an analogy to two distinct styles of social analysis.[1]

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1. Radnitzky, "Ways of Looking at Science," in Contemporary Schools of Metascience (1968); von Wright, Explanation and Understanding, ch. 4. I disagree with those systems-therapists who equate "change" with positive feedback and thereby justify interventions into pathological behavior patterns without any attention to what this notion of change is all about (see Haley and Hoffman, Techniques of Family Therapy).

To a significant extent, cybernetic explanations in the social sciences proceed from the successful extending of the model (or metaphor) of feedback. In its designation of primary and secondary systems, it provides a compatible framework for a basic concern of social science--that of the relationship obtaining between the general and the particular. And, in the dialectics of marxian-hegelian antecedents, it provides a description of the negation of the negation, such that the pattern leading to synthesis can be formally represented.

As the case of the new interactionists makes clear, the use of the feedback-controlled model of cybernetics for explaining aspects of social phenomena does not necessarily imply that it is a causalist or mechanistic method in this instance. That, the above contrasting examples should again underscore. However, it is also clear that the extending of the model as a means of formal description to the domain of human and social phenomena does bring with it the general question of determinism. Like the "mechanistic" issue, the question of determinism, that is, whether one is concerned with ideas of predictability or of intelligibility, is crucial to the question of what kind of explanation one is making. To the extent that predictability predominates, the claim is made that the social sciences adhere to that methodological unity of

knowledge proceeding from description to law-like regularities. Intelligibility, on the other hand, rests upon a kind of mental determinism, a determinism by cognitive processes and mind. It is also what some people call teleological explanation.

Understood in this way, the question of determinism can serve to introduce a crucial distinction with regard to the work of the new interactionists. Thus, while it may be accepted that the work of Gregory Bateson resides on the side of "intelligibility" and that of Birdwhistell on the side of "predictability," it should be seen that the issue of determinism is importantly involved with its uses.

It is generally conceded that, as an agent in society, one can work either to make predictability come true or "not come true."[1] In this sense there is no outside agent. Therefore, in any application to human or social phenomena, the kind of determinism involved is always more like the intelligibility type than the predictability type of the natural sciences. In other words, though it may not differ in its object, it must differ in both the position and role of the observing agent. One may, metaphorically speaking, view the object of investigation from outside, as does most social

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1. von Wright, Explanation and Understanding, chapter four.

science, while understanding the interest in so doing; and understanding further that any resulting knowledge is utilizable from inside to help confirm or deny it. Knowledge about social reality feeds back into the position on social reality that its agent purports to explain.[1]

One way of characterizing this existential situation of the human sciences is to say that it turns on the manner in which man's cognitive premises about the world are related to behavior and to the production of knowledge. This could also be said to constitute the communicational condition of men and women as historically situated agents: that, whereas the tree in the forest falls regardless of whether our concept of gravity exists, the concepts man entertains about his social reality actively influence that reality. Including, of course, gravity. Gregory Bateson states the case as follows:

> In the natural history of the living human being, ontology and epistemology cannot be separated. His (commonly unconscious) beliefs about what sort of world it is will determine how he sees it and acts within it, and his ways of perceiving and acting will determine his beliefs about its nature. The living man is thus bound within a net of epistemological and ontological premises which--regardless of ultimate truth or falsity--become partially self-validating for him.[2]

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1. Explanation and Understanding, p. 167.

2. "The Cybernetics of 'Self': A Theory of Alcoholism," Steps to an Ecology of Mind, p. 314.

The process of describing the way in which this reciprocal relationship of "seeing," "acting," and beliefs operates involves two distinct occasions: observation of the habitual premises guiding a set of behaviors; and an incorporation of such knowledge into the self-understanding of the subject. This latter case is particularly problematic for those social sciences that prefer the maximum isolation or separation of observer and object of observation. But, for Bateson, it is only in this way that there is a check on the validity of the observations.

The initial observation procedure he suggests is a modification of a cybernetic explanation. The prototype of such explanation is the concept of negative feedback. Its particular logic is concerned with giving a formal representation to the relationship between epistemological premises and types of communication-behavior. The structure of such an explanation describes the relationship between "primary" and "secondary" systems; and, although it is an analogue of cybernetics, the process of understanding proposed is not unlike the efforts of the cultural sciences to grasp the relationships between "outer" expressions and "inner" states of consciousness.[1]

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1. Habermas attributes this primary distinction for the Geisteswissenschaften to Wilhelm Dilthey. See Habermas, Knowledge and Human Interests, chapter seven.

It is largely on the basis of this prototype that the link between communication analysis and psychoanalysis is advanced: in the case of "primary process" by formally differentiating the subject matter of language and consciousness (secondary process) from that of the unconscious. Primary process is thus seen to classify the particular messages of secondary process vis-à-vis its referent:

> Consciousness talks about things or persons, and attaches predicates to the specific things or persons which have been mentioned. In primary process the things or persons are usually not identified, and the focus of the discourse is upon the relationships which are asserted to obtain between them.[1]

What is explained is a relationship or correspondence between a "way of perceiving" and a "way of acting." Yet, since this relationship must be in some sense validating for one's beliefs, there is a correspondence created with a higher set of premises. Such a synchrony, then, attempts to explain the relations obtaining with some "other" within a presupposed communication community, through a system of established contexts that are disclosed first in language and behavior, then in patterns of relationships, and finally in structures of cognition.

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1. "Style, Grace, and Information in Primitive Art," Steps to an Ecology of Mind, pp. 139-40.

By comparison, the activity of psychoanalysis involves a process of self-reflection wherein the aim is to bring about some change in an individual's attitude through the removal of "causes" in the past.[1] The form of psychoanalysis must be concerned with "bringing into consciousness" aspects of the discourse of primary process that have become systematically removed from awareness. Communication analysis is similarly concerned with those aspects of behavior that are removed from active inspection. But, with this difference: following the suggestions of cybernetics, communication analysis proposes that the "painful matters" of psychoanalysis are repressed in precisely the same systematic manner that all habitualization of behavior and its subsequent removal from consciousness is accomplished. Bateson characterizes this as a conservative relation of consciousness and learning:

> The economics of the system, in fact, pushes organisms toward sinking into the unconscious those generalities of relationship which remain permanently true and toward keeping within the conscious the pragmatics of particular instances.

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1. These are causes in the sense that they operate unconsciously, behind the back of social agents as it were. Habermas speaks of this as follows: "Unconscious motives, so to speak, bear the cloak of causes; and only in this disguise do they have motivating force." Habermas, Zur Logik der Sozialwissenschaften, p. 186.

> The premises may, economically, be sunk, but particular conclusions must be conscious. But the "sinking," though economical, is still done at a price--the price of inaccessibility. Since the level to which things are sunk is characterized by iconic algorithms and metaphor, it becomes difficult for the organism to examine the matrix of which his conscious conclusions spring. Conversely, we may note that what is common to a particular statement and a corresponding metaphor is of a generality appropriate for sinking.[1]

Explaining the self-understanding of agents must necessarily involve the disclosing of culturally embedded orientations, which are, in principle, overdetermined. What, therefore, must be disclosed in the communication-behavior of any individual is (1) the characteristics of the relationships that bind him to things and to others; and (2) the premises that govern such relationships, that are habitualized and, therefore, removed from conscious reflection. What explains or discloses these relationships and premises is the feedback that obtains between them. This feedback, however, is no thing. It is not localized in the individual and the individual is himself a feedback loop to larger systems of culture and mind.

What then gets into the consciousness of individuals, into their ordinary language and behavior, is the result of

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1. "Style, Grace and Information in Primitive Art," Steps to an Ecology of Mind, p. 142.

a mental punctuation embedded in larger and largely unconscious systems. This punctuation determines what is to be the stimulus and what the response in the conscious reality. Such punctuation and the behavior it classifies is both maintained and revealed by feedback. Bateson draws attention to the curious way in which the emphasis on the information-relation model appears to reverse the concern of the energy-entity model with regard to the problem of context: that, whereas the natural sciences attempt to provide context-free knowledge in the form of laws, the cybernetic explanation of communications exists precisely to account for context.

But, what is context? It is a familiar argument of the hermeneutic or interpretive mode of analysis to contend that context is that in which things and events have meaning: the interpretive activity generally assumes that the relationships between the relata are the primary concern and that this necessitates some delimiting of context. In this sense, the concern for meaning, though problematic for all the cultural sciences, does seem to attempt a bond with context and agency that natural science systematically tries to break.[1]

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1. See, for instance, Ernst Cassirer, "Naturalistic and Humanistic Philosophies of Culture." Since there are an infinite number of delimitable contexts, the problem of the hermeneutic circle can be described as one of needing to break the context of contexts at some point--a largely arbitrary choice--or to regress infinitely. Cassirer, The Logic of the Humanities.

The cognitive concerns of Bateson's model hold that the context to be accounted for is that correspondence between the ideas men hold about the world and the consequences of their acting within it; and, beyond that, the manner in which such contexts disclose larger cultural patterns. Such a process is analogous to the cybernetic description of primary and secondary systems, which classifies these activities and in this way discloses the correspondence between a particular type of behavior and its precipitating condition.

A context is like a map which serves to classify the message, but is itself a metamessage which in turn discloses something of the relationship talked about. If this seems obscure, it should be remembered that the whole problem of relationship is only problematically linked to the consciousness of individual agents. The concept of context is needed precisely because the relationship "talked about" in any interaction does not have markers relating it to specific behaviors. Just as energy-entity relations are considered only a special case of information-relations, for Bateson individual consciousness is only a part of larger systemic patterns. The problem of what, therefore, is to have meaning for any communicational analysis must be seen to shift the

emphasis from the content of specific interactions to the contexts that classify such interaction. Communicational meaning comes precisely from context and, in this sense, becomes meaning about the relationship of communicators themselves. For communications, the context of communicating classifies the content of communication; but, as culture and the unconscious seem to be associated with what intrudes from the past, so what classifies can never match the content of the present.

Such a designation involves the problem of an infinite regress of contexts. It is Bateson's contention that consciousness constitutes a principle of economy that responds to such potential regressions through incorporation and stabilization within the unconscious. This process involves a type of learning or habitualization that establishes patterns of relationships that classify particular behaviors, but have meaning beyond individual events. All communication-behavior is partly determined by cultural and psychological systems; and it is Bateson's proposal that only a theory of contextual meaning can allow us to see the content of communication "as both itself internally patterned and itself a part of a larger patterned universe."

The obvious claim for such a conceptual system is that it avoids the easy tendency to examine only those items of

communication-behavior that appear isolable and quantifiable; at the same time it establishes a basis for the unconscious. Taken together, these claims constitute a conception of mind which provides for an explanation of the economy of habitual action in conjunction with the way in which habit operates as epistemological premises linked to an ontology. The importance of Bateson's conception of mind is that it acts against the narrowly psychological and in favor of those qualitative characteristics long considered by behaviorists as appropriate only to the domain of symbolic expression:

> We need not be put off by the fact that the reasonings of the heart (or of the hypothalmus) are accomplished by sensations of joy or grief. These computations are concerned with matters which are vital to mammals, namely, matters of relationship, by which I mean love, hate, respect, dependency, spectatorship, performance, dominance, and so on. These are central to the life of any mammal and I see no objection to calling these computations "thought" though certainly the units of relational computation are different from the units which we use to compute about isolable things.[1]

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1. "Form, Substance, and Difference," Steps to an Ecology of Mind, p. 464. Bateson makes the point polemically in another essay: "Anglo-Saxons who are uncomfortable with the idea that feelings and emotions are the outward signs of precise and complex algorithms usually have to be told that these matters, the relationship between self and others, and the relationship between self and environment, are, in fact, the subject matter of what are called "feelings"--love, hate, fear, confidence, anxiety, hostility, etc. It is unfortunate . . . /

Through the workings of relationship and context those parts of human communication ruled out by conventional theory of behavior can be seen to operate according to precise patterns. Contrarily, the mere decoding of the rules of communication-behavior would imply an instrumental concern. An instrumental focus on communication replaces the concern for the "unconscious" with the "interpersonal"; and the reduction of the unconscious in this way is a penetration and reduction of the domain of symbolic interaction itself. What is of consequence in the instrumental view of human communication is that it confuses consciousness with reason and purposiveness with control. And, while this is not yet a reality for communication pragmatics, it is a tendency for which there is evidence.

It is more or less a commonplace of communication study that interaction concerns direct our attention outward to the same extent that Freudian psychoanalysis directed our attention inward. Both it could be claimed represent attempts to resolve

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1. (cont.) that these abstractions referring to patterns of relationship have received names, which are usually handled in ways that assume that the "feelings" are mainly characterized by quantity rather than by precise pattern. This is one of the nonsensical contributions of psychology to a distorted epistemology." Steps to an Ecology of Mind, p. 140.

problems of the conscious self; but, as legitimately, they could also be seen to have the effect of reducing the overall scope of that conscious self. In this sense the extremism in the Freudian model resides in its insistence on locating all matters of concern within the agent's past and ignoring much of the on-going process of socialization. Contrarily, the extremism in the interactionist model is its insistence that the explanation of the communicative interaction of agents could be undertaken internal to the historical context and function of basic institutions--that is, wholly within the reasoning consciousness of the objective observer to such situations. Perhaps a more subtle danger in the latter case is that the method can itself become a functional means for forgetting both the unconscious and the broader forces of social reality.

More problematic still is the fact that, given the possibilities for a general theory of communication pragmatics, the preference of the new interactionists to have developed the pathological or therapeutic dimension at the expense of atrophizing other areas such as the creative or aesthetic cannot itself be justified on logical grounds. That is, while we may be able to accept the persistence of the concern for disturbed communicators in terms of the general twentieth

century development of institutions of mental pathology and their totalizing effect on research, it may still be important to reflect on just what it means for the study of communications to have followed the logic of this particular turning. If it has been correct to describe the initial shift to communication pragmatics as a first attempt to say something about the institutions of socialization, it would also be appropriate to examine the consequences of this direction. But, whereas most often this aspect of knowledge production is thrown off as being merely the question of its application, there is a way in which the project of the new interactionists to intervene in the "purposive control" of cognition and social problems can serve by reflection to tell us something of its reasons.

Exemplary of this "project" is the development and co-opting of one of the early contributions to communication pragmatics--the double bind hypothesis. In terms of its original description by Bateson and others,[1] it has become a highly reified notion; by which I mean the pervasiveness of the belief that the particular structure, which the double bind was thought to represent, was actually to be found in the brain. This

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1. Bateson, Jackson, Haley, and Weakland, "Toward a Theory of Schizophrenia," Behavioral Science, Vol. 1, No. 4 (1956).

quasi-naturalistic view of the double bind has no doubt robbed it of its place as a "genus of syndromes" in a general theory of learning. And a distinction has, therefore, emerged in the history of its logic between its descriptive modelling of certain orders of learning and its reified and quasi-therapeutic understandings.

In substantial part the inspiration for the double bind hypothesis derived from the continued development of the cybernetic model. Feedback and context provided a formal basis to show the systematic blocking of certain orders of learning, first in order to maintain higher order relationships (such as love, dependency, etc.) and then the gradual habitualization of this distortion and, thereby, its removal from conscious reflection. Following the account of how the nineteenth century schizophrenic John Perceval succeeded in escaping the domination of his "voices," Bateson was able to formulate an explanation in terms of "precipating causes" that described the recognition and change in deep seated epistemological premises. Bateson's explanation demonstrated that distorted patterns of communicative interaction were always constrained by higher order premises which themselves had to be overcome.[1]

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1. Introduction to Bateson, G. ed. Perceval's Narrative, A Patient's Account of his Psychosis, 1830-1832.

What this superceding of premises involves is an objectifying of the other in a continuing interaction or discourse. This objectification, in turn, permits the interaction to be seen as behavior, as symptomatic of an objective relationship in which all behavior is specified mechanically. This is another way of describing the process of "getting outside" an over-determined context of interaction--in Bateson's terminology, of realizing a larger context; and thus the relation of one's cognitive premises to distorted interaction patterns. In the metaphor of cybernetics, the premises are akin to the way in which the secondary system acts to maintain a pathology producing relationship in the primary system. The conditions of this particular pathology are operationally the same as any other set of behaviors and relationships. With this exception: that the procedure of "getting outside" is paradoxically one whereby an individual is able to gain access to the systemic nature of a particular pathological performance only by recourse to a level of abstraction that is in a "meta" relationship to these interactions. The process commonly involves two distinct steps: one, the objectification of oneself in a discourse or interaction with some other; typically one that is productive of pain. This objectification allows for a transparency of motives and relationships that are seemingly

pathogenic. And, two, the incorporation of such "learning" back into the individual's interaction and future competence. The total process relates orders of cognition to types of social problems in a manner such that the resulting recognitions produce some variety of "creativity" or "change."

In this sense, the double bind becomes a paradigm case for producing knowledge about blocked orders of communicative competence. The concept of feedback describes a form of contextualizing reflection that, in principle, would have the effect of modifying cognitive premises, the social problematic of which lay beyond the grasp of individual consciousness. It appears to be the specific ability of a modified cybernetic model with its limited means-ends rationality to delimit such circuitry. Whether it is at all justified to call the relationships revealed by such an explanation "causes" remains problematical; this is especially so in light of the fact that, as they are revealed, they, in principle, cease to function "causally." Thus Bateson characterizes the process as a sort of basic antimony:

> We are talking about then some sort of tangle in the rules for making transforms (ideas) and about the acquisition or cultivation of such tangles. Double bind theory asserts that there is an experiental component in the determination or etiology of schizophrenic symptoms and related behavioral patterns, such as humor, art, poetry,

> etc. Notably the theory does not distinguish between these species. Within its terms there is nothing to determine whether a given individual shall become a clown, a poet, a schizophrenic, or some combination of these. We deal not with a single syndrome but with a genus of syndromes, most of which are not conventionally regarded as pathological.[1]

By comparison, the subtle treatment of the relation of reason and consciousness provided by Bateson is obscured by an instrumentalist reading. Operationalizing the double bind as a tool of therapeutic intervention turns the communication situation into a situation of mental management, wherein the attempt to manipulate the "patient" restructures the relation of cognition and social problems in terms of which the conscious reasons of the therapist replace the pathological premises of the patient, albeit under the guise of induced reflection. This "reason" in turn becomes paradoxically the condition of both schizophrenic and therapist in that it confuses its own intelligence with total consciousness--and accordingly, can admit no wider reflection than "it works" as regards its relation to the world. But, the "reasons" of the observer-therapist is not reason, but consciousness. And the view that identifies reason and consciousness in such authoritarian fashion could be expected to identify similarly the relations of purpose and control.

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1. "Double Bind, 1969," Steps to an Ecology of Mind, p. 272.

It is an increasingly well documented case that the instrumental concerns with experimentation, manipulation, and the refining of techniques are very problematical within the social and human sciences. It is generally agreed that what makes such concepts problematical is the "historically moving" nature of their social and cultural objects. In other words, the objects of these studies have the capacity to absorb the knowledge of their relationship with the scientist into their own future competence. To the extent that the further capacity to absorb the knowledge of their relationship with the scientist into their future competence is blocked at the point of the actual theorizing of the scientist, the overall movement of such a system is an infinite regress on the level of tactics.

Instrumentalist concepts are problematic for another reason. Since the scientist observer is himself "historically moving," it is assumed that he has an interest in the outcome of his own predictions. What is more, his very use of technique and experimentation have a social effect in their actual usage--that is, they historically move the object by their mere application. In this sense, the techniques of a science are a presupposition for its existence. And, regardless of the individual results of particular applications, the overall movement of such activities achieves an institutionalization of

technique dominated methods and instrumental reason. Social science, on the level of strategies, becomes the language of total reconstruction.

George Henrik von Wright has characterized this in terms of a basic subject-object relationship:

> The systems ("fragments of the history of the world") which experimental science studies can be manipulated by an outside agent. This agent has learnt to reproduce the initial states of the systems under conditions where they would not otherwise originate. From repeated observations he then gets to know the possibilities of development inherent in the system. The systems which social scientists study cannot, as a rule, be manipulated by outside agents. Instead they can be manipulated by agents inside. This means that the predictions about the system's development can, within the limits of human "know how," be made to come true, but can also be made to come false.[1]

If this is so, then whenever it is possible to take significant advantage of regularities in culture and society, one has constructed the possibility of a social technology. Furthermore, since the object of social science is assumed capable of some historical movement or learning, any social technology must also involve important aspects of authority. Habermas designates the discongruity of technology and authority as follows:

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1. von Wright, Explanation and Understanding, p. 164.

> The direction of technical progress is still largely determined today by social interests that arise autochthonously out of the compulsion of the reproduction of social life without being reflected upon and confronted with the declared political self-understanding of social groups. In consequence, new technical capacities erupt without preparation into existing forms of life-activity and conduct. New potentials for expanded power of technical control make obvious the disproportion between the results of the most organized rationality and unreflected goals, rigidified value systems, and obsolete ideologies.[1]

Because few studies focused on the interaction of communicators are able to recognize theoretically this discongruity of technology and authority relations, it becomes necessary to consider the question of communications as technique directly: that is, in the reciprocity of theory and practice in the activity of the new interactionists, for example, does "communications" become a kind of technology? Considered within the context of the double bind theory, in what way does the limited means-ends rationality on which it is partly formulated relate to social and bureaucratic uses? To what extent can the axiom of communication pragmatics--"to act or be one end of a pattern of interaction is to propose the other end"--be reformulated in terms of its technological and instrumental implications?

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1. Habermas, Toward a Rational Society, p. 60.

I think it could be anticipated that behaviorists, acting out of their particular assumptions about how self-knowledge is provided to another, would come to conceive of the double bind (and other communications concepts) as something real and as something to be used instrumentally in manipulation of that other. Indeed, this seems to have become an important factor in understanding the checkered history of the double bind hypothesis as a clinical-laboratory tool. As a technique, the current status of the double bind is merely one possibility amongst many; and, while this is partly a reflection of the constant search for more and more glamorous tools by the "psychic" establishment, it does appear that the double bind as a therapeutic tool has become increasingly problematical. Roughly, this history of the technique could be stylized as a struggle between the capacity of psychiatry or psychology to utilize the therapeutic bind as a manipulative device (in combination with drug interventions, if appropriate) and the capacity of the patient, historically speaking, to learn about the context of this context; that is, to absorb some knowledge about the binding activity of the therapy itself into his own knowledge and future behavior. This is an infinite regress on the level of tactics.

There is a wide variety of recognition for this dilemma.

The capacity on the part of all parties to therapy, for instance, to "relabel" the roles and performers is well established.[1] Typically this has produced either torturously complex discussions of deviancy and technique from the case-based viewpoint of therapists or, contrarily, excessive idealizations of the "psychic trip" from the existential position of "insanes."[2] Watzlawick, Beavin, and Jackson offer perhaps the most candid example of this tension in their otherwise credible treatment of the double bind technique:

> So much for the theoretical aspects of therapeutic double binds. Their practical application is a much more theory subject. May it suffice to say here that the choice of the appropriate paradoxical injunction is extremely difficult and that, if the slightest loophole is left, the patient will usually have little difficulty in spotting it and thereby escaping the supposedly untenable situation planned by the therapist.[3]

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1. The classic reference used by most of these "systems theorists" to demonstrate "relabelling" is Lewis Carroll's Alice in Wonderland.

2. See R. D. Laing, The Politics of Experience; and also the last chapter of Watzlawick, Beavin, and Jackson, Pragmatics of Human Communication, which anticipates Laing to some extent. But, see the critique of Laing by Russel Jacoby, "Laing, Cooper, and the Tension in Theory and Therapy," in Telos, No. 17 (1973).

3. Pragmatics of Human Communication, p. 242.

This infinite regress on the level of tactics appears to be what has occurred with such strictly behaviorist work as the pigeon and rat experiments pioneered by B. F. Skinner. The fact that the early experiments cannot be duplicated with the same success in recent times is a tough issue to explain. To attribute this fact to genetic change (or to species differentiation, as some Skinnerians do) is only to beg the question at a higher level. The problem would still remain to show the particular set of environmental relations that facilitated or triggered the "genetic" response. Whereof, of course, the Skinnerians are silent.[1]

In the case of human subjects, whose capacity for self-knowledge is considered greater, a further logical stage for social technology could be anticipated only when the unreflected scope of the problem (say epidemic psychic pathology) and the further refinement of technique brought about the possibility of wide-scale social intervention (in the name of health) to bring human nature under control; beginning, of course, with the psychologically distressed.

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1. Bateson, personal communication.

Therapy, it can be argued, is most often dominated by the medical model; and by the economics and institutional force of that model. As such, therapy is a means directed at an end (cure). Technique is employed as it facilitates this state of "cure"; and the attainment of normal behavior, or an "absence of symptoms" in its most Orwellian sense, is the measure of therapeutic success.

In this way, therapy appears to be a case of limited means-ends rationality, wherein: "One is primarily interested in manipulating the interlocutor; and an understanding of what he wants to say and what he wants to conceal enters only in so far as it is deemed to be of instrumental value for the manipulation."[1] The therapy occurs within the limits imposed by an end already deemed to be proper and therefore removed from real discourse. Therapy, then, becomes means oriented, which leads to a concern for technique and manipulation. And, to the extent that the behavioral paradigm is operative, to the making of the relationship largely into a subject-object type.

So constructed, attention becomes focused upon the refining of technique. So operationalized, it seems likely that "means" come to be seen as "causes" and "ends" as "effects." What then becomes the charge of the scientist-therapist is the

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1. Radnitzky, Contemporary Schools of Metascience (1970), p. 52 (II).

elimination of uncertainty, the extension of control, and overall, the attaining of economy and efficiency. An interest in the "causing factors" relative to an "end" is an interest in control. To have an interest in control is to be concerned with the administration of psychological states of consciousness. The fact that communications theory, such as the double bind exemplifies, belongs to that historical attempt to extend theoretical concerns from the level of man as psychological monad to that of interpersonal and relational contexts should not be seen to automatically alter such an interest.

To the extent, then, that the role of communications theory facilitates these kinds of administrative functions, ends remain set and development is centered upon the refining of technique. In the context of a general subject-object relationship, "communications" can become technique-steered, where the feedback process from object to manipulating subject serves that larger historical strategy to turn the "cunning consciousness" of human nature against human nature itself.

It is in this sense that the double bind as a description of communication-behavior becomes reified, becomes the thing-itself. And what gets telescoped or removed from possible reflection are the conditions of social and historical life

that can, in practice, be overcome. In the telescoping of "communications" into such psychological and psychiatric patterns of action and in removing the "end" of therapy from examination, reification serves a larger unreflected role: it proposes to assign to human nature what, in fact, are the results of complex historical and social conditions, some of which must surely be "hypostatized" or unnecessary.

The problems of technique and the further problem of authority constraints implicit in "communication situations" can be seen to obtain to the extent that the explanation provided by such techniques and their utilization in resolving unreflected social problems remains unmediated by some larger social understanding and consensus. To the extent that no larger social understanding obtains, communications research directed at pathologies of interaction--especially those of families, therapeutic communities, and individuals--will likely conceive their purpose to produce an absence of symptoms. And, as a modern euphemism for control, an absence of symptoms is no source of knowledge or change.

If it needs finally to be said, this is not an attack on aspects of medical science but, as Bateson says, simply an inevitable fact:

> . . . that mere purposive rationality, unaided by such phenomena as art, religion, dream, and the like, is necessarily pathogenic and destructive of life; and that its virulence springs specifically from the circumstance that life depends upon interlocking <u>circuits</u> of contingency, while consciousness can see only such short arcs of such circuits as human purpose may direct.[1]

Finally, I think, we can say something to the limits of communication pragmatics as it has been developed so far. In brief, the patterned relationships of communicative interaction that are disclosed by the "empirical" work of the new interactionists only take the appearance of "laws." Unlike the regularities of the domain of natural science--and to an extent biological science--the nomothetic patterns revealed to communication studies cannot be assumed to hold "through-time" validity, but rather must be seen as subject to on-going social and historical constraints. For this reason the larger context of understanding for communications research must treat the "homeostasis" of human society as revealed in its patterns of interaction as negotiable and historically on the move. Theory confined to the empirical task of discovering these patterns might well be expected to stress "steady state"

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1. "Style, Grace, and Information in Primitive Art," <u>Steps to an Ecology of Mind</u>, p. 146.

relations and, in the case of pathologies and distortions of communicators, to confuse the possible ways in which the institutions and organizations of society are a repressive response to emerging forces of creation and change in the members of society itself. The problem of distinguishing "necessary" and "unnecessary" conditions of observed communicative interactions should force the study of communications not toward a philosophical behaviorism--after the interventionalism of the systems therapists--but toward its epistemology.

In my view, this epistemological turn has already begun in the work of Habermas and Apel. This is especially exemplified in their development of the concept of interest. According to Habermas, the fundamental interests of men in society are not revealed by empirical research, but by epistemological investigations into the preconditions for the possibility of science. Under the paradigm of natural science, Habermas believes the dominant knowledge-interest to reside in technical mastery, the sort that is provided by observations and testing; and which in turn enables prediction and control. The type of action that is facilitated by this knowledge-interest is called instrumental action. Instrumental action,

however, is always embedded in an intersubjectivity and therefore presupposes communication. The scientist does not explain things exclusively for himself, but, it is argued, as part of a language game which must include a community of communicators. Communication, in this sense, cannot be improved through instrumental action, because instrumental action and its improvement presuppose communication. And, given this aporetics, communication cannot be a problem for which there are technical solutions; and precisely because it is not a technical problem.[1]

This, then, would seem to return us in the direction of the earlier claim against techno-empiricism that, although systems of instrumental action seem to subsume more and more of the domain of symbolic interaction, there remains no automatic relationship between these intrusions and the concurrent ideological claims for the improvement of communication in this manner. The facilitating of communication does not necessarily extend the community of possible communicators; society is not retribalized instrumentally. But, perhaps in spite of themselves, those therapeutic concerns with distorted communications and disturbed communicators, which best describe the

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1. Habermas, Zur Logik der Sozialwissenschaften, chapter four, especially p. 142.

convergence of communication studies with its professed interest in improving social problems, would seem ironically to underscore the necessity of turning toward epistemological reflection on precisely these issues. The instrumental interest some new interactionists professed in bringing problems of social interaction into a theoretical language of control, served also to set out its limitations in practice. It is in this latter case that the more radical metatheoretical perspective mentioned earlier can assist a critical re-thinking of the difficulties involved in first improving and facilitating the knowledge-paradigm of communication study itself.

PART IV

COMMUNICATION AND REFLECTION

CHAPTER VIII

COMMUNICATIONS EPISTEMOLOGY:

Resolving the Ambivalence in the Knowledge-Paradigm of Communication Studies

I believe that the several metatheoretical attitudes toward communications described in this study suggest, in turn, a significant convergence. Those earlier claims of communication science to have mastered the explanation of communication in terms of a mathematical-formalism within a paradigm of observation-experimentation constituted a crucial stage, but too often productive of a superficial positivism. The concomitant belief that such descriptive complexity would automatically result in improved communication lacked reflection in the manner of a superficial rationalism. The response to these initial concerns turned communication studies strongly toward the interaction of actual communicators; and this in turn produced both a lessening of formalist preoccupations and numerous tensions in the discourse over communications in society. Bateson was cited as a key source for these new interactionists; and for the more radical efforts to see in the broad metaphor of cybernetics the basis for a real integration of the cognitive and the teleological. In this latter case, Bateson is a source for reflection on the more instrumental

and behavioral turns the new interactionists have undertaken. What is more, he did not turn away from the implications of this reflection. "In fact," he acknowledges, "the phenomenon of context and the closely related phenomenon of 'meaning' defined a division between the 'hard' sciences and the sort of science which I was trying to build."[1] As a critique of communication, his work isolates the problem of energetics in terms of the ways in which prediction, induction, and reduction were inappropriate to a domain of form, interaction and information. Yet, if Bateson is a radical source for distinguishing the metatheoretical position of the new interactionists from that of natural science--especially as regards his emphasis on mind and communicative action--it becomes possible to ask how this new interactionist position relates to that older opposition of hermeneutics. Hermeneutics, interpretation in the broadest sense, traditionally signifies a mode of understanding that is similarly declared to be independent of causal explanation. Its modern activity is argued to be aimed at interpretation of the "multiform creations of the human spirit," or

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1. Bateson, "The Science of Mind and Order," Steps to an Ecology of Mind, p. xvii.

mind, and its domain is claimed to be that of symbolic interaction.[1]

Though the strictest reading of hermeneutics disavows the placing of behavior at the center of concern and, instead, wishes to emphasize the "cultural objectifications" of man as text, there are obvious ways in which the study of the interaction of communicators occupies more less this interface. As the critique carried out by the new interactionists made clear, an analysis confined to the level of the relations of communication lifts the objects of study out of the symbolic-social reality and, in so doing, reduces "communication" to that within the scientific community itself. Contrarily, the work of the new interactionists on the context and reciprocity of communicators has helped to redress this emphasis upon the professional community in favor of a renewed emphasis on our role as social agents. So, despite the fact that many of the new interactionists assert their concern in terms of a

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1. The boldest demarcation of the task of hermeneutics is that laid out by Windelband for the Geisteswissenschaften in his 1894 article, "Geschichte und Naturwissenschaft." Hermeneutics must be careful, he warned, not to confuse the naturalistic search for general laws with the truly historical analysis of the ineffiably unique event. Habermas has drawn out the systematic characteristics of this self-understanding for the development of the cultural sciences in this century. See especially, Habermas, Knowledge and Human Interests, chapters 7 and 8.

technological interest in the manipulation of interactors, it remains indisputable that their work has succeeded in forcing back into focus some of the long-standing epistemological problems of the cultural-hermeneutic perspective.

But, if this concern with redressing the balance of communication studies from that of methodological refinements along an axis of professional history and in favor of telling us something of our roles as interactive agents seems to suggest in turn an affinity with the traditional interests of hermeneutics, there is another recent perspective that has brought a much more radical type of thinking to bear on both these tendencies in communication studies. The critique that develops around this new perspective has implications for both the immediate concerns of communication pragmatics and for the broader appreciation of the role of communications and human science.

In brief, the metascientific programme envisioned by this new perspective does not dispute the efforts of all those who employ the concepts of information, cybernetics and system to come to terms with communication in society. They do not question the importance of the critique of energetics; and, they champion the attempts to move the concern of communication studies away from the technical obsession with rules.

However, what they insist upon is that one must be concerned not just with the study of results and interventions, but also with improvements. A concern with improvement involves an epistemological turn that must first be realized immanently and operationally within the theorizing community itself.

Such a feedback process would entail serious consequences; it would force a reflexive response to that circumstance von Wright described whereby the social scientist was always existentially bound to his object domain and therefore to his observations--to making his results "come true" or "come not true." For communication pragmatics, the consequences of formalizing such a relation would underscore just how basically the problem of "beliefs" about how things are is related to the possibility of their removal or substitution.

Stated as critique, the activity of the new interactionists provides us at best with a description of how certain species of communication-behavior are produced; but, taken alongside the possibility of some therapeutic reorientation or "cure," it would have to be concluded that the knowledge we gain about the interaction of communicators in this fashion is a knowledge of "appearances." This would in part help us to understand the way in which some of the new interactionists are able to approach the problem of the production of

pathological communication in terms of a therapeutic orientation directed at its removal. Pathology is seen as being real for the individuals involved, but appearential and replaceable to the observer-therapist. But such a "therapeutic encounter" could only constitute a special case in which relations of manipulation toward values of "health" predominated. The communicational descriptions provided as part of a technical process of "curing" would inform us about knowledge-production per se only as a by-product. And, it is precisely the attempt to limit the theoretical activity of communication pragmatics in this way that several recent metatheoretical arguments declare to subsume the potential for epistemological restructuring of the knowledge paradigm for communications under the limited rationality of a naturalistic version of practice.

The most spectacular source for this argument is Gerard Radnitzky,[1] who strongly acknowledges a partial basis in the critical theory of Jürgen Habermas and the hermeneutic of Karl-Otto Apel. Both Habermas and Apel have elaborated a sophisticated hermeneutic dialectic approach and there are ways in

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1. Radnitzky, Contemporary Schools of Metascience, Volumes Two and Three.

which the work of Paul Ricoeur reveals some similar interests.[1] Moreover, there are indications that Gregory Bateson's work can be interpreted as dovetailing with these approaches; and I will come back presently to the potentials here for a mediation of traditions.

In decidedly different ways what these scholars are all responding to is a peculiar ambivalence in the "knowledge paradigm" of the behavioral and social sciences--and specifically to the way in which these sciences seem to simultaneously embrace aspects of both hermeneutics and natural science. The tension in this circumstance becomes most obvious when the question is raised as to how the production of knowledge within a given sub-discipline can be facilitated. Too often, the response is to call for a retreat into the orthodoxies of strict hermeneutics or strict empirical-analytic science. And often with the effect of maintaining prevailing attitudes toward practice.[2]

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1. Ricoeur, Freud and Philosophy; and also "The Model of the Text: meaningful action considered as a text," Social Research 38 (1971).

2. John O'Malley has defined this seemingly endless oscillation pragmatically as follows: "The naturalist tradition sees understanding reduced to the achievement of explanation--as subserving manipulation of the world which, insofar as man is reduced to an object in the world, includes him. . . . /

For communication studies the case is particularly problematical and can be stated as a partial paradox. Broadly conceived, the mediation of communication and understanding is the task of the human sciences (especially hermeneutics). This is consonant with enculturation (Bateson), but also with improved self-understanding (Apel) and with enlightened public opinion (Habermas). But, the study of communication has resided so far principally under the strategies and institutions of social science (especially empirical-analytic practices). This would suggest that an aporetics exists between the capacity of the social sciences to provide possible technical solutions or procedures and the situation of a tradition-bound world of social-understanding. The study of communications, in this sense, has borrowed or co-opted the languages of cybernetics, systems, information, simulation, organization and so on. It has taken these languages over from formalist modes with the

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1. (cont.) The humanistic tradition sees explanation as subserving understanding--which precedes, pervades and persists beyond it--and manipulation as exercised by man, over the world and the unappropriated areas of his situation and within himself, in terms, precisely, of his understanding of himself and of his world as he encounters it." O'Malley, "The Eternal Triangle of Theory, Praxis, and Process," The Human Context 1 (1969), p. 312. Radnitzky also makes this same distinction with regard to practice (see Radnitzky, Contemporary Schools of Metascience, Volume Two [1968], p. 39).

intention of offering objective explanations of communication-behavior. And to an extent, the study of communication has been able to provide some significant assertions about the character of our communication. Both the earlier formalist activities and later the work of the new interactionists contributed to this development; disputes between them having been largely over the degree to which the messages or the interaction of communications should be emphasized and not over the meaning of either's contribution. Unlike the strict hermeneutic tradition, both believed that recourse to some sort of theoretical object language was essential.

It is against this general understanding, that the metascientific arguments of Radnitzky, Apel, and Habermas take a radical turn: to varying degrees, the theorists of these arguments all claim that the fact that these theoretical languages are taken over into technological-bureaucratic practices means that they cannot therefore receive validation by their methodologies alone. Moreover, what such theoretical languages claim as conceptual or empirical truth must be seen to be mediated by some on-going social understanding.

To an extent, the concern for reflection and reciprocity which lies at the heart of these arguments has been developed

in that lengthy controversy between ordinary language and formalized theoretical languages. Within the historical concern for communications, we could paraphrase Habermas to the effect that, while ordinary language-communication must be presupposed by strict behavioral science, it is precisely this that is claimed as the authentic domain of hermeneutics.[1] Or, again, it would be indirectly relevant to the lesser distinction made in this essay between concerns confined to the level of the relations of communication and those confined to the level of the interaction of communicators. The depth of this controversy places it outside the scope of the present study, but there are several points about it that need to be raised.

Essentially, the grand design of scientific advance for communication studies since the war has focused on the growth of theoretical languages of description. A theoretical language offered explanations of communications in terms of a formalized monologic. Theoretical languages were elaborated; and empirical applications were produced. As the complexity evolved and adaption occurred, the general claim was more and more strongly articulated that the theoretical language was able to represent ordinary language. As schools tended to be

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1. Knowledge and Human Interests, chapter 7.

method-oriented, refinements tended to reduce progressively more of the domain of ordinary language and, in this way, the hermeneutic activity itself was considered subsumed and explained away. In the flush of such success, the methodological concerns refused to admit any wider theoretical questioning; and the community of investigators itself became the final justification in that it systematically blocked any further relation of its subject to the world.

This is, of course, only a stylization. But it can serve to show the general image of science that the metascientific arguments of Radnitzky and others are contesting. In Radnitzky's view, the image of science presented is misleading because it is simply not the case that historically given research traditions can be free from inner tensions or contradictions.[1] Individuals are always bound to volitional factors and their theorizing to some extent is bound to the intellectual milieu. Moreover, all theorizing is "embedded in a social lived-world" that impinges de facto on the activity itself. This combination of internal and external factors, Radnitzky argues, necessitates an unravelling "from actions and texts" just in order to distinguish such basics as criteria researchers claim to use from criteria they believe in from criteria

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1. Contemporary Schools of Metascience (1973), pp. 390-91.

that "de facto govern the praxis." Not only must hermeneutic aspects be present in all theoretical activity, Radnitzky argues that it is as crucial at this level as at the level of ordinary language-communication: "theory of research will also have to include hermeneutic turns (unravelling the hidden criteria and articulating them), and ideological-critical turns (e.g., showing that insufficient self-understanding on the part of the researchers is a function of the influence of intellectual traditions that are not seen through (not transparent)."[1]

The epistemological basis of Radnitzky's position that allows him to make his claims with some force resides in an idealization of the development of knowledge and self-understanding in the psychoanalytic encounter. Unlike psychotherapy, the model Radnitzky advocates distinguishes two basic types of psychoanalytic situations and their technologies. These are (1) the therapeutic encounter, where the dominant value-system is "health" and the dominant interest is a

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1. Contemporary Schools of Metascience (1973), p. 393. The phrase "actions as texts," which Radnitzky draws upon, comes from Paul Ricoeur, "The Model of the Text: meaningful action considered as a text," Social Research 38 (1971).

"technical interest"; (2) the "pure" psychoanalytic encounter, where the dominant interest is a "hermeneutic interest."[1]

These two ideal-types are intertwined at some point; and it is Radnitzky's contention that each contains important limitations. The first type resembles a "closed" system in which a conservative function predominates; and the second type more closely resembles an "open" system in which certain emancipatory potentials emerge. I will come back to this issue of conservation versus emancipation later; but the key dialectic that is created by the "pure" psychoanalytic model is that between the "steering of the communication situation" and the "interpretating of texts." Radnitzky summarizes the basic features of this dialectical tacking procedure in the following way:

> The philosopher and the researcher in one of the hermeneutic-critical human sciences . . . must achieve two things: he must participate in the historically given language games/forms of life and simultaneously he must critically distantiate himself (in order not to go native). This dialectic between participation and distantiation is possible only if he can refer himself to a language game that (i) is presupposed in all the historically given language

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1. Contemporary Schools of Metascience (1973), p. 234. Carl Lesche also makes this distinction in "On the Metascience of Psychoanalysis," Human Context, Vol. 5, No. 2 (1973), pp. 274-75.

> games . . . and that (ii) may be regarded as an ideal not (yet) realized. . . .[1]

The psychoanalytic model of the development of knowledge and self-understanding, then, is considered appropriate to that ambivalence in communication studies whereby both hermeneutic and behavioral turns must be considered. The model is mediatory between these two positions: as "pure" psychoanalysis it is not concerned with "health" interests, but with the facilitating of knowledge and improved self-understanding; and, as an ideal-type, the individual defenses of the participants are not specified in the process.

If we can accept this distinction for the moment, it is Radnitzky's contention that the model of the psychoanalytic encounter provides a systematic mediating of behavioral (steering) and hermeneutic (interpreting) turns. At the outset, the "pure" encounter proceeds from the assumption that man is not fully aware of his intentions with regard to both action and discourse. The interest of the participants is aimed at the attaining of knowledge through which some greater self-understanding and understanding of others is possible. At this level, the dialogue moves by reciprocal attempts to arrive at interpretations through mutual understanding. It is at the

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1. Contemporary Schools of Metascience (1973), p. 410.

points where further transparency appears blocked that an objectifying of the behavior of a member of the dialogue becomes necessary. Following Apel, Radnitzky calls this moment a "quasi-naturalistic phase," wherein the focus moves from the interpreting of texts to a behavioral steering of the encounter through an objectifying and distantiating of the partnership.[1] Temporarily, the epistemological interest in improved knowledge takes a technical turn in favor of manipulation: the language of the analytic partner becomes a private theoretical language and the resulting explanation becomes an instrument for bringing into awareness the unconscious motives of the other. And, if such explanations are accepted, the dialogue returns to its "hermeneutic phase," but this time at a deeper level.

The behavioral turn in the model represents a departure from and a return to intersubjective language-communication. In this sense, the explanation of behavior is not the initial step in constructing a science of human behavior, but a "methodological device of 'estrangement', a 'quasi-objectification' of understanding meaning"--used precisely and only

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1. It is "quasi" because one cannot avoid the use of intentional concepts in the description of behavior.

because understanding and dialogue were blocked.[1] Moreover, it is contended that such a model is appropriate not only to matters of individual psychology, but for the "demasking" of ideologies, of institutions and of traditions.[2]

The implications Radnitzky draws from this model are provocative. Within the separate domains of naturalistic and humanistic traditions, the pragmatic accomplishment of each tradition is claimed largely at the expense of the other. Thus, the naturalist tradition sees understanding reduced to the achievement of explanation; man, in such a universe, is reduced to an object of manipulation amongst others. The humanistic tradition counters this vision with one in which the achievements of explanation can only serve the larger domain of understanding; and, in which, manipulation is the activity of conscious agents existentially bound into social and historical reality. In the case of those behavioral explanations provided by the development of information, cybernetics and systems, the dichotomy is similarly maintained. Strict hermeneutic concerns disregard the explanations of cybernetics,

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1. Apel, Analytic Philosophy of Language and the 'Geisteswissenschaften', pp. 25-27 especially.

2. Contemporary Schools of Metascience (1968), p. xxxvi.

not because they are irrelevant, but because it is claimed that such explanations have already been incorporated into their foreknowledge. And, on the other side, strict behaviorists translate explanations of communications directly into a behavioristics, often disregarding the problems of interpretation. What Radnitzky and Apel are claiming against both these principle traditions is that they are instances of totalization and therefore in error. And, in the case of those aforementioned behavioral theories of communication, this would mean that such theories are not reducible to the "confirmation of hypothesis," nor do they automatically lead to the manipulation and control of men and society.

The particular perversity of the extreme behaviorist orientation Radnitzky believes to reside in the curious way in which the subject-subject relationship becomes translated at substantial costs into a relationship of the subject-object type; and, in which, the reciprocity and reflexivity of the encounter is blocked. Against this, he defends the necessity of assuming that the objects of study can enter into a communication context with the scientist. Speaking of this shared potential, he says that

> . . . at least in principle it is possible for the objects of his study to incorporate the information provided by his causal explanations

> of their behavior (which explanations are provided by means of the empirical human sciences) into their self-understanding and thereby to become capable of changing or modifying their further conduct.[1]

Contrarily, the perversity in the extreme hermeneutic orientation, Radnitzky argues, resides in their unwillingness to see that some objectifying of another occurs in every communication. And, therefore,

> . . . that the clash between an exclusively naturalistic approach to human phenomena and an exclusively humanistic approach can be resolved by recognizing that in the human sciences explanation mediates understanding, that although explanation subserves understanding it is in most cases an indispensible turn.[2]

The relevance of the model of the psychoanalytic encounter to communication pragmatics can now be stated directly. If Radnitzky is correct in his claims, then the behavioral and the hermeneutic perspectives form potentially complementary aspects of the mediation of human communication. This becomes especially obvious in those situations where the normal

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1. Contemporary Schools of Metascience (1968), p. xxxv. Radnitzky's position here is essentially that put forth by Karl-Otto Apel.

2. Ibid., p. xxiv. Apel makes the same argument from a slightly different perspective.

congruency of our ways of acting and beliefs break down. Such circumstances produce "deformations," which, because they are assumed to contain both conscious and unconscious components, have both the force of "causes," yet are sometimes inaccessible to individual self-reflection. The incorporation of explanation into a dialogic relationship serves to shift attention from the hermeneutic concern with "restoring the meaning of a distorted text" to recognition and demonstration of the "intention of the distortion itself." The significance of the model, then, derives from two sources: the fact that, unlike "strict" empirical science, interaction between scientist and the object of study is the desired condition; and, secondly, the use of behavioral explanation internal to an on-going dialogue overturns the basic dichotomy between a naturalist and a humanistic or cultural tradition. Radnitzky describes it as follows:

> When there is a discrepancy between action and expressed self-understanding, we will ask how did this action come about? It would be pointless in this situation to ask the agent for his reasons; for these are hidden for him, as evidenced by the very discrepancy. His action is produced by motives which have not (yet) been conscious to him as reasons, as end-in-view, and which hence, qua unconscious motives (as hidden reason so to speak) work causally. <u>Here causal explanation comes into its own.</u> These causes can, in principle, be removed by being revealed to the agent as hidden reasons, i.e.,

> as soon as the causes are recognized by him as hidden reasons, become intelligible as such, they cease to work causally. . . . This is possible at least in principle with respect to man but not with respect to the entities which are the concern of the natural sciences.[1]

The hypothesis that in the sciences of man "explanation mediates understanding" constitutes an argument for communication studies that places the paradigm of observation as an objectifying moment within the paradigm of dialogue. The ideal-type of the psychoanalytic encounter is declared to be exemplary of the mediation; and it is Radnitzky's contention that it constatutes a general model appropriate to the demasking of "hidden reasons" on the level of individual psychoanalysis and to the demasking of "false consciousness" on the level of the criticism of ideologies.[2]

All the proponents of this view have been taken to task on a number of points, especially the question of the generalizability of the model to problems of social reality.[3] It may be the case that in "ideal" psychoanalysis self-reflection becomes its own practice, but it is countered that all therapies

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1. Contemporary Schools of Metascience (1973), pp. 241-42.

2. Ibid., p. 242.

3. Gadamer, "On the Scope and Function of Hermeneutical Reflection," Continuum 8 (1970).

are technique steered and, therefore, "control" and "manipulate" for the purposes of "social adaptation"--that is, to society-as-it-is.[1] Health emerges on the level of class interests in a way that self-knowledge and transparency do not; and it still remains for the set of relationships between these two interests be explained. Less sympathetic critics have argued that the same problematic set of authority relations that occupy the therapist-patient situation remain for the "ideal" psychoanalytic dialogue--and may be of much greater consequent at the level of social therapy and the criticism of ideologies.[2] Moreover, since the concern for the production of knowledge and self-understanding is motivated in part by a critique of communications in modern society, it can be argued that further elaboration of the model must itself await the developments in the theory of communication.[3] And, in any case, a theory of communication, either as a theory of research or

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1. Lesche, "On the Metascience of Psychoanalysis," Human Context, Vol. 5, No. 2 (1973).

2. Therborn, "A Critique of the Frankfurt School," New Left Review 63 (1970).

3. Habermas, "Summation and Response," Continuum 8 (1970).

a theory of praxis cannot itself overcome the problems of concrete practices in society.[1]

But, if there are obvious weaknesses in the general position, the arguments Radnitzky presents do make at least one crucially important point. For what Radnitzky is drawing our attention to with the model of the psychoanalytic encounter is the centrality of exactly those relationships which the strict empirical analytic social sciences wish to deny. Such relationships join the observer and the subjects of observation in a dialectical partnership for which there can be communication and increased self-knowledge on both sides. The recognition that, at least in principle, in the human sciences, the scientist may enter into communication with his objects of research is a crucial one. Radnitzky warns that we must come to see that our most basic ways of thinking about the world cannot be freed of the context of acting in that world; and that, because we will not or cannot recognize this, some of these ways of thinking are deeply erroneous. What we must recognize theoretically is that:

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1. Scholte, "Toward a Reflexive and Critical Anthropology," in Hymes, Reinventing Anthropology.

> Inquirer and subject become interacting systems. In academic psychology and sociology, e.g., the "interview effect" is regarded simply as a source of error. Psychoanalysis has integrated the general hypotheses describing these phenomena into its theory: the "counter-transference" has been analysed and used to enable the analyst to analyse himself simultaneously with analysing the analysand. One attempts to go as far back as possible in the history of their encounters. Thus, psychoanalysis gives us a paradigm case of the said feedback or dialectics. Philosophical behaviorists on the other hand, seem to believe that the only source of self-knowledge is knowledge provided by another. Epistemological behaviorism is a reaction-formation against the spectre of epistemological solipsism.[1]

The attitude that maintains a separation between the observer and the objects of investigation springs from that traditionally assumed dichotomy between experience and reality. Bob Scholte has pointed to the irony of maintaining this dichotomy in light of modern systems and cybernetic claims to have voided it.[2] If the basis for separation is considered to be removed in this fashion, then the dichotomy becomes reified at the level of ideologies where it can no longer be theoretically justified.

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1. Contemporary Schools of Metascience (1973), p. 240 fn.

2. Scholte, "Toward a Reflexive and Critical Anthropology," in Hymes, Reinventing Anthropology.

Contrarily, it is possible to regard Radnitzky's model for the production of knowledge and self-understanding as a synthesis of the dialogic paradigm of "ideal" psychoanalysis with the concept of feedback. Feedback, in this sense, squares with the principles of reciprocity and reflection; and, in the case of quasi-naturalistic turns, becomes the basis for a steering of the communication situation. I would like to call this feedback a praxiological feedback and to argue that all the models of "ideal" psychoanalysis provide a paradigm case for this type of feedback phenomena. Read in terms of knowledge production and self-understanding, the model of psychoanalysis provides a paradigm case for feedback, not merely as instrumental control and manipulation, but as a first approximation of self-reflexive communication and its cunning.

It is not necessary to deny the distinction between behavioral and hermeneutic activities; but to reify the distinction at this level is to dichotomize other levels as well. For communication studies, this is especially obvious in those efforts to maintain the dichotomy of empirical and conceptual concerns. It is, I think, a way in which ideology impinges directly on research. I have tried to argue that work of the new interactionists in developing a communication pragmatics went a long way toward linking these two types of inquiry;

and I have criticized the unreflected and possibly authoritarian features of those efforts to take their theoretical languages over directly into already institutionalized practices. To an extent, the developers of the model of the psychoanalytic encounter as an ideal-type for the production of knowledge and self-understanding complements this critique. In particular, efforts of Radnitzky to articulate relationships between interpretation and steering freed the concept of feedback from a purely instrumentalist function. Yet, if the paradigm of feedback in the psychoanalytic model does provide a dialectical recognition of the cunning of communication, it becomes important to move for a moment in reverse and ask just how this in turn relates to those strict empirical concerns for a language of information-measurement and testing with which this study began.

Testing, in the psychoanalytic model, is argued to be different from both its strict empirical and its text interpretive forms. Within a restricted dialogue in which part of the attention is given to interpretation of texts and part to the steering of the communication situation, "testing" occurs when an hypothesis results in a subject being able to recognize himself in it. Object-knowledge, in this sense, must

turn itself into subject-knowledge and in this way return to the dialogic partnership.

The implications of this are significant. In direct counterpoint to conventional scientific assumptions, this psychoanalytic model suggests that validity can only come from acceptance or rejection by the subject. It cannot be a matter of the disappearance of symptoms--because an absence of symptoms alone is itself mere appearance; and cannot therefore establish proof of causes. Only the developmental process itself has significance; and this only if the self-reflection is realized within the renewed dialogue.[1] Thus, Karl-Otto Apel:

> The objectively reported success of psychoanalytic treatment can hardly be called a logical consequence (as prognosis) of a scientific explanation; because this result could be brought about due to the patient's reactive cooperation and contemplation about himself--even if certain motivational hypotheses of the psychoanalyst were not correct. Therefore it would be much more appropriate to speak of 'empirical verification' if the patient not only recovered but also better 'understood' his former behavior in the light of psychoanalytic hypotheses: this 'better understanding' would imply that he could now see

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1. I am substantially in agreement with Carl Lesche's model in the foregoing argument. See Carl Lesche, "On the Metascience of Psychoanalysis," Human Context, Vol. 5, No. 2 (1973).

> through the illusions of his former goals and could understand how he had missed what was really important for him in life; in other words: the patient would reach--with the help of psychoanalysis--a deeper understanding of his motives as possibilities of his human existence.[1]

Explanation subserves understanding in the moment of objectifying another; theoretical language subserves ordinary language; subject-object relations become moments (potentially of pain) within the recovery of dialogue. And it Apel's stronger claim that "to some degree it will happen in every communication."[2]

In this respect, the consideration of the psychoanalytic model of knowledge production and self-understanding converges with conclusions reached quite differently by Gregory Bateson. I have tried to argue throughout this essay against too readily accepting the formulations of superficial rationalisms and superficial positivisms. At the same time, I have been concerned to show the peculiar way in which the mediation of communication is conceived as a task of the hermeneutic mode; whereas the study of communication has fallen largely under the research methods of social science. Although Gregory Bateson suggests that there are both teleological and

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1. Analytic Philosophy of Language and the 'Geisteswissenschaften', p. 26.

2. Ibid., p. 25.

mechanistic perspectives possible to communication studies and that some choice must be made between them, these perspectives alone are not sufficient to help us decide the issues. There are places, in fact, where Bateson seems to fall victim to the various dilemmas he is criticizing. But, it is his capacity to have recognized these pit-falls that provides some insight into the points of complementarity with that metatheoretical perspective suggested in recent European scholarship.

To an extent Radnitzky and Bateson both proceed from reflection on the value of cybernetics, information and systems concepts to an appreciation of the reciprocal and reflexive characteristics of knowledge production. While the model they both borrow has stated origins in a Freudian psychoanalysis, the model of knowledge production they develop is taken over by analogy from communication theories. What is taken over from psychoanalysis is the bare model of the "encounter," to which new concepts, referring exclusively to mental phenomena, are attached. Nor does this imply a reduction; for the mental phenomena to which the model attends is the broad experience of self-reflection. The mental is not causal, nor is it parallel to a naturalistic universe: "The mental characteristics of the system," Bateson contends, "are immanent, not in some part,

but in the system as a whole."[1] The psychic determinism that is proposed in such a model is a "causality of fate," not "causality of nature." And it is characteristic of the former that it can be released through reflection.[2]

Broadly speaking, the model of the psychoanalytic encounter in which "explanation mediates understanding" isolates two distinct types of analysis: a behavioral mode primarily concerned with the steering of the communication situation and a narrative mode primarily concerned with the interpreting of texts. It is possible to think of the behavioral mode as a paradigm case for observation and explanation in which a subject-object relationship is assumed. Contrarily, the narrative mode approximates a paradigm for interpretation and understanding in which a dialogic partnership is assumed. Or, again, there are possible analogies with the paradigm for communication pragmatics in which part of the communication exchange is directed at negotiation of the "relationship of communicators" and part at the "content" of the communication itself.

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1. "The Cybernetics of 'Self': A Theory of Alcoholism," Steps to an Ecology of Mind, p. 316.

2. See especially, Knowledge and Human Interests, p. 271.

The general narrative scheme for the convention of psychoanalysis is a familiar one. It is a reconstruction of biography in which the possible paths for development must be taken up one at a time until some seemingly significant themes have been isolated. "The narrative," according to Carl Lesche, "is . . . a drama in which the individual events are parts of a whole composed of interactions which realize a meaning."[1] The narrative scheme, at this level, is purely hermeneutic; it is neither technical-manipulative toward predetermined ends, nor is it concerned with the systematic characteristics of adaptive behavior. It has been possible to avoid the problems of the uses of this model by creating a distinction between "ideal" psychoanalysis and those conditions under which it becomes part of some therapeutic practice. In this latter case, the narrative scheme does persist as an integral part of most forms of psychiatry; although in the case of adjustment psychologies there are indications that the narrative and intersubjective components can be efficiently dispensed with. But, since technique in this sense leads directly to problems of social technology and the possibility of large-scale interventions into social reality, it would be simply naive to let

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1. "On the Metascience of Psychoanalysis," Human Context, Vol. 5, No. 2 (1973): 281.

one's argument rest on a stated preference for one or the other.

Gregory Bateson argues that, although both preceding ways of approaching the matter appear to work, the consequences for change that they imply in practice make it necessary to differentiate between those distinctions we make about our ways of producing knowledge and the seeming fact of our natural history whereby we make such distinctions at all. What is most disturbing in the former case, is our failure to see that the systematic characteristics of such distinctions places them both beyond the reach of forms of individual reflection and subject to outside factors of error in the case of purposive manipulation toward pre-given ends. "Whatever the system, adaptive change depends upon feedback loops, be those provided by natural selection or those of individual reinforcement. In all cases, then, there must be a process of trial and error and a mechanism of comparison."[1] It does no good, Bateson argues, to ignore those systematic qualities which are the preconditions of possible communication:

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1. "Double Bind, 1969," Steps to an Ecology of Mind, p. 274.

> When the underlying epistemology is full of errors, derivations from it are inevitably either self-contradictory or extremely restricted in scope. A consistent corpus of theorems cannot be derived from an inconsistent body of axioms. In such cases, the attempt to be consistent leads either to the great proliferation of complexity characteristic of psychoanalytic theory and Christian theology or to the extremely narrow view characteristic of contemporary behaviorism.[1]

Bateson's concern with the aforementioned model for the production of knowledge and self-understanding provides a complementary emphasis to "the interpreting of texts." His concern with "those formal abstractions which describe and determine interpersonal relationship" can be read as a contribution to our knowledge of the "steering of the communication situation."[2] Basically, all that work designated as communication pragmatics emphasizes this concern with interpersonal relationships; but, as Bateson himself has cautioned, 'the efforts here are often on the order of special cases, especially where the clinical or medical model applies.'[3]

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1. "The Cybernetics of 'Self': A Theory of Alcoholism," Steps to an Ecology of Mind, p. 321.

2. "Double Bind, 1969," Steps to an Ecology of Mind, p. 275.

3. Ibid.

The model of the double bind, as an "ideal-type" on the order of knowledge production, reveals itself as a pre-condition for distinct types of adaptive behavior. All interaction has its basis in feedback relations. At points where the interaction cannot develop freely, disjunctures can result. Within an ideal psychoanalytic encounter, the double bind could assume a therapeutic function wherein one of the partners to the discourse is objectified by the other. The hypothesis, in this instance, allows one member to explain the behavior of the other and so enable a manipulation (positive feedback) toward some recognition of his behavior. A recognition of behavior, assumed here to be pathological, is, in principle, sufficient to deny such patterns of behavior the status of a "force" or "cause" in the Humean sense. Though, as a mere tool of manipulation toward a given end, the double bind hypothesis itself has the status of a social technology, its utilization as an objectifying moment within a psychoanalytic discourse, can potentially contribute to a greater transparency of motives and an increased knowledge of self and others. Pain, Hegel maintained, was manifest proof of the existence of contradiction. Pain as the pragmatic possibility of symbolic communication recognizes the double bind as a pre-condition to its Aufhebung:

> First, that severe pain and maladjustment can be induced by putting a mammal in the wrong regarding its rule for making sense of an important relationship with another mammal.
>
> And second, that if this pathology can be warded off or resisted, the total experience may promote creativity.[1]

But, if it is conceivable that the objectification of another through behavioral explanation is possible in this way, how can the "pain" of such a process be justified; and how are the conditions under which such manipulation occurs in any institutional sense to be decided? When we draw out the implications of Bateson's model in this way, it becomes clear why some have balked at such prospects. Moreover, to those who see the double bind on the order of a Kantian antimony, the proposition emerges that what drives one insane, drives one sane--

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1. Bateson, "Double Bind, 1969," Steps to an Ecology of Mind, p. 278. I am indebted to conversations with Richard Howe and John Drysdale for the form of the above argument. John Drysdale has been especially helpful in the effort to provide some metatheoretical relief to the very real difficulties imposed by the logical style of Gregory Bateson's work. Bateson himself has acknowledged this difficulty--and the propensity his work holds for generating misunderstanding. In my opinion, an aphoristic statement of his position would be one of "thinking with cybernetics against cybernetics" (Bateson, personal communication).

or perhaps the reverse, the perfect ambivalence emerging as existential, even ideal.[1]

I think a more sympathetic and correct appreciation can be found in Karl-Otto Apel's model of the psychoanalytic encounter. To the question of the conditions under which objectification is justified, Apel replies:

> Precisely to the extent that the patient undergoes for instance neurotic compulsion in his behavior, he presents himself as an object for causal explanation. But, notwithstanding this quasi-naturalistic approach, the analyst at the same time tries to understand the reactions and the life-story of the patient as--in a way--meaningful and even as resting on good reasons; and he not only does so for himself but he provokes self-reflection and, so to speak, reorganization of self-understanding in his patient; and to that extent he is not concerned with objectifying an human being but, quite on the contrary with rebuilding his autonomy as a subject of social interaction and intersubjective communication.[2]

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1. An example of the "idealization" or glorification of schizophrenia that takes some basis in the work of Bateson can be found in R. D. Laing, The Politics of Experience and The Divided Self. But, see the emerging critique of Laing's position in Russell Jacoby, "Laing, Cooper and the Tension in Theory and Therapy," Telos, No. 17 (1973). In this regard, the final chapter of Watzlawick, Beavin, and Jackson, Pragmatics of Human Communication attempts to find a way out of the social theoretical problems involved by a curious reconciliation of communication theory, existentialism, and a Buddhistic reading of Wittgenstein's Tractatus--a direction also evident in Laing's work.

2. Apel, "Communication and the Foundation of the Humanities," Acta Sociologica, 15 (1972): 25-26.

Objectification becomes a means for pushing an individual toward increased self-awareness--toward a greater transparency of his hidden motives and social interactions. This, then, is no adjustment therapy, but an attempt to direct a particular dialogue toward a higher level of communication. The objectifying moment serves this end through explanations derived from the steering of the communication situation, which knowledge can clarify aspects of communication-behavior otherwise out of reach. Apel calls this a case of "explanation in the service of emancipation," where emancipation becomes release from hypostatized forces of one's personal life.

Bateson has demonstrated that this mediation applies for the case of such restricted communications communities as families and therapeutic circles. Exemplary of this interpersonal turn is the description he offers for knowledge production in the communications community of Alcoholics Anonymous. Bateson maintains that the self-reflexive narrative of AA must proceed by both text-interpretive and behavioral-manipulative turns. This, he argues, is made necessary because the conditions under which an individual maintains pathological symptoms within a "normal" social community are describable only in terms of high order premises, on the order of habitual assumptions about one's relationship to the world and to others,

that are unconsciously maintained and, therefore, inaccessible to immediate reflection. The fact that, in the case of AA, this is an effort of a more or less "democratic" therapeutic community to create an open-ended discourse about a shared pathology makes it something like a paradigm case. Such a community establishes a dominant value-system that is significantly distinguished from notions of "cure," "efficiency," and "economy"; and more nearly akin to a real "ideal" model of knowledge production. After Apel and Habermas it is possible to label the dominant interest here an emancipatory one.[1] And, on this basis, the uses of behavioral steering to confront relationships internal to the community's discourse justify this mediation not only in terms of attaining a higher level

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1. The concept of "interest," as it has been developed by Habermas, is not intended as an empirical category, but a transcendental one. Interests, he argues, are "basic orientations which are attached to specific fundamental conditions of the possible reproduction and self-constitution of the human species, namely to labor and interaction" (Habermas, Erkenntnis und Interesse, Frankfurt am Main, 1968, p. 242). The interest in emancipation that both Habermas and Apel develop in conjunction with the psychoanalytic encounter proceeds from the observation that, since a knowledge of pathological factors is experienced as something that comes from outside oneself, this knowledge is inseparately united with that "interest" in emancipation from exactly those "outside" powers. (See also, Apel, "Szientifik, Hermeneutik, Ideologiekritik: Entwurf einer Wissenschaftslehre in erkenntnisanthropologischer Sicht," Man and World 1 [1968]).

communication, but as a genuinely epistemological function.[1]

What Bateson claims about such communications communities is that, in the narrative-reflective attempt to come to terms with a pathology, some form of objectification and explanation occurs (even if this explanation is seemingly intuitive and direct). This set of events is a feedback-controlled system. It could be compared favorably with the creation of what Apel calls the "story of estrangement";[2] equally it describes a process Radnitzky calls "alienation (from) ordinary self-understanding."[3] As a manipulative moment, such a distantiation enables the "steering of the communication situation" toward confrontation with those "epistemological premises" that govern a particular pathology. Such explanations can move the individual toward an understanding of those contextual relationships that systematically, and to an extent unconsciously, govern his disturbed communication-behavior and

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1. On the basis of this means of attaining a "genuinely epistemological function" one can speak of a model involving Habermas, Apel, and Paul Ricoeur and their use of a Freudian hermeneutic. But, see also Ricoeur, "The Model of the Text: Meaningful Action Considered as a Text," Social Research 38 (1971): 560.

2. Apel, "Communication and the Foundation of the Humanities," Acta Sociologica 15 (1972): 26.

3. Contemporary Schools of Metascience (1968), p. 72.

resist his attempts to interpret its distortions. The success of such a moment potentially reverses a process of lost meaning in which the transparency of motives and actions returns the discourse on a higher level of understanding; or, as Bateson would have it, promotes a kind of learning or creativity about relationships. Such an understanding of metacommunicative forms, it is argued, is sufficient, in principle, to counter communication pathologies.

To pursue these implications a bit further, it is possible to think of this circle of objectification and reflexion in terms of a comparison with our reading of the Hegelian negation of the negation. In that characterization the secondary system "denies" the report of the primary system about its operation; and the command of the secondary system "denies" the operation of the primary system, in such manner "quieting" the first denial. On the level of analogy, these distinctions appear to be implicit in the "positive" feedback model put forward by Bateson. Made explicit, such a model makes somewhat clearer the way in which the behavioral manipulation of another in a therapeutic discourse works initially to deepen a contradiction by attempting to deny it. But, since the denial is simultaneously a testing and confirmation, the overall movement can "precipitate" a recognition in which the "causal force" of the pathology is diminished.

It is important to grasp the fragility of this process: that is, although overcoming pathological conditions could be the result of a manipulation to force recognition of untenable or contradictory relationships, a change in communication-behavior under these conditions could also be the result of some self-initiative process not open to observation. The manipulative moment in the behavioral steering of the communicative situation can only be indirectly confirmed through the subsequent return to and deepening of the narrative of the individual with his communication community.

The pay-off of this representation is that it allows us to see that, in the case of a real therapeutic communications-community producing knowledge vis-à-vis pathologies, there is a telescoping of a mediatory process in which the explanation serves the behavioral steering of the communication situation to the extent to which the narrative of an individual resists improved understanding. To an extent aspects of "steering" and "interpreting" are present in any communications community; their relative weight, then, becomes a factor of the dominant value-orientation and aims of that community.[1]

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1. The argument does bring us to the problem of reification, but by an epistemological route. In terns of the argument, it does not seem possible to gain a measure of . . . /

The double bind hypothesis, in this sense, tells us something of the important social status of the model of knowledge production and self-understanding. The issues of technique and manipulation seem to be bound up with the nature of authority relations implicit in the "clinical" use of the double bind--and into any therapeutic model of this formal type (psychoanalytic, behavioral, psychological). On the other hand, the placing of the discourse within a community not pledged to "cures," but to something like a hermeneutic-emancipatory interest in knowledge and transparency, utilizes the particular objectification of that technique to mediate improved self-understanding and consent.

It might be said that for communication studies to confront the problem of technique and authority, the community of researchers must be able to confront reflexively the context of its own action in relationship with its object of study. This does not, of course, remove us from the problem of "real" therapeutic practices in society. None of those principal

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1. (cont.) reification without a theory of the institutions of interaction by which an integration of social and historical perspectives could be first achieved. A more precise understanding awaits a theory of interaction as a link between language and labor; this, moreover, would provide a first step in a communication theory of society.

scholars mentioned in this essay deal empirically with the authority relations implicit in actual situations, but relegate the problem of manipulation and control to its medically oriented, as opposed to "ideal" or epistemological, aspect.

I believe the important contribution of Bateson's insight into the nature of explanation and understanding of psychologically distorted communication within a therapeutic community is that it demonstrates Apel's principle: that it is possible for the objects of the human and social sciences to incorporate the information provided by scientific explanations of their behavior into their self-understanding; and, thereby, to become capable of altering their future behavior. Moreover, to the extent that the community itself becomes part of this discourse, it would seem to force self-understanding in the direction of the criticism of ideologies.

Perhaps this can be said another way. The interpersonal and relational character of communication studies would seem to suggest that the presupposition for an explanation of psychologically distorted communication must involve a theoretical turn that includes consideration of the communications community. This seems necessary if the explanation of communications is to avoid instrumental ends. Incorporation of the knowledge into the community's on-going social understanding

must be a practical part of the discourse; and not merely its application. Dialectically understood, this feedback would complement rather than cancel the reciprocity of control and cunning. Cunning emerges on the side of emancipation and preservation. And through it the partial paradox of communication and its study moves toward statement: in the mastery of those metacommunicative forms that determine both the compulsions of behavior and the conditions of false consciousness, theory and therapy move simultaneously and together.

We can possibly get a better idea of what is implied for communication studies through recourse to a more pointedly hermeneutic perspective. Consider, for instance, Paul Ricoeur's theory of hermeneutics as a system of interpretation against the general programme of communication pragmatics. Although the new interactionists have been critical of traditional theories of meaning, they nevertheless have accepted the basic distinction between meaning in the manifest sense and meaning-function in the sense of relations, arrangements, and structures. Traditionally, hermeneutics has believed this to comprise a semantic unity that demonstrates a "fully coherent surface meaning" and simultaneously has some deeper significance. According to Ricoeur, this traditional dichotomy has been

severely qualified in the modern age and this qualification has implications for the whole range of hermeneutic activities. Ricoeur argues that the development of the psychoanalytic model amongst others, with its concern for dreams, slips, compulsions, and addictions betrays a powerful distrust of manifest or surface meaning and, by extension, a distrust of manifest symbolic reality. The pragmatic achievement of a Freudian hermeneutic was both a doubting of conscious understanding and a breaking with its myths and illusions. Such an "iconoclasm," Ricoeur maintains, has had the effect of creating competing perspectives for hermeneutics: a traditional one, in which the symbol is made to reveal hidden meaning, and a more radical one in which the symbol is revealed as the representation of a false reality. This distinction is designated as that difference between demythologizing and demystification: and it is Ricoeur's further contention that the latter concern to cast doubt upon basic individual faith in reality, beliefs and motives establishes the fact of competing semiotic systems of interpretation. In such manner, it becomes possible to see in the model of the psychoanalytic encounter the way in which the hermeneutic turn shares with the behavioristics of communication pragmatics a similar suspicion of surface or manifest reality and, in that case where the knowledge-value dominates, a potential interest in the criticism of ideologies.

The point of this illustration is to emphasize just how deeply the behavioral concerns for objectifying the relations of communicators are related to a basic "shift in meaning" as exemplified by the hermeneutic concerns of a Freudian psychoanalysis. The problem of meaning is one of the most troubled areas of modern scholarship; and the particular attempts of communication theorists to deal with it or ignore it have been "energetic" at best. In this circumstance it has been too easy to fall into the convenience of establishing rigid dichotomies between levels or types of analysis. The efforts of communication pragmatics to focus the analysis toward metacommunicative forms should in this sense be seen as part of an historically established mistrust of manifest reality; but, whereas the initially perceived alternative was seen to approximate a turn toward strict objective methods, Ricoeur suggests that the distinction could as easily be seen hermeneutically as a distinction between the recovery of meaning and iconoclasm.

This particular way of evaluating the issue may allow us a further softening of what seem to be differences of type into differences of degree. The recovery of meaning may be broadly thought of as the activity of the cultural sciences, which were initially seen as opposed to the "scientific" activity of the new communication. The distinction that

Ricoeur offers, by contrast, suggests that the psychoanalytic model restructures this paradigm of cultural science in terms of a demystification or iconoclasm where the problem of meaning must first be seen as a problem of distorted symbolic communication. The shift here is from "naive" interpretation, wherein the task is to make accessible the meaning of texts and of actions, to a "critical" interpretation, where critical implies the shattering of symbols attached to forms of domination that hinder open communication.

This "critical" hermeneutic emerges as a competing semiotic to the more traditional hermeneutic concern. At the same time the paradigm case of feedback, particularly as exemplified by Bateson's model of distorted communication patterns, emerges as a complementary perspective. The explanations of communication afforded by Bateson's model direct us to those aspects of behavioral steering that hinder or pathologize intersubjective understanding. The objectifications offered by the cybernetic and systems analysis in this case have a two-fold function: they provide disclosure of those features which steer and constrain individual relationships and, at the same time, they provoke awareness of the binding force of these relationships. Explanation in this sense appears to mediate the interpretative activity at precisely those points where understanding

is hindered. This is the justification for recourse to a systemic analysis. Such explanations of communication-behavior provoke awareness into precisely those forms of domination that are due to a lack of critical reflection. Explanation of hypostatized features of interpersonal relationships complements on the level of behavioral steering those interpretations of hypostatized symbolic materials said to constitute the text of a critical hermeneutics. Moreover, this methodological pattern, wherein a dialectical mediating of communication occasions both behavioral and text-interpretive turns, constitutes a model for understanding those kinds of research activities which, after Habermas and Apel, can be said to relate to the practice of life not in the form of behavioral engineering or design but through the provocation of self-reflection and in disclosing the possible emancipation of men as subjects coexistent with undergoing conditions of distorted communication.[1]

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1. This "critical" stance considers not only nomological knowledge about social phenomena but also tries to see those invariables of social behavior that are more precisely the product of ideologically rigidified relationships. The latter conditions could be released by a change in unreflected consciousness: "The methodological framework which sets the meaning of the value of this category of critical statement is measured by the concept of self-reflection. This releases the subject from a dependency on hypostatized forces. Self-reflection is determined by an emancipatory interest in knowledge. The critically oriented sciences share it with philosophy." Habermas, Technik und Wissenschaft, p. 159, translated in Knowledge and Human Interests, p. 310.

CHAPTER IX

OPEN QUESTIONS

Perhaps we can now evaluate the issue between the development of the theory of communications and the metatheoretical arguments that I have attempted to read against these efforts. The theory of communication pragmatics, established by the new interactionists, has served an important role in providing us with a first approximation of the subtle complex of concepts, premises and relationships that govern and constrain our communication-behaviors. To the extent that these features become more transparent to us, the possibility emerges that we can better understand ourselves as socially bound creatures. The new interactionists have also come a long way toward making us aware of the limitations of older behavioral models and mechanical methods. What I have criticized most strongly in these efforts was the tendency to ignore many of the limitations on their objective methods and, consequently, to reify both observations and instruments. In this, the several metatheoretical perspectives that I have followed throughout have served a key function. The metatheoretical perspective on communication research comes about, not so much in response to those studies wherein the search for objective knowledge

necessarily precludes subjective features, but as a response to an absence of critical consciousness about the limitations of these methods as such.

Thomas Kuhn's work has demonstrated the problems that can result for strict science when reflection on method and technique are lost, and the subsequent search for problems and applications becomes principally a question of their appropriateness to the sanctified method. In such cases, the concern for professional progress turns the scientific activity conclusively toward the development of technique and the refining of earlier insights; even, it seems, when the obstacles encountered reflect severely on the approach itself. The problems of reified methods and technique-directed research are compounded for immature and ineffective fields of inquiry. On the one hand, where methodological sophistication is readily available (as it has been with the computational technology borrowed by the techno-empiricists of communication), the hardware can itself become the basis for scientific growth and the problem-interests are in turn reduced to those describable within the operational language of the instruments themselves. On the other hand, in cases where the historical and social importance of a subject matter such as communications is both established and consequential, the "ineffective" condition of the scientific endeavour combines

with its frequent consultative and advisory roles in government, health, and industry to shift the characteristics of practice from those of the sorcerer to that of the sorcerer's apprentice.[1] By contrast, the metatheoretical perspective forces critical reflection on precisely those conditions of hypostatized theoretical instruments and their consequences for technological and bureaucratic social practice.

Again there is an important lesson to be learned from the new interactionists' general suspicion of the basic dichotomies of strict science and their appropriateness for coming to terms with human communicative interaction. Though they attempted to redress the earlier emphasis of twentieth century social science on the facile metaphor of "energetics" by a cunning embrace of its supposed opposite--information--the thrust of their work forces us again and again toward a rethinking of these reified distinctions and dichotomies. In part this tendency is explained by their aversion to that reductive and

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1. Gertrude Robinson has pointed out to me that the peculiar ambivalence wherein the "science" of a field may be ineffective, but achieve an importance disproportionate to its status as a science when socio-economic forces place high importance on its subject matter. This is certainly the case with communications; and, accordingly, it must be borne in mind that we are speaking of an ineffective-effective field.

instrumental character of behaviorism whereby problems of mind were declared to be subsumable under empirical-analytic techniques. Partly too, they were giving renewed recognition to the critique of communication and society begun by Freud, where the relation of subject and object could neither eliminate nor forget that condition of reciprocity and reflection disdained so totally by modern scientism. The paradigm case of feedback reminds us that the social finality of knowledge brings with it the possible alteration and modification of all objective knowledge about human society. And the model of knowledge production in the psychoanalytic encounter, which conceives the process of distortion and its "Aufhebung" as the pragmatic possibility of symbolic communication itself, underscores again that the modern pursuit of human communication rests upon dual epistemological models of instrumental and communicative action systems. These alternative and seemingly non-reducible perspectives should caution us that the study of communications must itself mediate against the closing of the mind on either.

I began this study with the intention of delineating the ambivalence in the paradigm of communication studies. This was especially evident in the tension between the "reductiveness" of earlier positivisms and some of the initial efforts of

information and cybernetics to justify their own position against this state of affairs. In considering the reaction to this early tension, the metatheoretical positions expressed a doubt that was shared by later exponents of the new communication theories. These new interactionists, as I have been calling them, returned the concern from one of behavioral observation of regularities to the broader one of understanding contexts; in so doing, revaluing the earlier work of symbolic interactionists and cultural hermeneutics. The new interactionists understood the cybernetic and systems concepts heuristically in the concern for cognitive processes and social problems. They pursued the problems of distorted and disturbed communication in a manner that forced the broad problem of meaning back into focus through a concern for the institutions of interaction. But, whereas this work made us aware of the shortcomings of earlier theories, and of the reifications of method and technique, their work contained its own ambivalence in the refusal to develop their critique of communications as an explicit critique of social and historical conditions.

There is, nevertheless, a dialectical recognition in all these concerns with communication studies. Simply stated, all the work of communication studies to some degree recognizes that the foundation of communication resides in the fact that

it is always addressed to someone. Early studies acknowledged this, but after the lead of information theorists, conceived it monologically and unidirectionally. The thesis of monologism assumes that universal meaning components belong to the basic organic equipment of individual senders and receivers. Following Habermas, this thesis appears incompatible with the proposition that such components could also be the result of an intersubjectively produced cultural system.[1]

The recognition of the intersubjectively produced nature of communication led some to attempt to locate their semiotic analysis as a link between actions and social phenomena. Communication studies often conceived this linkage in terms of structures and relationships that bound individual communication-behavior into social contexts. Such structures were seemingly conceived as preceding all experience, thus achieving a reified status. Following Apel such a thesis of apriorism appears incompatible with the proposition that the structures of communication-behavior could also reflect the process of

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1. Two recent articles by Habermas illustrate this new concern and the increasing importance of "communication" to his position: "Toward a Theory of Communicative Competence," in Dreitzel, Recent Sociology No. 2; and "Vorbereitende Bemerkungen zu einer Theorie der kommunikativen Kompetenz," Theorie der Gesellschaft oder Sozialtechnologie.

institutionalization and the experience of self-formation.[1]

It should be remembered that these developments of communication study arose in the promise of a positivistically understood theoretical revolution. That image of science believed communication could be specified through much the same process of reconstruction successfully demonstrated by mathematical-experimental methods. The thesis of imitative physicalism tended to convert the problem of mind too readily into a problem of cognitive processes, uncritically allowing for the trivializing of the past, and reducing the idea of "change" to operations carried out internal to the major institutions of social reality. Following Bateson and Habermas, this thesis seems incompatible with the proposition that cognitive strategies and intervention in social problems can also be linked to broader relations of ideology, culture, and history.

Though these reservations about the development of communication theory have come from both European and North American scholarship, this criticism should be tempered by

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1. Apel, "Das Apriori der Kommunikationsgemeinschaft und die Grundlagen der Ethik," in Transformation der Philosophie. Sprachanalytik, Semiotik, Hermeneutik. Paul Ricoeur has made this same point in "Hermeneutic Method and Reflective Philosophy," Freud and Philosophy; as has Richard Bernstein, Praxis and Action, from whose guidelines and suggestions I have benefited throughout.

the recognition that these critical voices themselves have all come to share a common concern for developing an epistemology of communication. When we place the issues in this perspective, the extremity of the two positions has a very different bearing. Not only are we reminded of the philosophical value in reflection on the activity of communication studies, but we are provided with a compelling sense of its necessity: to mediate the extended control that knowledge and information seemingly provide in terms of the possible extension of the community of communicators.

In such manner we might return to MacKay's early desire to accomodate both the structure and the use of communication in society,[1] but this time prepared to navigate less blindly that condition of autonomy which "structure" so readily provides and the way in which "use" binds us to responsibility for the social reality of our knowledge. This has not yet become a central theme for communication studies.

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1. Information, Mechanism, and Meaning, pp. 27-28.

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