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"THE PATTERN WHICH CONNECTS":

TOWARDS AN UNDERSTANDING OF A COMMUNICATIONAL APPROACH

by

Rhonda Hammer

B.A., Simon Fraser University, 1975

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF

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ABSTRACT

Gregory Bateson asserts that breaking "the pattern which connects" items of learning destroys all quality. A considerable body of writings, coming from what is sometimes called the Palo Alto Group, is founded in large part on Bateson's work. This thesis attempts to explain concretely what concepts and methods this group shares. In the process, this thesis also attempts to validate their claims that these concepts and methods make their work responsive to what Bateson calls "the pattern which connects".

Chapter I outlines a number of concepts that this group of writers considers essential for explaining and understanding communication. These include the idea that "all behaviour is communication", the importance of context, and the multi-leveled, hierarchical nature of communication. These ideas are clarified by explaining their bases in Hierarchy Theory, Group Theory, and the Theory of Logical Types. The implications of confusing or ignoring levels of relation are illustrated through the notion of symmetrization. This, in turn, leads to the explanation of metacommunication and pattern.

In Chapter II, the analysis of these characteristics is expanded into an overview of a coherent approach. This approach is called, following Bateson, a metapunctuation. This allows for

the identification of the ideas of mispunctuation and repunctuation. The notion of metapunctuation seems to be at odds with the transdisciplinary nature of a communicational approach, but this thesis demonstrates that a communicational approach is a metapunctuation precisely because it embraces a "both/and" dialectical logic. This repunctuation, necessarily involved in the proper development of a communicational approach, provides for a contextual and metacommunicational understanding of any communicative phenomenon.

In Chapter III, parallels are demonstrated between the communicational approach, as defined, and the Marxian dialectic. After a brief overview of the historical development of dialectics, certain "laws" of dialectics are presented, discussed and juxtaposed with principles of the communicational approach.

This thesis concludes that a communicational approach punctuates relations dialectically and provides a context for understanding other punctuations. It is, therefore, a discourse of a higher logical type that proves essential to understanding the sophisticated and complex nature of various kinds of communication. It is a kind of perspective that is urgently needed because it crosses over--and translates--distinct modes of study. In this sense it is transdisciplinary.

For Mim and Carol

- who never let me say "die".

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I owe a special debt of gratitude to Rowly Lorimer and Richard Coe for their tireless support, constructive criticism, and constant encouragement. Needless to say, the errors and inconsistencies which remain are my own.

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INTRODUCTION

> What we got here is a failure to communicate.
>
> Warden to Prisoners, in *Cool Hand Luke* (1967)

> One problem which recurs more and more frequently these days, in books and plays and movies, is the inability of people to communicate with the people they love. Husbands and wives who can't communicate, children who can't communicate with their parents and so on. And the characters in these books and plays . . . and in real life, I might add, spend hours bemoaning the fact that they can't communicate. I feel that if a person can't communicate the very least he can do is shut up.
>
> Tom Lehrer, *That Was The Year That Was* (1965)

> One cannot not communicate.
>
> Paul Watzlawick et al., *Pragmatics of Human Communication* (1967)

It has been said that a communicational approach is a "broad and imaginative way of looking at and languaging[2] about

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[1] Throughout this thesis I have used quotations which employ third person pronouns and collective nouns in the masculine gender. It is unfortunate that there is no way of modifying these quotations to include the feminine gender without creating confusion or impeding the flow of language. This problem illustrates the success of the dominant male code in subverting women's being. I ask the reader, when encountering these quotations, to be aware of this most serious and debilitating contradiction.

[2] This employment of the term "languaging" has a specific meaning within a communicational approach (cf. p. 109).

human communication" (Wilder 1978: 28). This approach has been called by many an emergent epistemology (cf. Appendix I) which breaks out and crosses the boundaries of much conventional research (ibid.; Bateson 1976: xi, 1979: 4; Watzlawick et al. 1967: 13; Wilden 1980: xix). Since it is not constrained by the rigid boundaries often imposed within traditional disciplines, a communicational approach finds its basis in transdisciplinary study.

The way in which I am discussing a communicational approach stems in part from the works of writers and researchers who are informally known as the "Palo Alto Group"--specifically the writings of Gregory Bateson, Paul Watzlawick and his associates[3] and Anthony Wilden and his associates.[4]

It would seem that the works of the Palo Alto Group have, for the most part, been neglected in communications research (Wilder 1978: 1). One reason offered for this exclusion is due to the widely held misconception that some of the writers

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This is not meant to imply, however, that the kinds of meaning evoked by this term, is a twentieth century idea. For as Mark Twain wrote in 1889:

> "I watched my fifty-two boys narrowly; watched their faces, their walk, their unconscious attitudes: for all these are a language--a language given us purposely that it may betray us in times of emergency, when we have secrets which we want to keep" (1889: 1180).

[3]Specifically, Janet Helmick Beavin, Richard Fisch, Don Jackson and John Weakland.

[4]In this case, Richard Coe and Tim Wilson.

associated with this group are concerned primarily with communication pathology. In fact the early work of Bateson (1952-1962) and his later works (1972-1980) are aimed at "the general nature of communication in terms of levels" (ibid.: 3) (cf. p. 31).[5]

This is not to say that the Palo Alto Group's study of pathological communication has not played an important role in their overall perspective. As they explain it, what is being proposed "is a general theory of human communication and that the emphasis on pathologies serves primarily to understand the process by focusing upon the extremes" (Wilder 1978: 2).

Indeed, since one of the basic premises of this thesis is that a communicational approach must be contextual, it is only appropriate that some context be provided for an understanding of the works--and background--of both the Palo Alto Group and the three writers previously mentioned.

The Palo Alto Group is not a firmly established group as such. It is an informal name which represents a number of researchers who are attempting to explain what has been variously

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[5]It is difficult to discuss communication or a communicational approach without using certain terminology specific to the communicational discourse. I have tried to avoid introducing such concepts before they have been explained in detail. In some cases, however, I have found it impossible to describe an aspect of communication without using a term not previously discussed. Furthermore, it is often inappropriate to go into a lengthy definition of the term at that time without impeding the description of the original concept. When this occurs, I have put a "cf." beside the unexplained expression as an indication to the reader of where it is dealt with in length.

termed the "New Communication" (ibid.: 1). Generally, people connected with the Palo Alto Group were in some way or other influenced by the writings of Gregory Bateson, the original Bateson Research Group and/or the Jackson Research Group (Paul Watzlawick as told to Wilder 1977: 2). One of those influenced by the Palo Alto Group is R.D. Laing who said, "the work of the Palo Alto Group . . . has revolutionized the concept of what is known as 'environment' and has already rendered obsolete most earlier discussions on the relevance of 'environment' to the origins of schizophrenia" (1969: 148).

In actuality, what is loosely called the Palo Alto Group stems from two distinct groups of researchers. The original group (1952-1962), known as the Bateson Communication Research Project, worked out of the Veteran's Administrative Hospital in Palo Alto for the first few years of their inception. One of their most significant studies was related to communication and schizophrenia, and the publication of that research in 1956, titled "Toward a Theory of Schizophrenia", presented a revolutionary and unprecedented approach for understanding schizophrenia using notions of levels of communication (which lead to the idea of a concept known as the "double-bind").

> This paper suggested the importance of investigating the field of psychiatry, and related fields of human life, from the point of view of levels of communication (Haley 1961: 69).

The research of this group, however, was not exclusively oriented towards pathological communication. On the contrary, their research encompassed a diversity of areas including work

with dogs for the blind, studying animal communication --specifically animal play at the San Francisco Zoo--and a number of studies involving ventriloquists and hypnotists. "They were investigating communication on a very wide range, but always on the principle that communication has a pragmatic, behavioral effect" (Watzlawick, as told to Wilder 1977: 2). Dr. Don Jackson, a well-known clinician, served as a consultant to the Bateson Research Group. He joined the group in 1954.

> Although at first his contact was largely one of clinical supervision, he soon became a participant in the theoretical investigation of the research team (Haley 1961: 68).

In 1959 the project was administratively divided into two areas of study. The National Institute of Mental Health provided a grant for research into family therapy, while another grant from the Foundations Fund for Research in Psychiatry was obtained for an experimental research project. Haley tells us that "this is when the project began to go in two directions" (ibid.: 91).

Don Jackson founded his own group (called the Mental Research Institute) in 1959, at the Palo Alto Medical Research Foundation, co-existing very closely in terms of joint staff meetings and joint case discussions with the Bateson Group. There was, however, never any formal synthesis of the two groups. As Watzlawick explains, "they were just two independent groups with Gregory Bateson as the great theoretical mentor and Jackson as the great clinician" (as told to Wilder 1977: 3).

Haley has a slightly different interpretation of this situation.

> In the minds of many people there has been a confusion between the Bateson project, or double-bind project as it was sometimes called, and the Mental Research Institute. Actually there was never any connection between them except that Dr. Jackson was a part time consultant on the Bateson project and also Director of the MRI. The Bateson project continued until 1962 quite independent of the MRI and sharing no other participants except Dr. Jackson (1961: 92).

The confusion between the two enterprises is even further encouraged by the fact that:

> . . . in 1959 . . . the Bateson project sought a research building in downtown Palo Alto so that research families would not need to be brought within the Veterans Administration Hospital where the project was housed. At that time the Mental Research Institute was also seeking a building. The two groups shared the same premises for a period and many visitors assumed there was a connection between them. As a matter of fact, Bateson would not allow his project to be part of the Mental Research Institute and so no personnel or projects were shared (ibid.).

Although the Palo Alto Group finds its rudiments in the research of the two groups originally situated in Palo Alto --hence the name--the network of writers and researchers connected with the Palo Alto Group can be found throughout North America (and parts of Europe) in a variety of disciplines. This in no way suggests that the Palo Alto Group "speaks as one voice". Paul Watzlawick, one of the original members of the Palo Alto Medical Research Foundation Group, has pointed this out. He explains that everything which came out of the Jackson Research Team was influenced by Bateson but that "our individual perspectives about and applications of his ideas are not always to his liking" (Wilder 1977:4).

During the past two decades the network of communications researchers known informally as the Palo Alto Group has published several hundred articles and more than twenty books related to the "New Communication" (Wilder 1978: 1). One of the most interesting, and telling characteristics of the Palo Alto Group and its associates is in the diversity of areas of expertise represented by the various "nonmembers" (for example, philosophy, psychology, psychiatry, anthropology, general system's theory, biology, Romance languages, film-semiotics, medicine, sociology, journalism, literature and linguistics). In this light it is not surprising that many of the writers who are informally viewed as being connected with the Palo Alto Group would not readily acknowledge this association. For the Palo Alto Group would seem to hold firmly to the axiom, "I don't care to belong to any club that would accept me as a member" (Groucho Marx 1967: n.p.). However, the research and writings of the Palo Alto Group are all similar in respect to acknowledgement of the influence of Bateson and the original Palo Alto Research Team's work, use of a sort of common language in the ways in which they attempt to explain communicational phenomena --many of the terms stemming from Bateson's research--and a transdisciplinary and contextual emphasis on understanding relations. Differences in interpretation are ". . . inherent in the fact that we are in an area that has not yet been satisfactorily finalized. The question that arises is: 'How do you make a statement about this area at all?' And there, personal opinion

can very greatly" (Watzlawick, as told to Wilder 1977: 4).[6]

The works of Gregory Bateson have provided the groundwork for not only the Palo Alto Group, but for a number of writers who label their work transdisciplinary or view themselves as radical disciplinary thinkers.[7] It would seem that Bateson's writings have not as yet received the kind of recognition they deserve. Within many academic circles he is referred to as "Mr. Mead", due to his research collaboration with and subsequent marriage to the groundbreaking anthropologist, Margaret Mead. Others perceive Bateson's orientation as being psychological in nature, based on a familiarity with his work on schizophrenia. In actual fact, Gregory Bateson is a "generalist" in the true sense of the word.

Briefly: Bateson grew up in a household alive with innovation and serious study--his father being the famed biologist William Bateson who coined the term "genetics" in 1908 (Bateson 1976: xi). Gregory Bateson began as an anthropologist whose first field work was among the Baining of New Britain (he has called this work a complete failure)(1972: ix). He continued to pursue his anthropological study in Bali and New Guinea, where he met and combined forces with Drs. Margaret Mead and R.F. Fortune. Later, he became involved with the famous Macy Conferences, where the idea of cybernetics was formulated.

It was at this point that Bateson first attempted to synthesize cybernetic ideas with anthropological data. He

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[6]These differences, however, are not dealt with in any detail in this thesis, as the focus here is to understand the approach that these writers have in common.

[7]One of the reviewers of his last book stated that "Gregory Bateson has radically changed the course of biology, anthropology, psychiatry and cybernetics" (in Bateson 1979: n.p.).

accredits Dr. Jurgen Ruesch, whom he met and worked with in the Langley Porter Clinic, as being the initiator of Bateson's involvement into "many of the curious features of the psychiatric world" (ibid.: x). From 1949 to 1962, Bateson was given the title of "Ethnologist" at the Veteran's Administration Hospital at Palo Alto, where he was given the freedom to study anything he found to be of interest (ibid.).

Bateson's interest in "levels of learning and levels of classification systems" led him to apply for a grant from the Rockefeller Foundation "to investigate the general nature of communication in terms of levels" (Haley 1961: 60). After receiving a two-year grant from the Foundation for studying "The Role of Paradoxes of Abstraction in Communication", a small research team within the Veteran's Administration Hospital was formed (Wilder 1978: 25).[8] Indeed, Bateson brought much of his own expertise to the project.

> . . . the orientation of the original Bateson communication project was anthropological, and the preferred approach to a problem was to observe natural history situations

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[8]The transdisciplinary nature of a communicational approach can be more easily understood in light of the different areas of expertise represented by members of this group. In 1953, Bateson was joined by Jay Haley and John Weakland.

> "Haley's previous interest centered in the social and psychological analyses of fantasy, particularly in popular films. Weakland, who had earlier been a chemical engineer, came from the field of cultural anthropology with a special interest in China. Later in the year, the group was joined by Dr. William Fry, a psychiatrist . . . his major interest was the study of humor from the point of view of Logical Types" (Haley 1961: 61).

> with as little intrusion upon the data as possible. Such an orientation . . . is antithetical to experimentation (cited in Wilder 1978: 25).[9]

Haley identifies the emphasis in the first year of the project as trying to find a common approach. "Since the field of investigation was communication in general, any data was relevant" (1961: 61). Consequently, the research that first year was diverse and involved.

> . . . a study of otters playing,[10] a study of training guide dogs for the blind, an analysis of a popular moving picture, a filming of Mongoloid children in a group, analysis of humor and a ventriloquist and puppet . . . (ibid.: 62).

Nevertheless, what was consistently taking place was the attempt to develop "some common language within the research project to describe levels of communication" (ibid.: 61). Needless to say, this type of approach was a radical departure

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[9] In regards to Bateson's application of anthropological methods, Haley comments:

> "In the field of anthropology, he had also applied to the study of culture various general ideas about self-reinforcing systems . . . . His interest in the way a culture perpetuates itself was carried into the study of the individual with his idea that the perpetuation of learning situations in a person's life provide the ongoing framework within which he learns. He argued that learning is not a single-level phenomenon, but a person also learns to learn" (1961: 60).

[10] "The early emphasis upon animals in research was related to the desire to begin with as simple natural history data as possible, as well as to a general interest in the subject of ethnology . . . . It was of particular interest at the time to inquire whether animals qualified their messages, or seemed to have an awareness of signaling, and before the Rockefeller grant in 1952 Bateson was filming otters at the zoo to determine this" (Haley 1961: 62).

from traditional methodologies accepted within psychiatric research. The grant ran out and was not renewed. "Support to make an investigation so unique in approach and general theory did not appear forthcoming" (ibid.: 64).

The team continued to work without pay until a two year grant from the Macy Foundation was obtained to investigate schizophrenic communication. This is the period in which the "double-bind hypothesis" was conceptualized (Bateson 1972: xv).[11] Following the completion of the paper on "schizophrenia", the research team's emphasis shifted to family behaviour. In the process, the research team discovered that the need for developing a descriptive language became even more essential.

> At this time a more intensive study of individual communication was conducted which included the analysis of body movement as well as vocal patterns. Ray Birdwhistell functioned as a consultant on body movement and an attempt was made to find a compromise between description of gross gesture and minute description of each movement of a person in conversation (Haley 1961: 72-73).

Moreover, a variety of other communicational phenomena were studied, always within the context of attempting to translate and understand these relations in a wider over-all perspective. As Bateson described it:

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[11] Haley describes part of this process:
"While attempting to develop some descriptive terminology for levels of message, the project at this time was putting considerable emphasis upon the perception, or interpretation of messages. Thus there was an emphasis upon ways of communicating and an emphasis upon learning to interpret the communication of others. These two points of view were brought together in terms of a conflict between levels by Bateson . . ." (1961: 66).
The term "double-bind" was eventually substituted for "paradox" (ibid.).

> . . . the new epistemology must be supported by extension into many other fields. Other bodies of phenomena must be brought into the domain of the new tautology (1976: xii).

- Although the Bateson research project was terminated in 1962, after ten years of association, their research, ideas and concerns provides for a ground for beginning to understand the complex nature of both communication, and the more all-encompassing framework known as a communicational approach. For as members of the research team wrote in 1962:

> What is more important in our work, and may not have been sufficiently emphasized or clear in our 1956 paper, is a general communicational approach to the study of a wide range of human (and some animal) behavior, including schizophrenia as one major case (Bateson et al. 1962: 40).

Bateson left the research team to "change his focus", as he put it.[12] He continued with his communicational research and decided to concentrate on animal behaviour in his search for advancing the study of logical typing (cf. pp. 39-51) in

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[12] Part of his reason for leaving had to do with his disgust for the "conventional epistemology" dominant in the psychiatric field. "I must also confess that I was bored and disgusted by the Augean muddle of conventional psychiatric thinking, by my colleagues' obsession with power . . ." (Bateson 1976: xii). He wanted to both begin to understand and write about the erroneous nature of "logics", such as behaviourism, while at the same time developing a more all-encompassing perspective. As he wrote over twenty years after the Research Team disbanded:

> ". . . in the 1950s it was not possible to say what I have written above. Most of it was, for me, only dimly apprehended. The disqualification of logic was already clear, but the categorical bankruptcy of behaviorism was then a matter of taste or smell rather than cogent argument. The behaviorists were even more obviously power-hungry than the curers. One of them put the matter clearly: I had asked him why he, an organism whose actions were supposedly to be explained by the invocation of causes, was performing learning experiments on fishes. He said, 'Because I want to <u>control</u> a goldfish'" (ibid.: xiv).

communication (for over a year he kept a dozen octopuses in his living room). Wanting to pursue this vein of research, but not having the necessary funding, Bateson accepted John Lilly's invitation to be the director of the dolphin laboratory in the Virgin Islands. In 1963, he moved on to Hawaii where he became a part of the Oceanic Foundation and worked on problems of animal and human communication. He went on to teach at the University of California at Santa Cruz. Throughout the years, he continued in his transdisciplinary studies, re-examining theories of biological evolution in the light of cybernetics and information theory; explaining how the evolution of ideas relates to social thinking; defining terms (which have become particular to a communicational approach) which he deemed as being imperative to the understanding of everyday life; and reflecting upon not only "how we know", but upon that wider sense of knowing (Bateson 1979: 4).

These examples provide for only an indication of the wealth of ideas, and variety of areas, with which Bateson involved himself. For what he is proposing is ". . . a new way of thinking about ideas and about those aggregates of ideas which I call 'minds'" (Bateson 1972: xv).

It has been said that the role of a teacher is to excite one's students. If this be the case, then Bateson has performed this role well, for he has had a profound influence on many contemporary writers, who are attempting to look at relations in a radical and thus communicational manner. Though many of these writers disagree or find fault with certain Batesonian concepts

and/or find his overall perspective limited in many areas--his refusal to recognize socio-political and economic relations of oppression, for example--his approach has provided a useful ground for the persual of particular ideas and/or relations. As Wilder explains it, "the scope of Bateson's interest is at once stimulating and frustrating as he moves with great confidence and deftness through anthropology, animal behavior, aesthetics, biology, genetic theory, and psychoanalytic theory . . . . What Bateson presents is a very particular way of thinking about being in and knowing of the world . . ." (1978: 20).

But perhaps one of the best descriptions of "what Bateson does" is put forward by Bateson himself (in his explanation of why he wrote his last book):

> . . . there is some pride in it, too, a feeling that if we are all going down to the sea like lemmings, there should be at least one lemming taking notes and saying, "I told you so". To believe that I should stop the race to the ocean would be even more arrogant than saying, "I told you so" (1979: 231).

Gregory Bateson died in June 1980.

Paul Watzlawick, one of the more widely known members of the Palo Alto Group, joined the Jackson Research Team in 1960. He had received his doctorate in Philosophy and Modern Languages and completed training at the C.G. Jung Institute for Analytical Psychology in Zurich. Like so many others, he became interested in the Palo Alto Group after encountering the works of Bateson and his research associates. In 1967, he co-authored Pragmatics of Human Communication, a book which demonstrates the relevance of a communicational approach to the study of interpersonal

interactions. The explanation of characteristics of communication with practical application to the theatre, the analysis of the family and other group processes, found their foundations in the works of Bateson and his associates.

One of the most significant contributions of the Palo Alto Group--in this case, Paul Watzlawick et al., 1967, 1974 and 1977 --is the development of studying pathologies in human communication in a contextual manner. Borrowing from psychology, cybernetics, information theory and general systems theory, Watzlawick et al. are attempting to establish what they call a "calculus of communications"; calculus being "a method resting upon the employment of symbols, whose laws of combination are known and general, and whose results admit of a consistent interpretation" (Watzlawick et al. 1967: 39). What Watzlawick et al. are suggesting is that communication in general is <u>at least</u> as rule-governed as is natural language--which is, of course, determined by grammar and syntax (Wilder 1978: 18). This calculus of human communication is an attempt to identify and describe the complexity of levels, concepts and principles which characterize a communicational approach.[13]

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[13] It is disappointing, but necessary to note that although Watzlawick et al.'s conceptualization and explanation of characteristics of both communication and a communicational approach prove essential for the study of communication, their application of these conceptualizations seem to have "lost something" in the translation. Although they are concerned with the idea of contextual levels of constraint, they do not deal with (or even refer to) levels of real kinds of socio-political and economic constraints (for example, class, race and/or sex). One consequence of this deficiency is that a sexist bias is often evident in their works (cf. Watzlawick et al. 1976: 57, 86-90, 96-99 and 1974: 35-36, 68, 129-133).

Anthony Wilden received his Ph.D. in Romance Languages at Johns Hopkins University. Although he was never a member of the Bateson or Jackson research groups, he was influenced by their research and writings, particularly by the works of Gregory Bateson. Wilden's work represents a transdisciplinary approach to understanding and explaining the nature of a diversity of communicational phenomena.

> The direction of search indicated by this new interpretation is toward analyses of relationships, dialectical opposition and communication (Holland 1977: 248).

Like other members (or non-members) of the Palo Alto Group, Wilden is concerned with the development of a new epist-emology, which borrows and translates from various modes of study. Holland comments that:

> . . . in addition to those which come in with Lacan[14] there are Gregory Bateson, whose ecological theory of mind based on a study of animal and human behaviour looms very large, and Marx, whose historical materialism can be read at many levels and to many purposes. Fortunately, these and many other minor contributions can be gathered together under the theme of language and communication in open systems (ibid.).[15]

Sluzki and Ransom identify "a political and historical consciousness" in Wilden's writings, which provides for "a

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[14] Jacques Lacan is a French psychoanalyst. Wilden translated and provided extensive notes on some of the writings of Lacan. A critical analysis of many Lacanian ideas proves essential to Wilden's overall perspective.

[15] ". . . this central theme of language and communication leads back eventually to self, knowledge and society" (Holland 1977: 253). For Wilden is always concerned with the applications of a communicational approach to real concrete relations.

contribution to our 'knowledge about knowledge' at an abstract level, as well as supplying ammunition in the struggle with the concrete reality that information is power and the scientific discourse is a hidden weapon in the arsenal of social control" (1976a: 326).

Indeed, the development of a "new way of talking about the world" is central to Wilden's research. In their discussion of the "double-bind", Wilden and Wilson assert that ". . . the dynamic logic of interrelationships, levels of organization, and hierarchical-heterarchical constraint . . ." underlying a communicational approach ". . . appears to be that which actually operates in all social systems" (1976: 267). This approach is thus labelled ecosystemic.

> Since it is . . . concerned with the multidimensionality of system-environment relations in the real world, it may also be properly called an ecosystemic logic. It is a logic concerned to take into account the fact that long-range survival of any whole depends upon the survival of both system and environment (ibid.).

Wilden's contextual and multi-leveled explanations and analyses of all sorts of communication are an appropriate illustration of the necessity of this approach's transdisciplinary nature. Wilden exemplifies this in his explanation of what is attempted in his book System and Structure: Essays[16] in Communication and Exchange.

> The essays in this book are an attempt at translation and integration. They set out to translate between

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[16] "Essays", for Wilden, mean pattern (1980: xvii). Thus, Wilden also demonstrates a concern for "the pattern which connects".

> some of the many dialects of the discourse of science in our culture; and, as a result, to bring together concepts and even traditions which are generally associated with quite distinct fields of study in the modern organization of knowledge (1980: xviii).[17]

A major criticism of the communicational perspective is that there is no clear cut and easily identifiable definition of communications, as such, or of the applications of a communicational approach. This is because the very depth and expansiveness of the approach, developed under Bateson's theoretical leadership and Don Jackson's and later Watzlawick et al.'s clinical expertise, has presented formidable methodological challenges which are difficult to support through traditional empirical research designs. It is not surprising, then, that those schooled in classical research techniques will often dismiss the communicational approach as being too general, or unscientific (cf. pp. 93-114). It is, in fact, difficult to select an appropriate research paradigm for rigorous and systematic investigation within a communicational approach due to the sheer expansiveness of the area and what it encompasses (Wilder 1978: 19). This does not mean, however, that the

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[17] Some of the concepts and traditions Wilden attempts to bring together are "derived most immediately from Anglo-American double-bind theory, from French psychoanalysis, and from anthropology, both 'structural' and 'ecological', and concepts emerging from cybernetics and 'systems' theory, from linguistics and semiotics, from 'information science' and communication theory, from metamathematics and ecological biology, and from Hegelian and Marxian dialectics" (1980: xviii).

communicational approach cannot be applied far beyond the original focus of the works of Bateson and his colleagues on schizophrenia and family interaction, for example.[18] On the contrary, a communicational approach is a truly different and radical way of understanding complex relations and phenomena.[19]

It has been specifically applied to explain such diverse subjects as art, humour, drama, film, economic and ideological systems (Wilder 1978: 20) and can be more generally found in discussions which attempt to look at, and language about, communicational phenomena (cf. pp. 20(f)) in a transdisciplinary and contextual manner. For as Bateson reminds us:

> Observe, however, that there have been, and still are, in the world many different and even contrasting epistemologies which have been alike in stressing an ultimate unity and, although this is less sure, which have also stressed the notion that ultimate unity is aesthetic [cf. pp. 77, 113]. The uniformity of these views gives hope that perhaps the

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[18] Bateson notes that the study of schizophrenia and/or pathological communication are only a set of special cases of epistemological error, and that:

> "It is not that these cases are more fundamental than other varieties of creativity which spring from the tangles of epistemological contradiction. Humor, art, poetry, religion, hypnosis, and so on are equally rich, equally informative, and equally alien to the epistemologies of both logic and direct causality.
>
> He who would discover for himself what ideas are made of and how ideas combine to make a mind must wander in one or more of these transcontextual mazes" (1976: xv).

[19] Indeed, this has been demonstrated in the general discussion of the Palo Alto Group and its associates, and will continue to be demonstrated throughout this thesis.

great authority of quantitative science may be insufficient to deny an ultimate unifying beauty (1979: 19).[20]

What is being argued in this thesis is that a communicational approach is, indeed, a radical and emergent epistemology. It differs from traditional modes of study in that it is not just an approach to communications as a subject, but is communicational in itself. This type of approach must, therefore, be transdisciplinary in that it transcends conventional boundaries, imposed upon disciplines, by beginning to set up a theoretical vocabulary and syntax--for explaining real concrete relations--"which is not dependent on any particular science or discipline for its representative metaphors, nor on any specific jargon for its models of information and transformation, relationship and change" (Wilden 1980: xix).

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[20]What is being argued is that a communicational-transdisciplinary approach is not exclusive to those who call themselves communicational scholars. Indeed, the same kinds of concerns--as those expressed by the Palo Alto Group and its associates--can be found in the works of a diversity of writers who are attempting to discuss relations in a pattern-oriented, contextual and transdisciplinary manner. An example of this exists in the area of "ethnomethodology" (common sense methodology).

Ethnomethodology is an emerging new approach which "has burst whatever boundaries might have originally constrained it" (Turner 1974: 7). Roy Turner further points out that this methodology ". . . far from depicting a domain of established findings . . . invite exploration and research on everyday phenomena. The horizon is an open one, for at this point in the history of the discipline the everyday world of practical activities invites investigation, discovery and analysis at every turn" (ibid.: 12).

Wilder comments that:

> "It is perhaps the ethnomethodologists who have taken the most serious look at accounting for constitutive processes of natural communication" (1978: 31).

Bateson describes this "new way of thinking about the world" as "the ecology of mind" or "the ecology of ideas" (1972: xv). The Palo Alto Group and its contemporaries have no pretensions about this "mode of study" being a finished and complete theoretical framework. For as Wilder explains: "one must view the work of the Palo Alto Group as being, theoretically and epistemologically, 'in progress'", as it involves many theories and ideas. It is impossible to find a "contemporary metatheoretical statement" to explain the communicational approach (1978: 19). This approach is, in fact, "a science which does not exist as an organized body of theory or knowledge" (Bateson 1972: xv; emphasis mine).

Furthermore, to trace the development of this trans-disciplinary manner of "seeing" poses problems in itself, in that:

> The differentiation of a new paradigm . . . does not happen suddenly at an identifiable moment. It is, therefore, difficult to say that any given part of the unfolding of the new vision was due to one rather than another of the workers in the field (Bateson 1976: xi).

Although these admissions would be considered "blasphemous" in many academic circles, the "open systemic" (cf. Appendix IV) nature of a communicational approach provides for radical translations of ideas--borrowed from a diversity of disciplines and research--which are necessary to our understanding of the multi-leveled experiences involved in human communication. The emphasis on a communicational approach being an ongoing and never-ending process is situated in the nature of communication as such. For communication, as a subject, is omnipresent and all-encompassing "precisely because each of us is as much

embedded in communication as communication is embodied in all of us". Therefore, "communication begins everywhere; it mediates all our relations, and although it necessarily involves goals of some kind, it has no end" (Wilden 1977: 1).

That there is no rigid and fixed methodology provided for by a communicational approach does not negate its effectiveness (cf. Chapter II, pp. 90-114). On the contrary, a communicational approach is characterized by a variety of "rules" (and relations) which serve as constant reminders that no social phenomenon can be examined in isolation. (A "thing" cannot be understood unless it is perceived in relation to "others" and thus to its meta-communicative context--and the higher levels of contextual constraint which affects our choice of wanting to study "the thing".)

> Watzlawick and Weakland opt strongly for a "rules" rather than "laws" orientation in discussing a communicational perspective . . . urging investigation into the "grammar" of conversation; the calculus or algorithms of communication (Wilder 1978: 27).

Generally speaking, then, a communicational approach is concerned with the investigation and description of a "vast network or matrix of interlocking message material and abstract tautologies, premises, and exemplifications . . . under rules and regularities" (Bateson 1979: 21). The lack of rigidly defined laws only enhances the essence of a communicational approach for providing "fresh and novel insights into human communication and the hope that by exploring its possibilities we may better discover the subtleties and nuances of communication process and

spend less time 'hacking our way through open doors'" (Wilder 1978: 36).

CHAPTER I

CONTEXT

> Conventional epistemology, which we call "sanity", boggles at the realization that "properties" are only differences and exist only in context, only in relationship.
>
> Gregory Bateson, "Introduction" to Double Bind (1976)

The above quotation is an apt expression of the essence of the radical nature of the emergent epistemology which, for our purposes, is called communicational. For one of the most significant aspects of a communicational approach is that it is indeed contextual. What this chapter attempts, then, is to provide a context for understanding certain characteristics (and related notions and ideas) of communication itself, while at another level providing a contextual framework for explaining how these characteristics can be translated into a more all-encompassing perspective (what the Palo Alto Group, and its associates call "a calculus of communication").

Because of the wide-ranging use of the term communication and the diversity of research undertaken in either the name of communication and/or within the discipline of communication, it is not surprising that we find a variety of definitions of the term, or as often as not, no explanation at all of what is meant by communication. It is not surprising either that students,

teachers and writers who find themselves in a communications discipline often cringe at the idea of having to briefly explain what communication actually entails.

All Behaviour is Communication

Once again, we can turn to the work of Bateson and the Palo Alto Group for an insight into the notion that all behaviour is communication. Bateson tells us that

> . . . all perception and all response . . . all learning and all genetics, all neurophysiology and all endocrinology, all organization and all evolution--one entire subject--must be regarded as communicational in nature . . . . (1972: 282)

This multi-leveled explanation may be rather confusing at first glance. Further, in light of this illustration of Bateson's writing, it is not surprising that many communications theorists dismiss Bateson as being too general and/or difficult to understand. However, with the various translations and applications of Bateson's theories--specifically those offered by the Palo Alto Group and its students--one can grasp that his definition of communication is the most useful and appropriate for understanding the complexity of its nature. To explain: as Bateson states, all behaviour is communication, then it is impossible not to communicate. As Watzlawick et al. translate this idea, behaviour has no opposite. Therefore, for a living organism "there is no such thing as nonbehaviour or, to put it more simply, one cannot not behave" (1967: 48). It follows then that if, as Watzlawick et al. assert, all behaviour is a conscious and/or unconscious activity--which is always taking

place in relation--it must therefore have message value.[1] The emphasis on "all behaviour taking place in relation(ships)" is the key to this notion.

> Given the recognition of the communicational matrix, it is self-evident that no "behaviour" or "communication" can operate intransitively. For every living system [cf. Appendix II] or subsystem there are multiple environments and levels of environment without which it cannot survive (Wilden and Wilson 1976: 265).

What is being underlined, then, is that "behaviour" is always taking place whether it be in relationship to real, concrete others and/or to environments and/or to imaginary others. For example:

> What we call "monologues" and "thoughts" in human systems are in fact messages to and from imaginary others without whom we should not be human (ibid.).

The axiom that all behaviour is communication, and the axiom that there is no such activity as non-communication are the

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[1] Message value, in this sense, is synonomous with the semantics and pragmatics of communication. According to Watzlawick et al. semantics is "the philosophy of science", while pragmatics involves the psychology or "behavioral effects of communication".

> "In this connection it should be made clear from the outset that the two terms communication and behavior are used virtually synonomously. For the data of pragmatics are not only words, their configurations, and meanings, syntactics and semantics, but their nonverbal concomitants and body language as well. Even more, we would add to personal behavioral actions the communicational clues inherent in the context in which communication occurs. Thus from this perspective of pragmatics, all behavior, not only speech, is communication, and all communication --even the communicational clues in an impersonal context--affects behavior" (1967: 22).

It becomes increasingly difficult to distinguish between the two terms, but let it stand that semantics involves the overall framework--the philosophy of a communicational approach--while the pragmatic aspects involves the concrete, real relations which clarify the semantic terrain.

ground for understanding the radical nature of what is being encompassed by the use of the term communication.

The Context of Context

If we accept that all behaviour is communication, then we must also recognize that it is inappropriate to discuss any aspect of communication without taking into consideration the context in which it takes place. A "phenomenon remains unexplainable as long as the range of observation is not wide enough to include the context in which it occurs" (Watzlawick et al. 1967: 20). To underline the fact that all communication takes place in relation(ships), consider the following:

> Failure to realize the intricacies of the relationships between an event and the matrix in which it takes place, between an organism and its environment, either confronts the observer with something "mysterious" or induces him to attribute to his object of study certain properties the object may not possess (ibid.: 21).

Using the example of pathological communication, Watzlawick et al. show how disturbed behaviour cannot be understood if studied in isolation, as the limits of inquiry must be extended to include the effects of the behaviour on others, their reactions to it, the reactions of the "disturbed" individual to the reactions of others and the context in which all this takes place. It is then that the focus shifts from the artificially isolated variable to the relationship between the parts and levels (cf. p. 31) of a wider system, and it is only then that the disturbed behaviour can be begun to be understood (ibid.).

The necessity of perceiving all communication in context holds true for the study of any phenomena--from such seemingly

diverse areas as the mass media to the oppression of minority groups. For how can we begin to understand the complexity of the media, for example, without locating them in their multi-leveled context which would at least involve what we see or hear and how it affects our behaviour (communication), who chooses what we see or hear (ownership patterns, private industry and government intervention), mass media's role in the dominant ideological system, and the dominant ideological system's role in mass media content.

In short, the notion of context is essential for understanding communication, for without the recognition of this notion, communication--in the sense that we are taking it here --could not even be discussed.[2] As Bateson explains it, context provides for "meaning".

> Without context, words and actions have no meaning at all. This is true not only of human communication in words but of all communication whatsoever, of all mental processes, of all mind including that which tells the sea anemone how to grow and the amoeba what he should do next (1979: 16).

Therefore, to begin to examine a communication, one must attempt to learn the relationship of that communication to its context--which in turn is a communication in relationship to its

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[2]This is not to say that we don't find many theorists --who call themselves communications theorists--employing erroneous definitions of communication due to their refusal to recognize context, or their underestimation of the importance of this notion. It must be emphasized that the omission of context from an explanation of communication can in no way negate its existence (just as asserting that the world is flat cannot change its roundness) but only serves to reduce the multi-leveled and radical nature of communication (and consequently a communicational approach), thus neutralizing its worth as a truly novel and different way for understanding complex relations (cf. Appendix II for a more extensive discussion of this problem).

context and so on. In other words, communication is often indistinguishable from its context as that context is often only another level of communication operating in relation to a higher level of contextual constraint (cf. pp. 31-4)--which is in itself communicational in nature (i.e., it has message value). What communication is always concerned with then is the "context of context". For example, the context for the baby in the womb is its relationship to its mother's body. That baby, however, also provides part of the mother's context in its movements, the manner in which the mother's body has changed to accommodate the fetus, and the treatment of the mother by others whose behaviour is influenced by her pregnancy. Of course there are many other levels of context and relationship involved, such as the social status of the mother--her class, race and marital status--her work environment, home and so on.[3] All these relations not only provide part of the context for the mother, but also for the baby--who is, as previously illustrated, part of the mother's context.[4]

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[3]Moreover, it must be recognized that different levels of context are interrelated. In this illustration, the class and/or race of the mother can affect the kinds of health care she can afford during the pregnancy which, in turn, provides the context for the required amount of nutritional value, for example, she and, consequently, the fetus receive. Also, the kinds of stress she experiences can be affected by her own personal context which, in turn, can be affected by the wider context of class and/or race.

[4]An important level of context, which is rarely discussed, is the contextual framework we, as the reader and/or writer, provide. For our involvement in this process must, in itself, take place in context. Our particular expertise, bias, socio-political and economic status are part of the context for the

Context is thus another level of communication, for it describes--and gives meaning to--behaviours (communications) it constrains. Context is thus communicational by its very existence (existence, of course, always in relationship) for in recognizing the context of communication, we are in fact examining the relationship of relationships (different levels of communication).

Bateson refers to these multi-leveled contextual relationships as "metarelationships". As he explains it, the difference between the Newtonian world and the world of communication is "primarily that the Newtonian world ascribed reality to objects, excluding the context of the context--all metarelationships--while communication theory examines meta-relationships to the exclusion of objects" (Wilder 1978: 13).

Watzlawick et al. further translate this notion by stating that "every communication has a content and relationship aspect such that the latter classifies the former . . ." (1967: 54).[5] In fact, if the content level of a communication is

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context of understanding how context is here being explained. Further, the role of the reader and/or writer is an even different level of contextual constraint--for example, is the reader's position one of a socially defined judgemental nature, or one defined by interest in the area, or of curiosity, and so on? All these relations--including even the physical and emotional environment in which this is being read--are contextual in nature.

[5]Watzlawick et al. offer further explication of this statement by calling the content level of a message, the "report" aspect, and the relationship level, the "command" aspect.

> "The report aspect of a message conveys information and is, therefore, synonomous in human communication with the content of the message. It may be about anything that is communicable regardless of whether the particular information is true or false, valid, invalid, or

unexplainable without its relationship level then the relationship level would have to be at a different and higher level than that of the content. For what the relationship level does is to provide the rubric for how the content level is understood.

Levels

Throughout the previous discussion, an essential notion has emerged, a notion which is critical to both the realities and understanding of all kinds of communicational phenomena. That is, that all communication involves the interrelationship of "levels". For levels are indeed the stuff of communication.

The importance of the role of levels of communication has already been indicated in the explanation of context. All communication takes place in relationship to its context, which is, in fact, a higher level of communication. And by recognizing the context of communication, we are examining the relationship of relationship (what Bateson calls "metarelationships") which are, in actuality, different "levels" of communicational relationship. Indeed, human communication is so complex precisely because of its multi-leveled nature. The exchange of messages, for example, involves a variety of levels. As Bateson reminds us:

> I can tell you "I love you" when in fact I do not. But discourse about relationship is commonly accompanied by a mass of semivoluntary kinesic and autonomic signals which provide a more trustworthy comment on the verbal message (1972: 137).

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undecidable. The command aspect on the other hand, refers to what sort of a message it is to be taken as, and, therefore, ultimately to the relationship between the communicants" (1967: 51-52).

What is being emphasized here is that the non-verbal level of communication describes (provides the context for) the verbal level of communication. The non-verbal, then, usually exists at a higher level than does the verbal. However, even within the verbal range, levels are constantly employed.

> Human verbal communication can operate and always does operate at many contrasting levels of abstraction (ibid.: 177).

With all these interrelating levels of communication (and levels of levels of communication) occurring simultaneously, how can one make sense of this tangle of levels of complexity?

A communicational approach provides for a way of both explaining the nature of levels in, and for, all kinds of communicational phenomena and using a level-oriented analysis for understanding communication. For a communicational approach --in general--and all the characteristics of this approach --specifically--could never have been realized without the all important recognition and application of levels of relation. Within this approach, then, levels are treated--in theory--as they would seem to exist in praxis: as being interrelated in a hierarchical manner.

Hierarchy Theory

By borrowing from Hierarchy Theory we can begin to untangle the knots of levels and "metalevels" of relations.

> The most common and most concrete concept we associate with hierarchical organization is the concept of discrete but interacting levels . . . (Pattee 1973: 132).

This hierarchy of discrete and interacting levels can best be understood if we imagine hierarchies as a set of Chinese

boxes, each box enclosing another box (Simon 1973: 5). The notions of levels of constraint (cf. Appendix III) is thus made clearer. For rather than picturing a linear model, we can picture a type of vertical schema, with the "boxes" operating in a structural relationship of constraint to one another. Each "larger" box constrains the activities we define as being "enclosed" by all the boxes which are smaller than it is. This metaphor provides us with a "model", which aids in both the recognition of the complexity of levels involved in all kinds of communication and a way of talking about these levels.

> The common theme characterizing hierarchical systems [cf. Appendix IV] . . . is the double requirement of levels of description as well as the more obvious requirement of levels of structure (Pattee 1973: 135).

The employment of "levels of description" for explaining the hierarchical nature of levels--and metalevels--of relations, is an apt expression of (at least one aspect of) what a communicational approach purports to do. For as Wilden points out, the recognition of the existence of levels of hierarchies is essential to our understanding of communicational phenomena. Moreover, Wilden illustrates how the involvement of hierarchies of levels does, most certainly, take place in reality.

> A case in point is the traditional (binary) 'opposition'[6] between 'nature' and 'culture', or that between 'nature' and 'society'. The simple test for this kind of hierarchy is to ask oneself which of the two realities will survive if the other is removed or destroyed. Obviously . . . 'nature' survives no matter what happens to 'culture' (1980: xxxiii-xxxiv).

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[6]By binary 'opposition' Wilden is referring to the traditional error of perceiving hierarchical relations--relations which exist at different levels--as if they existed at the same level (cf. pp. 52-4).

This type of "testing" serves useful in that it not only provides for an indication of the complex and multi-leveled nature of communication, but also because it furnishes us with a way to begin to understand and discuss these very complexities.[7] Within a communicational approach these multi-dimensional hierarchies of relations are begun to be understood and talked about by two notions: Group Theory and the Theory of Logical Types.

Group Theory

Both Group Theory and the Theory of Logical Types are drawn from the field of mathematical logic. The basic postulates of Group Theory are "concerned with relationships between elements and wholes . . ." (Watzlawick et al. 1974: 3). According to this theory a group has the following properties:

1) "It is composed of members which are all alike in one common characteristic, while their actual nature is otherwise irrelevant for the purposes of the theory" (ibid.).

What constitutes the nature of the "members" is irrelevant; the members of a group can be anything from numbers to concepts. The only requirement of the members of a group is that they have a common denominator (for example, the members

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[7] For example, Wilden emphasizes that the notion of hierarchies is essential to our understanding of social systems. He demonstrates that one of the significant differences between Capitalism and Tribal Society is the difference in the hierarchical structure of each system. Within Capitalism, for instance, it is illustrated that "competition" constrains "cooperation", such that "competition" exists at a higher level than does "cooperation". Under Tribal Society, however, the inversion of these levels of relation is the case (1976: 335-337; 1980: ivi).

of the group "Hours of the Clock" are composed of the integers 1 to 12, which indicate the hours on the face of the clock) and that the result of any combination of two or more members of a group is itself a member of the group. In the case of the "Hours" group, "the combination of two or more members is again a member of the group" in that "8:00 A.M. plus six hours takes us to 2:00 in the afternoon" (ibid.). In this case, "combination" is referring to the process of subtraction or addition.

This leads us back to the notion of "levels of structure" which was identified as a characteristic of hierarchies. For what this particular "rule" of Group Theory is reflecting is the reality of how our perception of "the world" must take place.

> While it is obvious that no two things will ever be exactly alike, the ordering of the world into (complexity intersecting and overlapping) groups composed of members which all share an important element in common gives structure to what would otherwise be a phantasmagoric chaos (ibid.: 4; emphasis mine).

Moreover, this seemingly simple explanation of what characterizes a group--at deeper examination--is an excellent metaphor for indicating the complexity of levels, and metalevels, involved in all our relations. For this "way of ordering" necessitates invariance, invariance in the sense that not only is a "thing" itself a member of a group, but a member of a group in combination with (and in relationship to) any number of other group members must result in a member of the group (e.g., in the group of all integers $2 + 4 + 3 - 7 = 2$; in this case the number 2 is not only involved in the sophisticated process of combination, but becomes, itself, the result of this process). Thus,

a combination of any group members is itself a member of the group. This "property" of groups then allows for an infinite amount of changes (in many cases), but changes only within the group.[8] In other words, "it is impossible for any member or combination of members to place themselves outside the system" (ibid.).

2) Another property of a group is that "one may combine its members in varying sequence, yet the outcome of the combination remains the same" (ibid.).

"One might, therefore, say that there is a changeability in process, but invariance in outcome" (ibid.: 5).

3) The third property of groups is that every group contains an identity member, such that its combination with any other member maintains that member's identity. For example, in groups whose rule of combination is addition, the identity member is 0 (2 + 0 = 2) (ibid.).

> If the totality of all sounds were a group, its identity member would be silence, while the identity member of the group of all changes of position (i.e., of movements) would be immobility (ibid.).

4) This leads to the fourth and final property of groups, that "every member has its reciprocal or opposite, such that the combination of any member with its opposite gives the identity

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[8] Indeed, in our relation to everyday experience, how is it that we recognize differences, except in the sense that difference is often made identifiable through changes in our perceptions. For example, we know if it is late or early in the day because we can compare the difference in the changes of the sun's position, and the strength of the light.

member; e.g., 5 + (-5) = 0 where the combination rule is addition" (ibid.).

These basic concepts of Group Theory are meant to demonstrate that particular changes within the group may make no difference to the structure of the group as a whole. In other words, changes existing at the same level may not affect the higher level of constraint. Moreover, the frequency and necessity of combinations of change can be constantly taking place at different levels, and to confuse these levels of changing relationship can negate the reality of hierarchies of levels of communication.

Isadora Duncan put it well when she stated: "If I could tell you what it meant, there would be no point in dancing it" (in Bateson 1972: 137). Let us propose that all dance movements are members of the group "Dance". Therefore, all the movements, whether alone or in combination (but always in relationship to each other) can be perceived as a particular kind of dance. They can be understood (for the purpose of this example) as existing at the same level, regardless of the complexity and sophistication of their ordering and combination. What Isadora Duncan would seem to have meant by her statement, then, is that:

> If the message were the sort of message that could be communicated in words, there would be no point in dancing it, but it is not that sort of message. It is, in fact, precisely the sort of message which would be falsified if communicated in words, because the use of words (other than poetry) would imply that this is a fully conscious and voluntary message, and this would be simply untrue (Bateson 1972: 138).

She can only communicate about that communication by employing

the members of the group.[9] Thus, the definition of groups being involved with both stability and change is made more apparent.

Some familiarity with the properties of Group Theory proves important for our understanding of, and thus our ability to discuss, the complexity of levels of interrelationship involved in all (kinds of) communication. In other words, it provides for a starting point, a way of talking about a tangle of relationships which are so overpowering in quality that they are difficult to even begin to identify.[10] For what Group Theory describes is the change (and movement) that takes place within --and between--relations which exist at the same logical level.

A good illustration of the complexity of levels--in this case those taking place within the realm of everyday social interaction--can be found in the works of R.D. Laing.

> Jill I'm upset you are upset.
> Jack I'm not upset.
> Jill I'm upset that you're not upset that I'm upset you're upset.
> Jack I'm upset that you're upset that I'm not upset that you're upset that I'm upset, when I'm not (1970: 21).

Laing's insightful--somewhat tongue-in-cheek--demonstration of the multi-leveled nature of human communication leads us to

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[9] This does not mean that Duncan could not communicate about this communication by employing dance itself to talk about dance (cf. pp. 54-72).

[10] It must be remembered that there are deficiencies inherent in talking about levels and metalevels of relations in this manner, in that when employing this model the quality of the relations are necessarily reduced. This is, however, not a serious problem if we remember that a model--which involves levels of description--must be less complicated than what it represents. Coe and Wilden point this out by using the analogy of a map. "The function of a map is precisely to allow the system (say, an organism) to decide which information to deemphasize, and which to

explore another theory which plays a significant role in the development of "a calculus of communication": the Theory of Logical Types.

The Theory of Logical Types

The Theory of Logical Types, developed by Russell in 1910,[11] begins, as does Group Theory, with the concept of a collection of "things" which are united by a common characteristic. The components of this "totality" are called members, but unlike Group Theory, the "totality" itself is defined as a class (rather than as a group) (Watzlawick et al. 1974: 6-7). What this theory maintains is that whatever involves all the collection (all the members)--i.e., the class--must not be one of the collection. (For example, ants are members of the class of Insects; therefore, Insects cannot be a member of that--its own--class.)

The Theory of Logical Types, then, is dealing with hierarchies of "levels of abstraction"--or logical types --"discussed in terms of classes and members of classes" (Abeles 1976:117). For what it is stating is that:

> A class cannot be a member of itself, nor can a member of the class be the class; classes and members are of different logical types (ibid.).

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ignore. To be useful, therefore, any map must contain less variety than the territory . . . . That reduction of variety is inevitable; it becomes reductive only when the map does not retain the requisite variety to achieve the goal or goals . . . . Since any concept must contain less variety than the territory it represents, we meaningfully judge a concept to be . . . incorrect only in the context of a goal or set of goals" (1978: 103).

[11] Cf. A.N. Whitehead and B. Russell, Principia Mathematica, Cambridge, Cambridge University Press, 1910.

Or, as Bateson puts it, "a name is not the thing named . . ." (1972: 280). In illustration, Humankind is the class of all individuals, but itself is not an individual. Moreover, "a class cannot be one of those items which are correctly classified as its nonmembers" (ibid.). Bateson provides us with a simple explication of this axiom by demonstrating that all chairs are the items which make up the class of Chairs. Tables and lamps are members of the class Non-Chairs. Therefore, the class of Chairs cannot be a member of the class of Non-Chairs (ibid.).

It is when these "rules" of the Theory of Logical Types are contravened that confusion and contradiction and/or paradox[12]

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[12]Within a communicational approach, it is imperative that the distinction between paradox and other kinds of contradiction be clearly understood. Although both paradox and contradiction often involve confusion of different levels of abstraction (or different logical types) their natures are far from similar. "A qualitatively different feature of paradox is its reflexiveness--the invalidation of its referents by itself --so long as one remains conceptually within the frame posed by the paradox" (Abeles 1976: 118; emphasis mine).

The following example of the importance of the distinction is offered by Watzlawick: "With a pair of contradictory orders such as 'Stop' and 'No Stopping Anytime', one may choose to obey one or the other, though the unchosen will of course be disobeyed" (in Abeles 1976: 118). (In this case, what Watzlawick calls contradiction is in actuality an opposition. For both "stop" and "no stopping anytime" exist at the same level and allow for choice--one can stop or go. Contradictions exist at different levels--are of different logical types--and are, unfortunately, often mistaken for oppositions. Cf. the distinction between opposition and contradiction, p. 151.)

"With paradox, however, there is essentially no choice, though there is illusion of choice; e.g., a sign which reads 'Ignore This Sign'. In this illusion lies the difficulty, since it is not simply that you will be wrong whatever you do, but that you cannot really do anything at all" (ibid.).

Contradictions (and to a lesser extent, oppositions) are indeed debilitating and have long-term serious political, economic and ideological effects (cf. "Dialectics"). "They do not, however, have the peculiarly paralyzing effects of paradox, wherein a perpetual oscillation between nonexistent alternatives is set in motion. It is something like turning on the light to better inspect the dark; you simply cannot do it" (ibid.: 119).

will arise. As Watzlawick et al. demonstrate, the behaviour of the population of a large city cannot be understood in terms of the behaviour of "one inhabitant, multiplied by, say, four million" (1974: 6).[13] Inconsistencies, and most likely error, would be generated by this type of confusion of logical types. As Bateson explains it:

> The effect of any such jumping of levels, upward or downward, is that information appropriate as a basis for decision at one level will be used as basis for decision at some other level, a common variety of error in logical typing (1979: 220).

What the Palo Alto Group and its associates are emphasizing is that a class is not just quantitatively but qualitatively different from a member, because the class involves the patterns of interaction among the individuals (Watzlawick et al. 1974: 6). Moreover, what an understanding of this notion does is to aid us in recognizing the inherent errors of myths perpetuated by the dominant ideology. An example which comes immediately to mind involves the socially defined imaginary images we have of other people which are perpetuated by a process

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[13]The problems raised by this sort of "confusion of logical types" can be best illustrated in the context of the fallible nature of so-called public opinion polls. For even when results of a poll--which has been based on a "representative sampling"--are declared, they often do not reflect the real situation. For example, the recent 1980 American Presidential Polls, which forecast a close election, were soon proven "way off the mark" by the landslide victory of the Republican candidate. For as Bateson reminds us, "there is a deep gulf between statements about an identified individual and statements about a class. Such statements are of different logical type and prediction from one to the other is always unsure" (1979: 46).

known as stereotyping.[14]

> Society induces us to stereotype other people and to turn different groups of [oppressed peoples] into scapegoats for our fears and frustration (Wilden 1980a: 65).

Simply put, stereotyping involves the conscious and unconscious attribution of individual characteristics--usually negative--to an entire class of people. Therefore, characteristics--which may be appropriate to a few token members--become confused with the class ("all blacks are shiftless and lazy", "all Jews are theives", "all women are shallow and vain"). This confusion and reduction of levels has debilitating implications for all society. For what stereotyping encourages is the neutralization of any attempt to understand the existence of real levels of power relations and the contextual framework for comprehending why such characteristics have been applied. As Watzlawick et al. propose, outcomes of this nature "are the result of ignoring the paramount distinction between member and class and the fact that a class cannot be a member of itself" (1974: 7).

Bateson explains that a class is a higher logical type than its members because it frames the collection.

> No class can be a member of itself. The picture frame, then, because it delimits a background, is here regarded as an external representation of a very special and important psychological frame--namely a frame whose function is to delimit a logical type (1972: 189).

In other words, the picture frame instructs the viewer to not "extend the premises which obtain between the figures within the

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[14] As Kimball tells it, stereotypes "are myths that are created by those with authority to speak for the culture for the purpose of social control" (1975: 122).

picture to the wallpaper behind it" (ibid.). The frame classifies what is contained within it, and is thus of a higher logical type.

What logical types are about, in fact, are different levels of change. Watzlawick et al. discuss this in terms of motion (change of position) where acceleration or deceleration represent a change of change of position (1974: 7-9). (A change of acceleration or deceleration is, in fact, change of change of change, and so on.) Unfortunately, sometimes it is not within our discourse to describe these different levels of change. For instance, we have no language to talk about language, and this can indeed lead to confusions of logical types. And even when we do have the terminology, we still find that the class is often confused with its members. Watzlawick et al. use the example of methodology and method where "method denotes a scientific procedure" while methodology is the "philosophical study of the plurality of methods which are applied in the various scientific disciplines. It always has to do with the activity of acquiring knowledge, not with a specific investigation in particular" (ibid.: 8). A reduction of methodology--the class--to method --one of its members--produces "philosophical nonsense" in that it destroys the quality of the notion.

This leads us to a fundamental axiom of the Theory of Logical Types, an axiom which has been implicit in our discussion thus far.

> The central thesis of this theory is that there is a discontinuity between a class and its members (Bateson 1972: 202).

The class cannot be a member of itself, nor can one of the members be the class, because the term used for the class is of a different level of abstraction or logical type from the terms used for the members of the class (ibid.; Wilden 1972: 117).

It is this notion of discontinuity which illuminates the radical and transdisciplinary nature of a communicational approach. For, once again, the Palo Alto Group and its associates borrow a formal theory--specific to a particular discipline--and translate it so that it becomes applicable for examining everyday relations.

The Theory of Logical Types was first derived from "the abstract world of logic" (Bateson 1972: 202). Within the world of formal logic and mathematics every attempt is made to maintain the discontinuity between different logical types, for when a breach of this discontinuity occurs, paradox is generated (Abeles 1976: 118). Whitehead and Russell explained that a breach of discontinuity "subjects the argument upon which the discourse is based to 'vicious circle reasoning'" which renders it invalid, thus causing it to vanish (in Abeles 1976: 118).

> In that world, when a train of propositions can be shown to generate a paradox, the entire structure of axioms, theorems, etc., involved in generating that paradox is thereby negated and reduced to nothing. It is as if it had never been (Bateson 1972: 280).

However, relations and levels of relations (generating paradox) do not disappear in the real world. For in real life, where time prevails, nothing which has been--which has once existed---can ever be totally negated in this sense; instead, a relation

of perpetual oscillation takes place (ibid.; Abeles 1976: 118).[15]

Although in the world of formal logic and mathematics there is an attempt to maintain the discontinuity between a class and its members, in the psychology of "real" communications "this discontinuity is continually and inevitably breached" (Bateson 1972: 202; Wilden 1972: 117). This "breaching" is, in fact, a condition of human creativity (Wilden 1972: 117). Sometimes, however, when this confusion exists in the communication between individuals (especially individuals involved in power relationships, such as that between parent and child) it may lead to pathological communication.

Bateson et al. are aware of the inherent difficulties (and problems) with the translation of a theory from the abstract to the concrete.

> In fact, there are important differences between the world of logic and the world of phenomena, and these differences must be allowed for whenever we base our arguments upon the partial but important analogy which exists between them (Bateson 1972: 201).

Bateson is more than aware of the deficiencies of theories drawn from--and intended to explain--analytic logic. He

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[15]To illustrate, consider the classic statement of the Cretan Epimenides who said: "'All Cretans are liars.' The statement seems to include itself within its own scope such that if it is true, it is false; if false, true" (Abeles 1976: 118). Thus, a paradoxical situation occurs and a relationship of oscillation results. For as Russell explained it, "the reflexive aspect of the statement ["I am lying"] is of a higher logical type than the content aspect and that, because the two statements are of different logical types, their juxtaposition generates non-sense" (Coe 1975: 491).

recognizes that, in these types of instances where the theory is an important explanation of certain kinds of complexity, it is necessary to take what one can from this type of theory and apply it to the "real world". Such is the case with the Theory of Logical Types. As Bateson points out:

> . . . we are not in the world of abstract logic or mathematics and cannot accept an empty hierarchy of names or classes. For the mathematician, it is all very well to speak of names of names of names or of classes of classes of classes. But for the [social] scientist, this empty world is insufficient (1979: 205).

The reason for this breaching of discontinuity between levels of relationship is therefore inevitable, due to the multi-dimensional nature of human communication.

> The diversity of communicational modes amongst human beings allows the breaching of the boundaries between logical types both WITHIN the message and its contexts (Wilden 1972: 118).

Indeed, all human communication involves the employment, and understanding--whether conscious or unconscious--of multiple, hierarchical levels. Bateson insists that the ability to handle the multiple types of signals, employed by social beings in relationship(s), is itself a learned skill and is thus a function of multiple levels of reasoning (1972: 204-205). For everyday interaction is made up of "the process of discriminating communicational modes within the self or between the self and others" (ibid.). So even "learning" is only possible because of the existence of logical types.

> Every action of the living creature involves some trial and error, and for any trial to be new, it must be in some degree random. Even if the new action is only a member of some well-explored class of actions, it must

> still, by its very newness, become in some measure a validation or exploration of the proposition "this is the way to do it" (Bateson 1979: 204).

The notions of hierarchies of levels (and context), therefore, are essential for both the understanding and realities of the learning process. For there are limits and facilitations that select what can be learned.

> Some of these are external to the organism; others are internal. In the first instance, what can be learned at any given moment is limited or facilitated by what has previously been learned (ibid.).

It has been stated that there are multiple and sophisticated modes of communication, employed in all social relationships. Bateson et al. indicate three areas of interaction, which could not take place without the employment (whether conscious or unconscious) of logical types:

1) assigning the correct communicational mode to the messages we receive from other people;

2) assigning the correct communicational mode to those messages which we ourselves utter or emit nonverbally;

3) assigning the correct communicational mode to our own thoughts, sensations, and percepts (ibid.: 205).

Logical types are involved in various states of communication. Play, fantasy and metaphor are only a few--of many--illustrations. However, within all these areas, signals are employed, signals which "frame" or "label" messages. And the "signals" or "signs" which frame/label the message must be of a higher logical type than the messages they clarify (Wilden 1972: 218). (Remember Bateson's picture frame, cf. p. 42-3.) Once again Bateson reminds us that our vocabulary for making the kinds of

distinctions necessary to indicate a difference in logical types is poorly developed (to say the least). We thus often have to rely upon "non-verbal media of posture, gesture, facial expression, intonation, and the context for the communication of these highly abstract, but vitally important" signals which label or frame levels--and provide an indication of the employment of different levels--of communication (Bateson 1972: 203).

Within verbal communication "naming" is used to distinguish (and employ) logical types. The process of "naming" (labelling, framing) is a representation, in that it substitutes the idea of "the thing". The name is not the "thing" named; the name is the class which describes the members. The idea of a hot fudge sundae, for example, is (definitely) not the sundae itself. "Naming" is a step, or perhaps a vast jump, in logical typing. The understanding of what is involved in "naming" aids in our recognition of the real existence--and necessity--of hierarchies of levels of communication and how moving from one level to another involves a "shift" or a "jump" in logical types.

> And when we admit naming as a phenomenon occurring in and organizing the phenomena we study, we acknowledge ipso facto that in those phenomena, we expect hierarchies of logical typing (Bateson 1979: 205).

Now that some awareness of the complexity of hierarchy of levels taking place all around--and within--us has been reached, Watzlawick et al. warn us of the dangers of confusing logical types.

> In all our pursuits, but especially in research, we are constantly faced with the hierarchy of logical levels, so the dangers of level confusions and their puzzling consequences are ubiquitous (1974: 7).

These confusions, however, do not always have pathological consequences.

> Our central thesis may be summed up as a statement of the necessity of paradoxes of abstraction. It is not merely bad history to suggest that people might or should obey the Theory of Logical Types in their communications; their failure to do this is not due to any carelessness or ignorance. Rather, we believe that the paradoxes of abstraction must make their appearance in all communication more complex . . . , and that without these paradoxes the evolution of communication would be at an end. Life would then be an endless interchange of stylized messages, a game with rigid rules, unrelieved by change or humor (Bateson 1972: 193).

In light of this statement, let us examine two forms of the breaching of discontinuity between logical types (the confusion of levels) which take place in human communication.

Humour is a reflection of both the multi-leveled nature of human communication, and the everyday employment of confusing levels of relations. It is a form of the condensation of logical types.

> The punch-line of a joke has the peculiar effect of requiring a re-evaluation of the anterior logical typing (Wilden 1972: 118).

What often occurs in the telling of a joke is that a previous message in the joke may be re-evaluated by the punchline so that the punchline becomes a classifier (a metamessage, a message existing at a higher level) than the initial communication. This usually has the effect of changing the original perception of the initial message and results in an oscillation between the message and metamessage which is amusing (ibid.). In other words, an

intentional shifting of levels takes place.[16]

> The mere fact of humor in human relations indicates that at least at this biological level, multiple typing is essential to human communication. In the absence of the distortions of logical typing, humor would be unnecessary and perhaps could not exist (Bateson 1979: 129).

The second example involves a debilitating paradoxical consequence of confusions of logical types, characterized by what is called schizophrenic communication.[17] One of the symptoms of

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[16]There are so many levels and levels of levels involved in a joke that it is often difficult to identify all (or most) of them. For example, ponder the number of levels taking place in the joke: "How many Californians does it take to screw in a lightbulb? Eighty-two. One to screw in the bulb and eighty-one to share in the experience."

There is an immediate indication of a shift in logical typing by the initial statement because it begins with a "ridiculous" question. We all know that it only takes one person to screw in a lightbulb, but this statement communicates to us that "this communication is a riddle, or a joke". (And why do we find the behavior of screwing in a lightbulb humorous? Could it have to do with the different levels of meaning of the word "screw"?) In other words, it is asking a question, which asks a question about something which we know is known and therefore doesn't require a question. But at another level, the question is asking us to switch logical types--or is indicating that the communication is switching levels--or changing contexts. In shifts from the context of everyday life experience to the meta-context of talking about these realities.

The joke is also talking about the stereotypical California lifestyle, some of the characteristics being the involvement in elitist and expensive self-help therapies and the seriousness with which these people perceive their lifestyles. This joke is a communication about a particular perceived California communication. (Context is, of course, essential to --at least--understanding this intentional shifting of levels, for how would this joke be perceived in The Peoples' Republic of China, for example?)

[17]It must be emphasized that I am employing a very brief and simplistic illustration of schizophrenia here, as an example of the paradoxical nature of confusion of logical types (cf. Bateson 1972: xiv, xvii, 190, 194-200, 201-227, 228-243, 244, 246, 252, 258-263, 272-273, 310, 339, 369, 377; Wilden 1972: 110-122; Sluzki and Ransom 1976c).

schizophrenia is either the refusal to label metaphors and contexts, or the employment of unconventional labelling (Wilden 1972: 118-119). As Bateson points out, the schizophrenic often confuses levels of communicational modes. Bateson provides us with a specific example, from his own experience, where it was discovered that a schizophrenic patient confused levels of structure in language such that the following statement evolved:

> Men die.
> Grass dies.
> Men are grass (1972: 205).
>
> The peculiarity of the schizophrenic is not that he uses metaphors, but that he uses unlabelled metaphors. He has special difficulty in handling signals of that class whose members assign logical types to other signals (ibid.).

Watzlawick et al. remind us that at least two conclusions can be drawn from the Theory of Logical Types. One is that opposition, contradiction and paradox will arise if logical levels are confused. The second is that "going from one level to the next higher (i.e., from member to class) entails a shift, a jump, a discontinuity or transformation--in a word, a change--of the greatest theoretical and . . . practical importance, for it provides a way out of a system" (1974: 9-10) (cf. "Meta-communication").

The explanation of Group Theory, in light of the subsequent explanation of logical types, indicates that there are different kinds of "change". "Group Theory gives us a framework for thinking about the kind of change that can occur within a system that itself stays invariant", while the Theory of Logical Types "is not concerned with what goes on inside a class, i.e., between its members, but gives us a frame for

considering the relationship between member and class and the peculiar metamorphosis which is in the nature of shifts from one logical level to the next higher level" (Watzlawick et al. 1974: 10).

This distinction between different types of change is exemplified by a nightmare. Within the dream different activities (and thus changes) can take place "but no change from any one of these behaviors to another would terminate the nightmare" (ibid.). The way out of the dream involves a change from the dreaming state to the waking state --the waking state being of a different logical type.

What these two theories make us aware of is that change takes place both within groups (between members)--or classes --and between members and classes (between levels). The two theories do, in fact, complement each other, for they equip us with a conceptual framework which proves essential for examining concrete, practical relations of levels of communicational change. Indeed, confusion of levels can now be perceived within the larger terrain of the dominant ideology, where confusion of logical types and levels of complexity takes place are particularly common. One of the most common instances of this type of confusion is the process Wilden calls symmetrization (1980a: 105).

Symmetrization

Symmetrization involves the ideological and epistemological process of making hierarchically distinct levels of relationship appear to be "equal" or on the same level, when in

reality one class is of a different logical type than another. An example of symmetrization in male and female relationships is found in the phrase, "my wife and I are equal". Here the wife is being portrayed as a man's possession (my wife . . .), whereas the man is portrayed as an "independent" individual (. . . and I . . .). The statement, in fact, represents the reality of power relationships as defined by the socio-political and economic context. Since in a patriarchal system the relationship between men and women is one of master and slave (in a psychological sense) one of the significations of the expression--whether deliberate or not--is that masters and slaves are equal. In pretending this equality, in actuality the sentence is reaffirming the inequality of the real relationship, i.e., men are dominant and women are subordinate.

Wilden provides further clarification of this notion --symmetrization--by explaining:

> No symmetrical equation can legitimately be made between the epithets 'Honkie' and 'Nigger'--even though they are commonly treated as the 'two sides' of an Imaginary and symmetrical question, like 'Anti-Semite' and 'Jew', like 'Man' and 'Woman', like 'Business' and 'Labour'. Because each term and each image in each pair refers to distinct levels of exploitation under capitalism--a system of many levels--then the two terms (and the states they refer to) are not exchangeable equivalents in our society. 'Honkie!' cannot 'negate' white in the way that 'Nigger!' 'negates' black (1980a: 105-106).[18]

Thus far, the idea of hierarchies of levels (context being a higher level of communication than the communication it

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[18]This notion of symmetrization is dealt with in greater detail in the chapter on "dialectics".

describes, for example), levels and metalevels of change (which Group Theory introduces and the Theory of Logical Types explains), the process of "shifts" or "jumps" in different levels of relationship, and the serious implications of confusing hierarchical levels (and the all too common problems associated with reducing levels of complexity) have been explored. Some indication of the complex and multi-leveled nature of communication has therefore been revealed. Moreover, the every-day and necessary occurrences of contradiction and paradox raises even more questions into the nature of communicational phenomena. How is it, for example, that most of us manage to "escape" these ever-prevalent paradoxes and contradictions? A communicational approach is responsive to this very dilemma, for what it provides for is a concept which explains an activity employed in daily interaction. When faced with a paradox--rather than oscillating between two contradictory positions--it is sometimes possible to communicate <u>about</u> the paradox (thereby transcending it) (Coe 1975: 491). Just as important is the way in which we are even talking about any of these relations and/or characteristics. For what we are doing, in fact, is communicating about communication.

Metacommunication

The term metacommunication can now be introduced. Generally what is meant by metacommunication is "communication about a specific communication" or "communication about communication (Watzlawick et al. 1967: 51). For by even talking of communication we are communicating about communication and thus metacommunicating. Metacommunication must exist, then, at

a different hierarchical level than does that of the communication it is describing. It is, in fact, of a higher logical type. The idea that a metacommunication is a higher level of communication --higher than the communication that it communicates about--means that (like all aspects of communication) it cannot be regarded as a concept unto itself. Since it is a communication about another level (or levels) of communication, metacommunication must take place in relationship. It thus constitutes some level of context (for the communication it is describing). Meta-communication can therefore be described as a context marker --for it serves as a constant reminder in both theory and praxis --that communication is a complex process, involving a variety of levels and metalevels of relation.

It is both unfortunate and disappointing that in much of what is called communication analysis, metacommunication is often treated as if it were indistinguishable from communication as such. This has the unfortunate consequence of negating the multi-leveled nature of communication--and thus metacommunication--by ignoring the fundamental characteristic of levels.

To employ the notion of metacommunication without taking into consideration other interrelated characteristics of a communicational framework for its understanding, reduces the meaning of the term so that the term becomes just a label. (Indeed, metacommunication plays a significant role in the development of a calculus of communication.) For a communication

about communication cannot be a one-dimensional[19] operation since it obviously concerns the levels of communication already mentioned.

As was previously argued, "no communication can be properly defined or examined at the level at which the communication occurs" (Wilden 1972: 113). In explanation, a communication can only be properly examined by reference to the metacommunicative levels of context and punctuation (cf. p. 79). (ibid.). The Palo Alto Group and its associates recognize the problems inherent in attempting to distinguish between communication and metacommunication. In actual fact, so much daily communication between human beings involves levels that we consciously and unconsciously metacommunicate without realizing it (Bateson 1972: 177-93). Watzlawick et al. further identify this most frustrating contradiction by saying, "We are in constant communication yet we are almost completely unable to communicate about communication (1967: 36). In response to this need, what Bateson and the Palo Alto Group have been trying to develop is a metacommunicational language--a "calculus" for

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[19] The description "one-dimensional" is synonomous with what is encompassed by the notion "symmetrization" (as discussed in the previous section). It represents the erroneous (and non-contextual) treatment of complex communicational phenomena --which are multi-leveled (and thus multi-dimensional)--as if they were "flat", as if they existed at one level.

The term, then, provides us with a metaphor for identifying a negation of the realities of hierarchies of logical types, context and relationship (and, of course, levels of context--metarelationships) and, therefore, the destruction of the quality of all complex phenomena.

describing communicational phenomena (which will continue to be examined throughout this thesis). "Metacommunication is so difficult because we have only one language to describe communication and metacommunication; hence the constant mix-ups between the . . . levels" (Watzlawick, as told to Wilder 1977: 32).

Recognition of this most important concept was demonstrated in part to Bateson through the observation of animal behaviour. His study of animal communication precipitated an almost total revision of his thinking (1972: 179). Originally, Bateson had hoped to find some indication of meta-communicative signals exchanged between animals. He did not, however, anticipate the wide and complex use and awareness of such signals within animal interaction--and the subsequent implications of this research for understanding human communication.

What Bateson encountered was a phenomenon well known to all of us: animals at play. His analysis of this behaviour provides for one of the clearest explanations of the complexity of levels and relations involved in communication and the important and necessary role of metacommunication in this process.

In watching monkeys at play, Bateson noticed similar patterns of mutually understood signs or signals being employed by monkeys in play behaviour. One aspect of this behaviour concerned "nipping". During play, monkeys (and it was later discovered, a variety of other animals) would "nip" each other --the "nip" being a "sign" for "this is play". How was it that

monkeys knew that a "nip" was a "nip"--a sign for "this is play" --rather than a "nip" denoting a "bite"--indicating aggression? On further study he discovered that play involved a number of signs and actions, similar to the "nip", in that they were similar to relations of combat yet were not meant as or understood to be signs of aggression (for example, the shaking of a fist which denotes threat, but which is not meant as such within the context of "play").[20] It was concluded that "this phenomenon, play, could only occur if the participant organisms were capable of some degree of metacommunication, i.e., of exchanging signals which would carry the message 'this is play'" (Bateson 1972: 179). Moreover if playing, which is described as "an instinctive sequence of which the unit actions or signals were similar to but not the same as those of combat", involves signs which are in essence communications about communication (the "nip" is not a "bite", it is a signifier--a "sign"--for "this is play") then "the occurence of metacommunicative signs (or signals) in the stream of interaction between . . . animals would indicate that . . . . animals have at least some awareness (conscious or unconscious) that the signs about which they metacommunicate are signals" (ibid.).

According to this explanation, "play" involves the emergence of another level of communication. "In order that the

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[20] "play" is thus of a higher logical type than the communicational level it classifies. It is the class, while the individual activities of play are the members. Once again we are confronted with the notion that the idea of the "thing" is not the "thing" named. The "nip" is, in fact, a signification of a necessary shift in logical types.

'nip' not be communicated as a bite, it is necessary that a message ABOUT the action be communicated. This message, the equivalent of 'This is play'," exists at a higher logical type "than the communication itself: it would be a METACOMMUNICATION" (Wilden 1972: 17).

The discovery of the use of metacommunicative signals in animal interaction opens up whole new vistas for understanding the complex nature of communication as a necessary condition for the activity of all living organisms. Further, the study of nonhuman communication provides certain clues for a deeper and more contextual understanding of the more sophisticated levels involved in human communication.

It is not widely known, for example, that the use of symbolic forms of communication can be found in the behaviour of what are often referred to as "primitive" life forms, e.g. insects. This is illustrated in the mating rituals of dance flies.

> These insects include a large number of carnivorous species of dipterans that entomologists classify together as the family of Empididae. Many of the species engage in a kind of courtship that consists in a simple approach by the male; this approach is followed by copulation. Among other species the male first captures an insect of the kind that normally falls prey to empids and presents it to the female before copulation . . . In other species the male fastens threads or globules of silk to the freshly captured offering, rendering it more distinctive in appearance, a clear step in the direction of ritualization.
>
> Increasing degrees of ritualization can be observed among still other species of dance flies. In one of these species the male totally encloses the dead prey in a sheet of silk. In another the size of the offered prey is smaller but its silken covering remains as large as before: it is now a partly empty "balloon". The male of another species does not bother to capture any prey object but simply offers the female an empty balloon (Edward Wilson 1972: 35-36).

This last example can be interpreted as a representation or a symbol. For the human observer, for instance, it might constitute a metacommunication in that the empty baloon stands for something it is not (in that metacommunication often signifies that the communicational behaviour is something which it is not).[21] For the empty balloon offering is a sign which denotes: this represents a gift of food meant to initiate copulation. This use of what we call metacommunicative symbols is not exclusive to the dance fly, but can be observed in a variety of insect species--most notably in certain species of spiders (Life on a Silken Thread 1979).

It isn't difficult to perceive relationships between semblances of metacommunicative symbols employed in animal activity (and to a lesser extent those which seem to occur in insect communication) to that which takes place, at a more sophisticated level, in human communication. It is no wonder that Bateson perceived the study of animal communication as a revelation. For when studied in a contextual manner--viewed in terms of relationships and metarelationships--certain phenomena

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[21]This does not mean that insects are necessarily capable of metacommunicating. The use of symbolic forms of communication by insects is a result of their genetic programming and should in no way be confused with the highly evolved process of "play" --which does involve metacommunication--found in animal activity. What the example of the dance fly attempts to show is that insect communication does sometimes involve the employment of what we understand to be metacommunicative symbols and demonstrates that insect communication is in fact more complex than what we are generally led to believe. For as Randy Thornhill asserts in his article on "Sexual Selection in the Black-tipped Hangingfly": "Insects, in spite of the relative simplicity of their nervous system, exhibit a diversity of sophisticated and complex forms of mating behavior" (1980: 162).

inherent in animal and insect activity provides us with some insight into the evolution of human communication. Awareness that animals do indeed metacommunicate, in a relatively complex manner, heightens our recognition of the multi-leveled and complex nature of the existence of metacommunication in and between human beings. Indeed, if communication in and between animals and insects can involve the use of symbols and signs --and these symbolic forms of communication necessitate meta-communication in and between certain animals--then it would seem that metacommunication, in and between human beings, must employ far more sophisticated levels of metarelationships.

As has been previously mentioned, human metacommunication can be either intentional or non-intentional. Furthermore, contradiction (confusion of logical types) is often present within communications about communication, which increases the inherent difficulties of understanding the use and/or meanings of certain metacommunications (Bateson 1972: 182). As Bateson explains it:

> If we look at any living organism and start to ask about its actions and postures, we meet with such a tangle or network of messages that the theoretical problems . . . become confused. In the enormous mass of interlocking observation, it becomes increasingly difficult to say that this message . . . is, in fact, meta--to that other observation . . . (1979: 130).

The activity of "winking" provides us with an example of the complex (and often confusing) nature of a possible intentional metacommunication which takes place in everyday interaction. For the "wink" cannot be understood unless seen in its (metacommunicational) contextual nature. Indeed, its

sometimes contradictory nature can precipitate misunderstandings (confusions of logical types, for example) even when viewed in context. For the wink can be a sign for "I didn't mean what I am saying", or in a different context it can mean "This message is not directed at you". The "wink" can also indicate a reaffirmation of camaraderie--"I know you agree with me", for example. The evidence of contradiction and perhaps paradox in this one metacommunicative activity, is perhaps better clarified when the "wink" is employed by a person who we do not know well and/or in a situation in which we do not feel comfortable. In these cases the "wink" can provide for "miscommunications" in that we misinterpreted the meaning of the sign which has the effect of "muddling" our understanding of the intended communication.

Generally, what the "wink" can be said to represent is "this is not what the words say" (i.e., similar to "this is play") for there is a certain amount of ambiguity--within almost any context--inherent in this type of interpersonal metacommunicative activity.

The process of dreaming is a useful illustration of a highly complex form of the employment of symbolic forms of communication which are unintentionally metacommunicated to the self, by the self. (In other words, they are communications about different levels of communication which have taken place--or are taking place--between the self and real or imaginary others, and/or levels of communication between the self and contextual relationships.) The contradictory element of this type of

metacommunication is immediately evident, in that to understand what dream symbols denote, we must be aware of not only the particular context (of the individual) in which they take place, but the overall metacommunicative context which must necessarily include the personal history of the individual and their many relationships and metarelationships to themselves and to others. Furthermore, the variety of metacommunicative signs and symbols employed in dreams are often representations of events which have been buried in the unconscious and/or have not been consciously perceived. In the case of dreaming, it is unlikely that we can ever gain a complete understanding of what these symbols denote--what they are metacommunicating about. And to even think or speak of our dreams necessitates a metacommunicative analysis.[22]

These examples serve as an indication of the multi-faceted and essential role of metacommunication in all social relations. But far from being exclusive to inter and intra-personal interaction, metacommunicative levels are involved in

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[22]The discussion of dreams is an example of the fundamental axiom that communication is always occurring, whether we are conscious of it or not. And that there is no prerequisite that communication and metacommunication can only take place in relation to concrete real others. On the contrary, we communicate both consciously and unconsciously with ourselves all the time, whether it be in relationship to imaginary others and/or selves, or is initiated through the actions of particular others, or dominant others--a way of referring to a predominant way of thinking of a collective class or group of people which, in fact, effects much of our own communication (another way of talking about how the dominant ideology mediates our thinking) (cf. Wilden 1972: 510, and 1980: 63-123; Freud 1967: 83-130; Bateson 1972: 282-3; Watzlawick et al. 1967: 83-90).

all aspects of human communication. Metacommunication is, in fact, often used to represent something which it is not, yet which has the effect of making us aware of other levels of communication. It is the class which describes its members.

> In other words, the metarelations between particular signals may be confused but understanding may emerge again as true at the next more abstract level (Bateson 1979: 131).

Within the media of film and television, for example, metacommunicative signs are intentionally used for the specific purpose of being unconsciously perceived. Exemplification of this can be found in the many techniques which characterize these media, specifically those known as background music, sound effects and editing. The use of background music and/or sound effects in film, are used to create an atmosphere which the visuals and verbal dialogue, on their own, would not evoke. A simple enactment, for example, where the hero and heroine approach the door of their friends' home for an unannounced visit would seem to be a straight forward communication in itself. However, the selection of background music and/or sound effects metacommunicates to the audience how they should understand the scene. Certain sounds or music symbolize a happy or humourous interaction, while a different choice of music and/or sound effects can metacommunicate impending disaster. To listen to the music itself, in a different context from that of the film, would not have the same effect. When heard in relationship to the visual (and perhaps dialogue) cues, the background sound is transformed into a symbolic form of communication, meta-communicating to the audience how the scene should be perceived.

Moreover, the manner in which the scene is edited is another use of metacommunicative signs. A close-up of the man's finger on the doorbell--held for what would seem an elongated period--can be both a communication and at the same time, a metacommunication, in that, at one level it represents an activity of which we are all familiar, yet within the context of the film and the particular way in which this shot is juxtaposed within the total scene, it can metacommunicate about a number of communications. For example, it can dencte impatience on the part of the visitor --a desperate need to relay important information--or perhaps signal to the viewer that "all is not well with the occupants of the house". The possibilities are infinite.

Discussion of the employment of metacommunicative symbols in film adds another dimension to our understanding of the complex nature of metacommunication as such. For in explaining metacommunication, Wilden asserts that "the signals or signs which 'frame' or 'label' the message (or which metacommunicate about the communication in the message)" must exist at a higher level "than the messages they classify" (1972: 118). This is most certainly the case in film, which it would seem is dependent on the use of highly elaborate metacommunicative levels of classification. For the very essence of film is that it is composed of levels and metalevels of relations which constantly communicate and metacommunicate about themselves, and thus have the effect of involving the viewer in a metacommunicative process. However, the use of metacommunicative "techniques" in film are hardly as simplistic as the previous illustrations would imply.

For although we can accept that the use of edits and background music and/or sound are often unconsciously perceived, it would seem that we should be able to identify each specific meta-communicative technique of a particular movie even if it means rewatching the film a number of times. Yet this is not possible with many media productions, as the utilization of meta-communicative techniques are so sophisticated and subtle that we are often not consciously aware of their presence even if we are told about them beforehand.

Wilson Bryan Key provides us with some insight into this frightening phenomenon in his discussion of the film, The Exorcist. The Exorcist, produced in 1973, dealt with a young girl's possession by the devil, and subsequent attempts of two priests to exorcise the offending demon. This was the first publicly released movie to employ visual and audio "subliminal devices" (Key 1976: 99).[23] Two of the many subliminal devices used in this film involved editing and sound effects. It would seem that William Friedkin, the director of The Exorcist,

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[23] According to Key, "subliminal . . . is merely another word of the unconscious, subconscious, deep mind, third brain --there are a dozen labels which have attempted to describe the portion of the human brain which retains information and operates without our conscious awareness. Today subliminal stimuli assault the psyches of everyone in North America throughout each day of their lives--from infancy into old age" (1976: 2). When referring to "subliminal stimuli", Key is referring to "that group of consciously unperceived words and picture symbols purposely designed into media with the motive of soliciting, manipulating, modifying, or managing human behavior" (ibid.: 7).

It should be noted that this explanation of the use of this type of subliminal technique is intended to serve as another illustration of metacommunicative phenomena in everyday life. It does not mean, however, that other devices in film (or any aspect of the media) are not subliminally employed and/or perceived.

arranged for a number of subliminal images to be edited into the film at particular times. It must be emphasized that these "images" in no way aided in the film's "continuity". In other words, these subliminal edits would in fact seem to be inconsistent with the patterns of visuals used to "tell the story" (if this same visual had been edited into the film at the same places as a regular length shot they would confuse the audience, and distort the storyline). However, when employed in a subliminal manner this visual was not usually consciously perceived and was in fact used as a metacommunicative tool in that it had the effect of communicating about a specific communication; it was a paradoxical sign[24] denoting "fear", "anxiety" and "terror". Furthermore, it was the very paradoxical nature of this visual which aided in evoking the expected audience response, as the meaning of the visual was in direct contradiction to what the story was communicating to the audience. The visual in question was a mutated version of the hero's (the pure young priest's) face.

> One of the most dramatic visual subliminal stimulation techniques in The Exorcist featured full-screen tachistoscopic displays.[25] Numerous times during the

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[24]This sign was, in fact, paradoxical in that it was the kind of confusion of logical types which results in an oscillation (by the audience, in this case). Precisely because of the subliminal nature of the metacommunication, the audience could not make a choice about the two messages (they could not ignore the subliminal edits). To "escape" from this paradox, the audience would have to be aware of its presence and thus be able to metacommunicate about it (or, to be more exact, metametacommunicate about it).

[25]Tachistoscopic displays are produced by "a high speed still projector (1/3,000 per second) that flashes invisibly over,

> movie there was a sudden flash of light and the face of Father Karras momentarily appeared as a large, full screen death mask apparition--the skin greasy white, the mouth a blood-red gash, the face surrounded by a white cowl or shroud (Key 1976: 102).

It was discovered that this subliminal display consisted of two frames spliced into the film at various points and "flashed at 1/48 of a second" (ibid.: 102-103). Although a very short period of time, theoretically 1/48 of a second is long enough to be consciously visible.

> Theorists speculate that as little as 1/1,000 of a total, single percept registers at the conscious level . . . . Substantial experimental data suggests physiological tension, anxiety, fear and apprehension control perceptual thresholds. As tension within a person increases, he perceives less and less at the conscious level and becomes more and more susceptible to subliminal stimuli. As these tensions decrease, individuals perceive a wider range of information at conscious levels, and appear less susceptible to subliminals. The harder you strain to perceive subliminals, for example, the less likely you are to perceive them (ibid.: 104).

The visual displays--which flash on the screen at 1/48 of a second--used in The Exorcist were, therefore, not consciously perceived by the audience because they were purposely inserted after the audiences' anxiety or tension level had been intensified (ibid.: 105). The employment of subliminal metacommunicative devices in this film, however, were not limited to visual inserts. Sound provided for another level of symbolic forms of communication directed at audience unconscious perception. As in most films, The Exorcist had a sound track

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say, a motion picture being projected" (Key 1976: 14). When Key discusses the use of full screen tachistoscopic displays in the film The Exorcist, he would seem to mean that this technique has been incorporated into the film itself.

which combined music and sound effects to metacommunicate about the visual activity. However, the manner in which Friedkin "distorted" and "mixed"[26] the sound provided for a most disconcerting subliminal effect.

> Friedkin openly admitted that he had used several natural sound effects in the movie's auditory background. One of these, he explained, was the sound of angry, agitated bees. After provoking a jar of bees into excited anger, he recorded their buzzing, then rerecorded the buzzing at sixteen different frequencies. He finally mixed what might be consciously heard as a single sound--a super buzzing of infuriated bees virtually unrecognizable at conscious levels. This sound of angry bees wove in and out of scenes throughout the film (ibid.: 110).

Since the sound of angry bees provokes all humans--to different degrees--(and some animals) to respond with fear and anxiety, Friedkin's rationale for using this sound effect is immediately evident (ibid.). In most situations the sound of angry bees is a communication for danger and we make every effort "to get as far away as possible". However, Friedkin transformed this communication into a metacommunicative tool. Through his complex "mix" of the original sounds (woven into the scene), Friedkin created a subliminal device whereby the audience unconsciously perceived the sound yet consciously reacted to it with the appropriate emotions. This illustrates, once again, how the sometimes contradictory nature of metacommunication is used to heighten the audience's involvement in

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[26]"Mix" or "sound mix" is a technical term used in media production to describe the mixing of sound effect, music and/or dialogue to correspond with the visual elements.

that: 1) there are no bees or references to bees in the film's story, which distracts the audience from consciously making the connection (they do not consciously recognize the frightening sound effect as being of that made by bees, and in most cases are not consciously aware that they even hear the sound); 2) the feelings of fear and anxiety, expressed by the viewer in relation to this most disturbing sound effect, are thus mistakenly associated with what is taking place in the movie.

These two examples of the questionable and highly controversial employment of sophisticated metacommunicative tools --known as subliminal devices--aids in our understanding of not only the complex nature of metacommunication as such, but its necessary involvement (and its practical applications) in the communication of everyday life.[27] For if metacommunication is indeed a communication about communication--and must exist at a higher level than the communication it "talks about"--then comprehension of this notion can only be truly realized when discussed in relationship to "concrete, real relations". In other words, we are discussing it in relationship to its context (which, as has been previously discussed, is a higher level--or of a higher logical type than that--of communication in relationship to its context and is thus metacommunicational). The context of the film--and techniques employed within this medium

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[27] Discussion of subliminal devices, as a way of illustrating metacommunication, should, in no way, be interpreted as a condonation of this insidious and unethical practice. The employment of subliminal manipulation in media is symptomatic of the alienating nature of the dominant ideology--capitalism.

--allows us to translate some of the theoretical characteristics of metacommunication into practical terms.

In summary, a comprehension of both the notion and reality of metacommunication provides us with additional insight into the complex and multileveled relations involved in communication. The examples used throughout this section attempt to demonstrate what is meant by: 1) metacommunications as communications about a specific communication taking place in a relationship; 2) metacommunications must exist at a higher level than the communications they are describing; 3) metacommunication can be both an intentional and an unintentional activity and is both consciously and unconsciously employed and perceived; and 4) the contradictory (and/or paradoxical) nature of metacommunication often makes it increasingly difficult to distinguish between metacommunication and communication as such.

Moreover, the importance of this term, as a theoretical concept for understanding social relations cannot be too firmly emphasized. For as Wilden asserts:

> The emergence of metacommunication thus involves the possibility of 'talking about' relations, which is not possible in the same way at lower levels of communication within and between organisms (1972: 18).

What metacommunication provides for is a way to "communicate <u>about</u> communications", to employ "conceptualizations that are not part of but <u>about</u> communication" (Watzlawick et al. 1976: 40). At the same time we must be aware of the difficulties which arise in the development of metacommunication as a "calculus for talking about human communication" in that "we are mainly restricted to natural language as a vehicle for both communications and meta-

communications" (ibid.: 40-41). However, the problems inherent in this limitation should in no way negate the importance of the revelation of metacommunication for "its immediate usefulness lies in the fact that the notion itself supplies a powerful model of the nature and degree of abstraction of the phenomena we want to identify" (ibid.).

The Pattern of Patterns

We have now reached a point of departure, whereby the complex "rules" governing a communicational approach can be examined in the light of "what we understand to be" characteristics of communication as such. In other words, we can begin to metacommunicate about these levels of communication, employing another notion which has evolved throughout this explanatory process--and which proves fundamental for both an understanding and application of a communicational approach.

The discussion of the notions of context, relationship, levels and logical types and, of course, metacommunication, represent only the "tip of the iceberg" of the radical and transdisciplinary nature of communication as an approach for examining human relations. Indeed, what has so far been indicated is that a communicational approach is necessarily concerned with the study of patterns. This "new way of thinking about the nature of order and organization in living systems" is a "unified body of theory so encompassing that it illuminates all kinds of . . . behavior" (Bateson 1972: n.p.). A communicational approach is transdisciplinary, "not in the usual and simple sense of exchanging information across lines of

discipline, but in discovering patterns common to many disciplines" (ibid., emphasis mine).

Bateson asserts that the recognition of patterns, in both theory and praxis, is the raison d'etre of a communicational approach (Wilder 1978: 15).[28] Simply put, the ability to identify patterns stems from the recognition of redundancy,[29] which exists in all communicational phenomena.[30] In attempting to understand any bio-social relation, then, one must observe patterns which are made visible via redundancy.

> Since systems are characterized and maintained by recurrent patterns of interaction among variables, identification of these recurrent sequences of . . . behavior become the first task . . . . Thus, the observational challenge is to identify the self-reinforcing patterns made clear by their redundancy (ibid.: 15-16).

The importance of perceiving patterns--which are indicated by redundancy--is essential to the formulation of a

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[28] In retrospect, it is by now evident that the notion of "pattern" is a necessary extension of the concepts discussed in the previous sections. Indeed, the revelations of context, relationship and metacommunication (and, of course, the all encompassing definition of communication as behaviour) could only be generated within a pattern-oriented perspective (the emphasis on relationships). The discovery of metacommunication --and the recognition of its evolution--for example, is a good exemplification of the translation of patterns of relations in seemingly disparate communications systems. For without the understanding of the relatively simple employment of meta-communicative symbols in animal activity, the more sophisticated levels employed in human communication could never have been realized.

[29] In communications systems, the function of redundancy is to "maintain and reconfirm a state of knowledge, rather than to introduce change" (Krippendorf 1975: 365).

[30] Bateson writes that "communication is the creation of redundancy or patterning" (1972: 406).

calculus for a communicational approach. For as Watzlawick et al. emphasize:

> . . . we are looking for pragmatic redundancies; we know that they will not be simple, static magnitudes or qualities, but patterns of interaction . . . . Thus, if with this premise in mind we scrutinize chains of communications . . . we shall arrive at certain results which certainly cannot yet claim to be a formal system, but which are in the nature of axioms and theorems of a calculus (1967: 41).

Redundancy can now be equated with pattern as "any aggregate of events of objects (e.g., a sequence of phonemes, or a frog, or a culture) shall be said to contain 'redundancy' or 'pattern' . . . (Bateson 1972: 130-131).

This notion of observing patterns of relationships forms part of the basis for the radical nature of a communicational approach, and further liberates the researcher from the constraints of traditional modes of study. The concentration on patterns of relationship(s)--form and content--rather than on isolated variables, enables one to truly understand human communication in a contextual and multi-leveled manner.[31] As Watzlawick et al. are constantly reminding us, "variables do not have a meaning on their own; they are meaningful only in relationship to one another" and within their metacommunicative context

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[31] Wilden provides us with some insights into the necessity of observing patterns of relationship.

> ". . . we cannot ever expect to understand society and our own relationship within it without looking for the basic or 'deep structure' patterns--for the codes of rules, conscious and unconscious, written and unwritten, verbal and non-verbal--that make any given society what it is" (1980a: 103).

(1967: 24). Bateson puts it more strongly when he warns:

> Break the pattern which connects the items of learning and you necessarily destroy all quality (1979: 8).

The pattern which connects, then, involves the ability to discern ". . . similar relations between parts. Never quantities, always shapes, forms and relations" (ibid.: 10). And since relations are in a state of constant change and evolution, patterns cannot be stagnant.

> We have been trained to think of patterns, with the exception of those of music, as fixed affairs. It is easier and lazier that way but, of course, all nonsense. In truth, the right way to think about the pattern which connects is to think of it as primarily . . . a dance of interacting parts and only secondarily pegged down by various sorts of physical limits which organisms characteristically impose (ibid.: 14).

In other words, a communicational approach finds itself at odds with most traditional modes of analysis in that it is firstly concerned with the "process"--the manner in which ideas and/or relations are formulated--and secondly with the "end result"--the ideas and/or relations which are necessarily generated by the process.[32] Although an emphasis on observing patterns of relationship would seem to be the most appropriate way for understanding social relations, Bateson points out that in Western society this is not the case. In fact, we are taught

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[32]The process would be the context for the end result. The end result being a communication and the process being a higher level of communication about communication--a meta-communication--taking place in relationship. This does not mean, however, that the process is, in itself, not constrained by its metacommunicative context (cf. "Punctuation", p. 79-90).

to "view the world" in an atomistic and linear fashion. Bateson illustrates this in his criticism of the way in which children were (and often still are) taught grammar in school.

> Children are told that a 'noun' is the 'name of a person, place, or thing', that a 'verb' is an 'action word', and so on. That is, they are taught at a tender age that the way to define something is in itself, not by its relation to other things . . . (ibid.: 18).

This non-contextual and erroneous method of teaching is symptomatic of the dominant ideological myths which permeate and thus distort our perceptions. For Bateson is not content to just condemn this mode of instruction, but offers a far more realistic and interesting alternative. He suggests that "relationship" could be used as a basis for definition. A "noun" could then be explained as a word having a certain relationship to a predicate, and a "verb" as having a certain relation to a noun, its subject (ibid.). The emphasis on relationship between "parts" rather than on "parts" in isolation would seem to be a more real and understandable (and thus more "efficient") mode of explanation. However, as Bateson laments, this limited and "abstract" method of teaching is dominant in most traditions. He goes on to illustrate how a communicational approach--with its concern for observing the "pattern which connects"--can alleviate the boredom associated with many areas of study.

One would assume that in higher levels of learning a more sophisticated and relational approach would be taken, but as Bateson points out, this is far from being true. On the contrary, "comparative anatomy", for example, is treated in much the same manner as is some forms of elementary grammar.

> Both subjects, as taught, were torturously unreal. We could have been told something about the pattern which connects: that all communication necessitates context, and that without context, there is no meaning . . . (ibid.).

Once again we are faced with the notion of context. For by discussing the "pattern which connects" in relation to how anatomy should be taught, a number of ideas become clarified. First, we are reminded that all behaviour is communication (for anatomical relations are most certainly communications, in that they represent and metacommunicate about the communications system of the human body). Secondly, communication always takes place in relationship to others (e.g., the heart pumps blood through the veins). And thirdly, communications take place in contexts (contexts which are communicational in themselves and therefore take place in relation to higher levels of contextual constraint--logical types--and so on). The "pattern which connects" is therefore concerned with all these relations and characterizes what is meant by the development of governing "rules"--or a "calculus"--for a communicational approach.

> It is, I believe, of prime importance to have a conceptual system which will force us to see the 'message' . . . as both itself internally patterned and itself a part of a larger patterned universe . . . (Bateson 1972: 132).

In other words, a communicational approach recognizes that the patterns of relationship, between "entities", is a response to higher levels of contextual patterns--the "patterned whole" which may itself be "informative as part of some still larger whole" (ibid.).

> The pattern which connects is a metapattern. It is a pattern of patterns. It is that metapattern which

> defines the vast generalization that, indeed, it is the pattern which connects (Bateson 1979: 12).

A communicational approach is, therefore, aesthetic. For as Bateson explains it, aesthetic means "responsive to the pattern which connects" (ibid.: 9). The ability to even recognize patterns, however, is generated by the way in which we are taught to punctuate a sequence of events.

CHAPTER II

PUNCTUATION

> . . . you can't depend upon your eyes when your imagination is out of focus.
>
> Mark Twain, A Connecticut Yankee in King Arthur's Court (1889)

Thus far, various concepts, ideas and notions characterizing both communication, as such, and the more all-encompassing framework, called a communicational approach, have been explored. All these relations (and metarelations) can now be translated into a new level of discussion, which falls under the general heading of "punctuation". Indeed, it is difficult to talk about punctuation--as a conceptualization--without locating it within the context of a communicational approach. For what will be argued in this chapter is that this approach is, in itself, a special kind of punctuation.

Since so many complex, multi-leveled, everchanging metapatterns of communicational relationships take place within and around us, all of the time, we must have a way of dealing with all this "variety".[1] In other words, for the world to have

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[1] "Variety" refers to both "coded" and "uncoded" variety. Coded variety represents information, while uncoded variety represents noise. "As a general rule, the more complex the

any meaning at all, we must be able to consciously and unconsciously "impose an order" on the sequences of experience surrounding and involving living beings (Watzlawick 1976: 62).

"Punctuation" is a term which Bateson borrowed from schoolbook grammar to characterize how one organizes the "flow of experience so that it takes on a sense of coherence" (Wilder 1978: 24). It is, in fact, an organizing device (or process) --a way of framing, labelling or perceiving sequences of events. For without this ordering ability, the world would appear truly random--that is, chaotic and totally unpredictable (Watzlawick 1976: 62).[2] Punctuation, thus, in one way or another, creates what may be called different realities (ibid.). The manner in which we punctuate experiences is defined by our individual contexts (socio-political and economic status, race, sex, age, sexuality, physical appearance, religious beliefs, familial and peer group relations, for example) and the wider, overall context of context (the dominant ideology). Punctuation, then, is used

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system, the wider the range and the types of variety it will employ as information" (Wilden and Wilson 1976: 268). Coded variety is, in fact, pattern (information) in that:

> "In living and social systems it is information that organizes and directs the matter-energy flows and exchanges within and outside the system. It therefore becomes necessary to distinguish information (variety, pattern) from the matter-energy markers which transport and/or store it" (ibid.).

[2]This does not mean that the "world" in itself would be random, but that without the ability to punctuate, the world would seem to us to be random (like a "closed system", "noise") (cf. Appendix IV).

to describe the way in which "we select and edit the reality we see to conform to our beliefs about what sort of world we live in (Engel 1972: vii). Furthermore, this "ordering technique" exists at many interrelated levels and is "embedded in the deepest layers of our perceptions' neurophysiology, and its effects can be followed from there up to the highest levels of human functioning . . ." (Watzlawick 1976: 62).

Punctuation is often ambiguous,[3] due to the variety of contextual levels of patterns of relations it attempts to order. Since punctuation is most commonly associated with written language, let us briefly examine its problematic nature in that light.[4] Punctuation allows us to translate our thoughts into written form, in a way which will be understandable to others. This is how it is supposed to work, at least, in theory. In practice, however, this is not always the case. The "written word" is often misconstrued, due to our failure to organize and structure our thoughts in a comprehendable fashion. Punctuation, at one level, provides us with "indicators" or "markers" which

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[3] If we remember the kinds of oppositions, contradictions and/or paradoxes which can evolve from confusions of logical types, the ambiguities often involved in the punctuating process become more understandable. For confusions of logical types can be (and usually are) a result of errors in punctuation (which necessarily includes context and patterns of relationship) (cf. p. 34).

[4] This is not meant to imply that "punctuation" is problematic in itself. It is the manner in which we are taught to punctuate experiences which evokes problems. Furthermore, punctuation is--in many cases--a digital concept which can evoke problems when attempting to explain analog relations (cf. Appendix V).

aid us in ordering our thoughts. Nevertheless, it is, at times, difficult to decide where and how a string of words should be punctuated. "Mispunctuations" can thus distort or confuse the intended meaning. A simple example of this is illustrated by the sentence: "Mary placed a candle on the table which flickered when the wind blew." Although the writer means that the "candle flickered", the way in which the sentence is ordered distorts the meaning, in that it appears as if the "table" is "flickering". The problem with this sentence can be immediately identified if one is familiar with the rules of punctuation regarding "non-restrictive phrases or clauses". For if we are privy to this knowledge, the sentence can be easily corrected--by changing the punctuation--so that it reads: "Mary placed on the table a candle which flickered when the wind blew." This representation of how errors in punctuation can cause confusion, in written language, serves as an indication of the complexities involved in the process of punctuation. For even if a sentence is grammatically correct, the manner in which we choose to punctuate it (which is, of course, constrained by the limitation of "rules" governing written punctuation) can reduce the quality of what we are attempting to put forward.

> In written language we stress words by underlining them or printing them in italics, but these are much clumsier devices than the rich nuances of spoken language--tonal stress, pauses, gestures (Watzlawick 1976: 65-66).

Indeed, within spoken language the levels of punctuation are, necessarily, far more sophisticated than those used in the written discourse. The employment of pauses, repetition (redundancy), body gestures, signals (both verbal and non-verbal),

accent, pitch, inflection and, of course, silence are all forms of punctuation which communicate, and/or metacommunicate meaning in spoken language. Moreover, if all communication takes place in reference to metacommunicative levels of context, then punctuation devices aid in identifying the particular context in which the communication takes place. In other words, punctuations are "context markers".[5] Bateson points this out, in relation to human interaction:

> . . . we note immediately that [a] stream of events is commonly punctuated into contexts of learning by tacit agreement between the persons regarding the nature of their relationship--or by context markers and tacit agreement that these context markers shall 'mean' the same for both parties (1972: 298).

Recognition of the nature of punctuation, as a "tool" for understanding social relations, is a vital part of a communicational approach. For by transforming this concept from a strictly linguistic principle into one which is communicational, the Palo Alto Group and its associates have provided us with a way to not only identify certain problems in human communication, but to change them. What Bateson et al. have ingeniously discovered is that punctuation is as appropriate to the understanding of everyday, real relations as it is to written language. The radical translation of this concept further reveals what is meant by the importance of observing patterns of relations.

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[5]Wilden points out that "context, whether in theory or praxis, is a question of punctuation . . . both AT a given level of relationship and, more importantly, BETWEEN levels of relationship"(1980: xxxi).

The emergence of punctuation as an organizing principle for "marking" a context could only have been realized if written language was perceived as being a communicational phenomenon. Viewing it in this manner necessarily entails concentrating on the content as being a classification of the form. More specifically, the parts (the words, and the spaces between the words) are looked at in relation to both each other and to the higher level (or levels) of their metacommunicative context (which involves the "governing rules" which provides meaning). Since all communication generally shares similar characteristics, then the contextual rules (punctuation) structuring one communicational phenomenon (written language) must exist, in some form, in other types of communicational phenomenon. Thus, the emphasis of a communicational approach in studying "the pattern which connects" is exemplified.

With this in mind we can return to the discussion of punctuation, or "context markers", in human interaction. Indeed, the "punctuation of a sequence of events" is another way of describing "the arbitrary and almost unavoidable introduction of context markers within a sequence of interchanges" (Sluzki and Ransom 1976b: 52). This means that "punctuation organizes behavioral events and is therefore vital to ongoing interactions" (Watzlawick et al. 1967: 56). Bateson and Jackson examine the role of punctuation in sequences of interchange by borrowing from psychology the notions of "stimulus-response" (ibid.).

> For instance, in any sequence some behaviors are called "stimuli" (i.e., initiators of sequences), some are called "responses" (i.e., the effects of the previous stimuli) and some are called "reinforcements" (i.e.,

feedback about the character of the response vis-a-vis the stimulus [cf. Appendix VI] (Sluzki and Ransom 1976b: 52).

In order to talk about the psychology of a subject, the stimulus-response psychologist will confine her/himself to observing a short sequence of interchange (often ignoring the real context of the relationship between the individuals) and label "one item of input as 'stimulus' and another item as 'reinforcement' while labelling what the subject does between these two events as 'response'" (Bateson and Jackson 1964, cited in Watzlawick et al. 1967: 54-55). Because a communicational approach is concerned with patterns of relationship (and, of course, levels of logical types), a short sequence of interchange can only be perceived as being a part of a larger patterned whole. Therefore, the rigid (cf. p. 93) classifications, imposed by the stimulus-response psychologist on the sequence can, in fact, mispunctuate the communication.[6] In actuality, each communicational act can be considered "simultaneously a stimulus, a response, and a reinforcement; according to how we slide our identification of the triad up and down the series" (Sluzki and Ransom 1976b: 52).[7]

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[6]Mispunctuations are also often a result of confusions of logical types. ". . . it is not at all unusual for the theorists of behavioral science to commit errors which are precisely analogous to the error of classifying the name with the thing named--or eating the menu card instead of the dinner --an error of logical typing" (Bateson 1972: 280) (cf. pp. 39-52).

[7]It would seem that what Sluzki and Ransom are discussing is an ever-changing series of levels of relationship. It is, therefore, a dialectical process (cf. "Dialectics", pp. 115-152).

> The ongoing interchanges, then, . . . constitute a chain of overlapping triadic links, each of which is comparable to a stimulus-response-reinforcement sequence (Bateson and Jackson 1964, cited in Watzlawick et al. 1967: 55).

What Bateson and Jackson are illustrating is the difficulties, and often impossibility, of punctuating any communicational event by employing inflexible modes of interpretation. And furthermore, to do so denies the constantly changing patterns and metapatterns of communicational phenomena and thus the multi-leveled metacommunicative context which generates the content of the communication.

> If we look at the conventional learning experiments from this point of view, we observe at once that repeated trials of 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 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 (ibid.).

What is thus being emphasized by Bateson et al. is that this system of punctuation, although "accurate" (in a limited sense), defeats the purpose of the experiment which is meant to provide the experimenter with clues to the psychology of the individual being studied. For the "reality" of the role definitions is a more or less "over-determined[8] creation of the

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[8]"Overdeterminism" is an expression derived from Freud. Wilden explains that overdeterminism represents ". . . that in all communication systems, including language, the codes and repertoires CONSTRAIN the possible messages that sender-receivers mediated by the code can select and combine, emit and receive" (1980b: 491).

perceptive process",[9] defined by the experimenter her/himself (ibid.). This criticism of the one-dimensional manner in which punctuation of experience is applied in traditional psychology in no way negates the essentiality of punctuation as a communicational concept. Indeed, Bateson et al.'s contextual explanation of this process illuminates the complex nature of the real role of punctuation in everyday relations. The labelling of certain behaviours as stimuli, reinforcement and/or response, within a controlled environment, can create a false reality[10]

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[9]The understanding of what is meant by "perception" provides us with a better insight into the process of both punctuation and mispunctuation. Coe and Wilden remind us that "perception, because it is where cognition and reality meet, is an important locus of error" (1978: 12). They go on to explain the difficulties in discussing perceptual errors.

> ". . . the ordinary modern Western understanding of the perceptual process is itself fallacious in a way which excludes precisely that type of error we must discuss. This fallacy currently resides in Western 'common sense' and influences not only our thinking but our perception of perception" (ibid.).

They explain this by pointing out that we are taught to imagine what we perceive in a "serial process" whereby ". . . one first perceives, second interprets (by thinking and/or feeling), and third expresses oneself" (ibid.). This rather neat, but "flat" interpretation has the effect of drawing "our attention away from the various ways in which all three processes are interrelated, interactive and mediated" (ibid.). (It negates the essential communicational idea of the multi-leveled and multi-dimensional nature of the reality of the "patterned whole".)

Coe and Wilden thus emphasize that a more useful and real way of talking about perception is "to speak of a unified communication process which has three aspects, any one of which may be primary during a given phase. Calling it a communications process calls our attention to how it is always socially mediated: human beings do not 'express themselves'; they communicate with at least one real or imaginary Other--the process is transitive" (ibid.: 12-13a).

[10]A sense of reality which does not reflect the contextual and multi-leveled complexities of real experience. In other words, a mispunctuation of the real nature of communication.

--which will reinforce the very patterns of behaviour that the therapist(s) is attempting to identify and change. Furthermore, it is often the case that the experimenter-therapist(s) ignores the context which they, themselves, bring to the experience and thus, how their relationship, and personal context, will affect and/or change the real nature of the behaviour.

Since all communication is constantly changing and evolving, and is generated, at least, by its relationship to others and to the levels of its metacommunicative context, then the organizing device of punctuation--which provides meaning--must be at least as complex as the patterns of relations it attempts to order. Bateson and Jackson clarify this in asserting:

> 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 (cited in Watzlawick et al. 1967: 56).

The essence of problems in interpersonal communication now begins to unfold. As, what one individual may define as being the stimulus for their response, the other person--in the relationship--may view as being the opposite. There is a joke which personifies the ensuing oppositions and/or contradictions which result from differences in punctuation.

> . . . a laboratory rat says of its experimenter, 'I have trained that man so that everytime I press this lever, he gives me food.' Obviously the rat sees the S-R (stimulus-response) sequence quite differently than the experimenter does. To the experimenter, the rat's pressing the level is a conditioned reaction to a preceding stimulus administered by him, while to the rat,

> the pressing of the lever is its stimulus administered to the experiment. To the human, the food is the reward; to the rat, a reaction. In other words, the two punctuate the communicational sequence differently (Watzlawick 1976: 61).

Therefore, in this type of situation, it is not the events themselves which are viewed differently, but their supposed order, and this is what produces for contradictions of meaning. Within a personal relationship, for example, deleterious patterns of behaviour can evolve. Moreover, it is often the case that the content of these sequences of behaviour--called an argument--are different on each particular occasion, yet the form remains the same. The participants agree that, "yes, this series of events is an argument," but disagree on the form, due to the different ways they punctuate the patterns of behaviour. One member perceives the other member as stimulating the argument, by perhaps a particular behaviour--either verbal or non-verbal --while the other member punctuates their own behaviour as being a response precipitated by the behaviour of the other. Although the argument will be eventually resolved, the patterns of behaviour will continue as long as the participants disagree on how to punctuate their relationship. To do so would involve recognition of how the other punctuates the communication and is, therefore, a metacommunication about the contextual patterns which generate the behaviour in question. The pathological communication can only be changed if both parties agree to "repunctuate" the patterns in the same way.

Once again, the notions of hierarchical levels of relationship come to light. For the idea of repunctuation must exist at

a higher level (is of a different logical type) than the punctuations it clarifies. It therefore involves a meta-communicative process (and can be perceived as a metacommunication in itself). What repunctuation represents is change (or levels of change).

The Communicational Approach as a Punctuation

Thus far, the sophisticated and complex nature of punctuation--as an essential aspect of communication--has been discussed. And throughout this discussion, the notions of "mispunctuation" and "repunctuation" have evolved. It is with the aid of these three notions (punctuation, mispunctuation and repunctuation) that the radical nature of a communicational approach can be investigated at a different level of analysis. The process of translation and critical comparison--between differences in the communicational approach and certain other perspectives--elucidates why this approach is called emergent. The analyses and explanations provided for in this section, although diverse and complex, only begin to touch on the intricacies involved in the communicational approach. Nevertheless, an indication of why this approach can be called a "punctuation" will develop.

It has been demonstrated that the "general set of rules" which punctuation--in a communicational sense--represents are defined by the very context that they organize. It therefore becomes apparent that these ordering devices cannot be as specific--or as easily discernible--as is the punctuation of written language; nevertheless, their structural resemblance

cannot be ignored. Within the context of Western society, for example, there are rules governing the way in which we punctuate certain behaviours. Moreover, the same behaviours are punctuated differently when displayed by peoples whose status is differently defined by the constraints of the dominant value systems.

"'He's preoccupied with business, but she's scatter-brained.' 'He's resolute and assertive; she's aggressive and abrasive.' 'He's a swinger; she's promiscuous.' and on and on . . ."(Wittels 1978: n.p.). Indeed, the punctuation of human behaviour is interrelated with the realities of relationship and context, for as Bateson reminds us:

> In the punctuation of human interaction the critical reader will have observed that the adjectives . . . which purport to describe individual character are really not strictly applicable to the individual but rather describe transactions between the individual and his material and human environment. No man is "resourceful" or "dependent" or "fatalistic" in a vacuum. His characteristic, whatever it be, is not his but is rather a characteristic of what goes on between him and something (or somebody) else (1972: 298).

The choice of the label "punctuation" for describing the complexities involved in "ordering reality" was far from arbitrary. For the nature of the term is consistent with the behaviours it endeavours to organize. Examples employed to illustrate this concept were drawn, primarily, from written, verbal and/or non-verbal communication. These types of phenomena, however, serve only as an indication of the wide variety of metapatterns of relations encompassing communication as such. For the essence of communication is further revealed

by this notion in that communication is

> . . . a semiotic[11] and not a linguistic concept: it refers to the transmission of signals, signs, signifiers, and symbols in any communications system whatsoever. This may include interorganismic or intraorganismic communication, communication in biological systems, communication between animals and between human beings, psychosocial or soio economic communication. As such the term has the Marxian sense of Verkehr. 'Communion' is the product of all . . . communication (Wilden 1972: 111).

Indeed, this "communion", as Wilden calls it, can only take place through the involvement of punctuation. And since it is being used to explain phenomena which are "semiotic", then the decision to call this notion "punctuation" evokes particular meaning (particular to both the kinds of "semiotic" relations it aids in describing--all communicational phenomena--and particular to the nature of the overall perspective in which it plays a vital role --a communicational approach).

> The reason for using the term punctuation rather than syntax, is that syntax is either a strictly linguistic term or else it refers to the modes and rules of articulation within a given system (language for instance). Punctuation, however, may refer to the

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[11] The idea of a communicational approach being semiotic --the general theory of signs and signification--is developed by Wilden and Wilson in their analysis of the double-bind (a paradoxical relationship which involves oscillation; cf. Sluzki and Ransom 1976; Wilden 1972 and 1976; Bateson 1972; Watzlawick et al. 1967). By calling it semiotic, they explain that:

> "It is semiotic in the unified sense that C.S. Pierce intended the term, before Charles Morris and others reduced the domain to the supposed quasi-independent realms of syntax, semantics and pragmatics . . . . Hence it moves away from the preoccupation with syntax, surface-structure semantics, and their equivalents which is so evident in analytic logic, in linguistics, in quantitative information theory, and in most normative science, both social and biological . . ." (1976: 267).

> interface of another system within the given system. Thus gestures, facial expressions, intonation and so forth punctuate a spoken discourse; the logistics of print and paging punctuate a written discourse; death punctuates life (ibid.: 112).

The idea that a communicational approach is a particular kind of punctuation takes on new meaning in light of this multi-dimensional explanation of what is meant by both the term punctuation and the kinds of relations it classifies. For what it provides for is a way of describing why it is that this approach is labelled radical. The following discussion begins to identify the kinds of problems--in the usage and explanation of certain theories and methods--which result from mispunctuation (and which, in turn, provides us with more levels of meaning for understanding the nature of a communicational approach). These types of theories (methodologies, hypotheses and assumptions) are described as being linear, fixed, rigid, atomistic and inflexible. It should be noted that the implications of these kinds of descriptions are intended. In explanation, such terms as atomism, rigidity, and so on, reflect a decontextualized perception which, for example, perceives levels of patterns of relationship as if they were linear.

There is a notion--drawn from philosophy--which illustrates these sorts of mispunctuations. It is known as the "law of the excluded middle". What this law states is that "A cannot at the same time be A and not-A . . ." (Korner 1967: 415). Both Hegel and Marx (and Engels) rejected this notion[12] as what

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[12]The counterpart of Hegel's rejection is dialectics. Engels, on the other hand, didn't even acknowledge the validity of this law in mathematics (Korner 1967: 415) (cf. "Dialectics").

this law embraces is an either/or logic (what Wilden and Wilson call analytic logic).[13] In fact, the law of the excluded middle negates the whole notion of contextual levels and metalevels of relations (hierarchies of logical types) which is fundamental for our understanding of all reality. For if a "thing" (an "idea", a "relation") cannot be A and not-A at the same time, then what is being implied is that either one or the other is true (that only one can be true, regardless of what A and not-A represent). What the logic, espoused by this "law", does is to place multi-leveled relations (both/and relations) in a symmetrical opposition, thus reducing all quality--all levels of abstraction ("breaking the pattern which connects"). In other words, it treats relations of contradiction as if they were in opposition.

A communicational approach, precisely because of its concern with context and levels of patterns of relationship (at least), cannot find its foundations in this kind of analytic

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[13] "Analytic logic has almost exclusively been concerned with 'either/or' permutations and combinations of discrete elements, whether in 'thought' or in any other form of discourse. Either/or (digital) decisions are of course essential to the survival of any living system . . . . Nevertheless, to allow the actual epistemological function and survival of such decisions within their real world context, to become an ontological map, as it were, of the whole of living reality is not simply scientifically illegitimate. It may also be taken as an ideological metaphor of the pathological construction of human relations that appears to have become endemic in our society since the seventeenth century. Indeed, entire systems of explanation have recently been set up on the binary base provided for by this type of logic . . ." (Wilden and Wilson 1976: 264).

and/or rationalist[14] punctuation (or mispunctuation). Because it attempts to explain the phenomenology of human (and/or organic) relations-in-context, a communicational perspective requires a departure from either/or forms of logic. This does not mean, however, that it rejects all analytic notions. On the contrary, a communicational approach necessarily includes the analytic either/or methodology, while transcending its rigid and reductive characteristics by recontextualizing--or repunctuating --them.

The communicational approach can then best be described as punctuating relations in a "both/and" manner.

> Since it is equally concerned with the multidimensionality of system-environment relations in the real world, it may also be called an ecosystemic logic. It is a logic concerned to take into account the fact that long-range survival of any whole depends upon the survival of both system and environment . . . (Wilden and Wilson 1976: 267).

Indeed, a perspective which purports to being contextual and concerned with the patterned-whole, must encompass--and

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[14] Coe explains that "rationalism contained by its beginnings the logical basis of its own destruction: its own development led to a proof that no rational logic can be self-validating; yet rationalism contains an injunction against relying on extrinsic validation--an injunction obeyed equally by Descartes, empirical scientists, and intrinsic literary critics. In 1931, Kurt Godel presented a positive mathematical demonstration that no formal logic can be complete in itself or even prove its own internal consistency. Any consistent deductive system will, moreover, generate statements which cannot be proven within the system, but which can be externally demonstrated to be true. Validation must come from outside the system, from the context; but by rational definition, absolute knowledge is not relative to context. Thus the implication of Godel's Proof is that rationalism may be useful for explaining parts, but it cannot by itself explain wholes" (Coe 1975: 490).

translate from--traditional modes of logic.[15]

> The result of the attention paid to the real domain of communication by Bateson and his colleagues was the reaffirmation that the purely linguistic or mathematical propositions of analytic logic are in fact a relatively minor subset of a vastly larger hierarchy of sets of informational propositions in a multidimensional logic of relations (ibid.: 265).

The necessity of recognizing the essential role of punctuation for organizing and providing context markers for all communication takes on new meaning when viewed in the light of explanations--about the real nature of a communicational approach --put forward by the Palo Alto Group and its associates. Indeed, Wilden asserts that all epistemological errors in science and philosophy, for example, are in fact errors of punctuation.

> By error, I do not mean mistakes about facts, but rather the implicit or explicit applications of hypotheses derived from a part of the field, whether derived 'ideologically' or 'scientifically', to the field as a whole (ibid.: 111-112).[16]

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[15]The idea that a communicational approach encompasses analytic knowledge is evidenced in the translation of logical types from mathematical logic to the psychology of human communication (and consequently to other communicational relations) (cf. p. 54). Wilden and Wilson explain that this repunctuation occurred:

> "Because the theoreticians were forced by their subject matter to consider all (human and organic) behavior as communication, they contributed to exposing the anticontextual closures of analytic logic--especially its failure to recognize the function of time as a participant in on-going systems, its atomistic and reductionist misconception of system-environment relations and constraints, and its improverished understanding of rationality. . . (1976: 264).

[16]Although the statement may seem to be an over-generalization at first glance, within the context of the way in which a communicational approach attempts to punctuate reality, Wilden's meaning becomes clear. Returning to the notion of perception, Coe and Wilden point out that certain kinds of errors

In other words, errors of punctuation can result from linear and fixed methodologies[17]--restrictive punctuations--which do not contain the requisite variety (cf. f. 10, p. 38) to adequately code the diversity they're supposed to explain. Because of its emphasis on changing patterns of relation(ship), levels of contextual constraint and, of course, punctuation and "repunctuation" of sequences of events, the generation of rigid hypotheses[18] is at odds with the reality of a communicational

"are literally absences, they cannot be discovered by examining and re-examining the interpretative process for fallacies because they are generally problems of perception [i.e., punctuation], not of interpretation" (1978: 12).

[17]Coe and Wilden provide us with another example of this kind of methodology, which further exemplifies problems associated with mispunctuation. The "copy theory of perception" is "a generally recognized aspect of Anglo-American empiricism" (cf. footnote 20). It "should be recognized as an aspect of certain kinds of rationalism . . . . For Descartes . . . there is 'but one truth to discover in respect to each matter, [and] whoever succeeds in finding it knows in its regard as much as can be known.' Error within this system flows from only two sources: either from inadequate 'data' (from the Latin, dare, to give; . . . given) or from fallacious interpretation. The possibility that the perception itself has been miscoded or mispunctuated is excluded . . . . The possibility that we might be in error because we have failed to perceive, consider or test other pertinant propositions is not called to our attention. What is basic to Descartes' epistemology (as to rationalist and empiricist paradigms generally) is a linear model of cognition in which interpretation is totally separable from and serially follows perception . . ." (1978: 13b).

[18]This idea of rigid hypotheses is illustrated by Mansell in her citing of Friedman's "confusing explanation of 'traditional economic theory',i.e. the theory of the price system . . ." (1980: 9).

> "The more significant the theory, the more unrealistic the assumptions. The reason is simple. A hypothesis is important if it 'explains' much by little, that is, if it abstracts the common and crucial elements from the mass of complex and detailed circumstances surrounding the phenomena to be explained and permits valid predictions on the basis of them alone. To be important, therefore, a hypothesis must be descriptively false in its assumptions, it takes account of, and accounts for, none of the many

approach. Indeed, these types of methodologies--and/or the process of generating rigid hypotheses--are, in fact, mispunctuations. In this case, this type of mispunctuation is a result of symmetrization.[19] Wilden refers to this symmetrizing process as an "Imaginary mediation". He explains that:

> Imaginary mediations which mispunctuate or misrepresent social (and natural) reality give rise to 'false consciousness'--i.e. to a form of consciousness which fails to recognize its actual situation in the real context, to a form of being and believing which depends for its short-term survival on keeping what is known about reality unconscious and unrecognized (1980a: 76-77).

This does not mean, however, that a communicational approach is anti-empirical.[20] Indeed, a communicational approach

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attendant circumstances, since its very success shows them to be irrelevant for the phenomenon to be explained" (Friedman, cited in Mansell 1980: 9).

[19] ". . . the ideological and unreal 'flattening out' of a hierarchical relationship as it really exists" (Wilden 1980a: 76) (cf. "symmetrization", pp. 52-54).

[20] It is not my intention to enter into a lengthy discussion of the complexity of ideas and arguments associated with the methodology known as Empiricism. The following is meant as a punctuation of certain characteristics of a specific school of empiricism which is often mistakenly applied to the wider notion of empirical research as such. Generally: the term empiricism is derived from the Greek word meaning experience. Empiricism has been evolving in Western thought since the seventeenth century and finds its roots in the works of Locke, Berkeley and Hume (Martindale 1960: 58, 121-122). There are a number of schools associated with Empiricism, one of which is known as operationalism or positive empiricism, whereby standardized scales (called indicators) are used to measure concepts (or to prove or disprove hypotheses) (Zito 1975: 22). For example, a question about a social relation is translated into a rigid hypothesis (which is premised on a series of assumptions which find their foundations in the particular discipline or school from which the scientist or researcher is associated) which is tested (usually through the collection of "data", which is representative of variables, and of course is chosen by the scientist or researcher, whether it be a conscious or unconscious choice). It is, then, obvious that a communicational approach is indeed anti this type of atomistic empiricism.

--by its very nature--must be empirical in the true sense of the word. For the development of "a calculus of communication" is, in fact, a way of metacommunicating about the punctuating rules involved in the organization and recognition of multi-leveled patterns of experience. Moreover, due to its emphasis on meta-communicative context--the context of context--of not only the experiences in question, but also of the experience of the researcher posing the question, a communicational approach must be experiential, or empirical, in itself. The concepts and ideas which characterize a communicational approach could never have been realized without the involvement, in the real sense, of empirical research.

Exemplification of this has been illustrated in the explanation of metacommunication, whereby the discovery of the notion was precipitated, in part, by the empirical study of monkeys at play (cf. p. 59). As Bateson pointed out, the complexities of levels involved in metacommunication could never have been recognized if the original hypothesis--"that the occurrence of metacommunicative signs (or signals)[21] in the stream

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[21]Although the terms of "signal", "signifier" and "symbol" have distinct meanings within, for example, semiotics theory, the Palo Alto Group and their associates seem to employ them in a generally analogous manner.

> ". . . there is an attempt to translate the communicational distinction between analog and digital communication into the semiotic distinctions between signal, sign, signifier, and symbol. (Mathematical and other such 'symbols' are classified as signs.)" (Wilden 1980b: 501).

There are, unfortunately, problems with this translation. However,

> ". . . the translation was attempted in this way in order to bring together the dialect of communications theory with that of European lingustics and semiotics. But in the end the translation is not really necessary. Symbols are

of interaction between the animals would indicate that the animals have at least some awareness (conscious or unconscious) that the signs about which they metacommunicate are signals" had been rigid (Bateson 1972: 179). In other words, had Bateson and his associates been constrained by the framework of a positivist methodology, they would have been forced to concentrate on proving the hypothesis false or not-false which, of course, would have one-dimensionalized and thus obscured the significance of the real relations (or experiences) which had been communicated. For the "revelation", as Bateson calls it, which was partially generated through the observation of the complex use of metacommunicative signs exchanged by animals at play was, most certainly, a result of Bateson et al.'s rejection and consequent translation of the notion of fixed hypotheses.

> [Bateson] has commented upon the application of rigorous methodology to trivial problems by stating 'if it's not worth doing, it's worth doing well'. Bateson regards as 'heuristic error' the notion of a deterministic relationship between independent and dependent variables[22]

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commonly icons (analog infinities of information framed by their digital borders). Signals, signs, and signifiers may be, and generally are, primarily digital (i.e., discretely bounded), except insofar as in non-verbal communication certain signs or signals may act as icons (e.g. 'displays')" (cf. Appendix V) (ibid.).

[22] The idea of "the independent variable" proves important to our understanding of the manner in which positivist empiricism mispunctuates reality. Loosely explained, what is involved in "the control for independent variables" is that an experiment is set up where "nothing changes" except one factor. This is an illustration of intentional decontextualization, as the experimenter can then state that it was the control of the independent variable which caused certain kinds of changes in behaviour in the "dependent variables" (for example, music as the independent variable and verbal communication as the dependent variable) (personal communication, Rick Coe and David MacLennan).

> . . . arguing that it distracts one "from perceiving the ecology of the ideas which together constitute the small subsystems which I call context'" (Wilder 1978: 26).

The manner in which Bateson employed his hypothesis is, in fact, an indication of the flexibility and multi-dimensional nature of a communicational approach.

The hypothesis, within a communicational approach, is used in a contextual way; it is employed as a "guide", a "marker", or a general rule which punctuates the way in which a communication is studied. Thus, the emphasis on the "pattern which connects" is once again elucidated in that contradictions which can ensue in social research usually evolve between the limitations of an initial hypothesis in relation to what is eventually discovered. These contradictions, nevertheless, can be resolved through the awareness that original premises are often "mispunctuated"[23] and can therefore be repunctuated through the recognition of contextual, empirical evidence.

> Basically, the notion is that of framing/reframing[24] events and experiences so that the old (and paralyzing) definitions are rendered untenable, forcing or permitting . . . [the researcher] to develop new ones (Abeles 1976: 122-123).

The idea of simply proving an hypothesis "false" or "not false" is of little concern to those who are studying relations in a communicational manner. What is important is a deeper and more

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[23] Wilden reminds us that "mispunctuations" also take place when we don't locate a communication in the relevant context (1972: 112-113).

[24] "Framing" is a certain type (or level) of punctuation, while the notion of "reframing" involves the metacommunicative process of repunctuation.

contextual understanding of the levels of patterns of relationship, involved in any given communicational phenomenon, which the original premise aided in punctuating.

Within a communicational approach, then, an hypothesis is, in fact, a tenative punctuation; it provides the researcher with a means of organizing and understanding information specific to the particular communicational phenomenon being studied. Indeed, this notion of hypotheses being both conscious and unconscious punctuations is clarified by Wilden.

> . . . there are no 'facts' in science, only an infinity of possible differences (and types of difference) among which to choose to make DISTINCTIONS, and that our choice to transform or translate a particular difference cannot not be constrained by our 'hypotheses' [punctuations], both individual and collective (1980: xxix).

It is in this light that we can better understand why the Palo Alto Group and its associates are constantly reminding us hypotheses are often incomplete and/or mispunctuated. For what is being emphasized is that they are constrained by a variety of levels. The personal context of the researcher posing the hypothesis, for example, represents a number of levels of constraint in that the researcher herself is constrained by the metacommunicative context of her past experience which, of course, includes the orientation of the discipline(s) in which she was educated (and perhaps, where and why the funding for the research originated), her class, race and/or sex and the wider context of context: the dominant ideology. All of these, plus the multitude of contextual levels which are impossible to describe, effect the bias towards not only the "thing" being studied, but also towards how and why it is being studied. (Punctuation is

therefore a result of all of these levels of metacommunicational contextual constraint.) In other words, the very existence of an hypothesis is generated through the more general notion of "bias" which is, of course, in itself analogous with certain aspects of what is being called punctuation.

Moreover, this notion of "bias" reveals more about both punctuation and the manner in which a communicational approach punctuates experience. For what is being indicated is that no punctuation is objective.[25]

> The critique of 'objectivity' does not imply that all knowledge is subjective. Taking refuge in 'subjective relativism' amounts to a switch between Imaginary opposites[26] in the dominant ideology. Whereas subjectivity exists in all human affairs, 'objectivity'--trivial matters aside --does not. But subjectivity is not strictly subjective. Many of our 'personal opinions' are in reality the products of social conditioning and the collective coding of values. The real relation we are concerned with is the difference between private and public knowledge. Public knowledge is based on persuasion, argument, and evidence--expressed in a collectively and individually recognizable coding.

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[25]Wilden (and Coe and Wilden) point out that one aspect of this mispunctuation, known as objectivity, results from errors in punctuation involving "data".

> "Since 'data' literally means 'given', the term implies that the 'facts' are 'out there', independent of the individual and collective processes by which we punctuate reality in interpreting it (as well as living in it). A fact or a measurement or a quantity is not an 'objective' thing, however, it is information produced within the constraints of socially mediated relations. Decisions about facts and quantities are based on, and derived from, qualitative evaluations of the subject matter--evaluations that are often largely unconscious" (Wilden 1980a: 104).

In reiteration, "'Raw data' (strictly defined) is simply not available to human beings" (Coe and Wilden 1978: 14). In other words, we choose data according to punctuating "rules" ("rules" are not objective, they are collective).

[26]Relations which are, in reality, relations of contradiction (involving different logical types) which are mispunctuated as if they exist at the same level (cf. "dialectics" pp. 52-167).

> This in turn requires judgment and all judgments are ultimately value judgments (Wilden 1980a: 104).[27]

It is therefore not surprising that one finds that a characteristic shared by those who are studying communication--in a communicational manner--is the common recognition that no punctuation is "value free".[28] Wilden attests to the impossibility of studying any concept, notion and/or phenomenon in isolation in that there must be a "set of values" by which any concept, for example, can be measured.

> But since such values are always ideological and cultural, no such 'scientific'--or 'qualitative' or 'objective' --sets of values exist as such, nor is it likely to exist. The communicational viewpoint necessarily destroys the 'objective' values of scientism . . . it is almost universally accepted that the behavior of any system . . . is a function of the way the observor-participant punctuates it (1972: 111).

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[27] Wilden points out that in order to perpetuate the idea of "objectivity", logical typings will often be confused (and that this type of mispunctuation has serious implications).

> ". . . so profounding is this particular system-environment relationship [i.e., the system of culture is constrained by the environment of nature] misconstrued by the scientific discourse that the discourse will in some contexts actually invert the logical typing of the relation, with the result that science in its 'objectivity' carries forward the three-centuries-old Imaginary and ideological myth of 'man's mastery over nature'. In considering social and economic relations, moreover, the scientific discourse generally maintains its deep-structure identity with the dominant ideology by indulging in the same syntactic juggling tricks. This it achieves by similarily SYMMETRIZING and/or INVERTING various contemporary hierarchies of relationship which involve levels of power and responsibility--e.g., the relationship between white and non-white, between 'man' and 'woman', between capital and labor" (1980: xxxiv).

[28] Bateson comments on this notion in his explanation of the difficulties he often encountered when presenting himself (or being presented) as a "scientist". "When I entered it was clear that I was expected to be an incarnation of the devil, who would argue for the common sense of atomic warfare and pesticides. In those days (and even today?), science was believed to be 'value-free' and not guided by 'emotions'" (1979: 7).

Moreover, to even begin to identify (and label) any behaviour in a system--or to call the observor a participator (and so on)--are all acts of punctuation, "if at a more abstract level than the punctuation which occurs in the 'observation' itself" (ibid.).

Failure to recognize the ability to punctuate, mispunctuate, and repunctuate experience within communicational research (in the widest and most all-encompassing sense) is, in fact, what Bateson calls breaking the pattern which connects (1979: 8).[29] And rigid methodologies, which test hypotheses in a supposedly "objective" manner, most certainly represent this most serious deficiency.[30] For as Abeles warns:

> Somewhere in the process of isolating . . . [content] from its relationship context . . . in an attempt to clarify . . . essential features, and in rejoining the clarified isolates within the experimental paradigm, something crucial is usually lost. Though the attendant arguments seem logical, reasonable, and appropriate, there remains the lurking suspicion that they are logical, reasonable, and appropriate only at the most concrete and literal level, and the really essential quality of the . . . [relation] has slipped away. What too likely remains is a paradigm which bears only a superficial resemblance on a few literal points to the phenomenon one was presumably studying. Though with experimental paradigms one is always dealing with weakened versions of concepts, there are propositions whose essential nature seem forever to elude operational attempts . . . (1976: 145-146).

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[29] "Break the pattern which connects the items of learning and you necessarily destroy all quality" (Bateson 1979: 8) (cf. p. 77).

[30] This is not to say that rigid methodologies are totally inappropriate. Indeed, especially within the natural sciences, operationalism is a valid methodology for very specialized types of research. However, we are often witness to the proof that repunctuation of hypotheses are necessary within even this scientific framework, in that "discoveries" do occur accidentally and thus necessitate a repunctuation of the original premises.

This somewhat lengthy explanation of the inherent dangers of strict operationalism (either/or logic) illustrates, once again, the concern with the realities of punctuation, contextual form (form punctuates context) and the patterns of levels of relationship within a communicational approach. For the radical nature of a communicational approach is further revealed in that hypotheses, or assumptions, are employed only as markers (punctuations) and cannot, therefore, be "rigid". Hypotheses, within a communicational approach, are in a sense stepping stones that guide the researcher in exploring the many levels of contextual and metacontextual patterns of relationship associated with the original concept. Indeed, hypotheses must therefore be "arbitrary", in the sense that they provide the researcher with a "starting point" for studying social phenomena. This does not mean, however, that an hypothesis represents a concrete beginning; for within a communicational perspective there is no easily definable beginning, middle or end, only a revelation of new levels of patterns of relation(ship) which lead to new questions and thus to new punctuations. Further, it is understood that the end of one series of research could be just the beginning for another. The "freedom" associated with a communicational approach stems from this very ability to reject the positivism in positivist empiricism and thus search for repunctuations of experience which often entails borrowing and translating ideas from both traditional and non-traditional areas of study without being constrained (or disciplined) by disciplinary boundaries.

The necessity of developing "a calculus of communication" becomes clearer in light of an understanding of the reality, and multi-leveled nature, of the notion of punctuation. In the pursuit for building a framework which can begin to effectively deal with the complexities of social relations, no one theory can dominate this emerging epistemology.

> [Einstein once remarked] "It is the theory which decides what we can observe." But in human relationships the "theory" is itself the outcome of punctuation, and we run into a chicken-and-egg problem as to which came first--the problem or the punctuation. People remain consistently unaware of their discrepant views and naively assume that there is only one reality and one right view of it (namely their own); therefore anyone who sees things differently must be either mad or bad (Watzlawick 1976: 63).

Although this statement, unfortunately, reeks of 60's liberalism, Watzlawick is identifying a serious problem which plagues most radical sciences. What is often implied by the term theory--in a specified sense--is synonomous with what is insinuated by the employment of rigid methodologies; that "the theory" is absolute. (In other words, a "theory" is used to impose rigid methodological constraints on anybody who wants to work within the associated discipline.)

Indeed, if a communicational approach agreed with this type of inflexible perspective, the notions of metacommunication, context, patterns of relationship and, of course, punctuation would be neutralized. In other words, all the levels of quality, embraced by a communicational approach, would be destroyed and the approach would be reduced to resembling just another textbook

case of a "law governed" paradigm.[31] Abeles provides us with a useful interpretation of the problems associated with the notion of theory within a communicational approach.

> The usefulness of theories is usually judged in terms of their stimulus to research and the ease with which testable hypotheses may be derived from them. But a theory is also useful as a stimulus to thought and to alternative conceptualizations (1976: 148).[32]

She goes on to identify and describe the limitations evoked from concentration on proving a theory either correct or incorrect in that it distracts the researcher from recognizing what Bateson calls the patterned whole.

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[31]Throughout this thesis the discussion of a communicational approach as being rule-governed has evolved. It must be noted that the concepts "rule" and "law" have distinct and different meanings. Simply put: rules are contextualized, they are flexible (and are multi-leveled), whereas laws are absolute (i.e., rigid). Indeed, this idea of rules and laws is necessarily a part of the both/and logic of a communicational approach.

> ". . . this logic does not conflict with the logic of efficient or statistical causality in mechanics, thermodynamics and quantum theory. On the contrary, it complements the usual doctrines of causal relations in the physical sciences, which deal primarily with orders of complexity underlying the ecological and socio-economic orders. Living and social systems are ultimately constrained, of course, by the known 'laws' of physics, notably by the axioms of thermodynamics. But this is not to say that the organization, evolution, or development of such systems is controlled, governed, or caused by purely physical laws" (Wilden and Wilson 1976: 26).

[32]Ray Holland, in his explanation of the importance of a process known as reflexivity, asserts:

> "Reflexivity applied as a criterion entails the requirement that any theory in the human sciences should be turned around upon the person or group producing it and thereby account for the concurrently personal and social activity of producing the theory . . . the activity of producing the theory itself, that is, it should provide some understanding, not necessarily complete, of how it came to be produced in its particular time and place. If there is an inconsistency between the content of a theory and the conditions of its emergence it starts its career with a built-in implausibility or limitation" (1977: 267).

> People speak in terms of testing theories; one does not speak in terms of testing a language [a calculus, "the pattern which connects"]. Languages, or conceptualizations, are more or less useful; they are not true or false in empirical terms (ibid.).

What a communicational approach contends is that a theory is symbolic of a particular punctuation, and in turn guides the person to punctuate relations in a particular way. When the student, or researcher, mistakenly concentrates on perceiving phenomena purely as they relate to a given theory then the phenomenon will be punctuated in a limited and perhaps linear fashion. The phenomenon will be punctuated to fit the mold of the theory--which will necessarily exclude most of the complex levels of relations which Abeles terms "conceptualizations" or "languages", Watzlawick et al. refer to as "the calculus", and Bateson calls "the patterns which connect or the patterned whole": the metacommunicative context. Quite simply, it precludes the possibility of repunctuation (repunctuation in regards to critically examining the punctuation of the theory itself--its historical and ideological context--and the wider implications of its applicability, for example).

The basis for criticizing the notion of "the theory", "the method" or "the hypothesis" as absolute in our search for examining the characteristics of a communicational approach is, in fact, telenomical[33] (as is the approach in itself) in that it

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[33]"Telenomy" transcends notions of linear casality. In explanation:

> "On the topic of the determinism invented in the nineteenth century, two forms are now recognizable. When the present system-state is determined by its past states, we have the one-to-one linearity of efficient causality. When the

allows us to question and re-examine our own experiences and perceptions (in other words, to repunctuate). What is being emphasized is that the constraints imposed upon a perspective --by rigid and inflexible laws--negates the existence of the multi-leveled nature of communication itself. For arguments and debates about a theory--is it true or false--like arguments and debates about hypotheses, can often be a coercive device, designed to blind the student to the nature and existence of concrete relations. This does not mean, however, that the term "theory" has no place within a communicational approach. On the contrary, it is only a mispunctuated perception of "theory" which is banished from the perspective.

The notions of punctuation, mispunctuation and repunctuation are essential to our understanding of a communicational approach. For what this approach allows for and indeed encourages is the examination of conscious and unconscious punctuations with the hope for, and possibility of, recognition of new patterns of relationship which in turn lead to new punctuations and thus to change. This radical approach finds its basis in aiding one in reaching new levels of awareness: levels which become qualitatively more complex as they are revealed.

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present system-state is determined by its future state, we have the determinism of traditional philosophical teleology. The teleonomy of goalseeking is distinct from both of these determinisms, just as it is distinct from the fantasy of the opposition between determinism and so-called 'free will'" (Wilden 1980b: 492).

Most certainly it is an approach which is rejected by many traditional scholars precisely due to its rule rather than law governed nature and thus also due to its wide-reaching and all-encompassing framework which delimits specialization and applauds "generalism", thereby making most positivist either/or logic virtually an impossibility. What this approach does, in fact, is to repunctuate disciplinary boundaries. Yet, as Bateson et al. continually argue, the rejection (and consequent translation) of stagnant, atomistic theories and inflexible laws is essential to the overall and long-term goals of a communicational approach: goals which necessarily include understandings of such concepts (at least) as context, relationship, levels, metacommunication, pattern, and of course, punctuation.

> For a man to change his basic, perception-determining belief--what Bateson calls his epistemological premises --he must first become aware that reality is not necessarily as he believes it to be. This is not an easy or comfortable thing to learn, and most men in history have probably been able to avoid thinking about it . . . sometimes the dissonance between reality and false beliefs reaches a point when it becomes impossible to avoid the awareness that the world no longer makes sense. Only then is it possible for the mind to consider radically different ideas and perceptions (Engel 1972: vii).

This rather general, but elegantly put quotation does indeed capture the essence of a communicational approach. The emphasis on locating punctuations in their contextual framework, which involves the process of metacommunication and thus the possibility of repunctuating the experiences in question (due, of course, to the awareness that there are indeed "different realities" which are made apparent through the recognition of

levels of patterns of relationship) further reveals the radical and symbiotic nature of a communicational approach, for understanding the inherent complexities of all forms of communication. To put it more simply, since it is always concerned with different realities, a communicational approach is a punctuation or metapunctuation in itself. It is an approach which organizes "material" in a contextual manner. Further, it allows for critical analysis of "why" we punctuate certain relations in particular ways. Thus, it provides us with the opportunity of repunctuating experiences by aiding in our recognition of dominant ideological constraints and of a "gestalt" of the pattern which connects. We are reminded that, at least, three notions are essential to the recognition of a communicational approach as being a truly emergent epistemology. The approach always stresses the ever-crucial notion of context, is concerned with the evolution of change and advances a "rules rather than laws" epistemology (Wilder 1978: 27).

Indeed, since it is not governed by a rigid laws framework--and is truly open to translating and borrowing from different traditions, ideas and writings--a communicational approach encourages the punctuation of experience in a unified and transdisciplinary manner. In other words, it allows one the freedom to explore different realities (punctuations) in a critical fashion: searching for qualities, not quantities, patterns of relation(ship), not "things" and building upon ideas which ultimately leads to the emergence of a more contextual understanding which, in turn, builds upon even higher levels of

metacommunicational contextual constraint,

> It is a view which focuses on pattern and form rather than on discrete elements, component parts, pieces and events. This focus permits the emergence of understandings which are neither available nor appropriate to a focus on elements. It offers a view in which the complexity of relationships is preserved. As Weakland pointed out, that complexity must be preserved if its effects are ever to be understood. We do our understanding of behavior [communication] no favor by artificially separating and simplifying into elements that complexity (in the relations between and among those elements) which is integral to their effects (Abeles 1976: 148).

Bateson describes the significant and qualitative difference between a communicational approach and most other perspectives as being based in the responsiveness of this "metapunctuation" to aesthetic unity.[34]

> I hold to the presupposition that our loss of the sense of aesthetic unity was, quite simply, an epistemological mistake. I believe that that mistake may be more serious than all the minor insanities that characterize those older epistemologies which agreed upon the fundamental unity (Bateson 1979: 19).

By calling the approach aesthetic, Bateson is reaffirming the idea that a communicational approach is concerned with studying the "reality of reality". In light of this definition --and, of course, all the previous discussion which led up to this point--it is now apparent that a communicational approach is far from being a totally new perspective; for what it is purporting is a "dialectical" view of the world.[35]

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[34] As discussed on p. 77, Bateson defines aesthetic as being "responsive" to the pattern which connects (1979: 9).

[35] The dialectical nature of a communicational approach has been gradually revealed through the ensuing discussion and illustration of the characteristics of both communication, as such, and the more complex levels of relations involved in the approach. Indeed, the evolution of such conceptualizations as

> [It] sets out to translate between some of the many dialects of the discourse of science in our culture; and, as a result, to bring together concepts and even traditions which are generally associated with quite distinct fields of study in the modern organization of knowledge (Wilden 1980: xviii).

The manner in which it sets out to do this, however, finds its rudiments in a complex idea which has been developing for centuries: the notion of the dialectic. For a communicational approach is an approach which espouses the punctuation of levels of patterns of relationship in a trans-disciplinary and dialectical fashion.

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context, metacommunication, patterns of relationship, form constraining content, levels and metalevels of relation, and punctuation and repunctuation--for example--could never have been realized if the development of the epistemology had not embraced dialectics, in the real sense. Moreover, the rejection of positivist empiricism, the generation of a "rules" rather than "law" governed calculus, the emphasis on the necessity of an "open" systemic rubric which borrows and translates concepts and ideas, from different disciplines and/or areas of thought, and the recognition that the approach is "epistemologically in progress" most certainly aid in the identification of the approach as being transdisciplinary and thus, dialectical.

CHAPTER III

THE DIALECTIC[1]

> To think dialectically is to decree the obsolescence of cherished concepts which explain even one's recent past. One of the marks of a true dialectician, however, is the ability to 'move beyond' the past without repudiating it in the names of new levels of critical consciousness presently enjoyed.
>
> Denis Goulet, "Introduction" to Education: The Practice of Freedom (1974)

The term "dialectic" is employed by many writers who are attempting to study phenomena in an aesthetic way. It is unfortunate that the conceptualization of what is implied by the use of the term "dialectical" is rarely defined. In fact, the complexity of the idea is so important for explaining all aspects of communication that it does indeed warrant special attention.

The manner in which a communicational approach punctuates experience closely resembles the dialectical process. This is hardly surprising, as a communicational approach is necessarily

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[1]The term dialectic finds its etymological foundations in the Greek dialektikos--dia meaning "through" or "between", lektikos which is derived from the verb lego, meaning "I say" or "I choose". In entirety, dialektikos pertains to discourse or discussion (Oxford English Dictionary).

dialectical by its own admission and nature.[2] An understanding of, at least, the basis of the dialectical process proves essential to our understanding of the implications of a communicational approach for explaining the multi-dimensional nature of communicational phenomena (all behaviour). However, since the quality of the notion is so complex, I can offer only a working definition of the dialectic here.[3]

The Origins of the Concept

There does not seem to be a universally agreed upon consensus of when the term dialectic was first employed. Some historians contend that the notion of the dialectic is as ancient as the fifth century B.C.E., and that Aristotle (384-322 B.C.E.) recognized Zeno of Elea (490-430 B.C.E.) as being the inventor of the term. The notion of the "dialectic" can be traced, at least, as far back as the times of Classical Greece (5th century) where a technique known as eristic was employed in the schools.

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[2] In the previous chapter, a communicational approach was identified as being a metapunctuation, partially because of the way in which it punctuates experience in that it embraces a "both/and" logic which necessarily subsumes and translates from (repunctuates) "either/or"/analytic logic. This "both/and" idea can now begin to be clarified as it is analogous with what is meant by dialectical.

[3] "Dialectics" is a highly complex and multi-dimensional notion. In order to discuss the evolution of this idea, and its essential nature--in both theory and praxis--I have drawn (and translated) from a variety of sources, some of which include Acton 1967, Caute 1967, Coe and Wilden 1978, Coe 1979, Hall 1967, White 1957, Rius 1976, Wilden 1976, 1977a, 1980 and 1980a, and Edmund Wilson 1972.

This technique involved the presentation of a thesis by one student; another student would then initiate a series of questions which were designed to lead the first student to contradict himself and thus see the error of his argument. This was the main method used by Socrates (Coe 1979: n.p.).

> Dialectic seems to have been, for Socrates, literally the art of discussion, a search for truth by question and answer; but the definition of the concept is the sort of truth that was typically sought by him . . . (Hall 1967: 386).

Aristotle's conception was more complex. He believed that certain truths could be known definitely, while other types of truth could be known only probably. For Aristotle, dialectics was the method of reaching this second kind of truth. This was in keeping with the Socratic tradition that this kind of truth could be realized through the art of discussion, wherein speakers would represent different perspectives on the subject. For Socrates it is through this art of discussion that the speakers and listeners begin to approach a fuller and more accurate truth than any of those represented by the original viewpoints. For what occurred, in this dialectical process, was the recognition of contradiction between ideas. Both Aristotle and Socrates asserted that it was through the awareness of contradictions that new knowledge could be achieved. Indeed, the notion that two or more people discussing an idea will conceive something new can serve as the original model for dialectics (Coe 1979: n.p.). The

underlying understanding of the term is, then, that the dialectic is an exchange (communication) of views.[4]

It is interesting to note that resemblance between this ancient notion of dialectics and certain characteristics of a communicational approach are already evident. Specifically, the Greek idea that different realities can be discovered through interaction, and the communicational perspective's approach to punctuating and repunctuating levels (and metalevels) of reality.

The interpretation of the dialectic, as described by the Greek philosophers, was, however, idealistic.[5]

> The dialectical world outlook emerged in ancient times both in China and in Europe. Ancient dialectics, however, had a somewhat spontaneous and naive character; in the social and historical conditions then prevailing it was not yet able to form a theoretical system, hence it could not fully explain the world and was supplanted by metaphysics[6] (Mao Tse Tung 1937: 315).

It was not until the 19th century that a theoretical system of dialectics was truly realized. This was primarily the

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[4]Although Aristotle is perceived as being one of the earliest philosophers to employ the dialectical method, his approach was a more rigid application than was that of Socrates, for example. For the "law of the excluded middle" (which was discussed in the previous chapter) is an Aristotelian concept. Nevertheless, the way in which dialectics is understood, within a communicational approach, encompasses--and translates from --Aristotle's notion (i.e., "both/and" logic constrains "either/or" logic).

[5]Idealism refers to "any theoretical or practical view emphasizing mind--soul, spirit, life--or what is characteristically of pre-eminent value or significance to it" (Runes 1960: 136).

[6]Metaphysics refers to speculative or abstract reasoning.

responsibility of the philosopher Georg Wilhelm Friedrich Hegel (1770-1831).[7]

The Hegelian Dialectic

According to White (1957) Hegel's work has influenced almost every important philosophical movement of the twentieth century. Furthermore, his writings had pronounced effects on the originators of Marxism and existentialism. It is indicative of the complexity and wealth of ideas examined by Hegel that not only has his work been associated with certain aspects of Marxism --and concurrently socialism--but that also Hegel has been seen as a forerunner of Fascism (as a result of his ideas concerning the State).

Unlike some early philosophers, who viewed the world statically--i.e., in terms of fixed laws or classifications to explain certain phenomenon--Hegel viewed all concepts, all ideas, and all problems in historical terms. While most of his earlier peers discussed the world in terms of abstractions and universals

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[7] G.W.F. Hegel was a German idealist philosopher. He was raised a Lutheran Christian and received his education in a theological seminary. After graduation he was a resident tutor for aristocratic families in both Bern and Frankfurt for seven years, after which he received a post as a teacher in Jena at the age of thirty-six. It was at Jena that he completed his first major work, The Phenomenology of the Mind (or Spirit) (Geist), while Napoleonic troops marched into the conquered city. From 1806-1808 Hegel served as editor of a daily newspaper and then headmaster of a school in Nuremberg. Having achieved recognition through further publications, Hegel was appointed Professor of Philosophy at Heidelberg. In 1816 and in 1818, having achieved fame and influence, he became a professor at the University of Bern. At sixty-one Hegel died, during a cholera epidemic. His friends and students compiled an edition of his works in eighteen volumes which were posthumously published (Acton 1967: 435; Aiken 1957: 82).

(i.e., metaphysics), Hegel chose to view the world in a way which was--I'm sure many of his critics thought to be--"inside out". By this expression, I am referring to Hegel's emphasis on looking at a particular.

> For Hegel, it is the particular alone which requires to be understood, even though it cannot be fully understood save as it is seen in its relations to everything else (Aiken 1957: 72).

Not only, then, does no idea have a "fixed meaning" or "unchanging validity" for Hegel, but no particular can exist, unless it is viewed in relation to its environment, or context (ibid.: 72-73). Therefore, when a relational approach is taken, for an understanding of phenomena, then nothing can be viewed as an isolated "thing" or "entity", but must be viewed as "a continuously changing process of events. For this reason it is the 'historical consciousness' which alone grasps reality as it is, that is to say, as a process of becoming" (ibid.; emphasis mine).

Hegel's radical departure from earlier philosophical notions, of abstracting thought from certain aspects of the "real" world, bears many similarities to certain characteristics of a communicational approach. Specifically, the emphasis on relationship between parts--the "pattern which connects", on context, on levels of communication, and, of course, the definition of a communicational approach being necessarily aesthetic and transdisciplinary. For Hegel's basic philosophy (like Bateson et al.'s) is a philosophy of change.

Hegel continues in this vein, with his philosophy of history in which historical processes are always new. In a sense,

what he is stating is that history does not repeat itself in accordance with causal laws, but that every stage or "moment", as Hegel calls it, must be viewed in the immediate context of its past, future, and present (ibid.).

It is here that an understanding of Hegel's interpretation of the dialectic becomes necessary in clarifying his theory of historical development. According to Hegel, dialectical opposition is "characteristic of all valid thinking about reality" (ibid.: 74).

Unlike other philosophers who did not adequately deal with the idea or reality of contradiction, Hegel on the other hand, not only accepted such contradictions but embraced them as guides to a higher level of understanding, resolution, and consequently "philosophical truth". For example, in Science of Logic, Hegel wrote that:

> . . . 'all things are in themselves contradictory', that 'movement is existing contradiction itself', and that 'only insofar as something has contradiction in itself does it move, have impulse or activity' (cited in Acton 1967: 449).

Hegel, following Kant, saw every thesis as generating a contradictory antithesis; however, he regarded the thesis/antithesis contradiction as true only if both were "understood in a new light, as imperfect expressions of a higher, more inclusive proposition which contains what is significant in both of them" (ibid.). This proposition was what Hegel defined as "synthesis".

> More technically, every contradiction, for Hegel, is really a disguised relation. Any contradiction may thus be viewed as merely an abstract and hence imperfect description of a more inclusive and more concretely understood reality (Aiken 1957: 74).

Returning to the Hegelian belief that no entity can exist in isolation, the idea of "synthesis" is crystallized.

If the contradictory of "A" is always treated just as "not-A", then "not-A" becomes, as Hegel reminds us, "a bare abstraction which is undistinguishable from nothing at all" (cited in Acton 1967: 449). The antithesis within a contradiction, therefore, must have a "positive" meaning; in other words, it must have a character of its own. Hegel called this "the negation of the negation" (Wilson 1972: 224). In Hegel's dialectic the "not-A" becomes a "B"; however, in conceiving it this way the contradiction is removed and transformed to a higher level of meaning. This is the synthesis--a triadic movement "from a thesis, 'A', to its antithesis, 'not-A', which in turn gives way to a synthesis which transforms our conceptions of both 'A' and 'not-A'" (Acton 1967: 436).

For Hegel, then, "A" is a particular, "not-A" is the rest of the universe. Therefore, "not-A" cannot be placed as an opposite of "A", for it exists at a higher and more complex level. (This is one way in which the communicational approach, with its emphasis on hierarchies of levels--the translation of the theory of logical types--resembles the Hegelian dialectic; cf. Chapter I, pp. 39-52). The dialectic does not, however, end here. On the contrary, it is only the beginning, for the synthesis must generate a new antithesis which can be removed only through a

still higher synthesis; "it is a multileveled and continuous process" (Aiken 1957: 74).

This explanation of the dialectic proves essential for clarifying ideas involved in a communicational approach. Indeed, the notion of levels of communication comes immediately to mind. For not only does the notion of dialectics embody the notions of levels and/or logical types, but also necessarily involves the notion of metacommunication. Indeed, the "generation" of syntheses--which, in turn, generate higher levels of theses and antitheses, and so on--resembles the idea of communications about communication--higher levels of communication (cf. Chapter I, pp. 31-54).

The notion of punctuation can also be easily identified with this dialectical process. If we go back to our explanation of an argument (cf. Chapter II, p. 89), where each member punctuates the patterns differently, the reality of the importance of this dialectical conceptualization immediately comes to light. In this example, the first punctuation can now be seen as the "thesis", while the second punctuation (if it is a response, either verbal or non-verbal) can be seen as the "antithesis". Resolution of this argument can only take place if the participants metacommunicate about the relationship, recognizing how they are punctuating (or mispunctuating) the communication and agree to repunctuate. The repunctuation can then be immediately perceived as existing at a higher level and thus being the "synthesis".

However, one must beware of embracing the Hegelian dialectic wholeheartedly, for we must always remember its idealistic rudiments. For example, although the Hegelian "universe" is always interrelated--which, as previously expressed, was a radical and necessary concept for any understanding of phenomena --"it is a universe of ideal concepts, not our familiar material or social universe" (Sherman 1976: 57). In discussing contradictions Hegel chooses to use such metaphysical examples as Being and Nothing. Although his contentions of an entity only achieving reality in relation to its "opposite" and the inevitable synthesis, some critics of Hegel point out that to even place such concepts in opposition signifies that they are identical. This can be a very dangerous notion, in that the synthesis can assume the unification of concepts, which are not equal. (In the case of Being and Nothing, for example, the synthesis is one of Becoming.)

Hegel believed that philosophers must perceive the contradiction as a challenge in order to create a new synthesis which leads to a more "contextual" representation of the original notion.

> When Hegel was advocating the dialectical method, he had in mind a method in which oppositions, conflicts, tensions, and refutations were courted rather than avoided or evaded (Acton 1967: 444).[8]

"The dialectic, as he conceives it, is at once a law of thought and a law of being" (Aiken 1957: 75). To Hegel, what at first

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[8]Indeed, this can be said to be true of Socrates, also.

appears real to us is, in actuality, only an abstraction or a "bare particular" of the real existing relations, so that anything becomes real only when it ceases to be "a bare particular".

It is interesting to note how Hegel realizes this notion in regards to his definition of human, which is in essence criticism of the myth of individualism. For Hegel uses his metaphor of the "bare particular" to describe how a human being can only become human (or a person) if s/he gives up his or her claim "to individual uniqueness and is content to be regarded as an aspect of the large social whole to which he belongs" (Aiken 1957: 75). (Although this is only the "tip of the iceberg" in the very complex and necessary argument concerning individualism, Hegel's analysis must be recognized as contributing significant insight to the understanding of a dispute, which is vehemently argued to this day--i.e., the idea of individualism, and its role in perpetuating the dominant ideology.[9])

However, there is a concrete, real entity which, for Hegel, exists, and it is here that one can both identify his idealism and also see how his theological background and beliefs influence his view. The entity is called "the Absolute". It is Hegel's contention that the Absolute represents the matrix of the dialectic and that all syntheses are hierarchical, in that attaining the level of Absolute is their ultimate goal. Thus, every occurence, or event is merely a "moment" in the "unenvisageable totality" of the Absolute (ibid.). The Absolute

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[9]And as Wilden reminds us, "ideologies, like reality, involve levels of relation . . ." (1980: xxii).

--fully rational--is the ultimate ideal of reason for which "the dialectical consciousness of man can grasp only as a goal endlessly to be striven for, yet never reached or even comprehended . . ." (ibid.: 76). It is omnipotent and unattainable.

The Absolute serves a fundamental purpose in regards to Hegel's explanation of historical change and the dialectic of history. For each triadic process--thesis, antithesis, synthesis --represents a higher stage towards the development of the Absolute (ibid.). For, if in Hegel's development of ideas, called "logic", no proposition is wholly denied, then the same proves true for his dialectic of history. Hegel believed that each successive generation in history must preserve and inherit aspects of its past, even though the current generation might consciously negate its antecedents.[10] Therefore, expressions of

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[10]Coe and Wilden point out that there is a concept, known as Aufhebung, which aids in our understanding of this complex process.

> "The German expression used to describe this kind of change is Aufhebung. Since this term embodies contradictory significations, it describes dialectical transformations rather well. On the one hand, it signifies: 'cancelling, abolishing, ending, suspending, neutralizing, removing, and counteracting'. On the other, it also means: 'lifting, storing up, going beyond, preserving or retaining, and conserving'" (1978: 47).

Its meaning becomes even clearer within the Freudian context:

> "Freud, for instance, uses Aufhebung to describe the process by which an idea or image that has been repressed from consciousness can emerge into consciousness without our recognizing its implication. Thus, says Freud (Die Verneinung (Negation)) . . . the repression is both 'lifted' and 'conserved'--as when the person on the couch says, 'I know what you are thinking. But the man in the dream is not my father'" (ibid.).

past culture must necessarily exist in our culture today (Aiken 1957: 75; cf. Acton 1967: 445). When this is recognized, a more comprehensive social reality becomes evident. However, there is an ultimate "plan" in this societal transformation--that of both a dialectical and spiritual nature--the "dialectical unfolding or self-development of that which is completely unconditioned, namely, the Absolute itself . . ." (Aiken 1957: 77).[11] This constant striving to achieve the unachievable is how Hegel perceives historical change. He interprets it as being a struggle towards the spiritual freedom of humankind (ibid.). Hegel's notion of freedom is thus autonomy (the ultimate freedom being embodied, of course, in the spirit of the Absolute). Hegel recognizes "stages" of development in his envisagement of historical change, whereby each stage is "higher" than the preceding stage.[12] Therefore, "Hegel himself treated all

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[11]This is a good illustration of the dialectical both/and nature of a communicational approach. For within this Hegelian notion we can see the existence of both analytic either/or logic--the Absolute--and dialectical both/and logic --the multi-leveled nature of the ever-changing ("unfolding") patterns of metacommunicational relationships involved in the Hegelian dialectic. Once again, the necessity of a perspective --which attempts to understand and explain real experience--to encompass, rather than absolutely reject, (all) different modes of study, is emphasized.

[12]Note here the similarities of Hegel's idea of "historical change"--minus the idealism--and a communicational approach's emphasis on, and punctuation of, contextual and thus metacommunicational hierarchical levels of patterns of relationship, necessarily involved in all communicational phenomena.

contradictions as dialectical moments in the life of Absolute Spirit, unified in a single comprehensive system of philosophy" (Acton 1967: 451).

The spirit, then, takes priority over the cultural history for "the description of any culture . . . is merely incidental to its spiritual significance for the present age" (Aiken 1957: 78). Furthermore, according to Hegel, historical change cannot be studied by examining past events, but "only by reflection upon that record when it is conceived dialectically under the form of spirit . . ." (ibid.). What he is saying, then, is that we must see historical events, contradictions, and synthesis as having an ultimate direction or goal, i.e., the Absolute. This "spiritual" mediator is essential to Hegel's interpretation of human freedom and the role of the State.

Morton offers a more esoteric explanation in that:

> Hegel held that the universe reveals the workings, the development, the realization, the unfolding of a World Spirit or Absolute Idea . . . . In his view the universe is not unlike an animate being that has a soul, desires, aims, intentions, and goals. The universe is spiritual; it has direction; and the explanation of ordinary facts, human actions, historical changes, and institutions may be grasped once we recognize how they are embedded in this cosmic organism, how they are directed by the cunning of the Absolute, how they play their part in the Universe's progressive realization of the World Spirit (1957: 13).

It is increasingly difficult to understand Hegel's definition of freedom, for to begin to comprehend the concept we must accept that in his dialectic no concept can be understood until it transcends its "non-existent" opposite (Aiken 1957: 79).

The most common definition of freedom, as he perceived it then (and would, curiously enough--in many contexts--hold true today) is the ability to do just what one wants to do. Hegel felt that this notion was the barest of abstractions, for freedom to Hegel was the power to realize one's self and to, therefore, achieve autonomy (ibid.). The self was, for Hegel, a concrete personality which was invested with characteristics derived from the education, training and social values inscribed by the society one was a part of. It is interesting to note how closely Hegel's interpretation is to what we today know as socialization.

> The first step toward self-knowledge and self-culture, therefore, is the recognition of one's membership within a historically-evolving community. Thus only does one find oneself as an integral human being. The free person is he who is able to identify himself with the duties and responsibilities invested in him by the State, which, for Hegel, is the highest of all social institutions[13] (ibid.).

Hegel repeatedly stressed the importance of societal institutions as carriers of culture (ibid.: 77) and that these institutions and laws were only superceded by the State as manifestations of the Absolute Spirit. For as Hegel put it:

> The State . . . is the Idea of Spirit in the external manifestation of human will and its freedom (cited in Aiken 1957: 80).

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[13]As Rius so straight-forwardly translates this Hegelian notion:

> "Hegel's advice to any worker exploited by his boss would be: Don't worry yourself about material oppression, but only about the 'spiritual' kind. By obeying the state (God's representative on earth) you will find happiness and freedom (of the spirit) . . ." (1976: 72).

Thus we can observe the conservatism and idealism which permeates the Hegelian dialectic in its strictest sense. Sherman asserts that:

> Hegel's dialectic is idealist in the sense that it deals with the development of disembodied ideas . . . Hegel puts forth dialectics as a system. It is a totally known picture of the whole universe, that is, an ontology . . . (1976: 58).

Hegel's universe, according to Sherman, is a "closed system" (cf. Appendix IV). However, one cannot ignore the significant contributions of Hegel's notion of the dialectic, and its value for translation to a more contextual application of a human science. For this is essentially what Marx embodied in his description of what is known as a dialectical materialist methodology. As Lenin perceived it:

> The sum total, the last word and essence of Hegel's logic is the dialectical method--this is extremely noteworthy. And one thing more: in this most idealistic of Hegel's works there is the least idealism and the most materialism. 'Contradictory', but a fact (cited in Holland 1977: 235).

Marx and Engels Transform the Dialectic

The works and thoughts willed to us by Karl Marx[14] (1818-

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[14]Karl Marx, born in Trier, Germany came from a long succession of rabbis. His father, however, broke with family tradition and studied law, due to the influence of the French Revolution which relaxed some of the restrictions on Jews. When it became illegal, once again, for Jews to hold office, Hirschel Marx had his entire family baptized as Christians, in order to retain his position.

Hirschel had aspirations that his son, Karl, would follow in his father's footsteps; Karl, however, had other ideas. In 1835 he wrote: "In choosing a profession . . . one must be sure that one will not put oneself in the position of acting merely as a servile tool of others: in one's own sphere one must obtain independence; and one must make sure that one has a field to serve humanity . . . . We shall never be able to fulfill

1883) and Friedrich Engels[15] (1820-1895) have been recognized by many as being the most important writings to have emerged from the nineteenth century. Refusing to be constrained by rigid schools of thought, their writings today are associated with philosophy, sociology, political science, economics, and to some degree, anthropology and psychology.[16] The concern of Marx and Engels for understanding the patterns of relationship, involved in the communication of everyday life, is probably one of the most appropriate representations of the necessity and worth of a transdisciplinary approach.

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ourselves truly unless we are working for the welfare of our fellows . . . . And so we must be on guard against allowing ourselves to fall victims to that most dangerous of all temptations: the fascination of abstract thought" (cited in Wilson 1972: 131).

The young Marx further asserted that ". . . we cannot always follow the profession to which we feel ourselves to have been called; our relationships in society have already to some extent been formed before we are in a position to determine them" (ibid.: 132).

Marx received a doctorate in Philosophy from the University of Berlin. The subject of his Ph.D. thesis was "On the Difference Between the Natural Philosophy of Democritus and Epicurus" (Rius 1976: 52). However, unlike Hegel, Marx never attained a university post, because of his 'anti-religious' beliefs.

[15]Friedrich Engels was the son of a wealthy factory owner. He shared many of the beliefs and convictions of the young Marx and became his closest friend and collaborator after meeting with him in 1844 in Paris. Together Marx and Engels undertook a lifetime commitment to understanding the real social world, questioning its structure, and attempting to offer solutions for change.

[16]Or as Rius so humorously puts it, "Marx has something to say to everybody. There is not a major change in the last hundred years which doesn't owe something to Comrade Charlie's influence . . . . Economy, Literature, Space Travel, The Arts, History, Human Relations, The Vatican, The Unions, Revolutions, Social Changes, Education, Medicine, Industry, Agriculture, Journalism . . . everywhere you'll find a hair or two of Charlie's!!" (1976: 14).

This section sets out to briefly examine the treatment, and applications of, the dialectic by Marx and Engels. Moreover, as the real qualities and complexities of what is meant by dialectics is revealed, many characteristics of a communicational approach become more fully realized.

The notion of the dialectic played an essential role in the analyses put forward by Marx and Engels.

> In Marx's investigation of capitalism, the mechanical mode of analysis of systems is subordinate to a new kind of deduction . . . developed out of, and in critique of, Hegel's dialectic (Therborn 1976: 46).[17]

Although Marx never wrote "a full-length treatise on dialectics . . . his work is the outstanding example of its applications" (Sherman 1976: 57). In explanation, the Marxian dialectic substitutes "matter" for the Hegelian "spirit" (Hall 1967: 389). This replacement of matter for spirit formed the basis of what Marx called "historical materialism", a conceptualization which Marx and Engels developed from the Hegelian dialectic.

Historical Materialism

> The development of historical materialism was no more magical or straightforward than that of Marxist politics: it neither sprang fully-grown from nothing, nor emerged in a continuous linear evolution. It emerged from a definite theoretical context, and at the same time constituted itself as a distinctive body of thought by breaking with this context at decisive points (Therborn 1976: 335).

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[17] Therborn's overall interpretation of Marx is a particular kind of understanding. This does not mean that it is in any way a mispunctuation. Especially as evidenced by this quote, many of Therborn's explanations provide for a greater understanding of certain Marxian ideas.

We have seen that Hegel's philosophy was idealist in nature, yet what was revolutionary in Hegel was his conception of historical change (Wilson 1972: 167; Aiken 1957: 188-189). Marx felt that "philosophers have only interpreted the world, in various ways; the point is to change it" (1845, cited in Rius 1976: 65). Rather than dealing with abstractions, Marx wanted "to state the predicament of spiritually and socially alienated men in the modern world" (Aiken 1957: 185).

Historical materialism, then, was intended as a punctuation for understanding social change (ibid.: 186). In this sense Marx and Engels were influenced by the work of Ludwig Feuerbach (1804-1872).[18] Feuerbach rejected speculative philosophy, and held the belief that god and the after life could not be rationally justified, but that this belief in an omnipotent being could be explained "in terms of the unfulfilled needs of men whose lives are frustrated by an oppressive social

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[18] Ludwig Feuerbach was a supporter of the Hegelian left, who wanted to put "Hegel's theory into practice". He denied the "sacred origin or royal authority". (By identifying him with the "Hegelian left", it should be understood that when Hegel died, contradictions concerning his philosophy "divided his followers into 'Hegelians of the right' and 'left'. The left defended their teacher's most progressive ideas, the right stuck to Hegel's spiritual side . . . . That's when (1830) the terms left and right came into use" (Rius 1976: 22).)

Feuerbach has also been called a materialist. For as Marx and Engels commented in The German Ideology (written between 1845 and 1847), "As far as Feuerbach is a materialist he does not deal with history, and as far as he considers history he is not a materialist . . ." (cited in Therborn 1976: 351). Indeed, Feuerbach "gave up Hegelian idealism to switch over to materialism, but of a metaphysical brand, because he saw nature (and society, too) sunk in sleep, motive-and-motionless, with no immediate chance for change . . ." (Rius 1976: 77).

order" (Acton 1967: 389). In The Essence of Christianity (1841), Feuerbach had criticized Hegel as being an "apologist for Christianity".

> [The Absolute Idea] which was supposed to have incorporated itself in matter for the purpose of realizing reason had been a gratuitous presupposition which Hegel was unable to prove . . . . Let us forget abut the Absolute Idea; let us start an investigation with man and the world as we find them. When we do so, it becomes perfectly obvious that legends and the rituals of religion are merely the expressions of human minds (cited in Wilson 1972: 148-149; emphasis mine).

One notion put forward by Feuerbach, and specifically endorsed by Engels, was the argument concerning the "contradiction" between idealism and materialism. For as Feuerbach explained it, idealism held that matter is created by mind. Materialism,[19] however, is the notion whereby matter is dominant,

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[19]The term "materialism" evokes many meanings. It is a complex philosophical notion which evolved over the centuries. It is crucial to have some sort of working knowledge of what is intimated by the employment of this term, for it played an essential role in the writings of Marx and Engels.

"Right at the start of his philosophical studies, Marx joined forces with materialism. But he devoted his entire life's work to giving it more consistency and scientific character" (Rius 1976: 68). Materialism evolved in ancient Greece, with the philosophy of Democritus of Abdera (460-360 B.C.). He is recognized as having developed "the first important materialist philosophy of nature . . ." (Runes 1970: 75). It was, however, the teachings of Rene Descartes (1596-1650) and Benedict Spinoza (1632-1677) that introduced the ideas known as Mechanistic Materialism.

"In the seventeenth and eighteenth centuries, the greatest scientific discoveries were made in the areas of mathematics and mechanics of celestial bodies. And so, materialism became 'mechanistic' . . . . In other words, the materialist philosophers examined both nature and social life from a mechanical point of view" (Rius 1976: 68).

and mind subordinate.[20] Marx and Engels disagreed, however, with "the theory of reductive materialism" which stated that mind was a form of matter (Acton 1967: 390-391).

Although Marx agreed with Feuerbach's basic assumptions concerning materialism and the rejection of Hegelian idealism, he identified similar problems in Feuerbach's philosophy, as with those inherent in Hegel's. As Aiken argues:

> Their philosophies of history were too grandiose and vague and too little concerned with observable causes and effects (1957: 186).

Indeed, Marx and Engels criticized Feuerbach's notions --specifically those concerned with history--as being rigid or fixed.

> Feuerbach's contemplative view of the sensuous world fails to appreciate that the latter is "the product of industry and of the state of society; and indeed in the sense that it is a historical product, the result of the activity of a whole succession of generations . . . . Even the objects of the simplest 'sensuous certainty' are only given him through social development, industry and commercial intercourse" (Marx and Engels 1845-1847, cited in Therborn 1976: 351).

In his Theses on Feuerbach, written in 1845, we find that Marx is talking about mispunctuation, on the part of both materialists and idealists, and is attempting to demonstrate how

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[20] This is not to say that idealism and materialism are in opposition to one another. For as Coe and Wilden point out, materialism and idealism are not "logically independent of each other". "Although both 'materialism' and 'idealism' ultimately pertain to the explanation of the same general world context, they are treated by the dominant epistemology as if they were two separate systems of explanation, i.e., as if they were closed information systems. In reality, of course, they are not closed off from, but dialectically interrelated with both each other and the socioecological context in which they arose" (1978: 51).

different levels of experience and realities can aid in the repunctuation of our knowledge of the world.

> The defect of all previous materialisms had been their representing external objects only as acting upon the mind, which remained passive, while the defect of idealism had been that what it perceived could not act upon the world. The truth was that the reality or unreality of thought except as thought enters into action was a purely academic question: all that we can know we know is our own relation to the external world we seek to act: when we find that we succeed in transforming it, we know that our conceptions are correct (Wilson 1972: 149-50).

Marx's concern with the dialectic is most certainly recognized in the above quotation. Moreover, the essentiality of translating certain ideas--from Hegelian idealism and from materialism (both traditional and Feuerbachian)--were central to Marx and Engels' development of an epistemology which could attempt to deal with the complex nature of real social relations. Indeed, Marx and Engels' insistence on understanding the world in a truly dialectical way resembles closely the underlying assumptions found in a communicational approach (or to be more accurate, the "calculus" for a communicational approach closely resembles the dialectical materialism[21] proposed by Marx and Engels).

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[21]Although Marx or Engels never used the term dialectical materialism to describe their works, it is often associated with their teachings nevertheless. Indeed, the labels dialectical materialism and historical materialism are sometimes confused.

The way in which I am employing these terms stems from the descriptions developed by Althusser (as supplied by Therborn). Historical materialism is "the specificity of Marxist theory of society . . . as a science". Dialectical materialism is "the specificity of Marxism as a philosophy . . . as distinct from science, politics, and ideology" (Therborn 1976: 55). Or, as Rius explains it, dialectical materialism is the "philosophical doctrine formulated by Marx and Engels, so called because of its

The manner in which Marx and Engels chose to incorporate and translate certain aspects of Hegelian philosophy provides us with more evidence for the essentiality of a communicational approach. For what Marx and Engels were concerned with, in their formulation of a dialectical epistemology for explaining real concrete relations, was understanding levels of patterns of relationship in context.

> The major contribution of Hegelian idealism was its insight into the essentially active relationship between man and the world, thought and matter. Unlike Feuerbach, Marx did not regard sensations as merely the experienced effects of things; they were the effects of interaction between active man and his surroundings. Experience was a social as well as a biological dimension. Man has a history and a future; the world in which he lives and his consciousness of it are partly shaped by his purposes and his actions (Caute 1967: 42).

It is apparent, then, that Marx and Engels' major concentration in their development of historical materialism was on the levels (and metalevels) of material relations of humans and society. It is here that the Hegelian notion of history becomes essential for Marx and Engels. Unlike many of their materialist contemporaries, Marx and Engels refused to accept the thesis that "history repeats itself".[22] For example, Feuerbach

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dialectical manner of confronting, studying and understanding natural phenomena; and materialist by its manner of interpreting phenomena and drawing up its theory" (1976: 149). Historical materialism is the "Marxist doctrine of the development of human society. Historical materialism sees in the development of material goods necessary to human existence the primary force (sic) which determines (sic) all social life (and which conditions the transition from one kind of social order to another)" (ibid.).

[22]Rius explains that this type of position is, in fact, metaphysical. "Those who thought like this about nature, could think the same way about society too. Society changes very little for the metaphysician, except by repeating itself mechanically, e.g. wars, hunger, governments, etc. . . . and mankind really can't do anything to change things . . ." (1976: 69).

reasoned that "nature augments only in quantity while always remaining the same . . ." (in Rius 1976: 69).

Like Hegel, Marx and Engels conceived of the dialectical form as a rule for analysis and the understanding of change (Aiken 1957: 186-187). For Marx, "history is a non-repetitive process within which, at certain critical junctures, there occur radical, unprecedented transformations of material bases of social organization" (ibid.: 187).

In fact, the question of history has been defined as the "central dilemma" for the development of Marx and Engels' political and theoretical works.

> People make their own history, but they do not make it just as they please, they do not make it under circumstances chosen by themselves . . . (Marx, cited in Appelbaum and Chotiner 1979: 71).

Indeed, Marx is referring to political-social and economic contexts and is insisting that the recognition of context is essential to the understanding of historical change.

The Hegelian dialectic proved fundamental to this contextual and relational notion of historical materialism, yet Marx's treatment of the dialectic indicates that dialectics is not as abstract and mystical as Hegel would lead us to believe. Marx and Engels claimed that they took the Hegelian dialectic "off its idealistic head and placed it on its materialistic feet" (Wilson 1972: 212; Aiken 1967: 191; Holland 1977: 143). They were referring here, of course, to Hegel's belief that all historical changes are steps towards the realization of the "Absolute Spirit" in history. As Marx explained in Das Kapital (1867):

> For Hegel the process of thought, which, under the name of the Idea, he even transforms into an independent subject, is the demiurge of the real world, while the real world is only its external appearance. With me, on the contrary, the ideal is nothing other than the material after it has been transposed and translated inside the human head (cited in Wilson 1972: 212).

What Marx and Engels were trying to demonstrate was that ideas are "only" human, and that therefore all ideas are related to specific social environments, which had initially been produced by human relations in and for specific material conditions (ibid.). Marx, in his rejection of Hegel's idealist interpretation of history, which ascribed a predetermined power to the ideas affording social change, could now see the development of thought--be it philosophical, political, or religious --as being necessarily affected by (and, at other levels, affecting) change in the modes of material production and organization (Aiken 1957: 188, 191). This had the effect of facilitating all examinations of contradictions between the ideal and the practical; that is to say, the ideational superstructure (e.g. the state, institutions, courts, schools, government) could be viewed relationally as expressions of real changes in the social system, rather than as they themselves originating their changes.

> . . . the consequences of the inversion [of the Hegelian dialectic] is that Marx construed progress, not in terms of spiritual self-development or 'freedom' but, rather, in terms of the improvement of the underlying economic conditions of social life (Aiken 1957: 191).

For Marx, then, all social change had to reflect a change in the material modes of economic production (cf. Appendix VII). Marx's exploration into the more all-encompassing terrain of the "social"

was then predicated by, and incorporated aspects of, the writings and teachings of both idealists--especially Hegel--and materialists--such as Feuerbach.

Marx and Engels' methods of investigating the development of human society--known as historical materialism--involved the examination and translation of a variety of ideas, experiences, and conceptualizations (e.g. aspects of materialism--the rejection of an Absolute Spirit, concern with the creation of material production, dialectics--the notions of patterns of levels of relations and change, the realities of contradictions, context--historical, social and economic conditions, experience --the modes of production, and so on). This radical explanation (punctuation) of historical development could never have evolved if Marx and Engels had allowed themselves to be constrained by what has been defined as either/or methodologies. Indeed, historical materialism is the proof of the essentiality of perceiving relations in a dialectical manner.

Once again we can recognize the similarities of the Marxian interpretation of communicational phenomena and the both/and logic embraced by a communicational approach. The following quotations--which emphasize context and change--illustrate this.

> All property relations in the past have continually been subject to historical change consequent upon the change in historical conditions (Marx 1848, in Ruis 1976: 115).
>
> . . . movement is something relative, which can only be perceived in relation to a point of reference . . . this same principle holds for virtually every perception and therefore, for man's experience of reality (Watzlawick et al. 1967: 27).

Dialectical Materialism

> Philosophical doctrine formulated by Marx and Engels, so called because of its dialectical manner of confronting, studying and understanding natural phenomena; and materialist by its manner of interpreting phenomena and drawing up its theory. Dialectical materialism is the only scientific interpretation of the world; and it is opposed to idealism which offers an interpretation based on religion (Rius 1976: 149).

Both the complexities and importance of the notion dialectics are becoming more apparent. In continuing our exploration of this most necessary conceptualization, let us examine it in the context of the more general framework of what is called dialectical materialism.[23]

Even though Marx wrote in Das Kapital that "my dialectic method is not only different from Hegelian, but is its direct opposite" (cited in Sherman 1976: 62), what Marx was communicating (in the real sense of the word) was a dialectical shift which:

> . . . saw the categories of method as reflections of the process of development of human knowledge, which in turn reflects the processes of natural and social development (ibid.; emphasis mine).

In accordance with their own philosophy, Marx and Engels were not only concerned with translating certain Hegelian notions, but also with applying them to real concrete relations. One important notion, which finds its antecedents in Hegel, but which is radically transformed by Marx and Engels, regards the "social behaviour of individuals". Marx's social theory (or metatheory)

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[23] Because dialectical materialism refers to the more general philosophy of Marx and Engels, certain relations of historical materialism may be reiterated and/or incorporated in this explanation.

required that social behaviour could not be explained as a function of autonomous, rational decisions, but must be perceived as a reflection of "socially conditioned roles as members of an economic class" (Aiken 1957: 188). The necessity of understanding relations in their context is thus reinforced. Marx and Engels continued to borrow from, and translate, certain Hegelian concepts for what is today called dialectical materialism.

The Hegelian dialectic was thus transposed from an abstract process, mediated by a "Cosmic Spirit", to a practical application of social relations. As has been illustrated, Hegel's use of the dialectic had no concrete material basis for ascribing a causal connection between "thesis", "antithesis", and "synthesis". Marx, however, reinterpreted Hegel's dialectic in an attempt to explain and predict certain relations.

> Thus, by uniting Hegel's dialectic of history with materialism, Marx sought at once to transform materialism itself from speculative mechanics into a philosophy of historical development . . . (Aiken 1957: 189).

Consequently, Hegel's dialectic was transformed from an apparently arbitrary law of thought into a rule governed means of discussing and explaining human behaviour in relation to social, political and economic context.

In taking over the principle of the dialectic, Marx and Engels were able to recognize and better understand contradictions in capitalist society. Instead of the abstractions of Hegel's "Being and Nothing", Marx and Engels chose to discuss the "thesis" as bourgeois society "which had originally been a unification out of disintegrating feudal regime" (Wilson 1972: 211); the

"antithesis" as the proletariat[24] (those who sell their labour creativity to those who own the means of production); and the "synthesis" which would be the communist society. The communist society:

> . . . would result from the conflict of the working class with the owning and employing classes and the taking-over of the industrial plant by the working class, which would represent a higher unity because it would harmonize the interests of all mankind (ibid.).

In other words, the struggle between the capitalist class (thesis) and the working class (antithesis) is supposed to result in a synthesis (White 1957: 14).[25] Let us now look at the dialectic as translated by Marx and Engels.

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[24]As Marx and Engels explained it in The Communist Manifesto of 1848: "The slave is sold once and for all. The proletarian must sell himself by the hour or by the day. Each individual slave, being the direct property of a master, has his existence assured, be that existence ever so wretched, if only because of the interest of the slave owner. Each individual proletarian, the property as it were of the whole bourgeois class, whose labor is sold only when it is needed by the owning class, has no security of life. Existence is merely guaranteed to the working class as a whole. The slave is excluded from competition; the proletarian is beset by competition and is a prey to all its fluctuations. The slave is counted an object and not a member of civil society; the proletarian is recognized as a person, as a member of civil society. The slave may therefore be able to secure better conditions of life than can the proletarian, but the proletarian belongs to a higher stage of development of society than the slave. The slave frees himself by rupturing, of all relations of private ownership, only one, the relation of slavery and by this act becomes himself a proletarian; the proletarian can only achieve emancipation by abolishing private property in its entirety" (in Rius 1976: 111).

[25]The real essence of the ensuing contradiction between labour and capital is highly complex. It is not my intention to develop this most controversial and complicated argument. Suffice it to say that: the contradiction between the bourgeoise and the proletarian is "not a contradiction between individuals and groups, but between the structure of the productive forces--their even greater socialization--and the structure of the relations of production--the private ownership of the productive forces"

Marx was not bothered by the fact that Hegel confused logical contraditions with material conflict (in other words, confused logical types):

> The dialectical law of thesis, antithesis and synthesis . . . provided Marx with first-rate clues for unraveling the threads of historical development. By interpreting it 'materialistically', rather than as a mere law of thought, he was showing for the first time, how the dialectic really operates (Aiken 1957: 189; emphasis mine).

And so, in assuming a dialectical approach, Marx and Engels could look at the relationships between people rather than the Hegelian notion of looking at individuals. For what the usage of the term "individuals" presumes is that all people are equal; whereas Marx and Engels understood that the key for a human science lay in recognizing both the existence of and the contradiction (not opposition, which assumes equal but different) between classes.[26]

(Godelier 1966: 351). Or as Mandel explains it, "expressed in other terms, there is a progressive socialization of all economic life, which is becoming a single assemblage, a single fabric. But this whole movement of interdependence is simply centered in an insane way around private property, private appropriation, by a small number of capitalists whose private interests, moreover, collide more and more with the interests of billions of human beings included in this assemblage" (1970: 52).

[26] Hegel did not, however, commit the error of so many of his contemporaries in interpreting the individual's role in society as purely a result of inherent choices, but analysed social development in institutional terms (Aiken 1957: 188). The interpretations of Marx and Engels, concerning class struggle, exploitation, and alienation can be viewed in part as translations of this radical Hegelian concept. For Marx, the notion of alienation became more complex, as his studies and years advanced. In his Early Writings (1843), he did offer an explanation which would seem to capture the essence of alienation under capitalism: "Objectification is the practice of alienation. Just as man, so long as he is engrossed in religion, can only objectify his essence by an alien and fantastic being; so under the sway of egoistic need, he can only affirm and produce objects in practice

It would seem, then, that in using the dialectic, Marx and Engels were able to both identify and resolve (repunctuate) a contradiction inherent in Hegelian doctrine: the seemingly contradictory notion of the impossibility of individual purposes determining the course of social development; yet the existence of an "Absolute Being or Spirit" controlling and determining all action.

> But the Hegelian system, in itself, was a colossal miscarriage--but it was also the last of its kind. It was suffering, in fact, from an internal and incurable contradiction. Upon the one hand, its essential proposition was the conception that human history is a process of evolution, which, by its very nature, cannot find its intellectual final term in the discovery of any so-called absolute truth. A system of natural and historical knowledge, embracing everything, and final for all time, is a contradiction to the fundamental law of dialectic reasoning. This law, indeed, by no means excludes, but on the contrary, includes the idea that the systematic knowledge of the external universe can make giant strides from age to age (Engels 1892: 87).

It was, as has been previously illustrated, materialism which aided Marx and Engels in their reinterpretation and ability to ground the dialectic in reality (Aiken 1957: 189).

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by subordinating his products and his own activity to the domination of an alien entity, and by attributing to them the significance of an alien, namely money" (Marx 1967: 57).

Hegel's objective, absolute spirit, is immediately recognized in the above passage, and is attacked and dispersed with in an apt and explanatory manner. For it is not enough for Marx to simply dispose of the "Absolute", and the religious fervor it imputes, but to translate the abstract ideals into material reality in attempting to deal with the "alien entity", which contributes (and ultimately mediates) human alienation --capital.

In other words, ". . . the alienation of the worker is expressed thus: The more he produces, the less he can consume; the more value he creates, the less value he has . . . labour produces fabulous things for the rich, but misery for the poor. Machines replace labour, and jobs diminish, while other workers turn into machines . . ." (Marx 1844, in Rius 1976: 79).

Matter, for Marx, does not "refer to an underlying substratum or substance, but rather to the observable 'materials' with which [people] work and upon which they expend their energy . . ." (Aiken 1957: 189).

> In the social production which men carry on they enter into definite relations that are indispensable and independent of their will; these relations of production correspond to a definite stage of development of their material powers of production. The totality of these relations of production constitutes the economic structure of society--the real foundation, on which legal and political superstrucrues arise and to which definite forms of social consciousness correspond. The mode of production of material life determines the general character of the social, political, and spiritual processes of life. It is not the consciousness of men that determines their being, but, on the contrary, their social being determines their consciousness (Marx 1859, in Bottomore and Rubel 1956: 67).

This statement is representative of the marriage of the dialectic--minus the idealism--and materialism--minus the mechanism. It was, then, as has been previously indicated, a very special type of materialism that was acceptable to Marx and Engels. Since conflict in human life can only be understood by an institutional (level-oriented) approach to the study of society, then all fundamental conflicts are social--and the basic form of social conflict is class struggle (Aiken 1957: 188). Therefore, materialism for Marx and Engels had to be far more complex than the simple assumption that humans are a product of individual circumstances--and that society is more than an aggregation of human atoms, bound together by conscious decisions (ibid.).[27]

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[27] In other words, any analyses of human communication must involve a metacommunicational (both/and) punctuation which recognizes--and applies--the notions of contextual levels of patterns of relationship.

Now that the basic relations involved in the translation and transformation of materialism and Hegelian philosophy --by Marx and Engels--has been, at least, recognized, we can begin to appreciate Marx and Engels' criticism and rejection of certain materialist misconceptions. Indeed, although it may seem at first like a point of departure, the following discussion--on materialism--provides us with a deeper insight into the essence and essentiality of dialectical materialism.

Vulgar Materialists

Marx and Engels consistently emphasized that the traditional materialistic view of society seemed to preclude any hopes for radical change of the material circumstances of human life. For the early materialists held an atomistic theory of matter, which was usually accompanied by an analogous social theory. This social theory basically stated that society was made up of individuals whose relations to one another were made up of individual decisions or interests. These materialists were labelled "vulgar"[28] by Engels (Acton 1967a: 391).

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[28]The adjective "vulgar" is also employed to describe a specific type of theorist, known as a "vulgar Marxist". "Vulgar Marxist Theory reduces (symmetrizes) all explanations of social relation to strictly economic relations" (M. Kerr 1980, personal communication). More generally, for example, the description "vulgar" neatly describes those so-called communications scholars who "offer simplistic and non-contextual applications of communications which has the unfortunate effect of . . . reducing the quality of the notion . . ." (cf. Appendix II). Indeed, those who Watzlawick, Weakland and Fisch label "terrible simplificateurs" could just as easily be called Vulgar Communicational Theorists. The implications of this term are immediately evident.

"Vulgar materialists" referred to a group of German writers who argued that "materialism was the inevitable consequence of natural science and of physiology in particular" (ibid.). Engels criticized these writers, in Socialism: Utopian and Scientific (1892), for wasting too much time in arguing that god doesn't exist and for their lack of recognition of the social implications of materialism (ibid.). His primary objection to their works, however, was that theirs was a mechanical materialism (a mispunctuated materialism). The notion of mechanical materialism, for Engels, referred to the type of materialism prevalent in the eighteenth century (as it was during the eighteenth century that the most highly developed natural science was mechanics).[29]

Although we are often conscious of the fact that what are perceived as radical and new ideas often find their roots in past discourse, it is both surprising and exciting to discover--or rediscover--what we consider to be a contemporary argument in earlier works. This is, in fact, the case in Engels critique of mechanical materialism: as one of the major themes argued in this thesis is that a communicational approach rejects linear and atomistic theories as applied to social relations. We find that Engels, in his explanation of the dangers of applying mechanistic methods--as grounded in studies within the natural sciences --replicates and practically applies arguments previously

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[29]Once more, the detrimental implications of either/or logic is indicated.

discussed in reference to the revelations and necessity of a communicational approach. For in his explanation and subsequent attack on mechanical materialism, he elegantly asserts that:

> The foundations of the exact natural sciences were first worked out by the Greeks of the Alexandrian period, and later on, in the Middle Ages, by the Arabs. Real natural science dates from the second half of the fifteenth century, and thence onward it had advanced with constantly increasing rapidity. The analysis of nature into its individual parts, the grouping of the different natural processes and objects in definite classes, the study of the internal anatomy of organic bodies in their manifold forms--these were the fundamental conditions of the gigantic strides in our knowledge of nature that have been made during the last four hundred years. But this method of work has also left us a legacy the habit of observing natural objects and processes in isolation, apart from their connection with the vast whole; of observing them in repose, not in motion; as constants, not as essentially variables; in their death, not in their life. And when this way of looking at things was transferred by Bacon and Locke from natural science to philosophy, it begot the narrow, metaphysical mode of thought peculiar to the last century (Engels 1892: 82; emphasis mine).

According to this mechanistic view, all complex phenomena can be reduced by arranging and rearranging the material particles (Acton 1967: 391). Collecting items of information, while ignoring the aspect of process was a necessary step in the beginnings of natural science. It was only, however, a "preliminary stage toward grasping the world in all its interconnections, processes, beginnings and endings, and contradictions" (ibid.).[30]

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[30]This refusal to repunctuate relations in a dialectical manner (recognizing, at least, the realities of contextual levels of patterns of relationship) is still in evidence in some contemporary modes of thought. For as Wilden points out:

> ". . . on both the right and left in Western society one still finds it assumed that (critical) sciences, social and physical, signifies a non-ideological or equivalently 'value-free' state of affairs. Given the awesome power of the dominant ideology and the dominant forms of communication in our society, the sources of this somewhat

Thus the label mechanistic, which Engels also referred to as "metaphysical" attitudes of thought.

> To the metaphysician things and their mental reflexes, ideas, are isolated, are to be considered one after the other and apart from each other, are objects of investigation fixed, rigid, given once for all. He thinks in absolutely irreconciable antithesis. "His communication is 'yea, yea, nay, nay'; for whatsoever is more than these cometh of evil." For him a thing either exists or does not exist; a thing cannot at the same time be itself and something else. Positive and negative absolutely exclude one another; cause and effect stand in a rigid antithesis one to the other.
>
> At first sight this mode of thinking seems to us very luminous, because it is that of so-called common sense. Only sound common sense, respectable fellow that he is, in the homely realm of his own four walls, has very wonderful adventures directly he ventures out into the wide world of research. And the metaphysical mode of thought, justifiable and necessary as it is in a number of domains whose extent varies according to the nature of the particular object of investigation, sooner or later reaches a limit beyond which it becomes one-sided, restricted, abstract, lost in isoluble contradictions. In the contemplation of individual things it forgets the connection between them; in the contemplation of their existence, it forgets the beginning and end of that existence; of their repose, it forgets motion. It cannot see the wood for the trees (Engels 1892: 83-84).

An apt expression of the vulgar materialist; a metaphysical approach delimits and constrains all hope for a <u>contextual</u> and pattern oriented analysis of social relations.

> romantic belief are readily understandable. In a society dominated by commoditized relations and alienated values, the attempt to close science off from its relations with the values of its contexts makes a tortuous kind of sense. All the same, however, this undialectical and decontextualizing activity seems ultimately to betray an implicit allegiance to a now venerable religious, psychological, and philosophical tradition: THE QUEST FOR THE ABSOLUTE (as the early nineteenth century phrased it)" (1980: xxvii).

What immediately comes to surface, in Engels' holistic explanation, is the existence of contradiction--and thus the dialectic.

Engels argued that the metaphysical view there could be no contradictions in nature rested upon the assumptions that "things were static".[31] That, if the correct relational approach is adopted--i.e., "things" in movement and relation to one another--then the dialectical view must be adopted. For movement itself is a contradiction.

The materialist conception of history, for Marx and Engels:

> . . . starts from the proposition that the production of the means to support human life--and, next to production, the exchange of things produced--is the basis of all social structure; that in every society that has appeared in history, the manner in which wealth is distributed and society divided into classes or order is dependent upon what is produced, how it is produced, and how the products are exchanged. From this point of view the final causes of all social changes and political revolutions are to be sought not in men's brains, not in man's better insight into eternal truth and justice, but in changes in the modes of production and exchange (Engels 1892: 90).

The "Laws" of Dialectics

In discussing the dialectic, Engels laid out some "laws" for its application in Anti-Duhring (1878) and Dialectics of Nature (1872-82). "He himself applied it [the laws of dialectics] as a method to provide an approach with profound insights into natural and social processes" (Sherman 1976: 58). What Engels attempted was to "codify 'material dialectics' as a way of under-

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[31] Thus, the metaphysical view--as it is explained by Engels--provides us with yet another example of either/or rigid logic.

standing the dialectics of natural history and social life" (Wilden 1977a: 93).

For our purpose, two of these so-called laws will be discussed in detail: those known as "Unity of Opposites" and "Negation of the Negation".

The "interpenetration of opposites", or "unity of opposites" was never discussed in great detail by Engels. Basically, this so-called law seemed to be intended as an explanation of why change occurs. The idea behind it being that without tension, everything would remain the same, since there would be nothing to promote change. It appears that the purpose of this law was to explain--in a deeper and more contextual manner--and to, in fact, repunctuate and thus metacommunicate about, the complexity of dialectical relations (levels of communication) involved in and with society. It is an attempt at reminding us that the world does not consist of isolated entities, but of relations (or "forces") in opposition, unification and contradiction with one another (the "thesis", "antithesis", "synthesis").[32] In other words, "opposition" and/or "contradiction" is the necessary relation for change.

> Further, we find upon closer investigation that the two poles of an antithesis, positive and negative, e.g., are as inseparable as they are opposed, and that despite all their opposition they mutually interpenetrate. And we

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[32]Many of the characteristics of a communicational approach (e.g. context, relationship, punctuation of patterns of relation, levels of communication and, of course, paradox) and the more all-encompassing essence of a communicational approach, are easily associated with this explanation.

> find, in like manner, that cause and effect are conceptions which hold good only in their application to individual cases; but as soon as we consider the individual cases in their general connection with the universe as a whole they run into each other, and they become confounded when we contemplate that universal action and reaction in which causes and effects are eternally changing places, so that what is effect here and now will be cause there and then, and vice versa (Engels 1892: 84-85).

Much debate has ensued due to the ambiguity of Engels' explanation of "opposition". "Opposition" would seem to imply "symmetrical"--i.e., distinct but equal--relations. The most fundamental problem, which is painfully explicit in the above passage, is Engels' use of "opposition", "cause/effect", "positive/negative", to describe relations which may not be in opposition at all. Thus, one could convincingly argue (if one took Engels at face value) that hierarchically different relations, such as slave "vs." slave-owner or woman "vs." man, are in the same type of opposition to each other as the two poles of a magnet. At any event, to even use the term "versus" implies a symmetrized opposition, rather than a hierarchical <u>contradiction</u> which, in reality, exists. The use of the term "opposition" as a "catch-all" phrase for describing relations which are, in actuality, not opposed has had serious repercussions for examining social relations.[33]

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[33] In other words, the use of opposition to explain relations which are, in actuality, relations of contradiction once again reinforces the dangers of mispunctuation (which evolve from symmetrization).

> "In this way, real socioeconomic hierarchies between people and groups (levels of relation, levels of power) become ideologically deprived of the political, economic, and historical context which would allow these relationships to be perceived as they really are" (Wilden 1980a: 76-77).

For example, the usage of such phrases as "the battle of the sexes", places the relationship of the sexes in an imaginary opposition to each other. In doing this, the hierarchical contradiction existing between the relations of men and women is neutralized; the two sexes are being placed in "a false identity of opposites" (Coe and Wilden 1978: 32).[34]

In reality, "no such identity and no such opposition actually exists" (ibid.: 33). What exists is a conflict or struggle. The same can be said for the "opposition" between "capital" and "labour". For, although one can still imagine the dialectic in terms of "thesis", "antithesis" and "synthesis", one cannot assume that the "thesis" and "antithesis" are always in opposition. As it happens, in most cases concerning organic relations (as in the relation between capital and labour) a contradiction or conflict exists between the "antithesis" and "thesis".

The term "unity of contradiction" implies, then, that the relationships being described involve at least two levels, one of which is dominant over the other (ibid.).

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[34]This idea of "a false identity of opposites" provides us with greater insight into the notion of symmetrization (a predominant type of mispunctuation).

> "As a result of this symmetrization of levels, distinct socioeconomic levels which contradict each other in the Real will commonly be perceived and acted on as if the various levels were simply in a single-level opposition to each other (man opposes woman, capital opposes labor, white opposes non-white, and so on)" (Wilden 1980a: 77).

> The reason for substituting 'unity' for 'identity' is, first, to correct the notion that the relationship is symmetrical ('equal and opposite') by indicating its fundamental asymmetry; and second, to include within the description the reality that 'male' and 'female' --like 'capital' and 'labour' in our present economic system--are interdependent . . . (ibid.).

The phrase "identity of opposites" is, however, appropriate for expressing such relationships as:

1) a relation involving a polarity of two items of the same logical level of reality, "such as that between positive and negative electrical potential" (ibid.: 31), and

2) a relationship in which the structural identity is constituted such that the distinction between the two poles is based entirely on an oppositional sign of the same type as the other; such as +2 and -2 (ibid.).

V.I. Lenin (1870-1924) is generally regarded as "the chief exponent of dialectical materialism" after Marx and Engels (Runes 1960: 167). However, it would seem that Lenin followed in Engels' footsteps in clouding the "issue of relationships between dialectics and living and social systems" (Coe and Wilden 1978: 35). For in describing "identity of opposites" he listed:

> In mathematics: + and -. Differential and integral.
> In mechanics: action and reaction.
> In physics: positive and negative electricity.
> In chemistry: the combination and disassociation of atoms.
> In social science: <u>the class struggle</u> (ibid.; emphasis mine).

The "class struggle", however, cannot be equated with positive and negative electricity, as it is incorrect to make an analogy between the mechanics of the physical world to "the non-mechanical relationships of living and social systems" (ibid.).

This is just one more example of a mechanistic perspective, whereby a misinterpretation of hierarchical relations are placed in imaginary opposition to one another, which results in a mispunctuation of real communicational phenomena.

As Coe and Wilden point out, Marx had criticized the positions of confusing hierarchically different relations with relations existing in bilateral opposition, in the Grundrisse ("Foundations of the Critique of Political Economy", 1857-58) (1978: 37). This was in regards to the erroneous assumption that production and consumption are "equal".[35]

> Marx begins his critique by saying that there is 'nothing simpler for a Hegelian than to posit production and consumption as identical' . . . . Marx concludes, 'not that production, distribution, exchange and consumption are identical, but that they all form members of a totality, distinctions within a unity'. Production ultimately dominates all the other aspects of economic life under capitalism: the relationship is hierarchical (ibid.: 38).

The notion of "identity of opposites" is a necessary concept for an understanding of a dialectical, and concurrently,

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[35] As Marx explained it in his "Introduction to the Critique of Political Economy (1857-58), "consumption produces production by creating the necessity for new production, i.e. by providing the ideal, inward, impelling cause which constitutes the prerequisite of production. Consumption furnishes the impulse for production as well as its object, which plays in production the part of its guiding aim. It is clear that while production furnishes the material object of consumption, consumption provides the ideal object of production, as its image, its want, its impulse, and its purpose. It furnishes the object of production in its subjective form. No wants, no production. But consumption reproduces the want" (in Sweezy 1942: 173).

Sweezy translates this somewhat esoteric definition by discussing "the fundamental contradiction" of capitalism: ". . . production entirely lacks an objective unless it is directed towards a definite goal in consumption, but capitalism attempts to expand production without any reference to the consumption which alone can give it meaning" (ibid.: 174-175).

communicational approach. An important lesson about context and punctuation is implicit in the lengthy discussion concerning this so-called law. When confronted with relations which seem to be in opposition, one should "adjust one's vision" to recognize, not just the context of the particular relation, but the overall context which has defined the question in the first place. In other words, a relationship which is, in reality, hierarchical, may, as a result of socialized assumptions, be treated--or mispunctuated--as a single-level opposition. The distinction between an "identity of opposites" and a "unity of contradiction" is often a fine one to make; however, a necessary one in the on-going process of understanding change.

Coe and Wilden discuss four different types of relations which are often seen as falling under the "heading" of "Identity of Opposites":

(A) Unity of Differences	The rippled surface of a lake; direction is multi-dimensional space.
(B) Unity of Distinctions:	The alphabet in writing; the whole number system; . . . compass headings.
(C) Unity of Oppositions:	Positive and negative electric potential (in which the two poles are structurally identical).
(D) Unity of Contradictions:	('A' dominant): An economic system with 'A' standing for 'business', 'B' standing for 'peasantry', and 'C' standing for industrial workers' (1978: 43).

Therefore, an essential process-evoked by a dialectical perspective--is that when confronted with a relation, which initially seems to be, or is defined as, an "Identity of

Opposites", one must study that relation in a dialectical fashion (examine the original punctuation in light of the patterns of relationship, the metacontextual levels of constraint, and take into consideration the possibility of mispunctuation) in order to ascertain if it is, in reality, the case.

More specifically emphasized by Engels was the so-called law of the "negation of the negation". If we turn, once again, to the structure of "thesis", "antithesis", and "synthesis" --remembering Hegel's original explanation ("A" and "not-A"; cf. p. 123)--the "negation of the negation" takes on new meaning when given real characteristics. Marx, in Das Kapital, explained that:

> . . . when, as a result of competition between capitalists, the few remaining giant capitalist enterprises find themselves confronted by a poverty-striken proletariat, the latter will rise and expropriate the former, the expropriators will be expropriated (in Acton 1967a: 393).

The "antithesis", then, negates the "thesis", resulting in the "negation of the negation" producing the "synthesis".

It has been argued that the label "negation of the negation" is an inappropriate way to discuss contradiction, conflict and change in material social relations. For in outlining this so-called law, it would seem that Engels "failed to make any consistent distinction between inorganic, organic, and socioeconomic systems" (Wilden 1977a: 94). For in Anti-Duhring (1878), Engels asserts:

> . . . our purpose here . . . to show that negation of the negation really does take place in both (the plant and animal) kingdoms of the organic world. Furthermore, the whole of geology is a series of successive shatterings of old and deposits of new rock formations (cited in Wilden 1977a: 94).

The confusion between organic, socioeconomic and inorganic systems is another illustration of the process of symmetrization. For hierarchical and complex levels of relations, according to this explanation, can mistakenly be oversimplified (i.e., reduced) and thus neutralized.[36] The inherent dangers of classifying all such relations--as those previously put forward as "Unity of Differences", "Unity of Distinctions", "Unity of Oppositions", and "Unity of Contradictions"--under the rubric of "Interpenetration of Opposites" or "Identity of Opposites", would also hold true for the manner in which "negation of the negation" is commonly interpreted. (Mispunctuations can, of course, also arise if the relations,

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[36] Indeed, what is taking place in this type of mispunctuation is a confusion of logical types, as inorganic, organic and socioeconomic systems represent different levels of contextual constraint. Moreover, what this kind of faulty interpretation can lead to is that:

> "Along with the denial, the repression, or rejection of the real context, the actual power relations sustaining and enforcing the hierarchy will also be ideologically 'neutralized', as if they did not exist. People caught up in this kind of Imaginary behavior and belief will refuse to recognize the socially and economically enforced domination of men over women in our society, for example. Or they will hold that the dominant-subordinate relationship between capital and labor under state and private capitalism is 'really' a relationship of 'competition in the market'. Or they will treat a colony as if it were a nation--which it does appear to be, <u>if you remove, invert, or symmetrize the real context made up of those who are doing the colonizing</u>" (Wilden 1980a: 77).

(This does not mean that Engels perceived the world in this manner. On the contrary, what is being emphasized is that mispunctuations --inherent in Engels' definition of this law--can lead to far more debilitating kinds of mispunctuations.)

which "thesis" and "antithesis" represent, are not seen in their proper context.)

In clarification, what is being discussed is the notions of opposition and contradiction. It would seem, then, that for the purposes of discussing the relations between Hegelian ideal concepts, the triadic processes of change--called "thesis", "antithesis" and "synthesis"--are both appropriate and necessary. However, in view of the repunctuations of the Hegelian dialect into a way of understanding systems in conflict with systems--or conflicts between subsystems (e.g. socioeconomic classes) within the whole system (cf. Appendix IV) making up society-in-history --the "thesis", "antithesis", "synthesis" analogy proves to be just too linear a model (Wilden 1977a: 95). The notion of negation of the thesis by the antithesis "applies a one-dimensional construct to a multidimensional reality" (ibid.).

In another light, this model makes it all too easy to fall into some of the ideological myths regarding relations in false opposition (the symmetrization of levels of complexity). In order for the so-called law of "negation of the negation" to make sense, "A" and "not-A" would have to be of different logical types or in a relation of a "unity of contradiction".

> 'A' stands for some particular item, some particular relation, or some particular pattern. 'Not-A', in contrast stands for every other item, relation, or pattern in the universe except 'A'. As a generality, 'not-A' cannot properly be regarded as being of the same type of a particular, such as 'A'. To put the point another way, the difference in levels between

> 'A' and 'not-A' results from the circumstances that 'not-A' is not simply the 'negative' of 'A'. 'Not-A' is the environment of 'A' (Coe and Wilden 1978: 45).[37]

The "negation of the negation" should be perceived as simply a guide or punctuation available for reminding one to recognize hierarchically different levels of relations, which are often confused with "what we are taught" are opposing systems of relations or subsystems of relations.[38]

For example, what was--and often still is--called "race wars between Blacks and Whites" in the U.S.A. is a good illustration of this type of symmetrized mispunctuation. A case in point is the so-called desegregation laws passed in 1954 by the Supreme Court. Five court cases, concerning the unconstitutional practice of segregation of children in public schools, solely on the basis of race--under the official name of Brown vs. Board of Education--initiated this Supreme Court decision (Quarles 1964: 268).

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[37]This explanation is an apt criticism of the notion of the "law of the excluded middle"--whereby a relation cannot be "A" and "not-A" at the same time. For what is being emphasized is that "A" and "not-A" are of different logical types (and exist in a relation of contradiction) so that "not-A" can be perceived as providing the context for--and therefore encompassing--"A".

[38]Wilden explains that:

> ". . . these imaginary symmetrizations will usually contain enough of a half-spoken truth about the real relationship to make the pseudo-symmetry believable. Indeed all ideological mispunctuations and misrepresentations of real relations in our society do tell some kind of truth about some aspect of our relationships. These misrepresentations of reality are rarely outright lies--and this is what makes them so difficult to deal with" (1980a: 77).

The so-called desegregation laws are often mispunctuated as being the result of the opposition between Blacks and Whites concerning the unconstitutional and racist practice of separate (and unequal) education (i.e., of placing in false opposition relations which are, in actuality, relations of contradiction). The resolution of this "problem", through a State decision, was supposed to have the affect of solving the "inequities" inherent in the system and, more importantly, to put an end to Black protest. However, this "paper" change had curious repercussions in regards to ideological change. For instead of "passifying" public displays of Black "discontent", this legal decision was partially responsible for a "raising of consciousness" (or a repunctuation)--for both Black and White.

> . . . The Brown decision meant that America would have to look anew at its colored citizens. 'The abiding subconscious of the Negro turned overnight into an acute and immediate awareness of the Negro', wrote James Jackson Kilpatrick, editor of the Richmond News Leader (Quarles 1964: 238).

Awareness and subsequent shock prevailed, as Whites began to realize that the Black "problem" was far from being solved, but was in fact escalating. Many Blacks, on another level, recognized that this token appeasement was just symptomatic of the insurmountable injustices and violence directed at Black people in America--through sociopolitical and economic constraints.

> You need some proof? Well, then, why was it that when Negroes did start revolting across America, virtually all of white America was caught up in surprise and even shock? I would hate to be general of an army as badly informed as the American white man has been about the Negro in this country (Malcolm X 1964: 273-274).

As far as the "effectiveness" of the so-called desegregation laws, one need only look at unemployment statistics; northern ghettos in such places as Detroit, Baltimore or Washington, D.C.; the quality of education the majority of Black children are receiving; or pay a visit to any of the southern states to see how effective these laws were.

> No sane man really wants integration! No sane white man really wants integration! No sane black man really believes that the white man ever will give the black man any-thing more than token integration. . . . Human rights! Respect as human beings! That's what America's black masses want. That's the true problem. The black masses want not to be shrunk from as though they are plague-ridden (ibid.: 245-246).[39]

The common error of the dominant ideology is once more apparent; the never-ending myth of putting contradictory relations in symmetrical opposition. In a real and dialectical perspective, it is immediately obvious that to place the races in opposition, i.e., Black vs. White, is a false relation.[40] For in this society, Whites are dominant over Blacks. The change which occurred--as a partial result of the implementation of the so-called desegregation laws--was a recognition of a relation of

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[39] Indeed, what Malcolm X is emphasizing is that the idea of integration--within a White dominated society--is a symmetrization of hierarchical levels of constraint (an attempt to resolve a mispunctuated understanding of relations between Blacks and Whites; mispunctuated because it confuses logical types, and decontextualizes and thus neutralizes reality). Malcolm X's statement is, in fact, a metacommunication.

[40] Within the context of this explanation, it can now be noted that the idea of "reverse discrimination", in reality, cannot exist. For it is just an extension of the mispunctuation of placing Blacks and Whites in a relation of false opposition.

conflict--a "unity of contradiction".

> Unless we call one white man, by name, a 'devil', we are not speaking of any individual white man. We are speaking of the collective white man's historical record. We are speaking of the collective white man's cruelties, and evils, and greeds, that have seen him act like a devil towards the non-white man. Any intelligent, honest, objective person cannot fail to realize that this white man's slave trade, and his subsequent devilish actions are directly responsible for not only the presence of this black man in America, but also for the condition of which we find this black man here. You cannot find one black man, I do not care who he is, who has not been personally damaged in some way by the devilish acts of the collective white man (ibid.: 266)!

One notion which immediately comes to mind, in this moving quotation, is Malcolm X's concern with distinguishing between the "individual" and the "collective". This distinction is another fundamental relation which is often reduced to an "either/or", "oppositional" model within the dominant code (cf. Appendix III). How often have we heard arguments like: "But I'm not a racist, some of my best friends are Black", or "I'm no male-chauvinist pig, my wife and I are equal" (cf. "symmetrization" for further explanation of this example). What we are taught to confuse is the "individual" with the "collective". The "collective" refers to the Dominant Other[41] and/or the dominant code (ideology). This dominant other is represented by the individual, who is a part of the oppressing (exploiting) class, race and/or sex. Since the code is of a

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[41]The notion "Dominant Other" is a useful term for meta-communicating about relations of oppression. Dominant Others refer to the collective oppression of one group, class, and/or sex by the dominant (more powerful) class, race and/or sex. Under capitalism, the Dominant Other is represented by the white, capitalist, male.

higher level than the individual it constrains, then to reduce the "collective" to the "individual" is again a false opposition. And, since an individual is defined by relations to others--both real and imaginary--and to the social, political and economic context (e.g. class, race, sex) it is impossible for the dominant discourse not to be ingrained in the individual. It is the dominant ideology--the capitalist system, in this case --which should be recognized as a collective expression.

Wilden provides us with an example which demonstrates the impossibility of "equal but opposite" relations between hierarchically different levels of relation.

> In the real world supported and maintained by real labor, and where words may also be forms of violence, potential and actual, we know that one white person's 'Nigger!' does incalcuable damage to the 'self-concept' of the black, whereas one thousand or one million blacks responding to an original white assault by means of 'Honkie!' has no necessary or significant effect on the white at all. Such 'negation' and 'counter-negation' cannot under state and private capitalism be reciprocal or symmetrical because the white collectivity represents a dominant Other for the black . . . (1979: 9).

The vague, so-called laws of "negation of the negation", or "Identity of Opposites" put forward by Engels and Lenin can have dangerous implications for the dialectical approach. For if they are misinterpreted, or taken literally as rigid "laws", then they, in turn, neutralize the dialectical process, transforming it into a mechanistic either/or tautology. For the dialectic is a complex, continuous process; an event which is quantitatively and qualitatively different from the set of relations originally questioned.

> The day-to-day confusions between relations of difference, distinction, opposition, and contradiction correspond to both logical and real confusions between levels of relation in social and other systems. They are confusions that often lead to the ideological neutralization of real hierarchical relations in systems and in society (Wilden 1977a: 110).

The elaborate and essential nature of the dialectic provides us with further insights into what Bateson calls the aesthetic quality of a communicational approach. Indeed, because of its concern for levels of patterns of relationship, contextual constraint, paradox and punctuation--to name a few --a communicational approach, by its very nature, must therefore be dialectical.

CONCLUSIONS

> "Would you tell me, please, which way I ought to go from here?"
> "That depends a good deal on where you want to get to," said the Cat.
>
> Lewis Carroll, Alice's Adventures in Wonderland (1865)

The above quotation is indicative of the plight of many contemporary social scientists. It is not so much that they know not where they are going, but that it is often difficult to find a perspective (or approach, methodology or epistemology) which provides them with direction; direction which aids them in understanding the complexity of communicational phenomena (which is another way of talking about the multi-leveled and contextual nature of all kinds of behaviour) in an appropriate manner.[1] The on-going development of a communicational approach--which is necessarily concerned with recognizing "the pattern which connects"--attempts to do just this.

Within this thesis, a number of characteristics which prove essential for explaining and understanding communication have been identified. Moreover, it has become apparent that these characteristics--in relationship--can be translated into

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[1] As discussed in Chapter II, by appropriate or effective we mean one which actually addresses the reality it attempts to explain. In other words, dialectical.

a higher-leveled, more all-encompassing approach, which is being called communicational.

This approach is, indeed, a punctuation--or metapunctuation --which is concerned with looking at relations in a both/and dialectical fashion. Further, this metapunctuation involves both the incorporation and repunctuation of many theories, ideas and perspectives which would seem to be "at odds" with how this approach purports to view the world. However, at deeper examination, we find that either/or logics are in contradiction, and not in opposition, with the both/and logic of a communicational approach. And since both/and logic is of a higher logical type, and therefore constrains, either/or logic, the contradictions can be resolved and transformed through a process of translation. "In other words the metarelations" between conceptualizations "may be confused but understanding may emerge again as true at the next more abstract level" (Bateson 1979: 129).

This repunctuation--necessarily involved in the development of a communicational approach--provides for a contextual and metacommunicational understanding of everyday practical experience.

> As Marx so succinctly put it, the question of truth for humankind is not a theoretical question, but a practical question. The pragmatics of life, relationships and meaning necessarily and invariably subsume the theoretics of knowledge, existence, and signification. Not only do the former constrain the latter; they are also the environment without which the system represented by the scientific discourse could not survive. This relationship is similar to that between dialectics and analytics. BOTH the 'both-and' of dialectics AND the 'either/or' of analytics are necessary to any critical perspective: the relationship between the two logics is not oppositional, but hierarchical (Wilden 1980: lx).

Without the recognition and application of perceiving relations in a context-oriented and multi-dimensional manner, a communicational approach would simply not be (it must be remembered that a communicational approach is labelled radical precisely because it borrows and translates from other disciplines and/or traditions). Indeed, many of the characteristics of a communicational approach stem from analytic either/or perspectives and/or theories. The recognition of mispunctuations and consequent repunctuations of various notions are, in fact, demonstrations of this approach's dialectical concern. The theory of logical types is an illustration of this very point.

> In other words, when we take the notion of logical typing out of the field of abstract logic and start to map real biological events onto the hierarchies of this paradigm, we shall immediately encounter the fact that in the world of mental and biological systems, the hierarchy is not only a list of classes, classes of classes, and classes of classes of classes but has also become a zigzag ladder of dialectic between form and process (Bateson 1979: 215).

The emphasis on the dialectical nature of a communicational approach becomes even more evident within the context of the evolution of the idea of dialectics itself. For by tracing the translation of the dialectic, the essence of a communicational approach is exemplified. For example, the dialectical notion of thesis, antithesis and synthesis--as a rule-governed and ever-changing process--is similar, and provides clarification for, the ideas of hierarchical levels of patterns of relationship, punctuation, and repunctuation (and can also be employed to explain mispunctuation). Also, the idea of communication about communication--metacommunication--is more understandable within the multi-leveled framework of the notion of dialectics. And,

indeed, aspects of this framework resemble closely what is being proposed by a communicational approach.

In explanation: like Hegel's dialectic, a communicational approach is concerned with looking at--and languaging about --experience in an aesthetic manner (in other words, being responsive to levels of changing patterns of relationship). However, a communicational approach rejects the idea of an ABSOLUTE level of constraint and, therefore, has no illusions about providing for a definitive or finite answer. For as Bateson responded when asked how many levels exist:

> . . . that I cannot know. I cannot know whether it is ultimately a tautology nor how many logical levels it has. I am inside it and therefore cannot know its outer limits--if it has any (1979: 229).

Once again, the emphasis on context (and context of context, and so on), essential to the communicational perspective, is revealed. In this manner, a communicational approach is similar to the Marxian translation--and punctuation-- of dialectics.

> With all its possible defects, the Marxian model has one scientific and epistemological quality which most other sociopolitical and socioeconomic theories lack. It rarely fails to be concerned with the CONTEXT in which change occurs. It is a systematic and structural model open to the future. It seeks to establish a set of TRUTHS-IN-PROCESS . . . (Wilden 1980: xx).

Moreover, the recognition of some of the complexities involved in a communicational approach allows us to identify similar punctuations of experience--in other works--and thus better understand what is being argued.

In the writings of Marx and Engels, for example, the necessity of metacommunicating about real, concrete relations as being hierarchically structured--in accordance with levels and metalevels of constraint--is further revealed.

> Modern industry has converted the little workshop of the patriarchal master into the great factory of the industrial capitalist. Masses of labourers, crowded into the factory are organized like soldiers. As privates of the industrial army they are placed under the command of a perfect hierarchy of officers and sergeants. Not only are they slaves of the bourgeois state; they are daily and hourly enslaved by the machine, by the overlooker, and, above all, by the individual bourgeois manufacturer himself (Marx and Engels 1848, in Rius 1976: 114).

Indeed, a communicational approach not only punctuates experience in a particular way (in a both/and dialectical fashion) but also provides us with a context for understanding how others punctuate the world. In this sense, it is discourse of a higher logical type.

> The question of developing . . . [a] discourse of a higher logical type than that to which we are all presently subjected returns us to the point at which we began: the question of context. In an ecosystemic perspective, the position of higher logical type is simply that which is most capable of dealing with the most context and levels of context, and that which is most capable of understanding how methodological closures--like that of logical typing itself--inevitably generate paradox. It is also that position which can explain its own relationship to the context it is in. In addition, therefore, to the traditional and relatively static logical position dependent on non-contradiction and identity (the analytic epistemology) which will work INSIDE a given dimension of the system one has isolated, there is a purely epistemological requirement for a logic of a higher type, a dynamic logic SUBSUMING the first, and one which works WHEN ONE TRIES TO CROSS THE SPATIAL, COMMUNICATIONAL, ORGANIZATIONAL, OR TEMPORAL BOUNDARIES SET UP BY CLOSURE. Such a logic will subsume . . . analytic logic by a process of metacommunication: it is the dialectic logic, not of Hegel, but of Marx (Wilden 1980: lix).

This quotation, although lengthy, nevertheless captures the transdisciplinary, multi-dimensional and essential nature of a communicational approach for explaining the complexities of all kinds of socio-political and economic relations.

What the Palo Alto Group and its associates have begun to "set up" is an emergent epistemology which attempts to understand and talk about "the reality of reality". The idea of why this approach is defined as being both "in progress" and dialectical is elegantly summed up by Bateson (in response to a request made by his daughter):

> Daughter: Please, Daddy. Don't do that. When we get near to asking a question, you jump away from it. There's always another question it seems. If you could answer one question. Just one.
>
> Father: No. You don't understand. What does e.e. cummings say? "Always the more beautiful answer who asks the more difficult question" . . . You see I am not asking another question each time. I am making the same question bigger . . . (1979: 235).

APPENDIX I

EPISTEMOLOGY

The term "epistemology" has a variety of meanings due to the over-generalized manner in which it is used throughout the social sciences. Consequently, the understanding of the word depends on the particular bias of the individual reader. It is, then, necessary that the way in which epistemology is used within this thesis be identified.

Gregory Bateson loosely describes epistemology as being "a branch of science combined with a branch of philosophy". As he explains it, a communicational epistemology is "the study of the necessary limits and other characteristics of the processes of knowing, thinking and deciding" (1979: 250). Wilden and Wilson provide a similar but more precise definition in emphasizing that a communicational epistemology is, in fact, ecosystemic. The "ecosystemic epistemology provides us with a precious tool of analysis and criticism. Precisely because it is a multi-dimensional logic of levels in which either/or disjunctions are subordinate to both-and connections" (1976: 274). The ecosystemic epistemology does not view boundaries as being rigid, but recognizes them as both punctuations and locuses of

communication. The communicational epistemology recognizes paradox, contradiction "and quantum leaps of sudden change to be both ordinary and creative events, it may best be called dialectical" (ibid.: 275). What a communicational epistemology does is to get at both the root of knowing and how and why we know (cf. "punctuation").[1]

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[1]Wilden points out that:
"It is not always possible to distinguish easily between a dominant ideology in human affairs. In general, the aspect of our world view that we label epistemological has to do with the deeply-coded and often mainly syntactical abstractions (in science, for example) which allow the more overtly valued or more obviously SEMANTIC-PRAGMATIC ideological world view to be communicated. Beyond the universal of all human experience, neither espistemology nor ideology are of course the immediate sources of predominant attitudes and values in a society, for these arise, after the event, in the socioeconomic organization of the real" (1980: xxvi).

APPENDIX II

MISCOMMUNICATION

(THE DANGERS OF ERRONEOUS DEFINITIONS OF COMMUNICATION)

A calculus for understanding communication must be complex enough to represent all the significant aspects that it attempts to explain. Furthermore, the attention paid by Bateson and his contemporaries to the multi-leveled and contextual nature of communication provides us with the groundwork for translating "the relations involved in communication" into "communication as an approach for explaining social relations". Indeed, what is being suggested by the research of the Palo Alto Group and its associates is "a very different way of looking at human communication from that which prevails in conventional wisdom" (Wilder 1978: 33).

It is unfortunate that this most desperately needed "emergent epistemology" is often neutralized, by traditional social scientists, due to a number of writers who mistakenly label their work as being communicational. For the area of study loosely labelled "communications" has attracted a variety of researchers who offer simplistic and non-contextual applications of communications.

The Palo Alto Group and its associates are well aware of the debilitating consequences for their work when it is mistakenly associated with the writings of those who pretend to be communications scholars.

> Watzlawick, Weakland and Fisch come down very hard on those 'terrible simplificateurs' who overlook the fact that a large part of human communication takes place tacitly through the absence of communication and 'who jumped on the bandwagon of communications theory and practice' and operated in a variety of therapeutic and non-therapeutic settings 'on the problem engendering premise that communication should be clear, straightforward, direct--in a word, total.' Because of the 'absurd simplification inherent in this approach', the results are more often 'totalitarian' rather than 'total communication' (ibid.).

It is in this light that we can see how inadequate and erroneous definitions of communication lead to misapplication of an effective methodology--"effective" meaning one which actually addresses the reality it attempts to explain. The following quotation is an example of this kind of definition.

> Most of us spend up to 80 percent of our waking hours engaged in some form of communication; listening and responding to the messages of others occupies much of this time; the rest divides among talking, reading, and writing (Mortenson 1973: 1; emphasis mine).

This one-dimensional explanation of communication makes the questionable assumption that communication is only a waking and conscious activity. Moreover, Mortenson also appears to be implying that all communication is an intentional process, that is, one in which individuals consciously decide whether to communicate or not. The quotation also implies that communication is only, or mainly, a linguistic activity; in other words, that language is the primary prerequisite of a communications system.

As has been demonstrated, in the section on "meta-communication", recent research in animal and insect behaviour has shown that animals and insects do indeed have complex communications systems, which sometimes involve the sophisticated use of symbolic forms of communication (metacommunicative signs). Furthermore, insect and animal communication includes the employment of taste, touch, ritualistic displays (especially in mating; cf. p. 60), conventionalized signals, and even the use of tools (for example, both chimpanzees and sea otters use tools in obtaining food).

If animal communication, which does not involve language, is as complex as this research suggests, then this implies that language is not the only, and perhaps not even the most important, aspect of human communication. In fact, it is clear that much of the information involved in social communication is not verbal, and much of it cannot be expressed in verbal forms.

Mortenson's definition of communication would not be worth a great deal of analysis, if it did not exemplify common assumptions made by those "terrible simplificateurs". If, as Mortenson suggests, we spend up to thirteen hours a day in communication, then what is it people "do" in the remaining time? Since it is impossible for any organism not to communicate, it is a mystery as to what Mortenson considers individuals "do" in the remaining twenty percent of their "waking hours", or how they spend their "unwaking" periods. (One might be led to conclude that they are dead.)

Mortenson's definition can also be criticized for being atomistic because it assumes that individuals can exist outside of their communicational relationship with one another or outside their social context, which necessarily involves levels of communicational relationships (and/or metarelationships).

The inadequacies of this type of oversimplified and "symmetrized" approach to communication are immediately evident when compared with the multi-relational explanations provided by the Palo Alto Group and its associates. For what a communicational approach is concerned with is the relationships of phenomena to their metacommunicational context. Wilder associates the inception of this radical epistemology with the study of art which is characterized by the "shift of focusing upon objects to focusing upon objects in space (or spaces around objects)" (1978: 33).

> In communication research, the paradigmatic shift would be to focus on silence [as a metacommunicational context] as well as upon (easily identifiable forms of) communication; on what is not said at the metalevel of communication rules as well as what is made manifest in utterance (ibid.).

APPENDIX III

CODES AND CONSTRAINTS

The notions of codes and/or constraints are referred to, on a few occasions, within the discourse of this thesis. Due to the very specific meanings of these terms--within the context of a communicational approach--it becomes necessary to provide (at least) a general explanation of what is being communicated by their usage.[1]

To underestimate the significance of codes within communications systems is to, in a sense, invalidate their very existence. For as Wilden and Wilson point out:

> No message can be constructed, transmitted, or received in any system without the mediation of an essential constituent Peirce . . . would call a "thirdness", i.e. a code (1976: 268).

Further, a code then consists of, and sets up, a set or sets of constraints which operate in a hierarchical way. The code, however, does not constrain the message as such, but constrains "the kinds of selections and combinations making up messages (and therefore the kinds of behavior) permissible within the

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[1]This is especially the case with the term "constraints". For within our everyday discourse, it would seem that constraint evokes "negative" connotations, i.e., "something" which is restrictive in a "negative" manner.

system" (ibid.). In other words, codes are limiting factors --sets of rules and metarules--which limit the kinds of messages which can be sent and received within a communications network. From another perspective, we can say that a code mediates all the relations it makes possible (ibid.).

This formulation of the concept of a hierarchy of codes as constraints can be understood from linguistics. In the English language a very large number of consonant-vowel combinations can be constructed. But it is not permissible, for example, to construct words without vowels (with the exception of certain onomatopeic sounds).

> Thus, in speaking a sentence we select words from the code which we combine with other selections into the message. Each selection and combination places constraints on further selections and combinations (Wilden 1972: 28).

Moreover, the ramifications of perceiving codes as the locuses of mediation affords us with an opportunity for comprehending many of the constraints operating within our social system. For example, under capitalism commodity production becomes based upon "economic exchange value, measured against the general equivalent of money" (Wilden 1976: 314). In other words, the "use value" of commodities--all exchangeable items --becomes predominated by their monetary exchange value. The monetary exchange value is represented by money. Therefore the relationship of commodities to money can be identified as one mediating code, or one manner of constraint operating within the capitalist system.

APPENDIX IV

SYSTEM

It is inevitable that within any explanation of a communicational approach the notion of "system" will be employed. This appendix provides for only an indication of the complexities involved in the employment, and realities, of this term.

There is a wide range of definitions of the reality and the term "system". To deal with the majority of these definitions would not be useful to the communicational perspective, however, either because they were not written from this perspective or because they provide no adequate explanation of it. More often than not, these definitions have been made from the traditional epistemology of the sciences, notably physics (Buckley 1968: 490).

One problem is approached by Sachs when he says that:

> . . . the more formal a definition of system is, the less congruent its connotations are with our primary intuitions (1976: 145).

A formal approach to the concept of "system" usually means one which defines "relation" in a mathematical sense. This conception of relation, although important, is often inadequate when applied to social systems, i.e., to human communications (ibid.).

For example, Hall and Fagen define system as:

> . . . a set of objects together with the relationships between the objects and between their attributes (1968: 81).

They go on to define their terms in the following way: objects are the parts or components of a system. These parts are unlimited in variety. Attributes are properties of objects. Relationships are what "tie the system together". It is in fact these relationships that make the notion of "system" useful (ibid.).

Although helpful in some ways, Hall and Fagen's definition is already problematic due to the way in which they use the term "object". The way in which they use this term might imply that they are using it in its traditional sense of "a thing" that can exist independently of its environment--an implication which contradicts the interdependency of the system-environment relation (cf. Wilden 1977a: 91). The use of the term "object" could also imply that the "object" is an entity which is not affected or punctuated by the act of observing it.

Krippendorf provides a more relational definition. He defines system as:

> . . . a set of variables, together with the relationships that link those variables into a larger whole.

He goes on to say that both biological organisms and human populations can be defined as systems in that:

> What these vastly different objects of study have in common is that they are composed of many parts which are in themselves subordinate in importance to the prevailing patterns of interaction among them: the complex web of relations (1975: 365).

What Krippendorf is emphasizing is that the characteristics of communication systems must be dealt with principally in terms of context, hierarchies and information exchange between parts which are also subsystems. A system which exhibits these qualities can be called an open system. As Wilden contends:

> An open system is such that its relationship to a supersystem (which may be referred to methodologically as its 'environment' or its 'context') is indispensable to its survival. There is an ongoing exchange of matter-energy and information[1] between them (1972: 203).

A communicational approach is sometimes referred to as a "system's approach". Wilden warns that we would be "well-advised to beware of the word 'system'" due to its association with types of systems theories (general or otherwise) which are mechanistic and/or atomistic, non-contextual and "flat" (ignores levels of relationship (1980: xxxviii, xi).

> . . . there arises in the scientific discourse a complex network of confused relations which by successive abstraction from the Real comes to masquerade in academia and in business as 'systems theory', as the theory of 'interpersonal communication', as 'environmental (i.e. human) engineering', as 'organization (i.e. corporation) theory', as 'administrative communications theory' (or

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[1]The information which flows in communications systems takes many forms. Using a definition of information first made by Ashby, Wilden remarks that, whereas:

> ". . . the classical physical universe is a universe primarily of matter-energy, the organic and human universe is one primarily of information. The simplest and most adequate definition of information is <u>variety</u> (pattern), imprinted or borne on a matter-energy base (on sets of 'markers')" (1976: 83).

He goes on to say that within a given communication system, variety can be either <u>coded variety</u> (order or information) or <u>uncoded variety</u> (disorder or noise) (cf. Appendix III).

> management by outright manipulation), or indeed as any number of other profitable or even pathological modes of translating an original alienation of the person into the production and reproduction of the 'self' as a commodity (ibid.: xlii).

Wilden labels these types of theories "pseudo-systemic approaches" which are "neither communicational nor ecosystemic" (ibid.).

The term "system" is used intermittantly throughout this thesis. It is always meant in a communicational (ecosystemic) sense and refers--unless otherwise noted--to open systems.

> Simply stated, a closed system is one for which its context is effectively irrelevant or defined as such (e.g. the solar system, the cosmos as a whole); an open system, in contrast, is one that depends on its environment for its continuing existence and survival (e.g. an organism, a population, a society) (ibid.: xxxi).

APPENDIX V

ANALOG, DIGITAL AND ICONIC COMMUNICATION

Most coded variety (information) involves both the analog and the digital modes of communication, and it is quite clear that a great deal of information in sender-receiver relationships in society cannot be adequately analyzed by means of a purely digital mode. A communicational approach takes the analogic mode fully into account and recognizes its relationship to the digital mode.

Watzlawick et al. point out the connection between the analog and digital modes of communication and the context and relationship aspects of human communication, if we remember that:

> . . . every communication has a content and a relationship aspect, we can expect to find that the two modes of communication not only exist side by side but complement each other in every message (1967: 64).

The interrelationship of these two modes in human communications is expressed by the notions that the content aspect of a message is usually represented digitally while the relationship aspect is primarily represented by the analogic mode.

Digital communication is defined as a discontinuous flow, one in which gaps are present. Within human communications, language would be considered to be primarily digital. On the

other hand, analog communication represents a continuous flow, one in which distinctive boundaries cannot be identified. Many theorists have equated analog communication with non-verbal communication. However, this definition can lead to misinterpretation if non-verbal communication is restricted to bodily kinesics. Watzlawick et al. emphasize that the term analog must:

> . . . comprise posture, gesture, facial expressions, voice inflection, the sequence, rhythm, and cadence of the words themselves, and any other non-verbal manifestation of which the organism is capable, as well as the communicational clues unfailingly present in any context in which an interaction takes place (1967: 62).

However, it is not possible for these two modes of communication to operate in an equal partnership relation to each other ("side by side", as Watzlawick et al. say). Within the hierarchical context of human communications, the notions of dominant and subordinate levels is essential.

Wilden and Wilson, for example, argue that:

> . . . the significance of the relationship between analog and digital modes in any given system depends on the ways in which translations between them are made, as well as on the relative dominance of the one over the other (their relative logical typing) (1976: 265).

Moreover, if one mode of communication is dominant over the other in a particular system, then obviously one mode must constrain the other. It is difficult to prove which would generally constrain which. However, since analog communication can be seen as meaning, whereas signification is essentially digital (ibid.: 272), then ideally the analog should constrain the digital. Furthermore, if the digital mode represents communication made up of gaps and holes, then it stands to reason that the analog mode would be the background out of which

the digital signals are extracted. In other words, the relationship between these coexisting modes "appears to be the hierarchical relation of logical typing" in which the analog is of a different and higher level than is the digital (Wilden 1980b: 500). However, as Wilden points out, the logical typing of these modes is often confused whereby the levels of constraint are inverted.

> In our society . . . digital communication--as well as competition--is commonly treated as if it were invariably dominant over analog communication--as well as over cooperation--i.e., as if the digital were in the long term of a higher logical type than the analog (ibid.).

This "inversion" is only one type of "mispunctuation"; other types of mispunctuation, for example, can involve the hierarchical levels of analog and digital modes of communication being symmetrized.

> In another common mispunctuation of the analog-digital relationship, the hierarchical relationship between these two forms of communication is neutralized by considering the one to be the binary alternative or the opposite of the other . . . (ibid.).

The reality and importance of the hierarchical distinction between the two modes is evidenced by the notion that within the analogic mode of communication "either/or" or "yes/no" decisions are impossible.

> Because the analog consists of continuous function, it cannot represent the traditional and essential logical operation of identity (Wilden and Wilson 1976: 265).

Although "both/and" operations are possible within the digital mode, "either/or" and "yes/no" decisions are its predominant characteristic.

Within our society the digitalization of analog expression is dominant. For example, we constantly try to verbally define non-verbal and/or analog variety. The use of the digital or "either/or" mode in theoretical analysis, e.g. mechanism, atomism, tends to ignore the analogic frame in which analysis takes place. The failure of the digital theory to recognize the importance of its own context is a problem which is a deficiency in the theory itself. The deficiency is that the theory does not adequately deal with the contexts of the systems it attempts to study or explain. What the theory may ignore is the hierarchical characteristics of the context and/or the analogic domain which makes up the context.

Watzlawick et al. summarize the distinction between the two modes of communications as follows:

> Human beings communicate both digitally and analogically. Digital language has a highly complex and powerful logical syntax but lacks adequate semantics in the field of relationship, while analogic language possesses the semantics, but has no adequate syntax for the unambiguous definition of the nature of relationships (1967: 66-67).

There is, however, a third mode of communication which is necessarily involved with both analogic and digital communication:

> The survival of all living and social systems can be shown to depend on the proper coexistence of two primary modes of communication; the digital and the analog, which together provide for the third mode: the iconic (Wilden and Wilson 1976: 265).

For, as previously mentioned, translations between the analog and digital modes are constantly taking place: translations which could not occur without some form of punctuation.

> Analog and digital communication (both of which . . . coexist in all living systems) are complemented by the iconic coding that results from punctuation or framing of one mode or the other (Wilden 1976: 194).

In explanation, a common form of an iconic sign is a picture or diagram. Even though a picture "contains an infinite amount of potential information, it is nevertheless digitalized or limited by its frame (whether primarily in space, as in conventional art or photography, or in space-time, as in cinema, where we find multiple framing in several dimensions). This particular infinity is of a different level from that of the infinite information of the analog domain on which it depends" (ibid.).

The mediated relationship between the analog aspect of a message and the digital aspect of the same message is then the iconic.

> . . . the icon being both analog and digital, often in several dimensions, at several levels (Wilden 1980b: 501).

APPENDIX VI

FEEDBACK

"Feedback" is a technical term, borrowed from cybernetics. The notion of feedback, however, plays a significant role in both communication and a communicational approach. A rudimentary understanding of what is meant by this notion is therefore important. The following constitutes a very basic explanation.

Within human communications, feedback delineates the conditions in which messages are transmitted between sender-receivers, for without feedback communicational exchange could not take place (Wilden 1972: 95). Without feedback it would be impossible to ascertain whether messages had been sent and/or received. The relationship in which individual action affects and is affected by other individual action can be called a feedback loop (Watzlawick et al. 1967: 31).

There are two modes of feedback in human communication --negative and positive.

> Negative feedback.. . . characterizes homeostasis (steady state) and therefore plays an important role in achieving and maintaining the stability of relationships (ibid.).

Within traditional cybernetics, which is identified as a science of self-regulating and balancing systems, biological and social issues have been studied under a general mode of deviation-

counteracting feedback networks, i.e. negative feedback (Maruyama 1968: 304). A classic example of a system displaying negative feedback is that of a thermostat, in that a thermostat regulates temperature by controlling the heating output of a furnace.[1]

Maruyama criticizes the traditional cybernetics model for not giving proper emphasis to what he defines as deviation amplification--positive feedback. He states that:

> By focusing on the deviation-counteracting aspect of the mutual causal relationships, however, the cyberneticians paid less attention to the systems in which the mutual causal effects are deviation-amplifying. Such systems are ubiquitous: accumulation of capital in industry, evolution of living organisms, the rise of cultures of various types, interpersonal processes which produce mental illness, international conflicts, and the processes that are loosely termed as 'vicious circles' and 'compound interests'; in short all processes of mutual causal relationships that amplify an insignificant or accidental initial kick, build up deviation and diverge from the initial condition (ibid.).

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[1] As Wilden explains it:
"A self-regulating system . . . such as a thermostat connected to a furnace--involves feedback which serves to maintain a predetermined goal" (1972: 357).

APPENDIX VII

BASIC ECONOMIC DEFINITIONS

In examining any aspect of the writings of Marx and Engels, it is inevitable that their economic theories come to light. For these notions are a necessary and interrelated part of not only historical materialism, but also of all Marxian philosophy. It is here that a brief explanation of a few of the socio-economic terms--referred to in this thesis--is helpful. Namely, the means of production, the social relations of production, and the mode of production. In attempting to explain the intricacies of productive relations, Marx provides us with these three basic economic categories which are symbiotic and hierarchical in nature.

Means of Production

> An instrument of labour is a thing, or a complex of things, which the labourer interposes between himself and the subject of his labour, and which serves as the conductor of his activity (Marx 1867, in Marx 1967: 103).

The means of production are made up of the natural environment (e.g. soil, minerals, raw materials), human beings, tools and machines (i.e., a given technology).

Social Relations of Production

The social relations of production are made up of the socio-political and economic environment of society according to the way the means of livelihood is produced, i.e., feudal relations, master-slave relations, capitalist relations and particular commodity relations under capitalism.

> The modern workshop, which depends on the application of machinery, is a social production relation, an economic category (Marx 1847, in Marx 1967: 104).

Thus capital is a system of relations organized by power.

> The 'capitalist' is a structural component of the system, rather than a person. Since its rules or relation and rules of production are based on exchange value for profit under competition, then objectively the capitalist mode of production is a system of the expanded reproduction and accumulation of exchange values which the individual capitalist or corporation does not control (Wilden 1976a: 318).

When the capitalist mode of production is dominant, land, labour and capital are fully commoditized and there is no relationship in the system which cannot be turned into a commodity if needed.

The Modes of Production - The Social Relations

The social relations constitute the dominant character of a society at a specific historical period, e.g. feudalism, tribal society, slavery system, and capitalism, which corresponds to the dominant mode of production. In other words, a dominant and subordinate mode of production can exist such as cooperation and capitalism, e.g. monopolies and oligopolies (slavery can exist in both feudal and capitalist society).

Social relations encompass both the dominant and subordinate modes of production in a given society at a given time in its history.

> Social relations are closely bound up with productive forces. In acquiring new productive forces men change their mode of production . . . (Marx 1847, in Marx 1967: 105).

When the means of production change the social relations of production also change. This, in turn, changes the mode of production and affects the nature of the division of labour.

> The relations of production in their totality constitute what are called the social relations, society, and, specifically, a society at a definite state of historical development . . . (ibid.).

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