This paper discusses a basic methodological and philosophical confusion in the study of human communication. Various scholars have assumed that the study, description, and definition of various systems have led to an understanding of the processes which underlie, or generate, human communication behavior. In effect, two levels of analysis and study are proposed: level one, which allows for the development of an unlimited number of systems and their description in the observable environment of human beings, and level two, which is a set of fundamental communication rules innate in human beings. If we consider the differences between these generative mechanisms, or rules, we will take a major step toward the development of a variety of methodologies to empirically identify human communicative activity on both levels, without confusing the two. (Author/AA)
INTEGRATING THEORETICAL CONSTRUCTS

IN

HUMAN COMMUNICATION

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It is the purpose of this paper to summarize what I consider to be a basic methodological and philosophical confusion in the study of human communication. In the following pages I attempt to indicate that various scholars have assumed that the study, description, and definition of various Systems have simultaneously led to an understanding of the processes which underlie, or generate human communication behavior. In effect, two levels of analysis and study are proposed: Level One, which allows for the development of an unlimited number of Systems and their description in the observable psycho-social environment of human beings. Level Two, a fundamental communicative, neurological, creative, generative, set of survival Rules which are innate in human beings, and whose existence we only stipulate present by describing visible, identifiable, constructed Systems.

It is assumed that if we consider the fundamental differences between these generative mechanisms or Rules and their products, we will have taken a major step leading to the development of a variety of methodologies which will enable us to empirically identify human communicative activity on both Level One and Level Two, without confusing the two. Thus we would no longer automatically assume that the methodologies applied in the study of one, are applicable to the other.
Many individual contributions have already been made towards development of a human-communication-theory. Unfortunately scholars have frequently shunned opportunities to develop common insights into theoretical constructs which would allow them to interrelate their most consistent findings. Rather, many adherents of various schools of thought have demanded complete, partisan acceptance of their own approach over all others.

This paper will be based on insights provided by a number of writers and researchers in the area of social psychology, as well as those who have contributed insights in the areas of General Systems Theory and the prospective of Rules. ¹

The basic assumptions are:

Communication, both internal and external, or intra-personal and inter-personal, is the basic survival process of human beings.

All manifestations of that process, such as verbal - or non-verbal language - use, the use of space, development of specific methodologies for organizations and groups, or between cultures, etc., are outward manifestations of the basic communicative, survival process of human beings, which is determined by generative communication rules yet to be identified.

All human beings have an innate ability to crack the code of communicative rules, which enables them to generate an infinitive number of individually,
culturally, and socially determined responses or communicative acts, in interactional processes with other organisms, events, or objects.

This ability to discover the underlying rules also enables human beings throughout life to leave one culture and integrate themselves successfully into other cultures. If the total process of determining the bases of communication, or underlying rules, were fundamentally different for each culture or society, inter-cultural communication, for instance, would be virtually impossible or extremely time consuming.

Most of our study of human behavior, and indeed of human communication, has taken place within a framework of concepts, or constructs, provided by the natural sciences. This basically causal, empirical, logical orientation resulted in establishing natural science norms as the supposedly most effective means of judging the adequacy of all research into human behavior. The weaknesses of the natural-science-approach in dealing with and providing explanations for human behavior, have been increasingly recognized in recent years.

Human communication, as empirically studied human behavior, has overwhelmingly been described from the standpoint of specific, observable instances, while relatively few attempts have been made to determine underlying reasons, or bases, of such behavior. Action, or teleologically - oriented assumptions, have only recently emerged again, as possible explanations for human communicative behavior.
General Systems Theory has provided some significant insights into the development of a classificatory system based on the constructs of teleological rather than logical approaches.

Human survival will be considered in this paper as depending on more than the traditional biological aspect. Rather, it includes all factors (ethical, moral, aesthetic, etc.) which combine to make human existence, development, and growth into more than mere biological survival. At the same time, it is assumed that something may be learned about the underlying rules governing communicative behavior by considering biological aspects of human development.

One significant starting point for this author is the statement by Coghill relating to the growth of motor neurons as they establish contact with muscles. He indicated that the process is marked by "progressive individualism within a totally integrated matrix, and not a progressive integration of primarily individuated units." This concept is inherent in the overall development of the theoretical constructs in this paper.

There are other basic assumptions which have been more fully developed by a number of scholars, for instance, Cushman and Monge, to whom reference will be made throughout this paper.

Social scientists appear to have increasingly abandoned their strict dependence on natural-science-approaches in favor of a methodological pluralism. This paper will use a similar approach to those employed by General Systems theorists in a number of fields, who have attempted to identify and systematize...
common phenomena. It is an attempt to consider human communication on two levels. Level One: from the standpoint of constructed systems, based on observed behavior, and, Level Two: stipulating the bases of these systems to exist in generative, innate rules of human communication. The application or development of these rules is assumed to result in flexible, systematic processes within cultural and social settings.

On this theoretical basis, human communication can also be defined on two levels. A: Any time there has been cognition, any time meaning has been assigned by a human being, communication has taken place. B: Any time cognition has taken place, any time meaning has been assigned, any time a purposeful response has been made by a human organism to such cognitions, which is directed towards any object, event, or other organism in the environment, communication has taken place.

One additional factor is basic to this proposed theoretical construct. All human communication, even on an interactional, Systems level (Level One, as used in this paper) is individual communication. Such systems or constructs as Intercultural or International - communication, or organizational - communication, appear frequently to be based on assumptions that organizations or groups somehow communicate, rather than the human beings in these groups, or human organizations. As a result, organizations, cultures, societies, appear in much of today's literature to be dealt with as the result of more than responses by individual human beings to the environment, or the interactional processes of individual human beings. This author is concerned about environmentally-oriented, theoretical constructs to assume that human organizations
of any kind have a life of their own, almost independent of the human beings involved in their development, nurture, growth and decay.

With other Systems theorists this writer shares the conviction that organizational patterns are created rather than discovered phenomena which are assumed natural order of things. Such creative phenomena are not seen as being synonymous with reality. As a number of philosophers of science indicate, even the observational processes and other methodologies used by the natural sciences, cannot avoid the interpretational and creative intervention of the individuals employing them. Underlying the entire approach used in this paper, is the conviction that as Krech put it: "We must conceive of our fundamental unit of experience (or behavior) as a motivational perceptual - cognitive unit -- no matter how trivial or momentary, or how important and enduring that experience might be." Or, no matter how supposedly scientifically, methodologically or objectively undergirded that experience or behavior of an individual is, it is still an individual's motivational - perceptual - cognitive response. In interactional processes between individual human beings systems are created which combine a number of mutually acceptable commonalities, which can be generated by culturally determined, communicative rules.

Empirical Systems or constructs thus are not acknowledged to simply exist in the natural order of things, much rather Systems theorists consider them to be logical (or communicative) constructs. As Cushman indicates: "The Systems prospective differs from the laws perspective in that it extends the legitimate range of scientific invention and judgment from existing regularities and their truth value to logically conceivable regularities and their usefulness."
Contemporary General Systems thus would appear to provide an approach comparable to that used by natural scientists engaged in the early studies of atomic physics. Their logical constructs, or Systems, at the time could deal with little more than the systematic construction of models based on identifiable, observable behavior or activity, not models based on underlying rules, or regularities or intentions.

It is this author's contention that on another level, and for human communication, the Rules perspective provides for the eventual understanding of underlying generative mechanisms, provided in the innate capabilities of human beings as survival-oriented-processes. However, this kind of development can take place only if Rules are considered as having generative power, and scholars refuse to study them as if they were significant parts of the observable, creative, General Systems constructs of Level One, discussed in this paper. Monge made clear the approach of General Systems theoreticians when he stated: "Whereas traditional reductionism sought to find the commonality underly (sic) diversity in reference to a shared substance, such as material atoms, contemporary General Systems Theory seeks to find common features in terms of shared aspects of organization." While this contribution of General Systems theory provides a great deal of usefulness in the systematizing or patterning of responses in various situations, it does not provide for any means of identifying the generative forces which produce such observable systems. Many of the leading linguists, beginning with Whorf, Sapir and others, appear to have been caught in their own theoretical constructs which caused them to look for lawful human communicative behavior in their attempts
to link language and thought. There appears to have been little if any thought given by them to the possibility that both thought and language were constructs or systems based on innate, generative processes of communication-rules within human beings, underlying the level which they studied.

The limited insights provided Level-One-Systems-explanations also can be noticed when Monge quotes Laszlo in regard to the synergistic qualities of human interaction. "The most basic unit consists of two parts in communication, where the outcome is something more than the simple properties of each." 10 It would seem that the inclusion of the Rules perspective at this level of thought, would make possible a different interpretation of the synergistic qualities supposedly operative in human interaction. The Rules perspective would tend to modify such constructs as have been developed by Gestalt psychologists, General Systems theorists, and others. Generative communicative rules underlying human communicative behavior thus could be assumed to account for what we now consider to be synergistic processes as results of interaction. The interactional process thus is seen to stimulate the full potential of the generative Rules-process underlying it. It may be that with our persistent emphasis (not only in linguistic studies) on observation, and description of observable behavior, we have overlooked the qualities or potentials of generative communicative Rules which are triggered by the creative interaction of human organisms with other organisms, events, or objects. 11 It should also be stated that while at this point in time, the understanding, identification, or testing of such Communicative-Rules may be difficult, the theoretical, two-level-construct proposed in this paper, which combines a General Systems approach with a Rules perspective,
lends itself to a consonant study of both observable and non-observable or implied (at least, at this point) processes.

The fluid, changing nature of communication systems, which Monge notes, may thus be dealt with more adequately, than by the creation of a multitude of situation-specific Systems. The theoretical approach proposed here, on one level of the construct, explains fluidity as a result, the generative rules which underly change as a patterned, yet flexible survival response of the human organism. This approach may also make possible a more definite attempt to overcome traditional causal forms of explanation, which appear inadequate for the study of human communication. At the same time it is responsive to the requirement made by many scholars that communication must be purposeful and functional. Monge quotes Churchman and Ackoff and their development of a teleological approach (which appears basic to this author also). "... we are not forced to abandon mechanics for a teleology; both frames of reference are fruitful, and neither is fundamental." Indeed, neither the proposed General-Systems-approach nor the Rules-perspective discussed in this paper need to be seen as fundamental, but rather as a means of allowing development of a theoretical construct operative on two levels. With Monge, I would quote Toulmin's excellent, brief summary.

In characterizing human behavior as Rule-conforming rather than law-governed, we too have conceded that psychological, biochemical, and other scientific laws may well apply to the relevant phenomena underlying our behavior as strictly as they do to similar phenomena occurring outside the human body. The order of rule-conforming human behavior is thus not in conflict with the order of law-governed natural phenomena; it is an additional mode of order super-imposed on that natural order.
It would appear that problems arise only when we overlook the fact that, what Toulmin calls natural order, is also a human construct depending on the total human communicative, survival process we are studying, for its identification, categorization, and systematization. What Toulmin thus calls a natural order, is an individual human being's System construct, based on communicative rules assuring him optimum survival in all aspects relating to the human experience. In interaction with other human beings that natural order becomes even more reorganized to fit into a mutually developed System, appropriate to the common survival needs of the organisms engaged in the communicative interaction.

The vital contribution which the Rules perspective makes to our theoretical constructs can be seen in Sander's and Martin's statement as quoted by Cushman that ". . . the output of a set of Rules is unbounded, so that sentences will be derived which were not in the finite sample from which the set of Rules was inferred." 15

According to this author's view Sander's and Martin's statement shares the weaknesses of Chomsky's limited, linguistic approach. That is, it indicates that the existence of linguistic Rules has not led to an awareness of the underlying communicative Rules which generate linguistic as well as other communicative Systems on Level One of this author's construct. While at this point the intentional aspects of behavior governed or triggered by, or founded on Rules cannot be directly identified, it would still appear worthwhile to continue our study on the proposed basis. Nor should the possibility that Rules are part of an innate process in human beings stop
our work, because we may have preconceived assumptions about the role of acquired or innate bases of human behavior.

All the factors discussed and outlined so far, should be considered against the background of many concepts already developed by social psychologists. Social psychologists appear to be in agreement that people influence one another, and that our survival depends on such interaction. Without interaction, no growth, either of individuals or societies, would probably occur.

At the same time there is also general agreement that individuals do not simply take up attitudes automatically, or take up all that they are exposed to. In other words, there appears to be an increasing awareness of the fact that human beings react selectively, and that they incorporate only those features which somehow fit some personal internal pattern. The idea that these factors are somehow congruent with an individual's personality structure is stressed frequently. Some authors also consider an underlying self concept to be the integrating mechanism or construct. Cushman developed this idea in some detail.

This "organized set of rules," of which Cushman speaks, as appears to be true of all other personality structures stipulated by social psychologists, can be categorized as a Systems structure related to Level One, as discussed in this paper. None of these constructs are deep-structures which can account for generative processes. Rather, they appear to be results of generative structures. Even such factors as the limits of understanding within the individual have to be considered as one deals with environmental impact, whether that is the social impact of groups, or of individuals.
It should be rather obvious, however, that this statement does not satisfactorily answer questions which have to be asked on Level Two of our theoretical construct. On what underlying basis, for what reason, according to what internal pattern does an individual reject or accept opportunities to conform or integrate? Larsen, et. al. addressed themselves to a similar concept, but once again stopped short of identifying underlying, deep-structures which could serve as generative, integrative stimuli: "It seems clear that the situational structure is the all-important variable in predicting behavior, and that persons in fact often act opposite to their predisposition to act when faced with situational pressures."19

The significant difference in approaching these supposed inconsistencies, suggested by this author, would be that the supposed "opposite-reaction," suggested by Larsen, et. al., is only identified in that way on the basis of Level One constructs. It is probably completely integrated behavior in the sense of basic survival-communicative-generative structures, on Level Two. Thus, when social psychologists point to deviation, they in effect appear to point to behavior which does not fit Systems created on Level One, but which fits the individual's deep-level constructs on Level Two. Just as social endeavors appear to depend on norms, the individual's survival depends on such norms created situationally, but integrated through generative-communicative-survival Rules.
All this does not deny the fact that reinforcement, or social learning helps to shape, modify, and influence. Human beings do imitate, they do form attachments, but they do so as part of a highly creative, ever changing, process based on more than environmental interaction. Even the interactional process itself would have to be stipulated to be the result of generative mechanisms within human beings, which bring it about. Social scientists have demonstrated again and again that we respond to various cues in our environment. But we also disregard other cues. It yet remains for us to explain why human beings find it necessary, or important, to selectively respond to cues prior to being rewarded for such behavior.

It may be also noted that severely autistic children can be taught to repeat some sounds and words by a strict, stimulus-response, reinforcement therapy, but they do not develop a generative mechanism which makes it possible for them to extend this learned behavior into any kind of creative, interactional, communicative, survival mechanism as stipulated in this paper. Again, this author would agree with Marlowe when he states that incorporation of various characteristics relates to our self-image. But once more that concept does not explain how the self-image developed in the first place. Just as obviously, the breakdown of individuals caused by too many pressures, or too great a pressure towards conformity, appears to indicate that individuals have specific mechanisms serving their survival needs, which, if not matched by environmental stimuli, cause breakdown or disintegration.

Somehow the total integration of the human being appears to depend on mutually supportive factors. Yet the very idea of mutually supportive
factors suggest some central, generative core that allows judgment of
what contributes to an individual's total survival, and what does not.

Much of Leon Festinger's work touches on, but does not resolve the basic
question of why cognitions turn out to be dissonant, not just that they
are, and that they create individual conflicts. 22 In other words, contemporary
theories of consistency address themselves to the created Systems of Level-
One-thinking, without sufficiently relating that level to Level-Two-Rules
which are stipulated in this paper to be the generative, creative mechanisms
underlying such Systems. If dissonance indicates that cognitions are
out of alignment, it also suggests the existence or possibility of alignment
and consonance. Thus it would appear that some sort of internal mechanism
exists which allows an individual to decide in which state he exists. This
is something, by the way, which severely autistic children do not seem
to be able to do.

Even as times and individuals change, the adaptive process continues.
Possibly functional-theory may provide some further insight to the student
of human communication because it suggests that attitudes are ego-defenses
to overcome threats from the environment and other parts of the personality. 23

Again, the reference to ego-defense suggests an underlying structure
which causes the individual to respond selectively, and sometimes, according
to his observers, inconsistently to observed threats. Indeed, people tend
to observe, react, and respond in relationship to other people, but their
very selection of people, situations, and objects precedes such reactions,
and that in turn appears to be preceded by an individual process of selection
or making of choices based on some already existing internal Rules. Goffman
calls these bases of selection "situational proprieties," without considering in sufficient depth, however, why they are the individual's priorities. This appears to be especially important since situations which are similarly defined by observers, often do not produce the same behavior in individuals involved in them. Congruence thus does not depend on the defined Systems of Level One, but can only be judged on the basis of generative Rules on Level Two of our theoretical thought model.

Marlowe summarizes many of the points made here when he states, "Organisms are stimulated to behave in an organized fashion to reach incentives." Stimulation itself, however, is simply not the result of external, or environmental pressures or interactions, but also of internal, generative processes which assist the individual in interpreting and using a vast number of stimuli in keeping with his own internal patterns or Rules. As Marlowe puts it: "Adaptation levels result from social experiences impinging on a unique set of psychophysiological equipment. Departures from the optimum level motivate the organism to act." White also stressed that point when he referred to factors other than homeostatic drives which are closely related to an individual's expression and enhancement of self. He calls this the individual's "urge to attain competence."

Communication and the basic human survival needs, with all of the aspects stipulated in this paper, thus are seen as an underlying, generative system allowing human beings to develop or generate an ever changing number and structure of Systems to enable them to deal with a fluid process of
interaction with their environment. Survival depends in part on other human beings. But more importantly, it depends on how we deal with these other human beings to facilitate our own survival, while not destroying the chances of others for their own survival. Communicative interaction is the means used by human beings to maximize the opportunities for survival of all those involved in the process of living. Systems thus become any set of interacting and interdependent parts which can be defined, described, or created to assist us in achieving the survival goals of human beings. Changes in such Systems, as Schein points out, occur when conflicts or inconsistencies appear. These inconsistencies are here stipulated to be the result of underlying constructs on Level Two, which make it undesirable to continue to follow an established pattern, or to leave a System "intact."
The emphasis of this paper, is supported by Weick in his writings, when he considers Systems in relationship to organizations. He consistently speaks of "organizing" as an act, rather than "organizations" as entities in the natural order of things. This makes for a much less fixed view of Systems, and for a much more flexible view of generative-survival-communication. All this appears to be especially important, because I have previously indicated my own concern over the impact definitions, or labels, may have had on various scholars in the past. Among them, I mentioned certain linguists whose very definitions, relating to language and thought, may have prevented them from deeper insights.

Both Weick and Etzioni have extensively discussed Systems and their relationship to human organizations. The latter shares with this author a concern for seeing such Systems as survival models. In Etzioni's case the emphasis
is on organizations, which to this author are only representative of deeper human survival functions, needs, and communicative structures.  

Certainly, the insights of Gestalt psychologists, and especially Kurt Lewin, with their emphasis on the integrated configuration in a synergetic interactional process, and its continually more complex development within a field, gave early hints of a possibility that underlying generative mechanisms are at work.  

This author has earlier indicated his own belief that such supposed synergy may really be the result of as yet incompletely understood generative properties or functions in human beings. It is interesting, in connection with these concepts, that Marlowe summarizes a number of studies which indicates that organizations are not as concerned with reaching goals as they are concerned with continuation, or survival.

Again this would indicate the confusion stipulated in this paper, resulting when scholars deal with organizations or any human communicative interaction on Level One, but then consider their Systems-Analyses or constructs, to be adequately representative of the generative-survival mechanisms on Level Two. It is suggested that many observed consistencies are not inherent factors in human beings and their communicative Systems, but rather the result of the definitional constructs used to explain them.

It is finally suggested, that the scholar of human communication needs to take up the as yet limited challenges presented by certain linguists, among them Chomsky, Piaget, and Vigotsky. We need to move on, far beyond Chomsky's statement that "all human languages share deep-seated properties of organization and structure." Human beings, indeed, appear to have such deep-seated structures, but they appear to be more than
grammatical structures. I stipulate that those deep structures relate more to Level Two of my own theoretical thought-model, and thus to the total communicative-survival mechanism of human beings. This author agrees with Hertzler that "language is the indispensable factor in the operation of the institution of every functional area of life." But having agreed, I would also point out that both language and organizations are only specific instruments, or means, constantly changing, ever in process, to enable human beings to achieve their underlying survival needs.

At this point it is not possible to directly study human behavior, or innate communication rules, on Level Two, as suggested in this paper. I have only one major aim at this point in time, and that is to reexamine the definitional intertwining and confusion, resulting from non-differentiated Level-One- and Level-Two-thinking, hopefully allowing us to move beyond Systems-constructs, as suggested in this paper, to the investigation of human communication on a second, deeper, integrative, and generative level.
'It is most difficult to give credit to all those who have contributed to my own thought-processes, but I must acknowledge special contributions through the writing of Lee Thayer, Ludwig Von Bertalanffy and Noam Chomsky, which led to exchanges with other scholars, including but not limited to Professors Peter R. Monge, and Donald P. Cushman, on the basis of two papers presented at the national convention of the Speech Communication Association in Houston, Texas, December, 1975.


26. *Ibid* p. 120


