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# The Functional Prerequisites of Intentional Communicative Systems

## **Disciplines**

Communication | Social and Behavioral Sciences

## **Comments**

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# The Functional Prerequisites of Intentional Communicative Systems

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Joseph N. Cappella

## I. Reason and Law-Like Explanation

Speculative and behavioral students of communication have viewed each other with a certain intellectual suspicion from the safety of their "humanistic" or "scientific" frames of reference. Furthermore, neither group appears to have capitalized significantly from the insights of the other. This paper proposes (a) to examine the assumptions underlying the position characteristic of each frame of reference, (b) to explore the strengths and weaknesses of each position, and (c) to attempt a synthesis which will forge a new position for improving the prescriptive, evaluative, predictive, and explanatory power of speculative and behavioral inquiry.

Speculative and behavioral investigations of communication focus on a broad category of events involving the transfer of symbolic information, or the justification of choice regarding information transfer, or the symbolic transfer of meaning, as you will. Goals, too, are roughly equivalent in that both kinds of inquiry seek to prescribe, evaluate, predict, and explain the effects of various communicative acts. However, the kinds of explanations generated by each method differ markedly. In behavioral inquiry law-like explanations dominate, whereas in speculative rhetorical theory or criticism, justifications or reason-explanations dominate.

In general, any explanation seeks to subsume a given relationship, assertion, or phenomenon under a more general relationship, assertion, or phenomenon which itself needs no further explanation or, as Toulmin suggests, which "goes without saying."<sup>1</sup> In law-like explanations not only is the conclusion a special case of the major premise, but the major and minor premises together entail the conclusion in that the conclusion

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*must* follow once given the major and minor premises. This is not the case with reason-explanations since the conclusion is only made plausible by the major premise and need not follow from it. For example, one might explain the predominance of emotional terms in a political speech by citing the speaker's intent to arouse his audience to action. Although the speaker's intent makes the nature of the message plausible, in no way can we assume that his intent will *necessarily* lead to an emotional message.

The differences just noted have implications, among them the fact that the type of explanation one sees as appropriate to a given system is usually predicated on and derivable from a set of assumptions about the implicit nature of the system being analyzed. Law-like explanations of communicative behavior, for example, treat man as a stimulus-response system; given the stimulus-response law and the appropriate conditions, the response must follow. Now, while a large segment of behavior is habitual, unconscious, and unintentional and, therefore, well suited to law-like explanations, there exists a second segment which is purposive and choice-oriented and, therefore, poorly suited to law-like explanation. The first kind of behaviors, characterized by the mere passage of the subject from one space-time point to another, I shall term "movements," and the second, characterized by conscious and willed choice among alternatives given a goal, I shall term "actions."<sup>2</sup> As Toulmin<sup>3</sup> has argued, the attempt to characterize man's language behavior as movement, while useful for scientific reasons, must inevitably be doomed to such a narrow and restricted conception that only relatively insignificant questions can be posed and answered. On the other hand, the characterization of man's language behavior preeminently as action and only peripherally as movement, while increasing the complexity and difficulty of investigation, simultaneously broadens the range of posable questions.

The characterization of language behavior as action, that is, the conscious and willed choice among alternatives given a goal, suggests that understanding the reasons for choices will increase understanding of language behavior itself. Hence, the explanation of significant aspects of language behavior must be of the reason variety. Further, understanding the reasons for choices is dependent upon ascertaining the speaker's intent. However, there exist some serious drawbacks inherent in the tradi-

tional method for the characterization of intent. In seeking to explain, evaluate, and prescribe specific communicative events and to predict the effects of those events, rhetorical theorists and critics have often sought to ascertain the (non-observable) intent of the speaker through evidence derived from his (observable) message. But in imputing communicative intent to some internal state of the speaker, a state accessible only by an inference from the observable message, problems arise due to (a) the variability of subjective imputation of intent, (b) invalid inferences, and (c) the "true" or "real" intent of the speaker. Thus, given the goals of *accurate* explanation, *useful* prediction (that is, prediction which is not *post hoc*), and *effective* prescription, the speculative rhetorician finds himself committed to either (a) frequent errors in prediction or (b) academic excursions into *post hoc* analysis. On the other hand, the extreme S-R theorist, in focusing solely on the observable (as befits the paradigm of the natural sciences), shuns anything so non-observable and non-deterministic as intention. He thus finds himself in the equally untenable position of making "valid" explanations and accurate predictions on the least significant aspects of language behavior—the stimulus-response variety. I have, of course, simplified the characterizations of both speculative and behavioral inquiry in order to highlight those aspects of each method on which I propose to focus in the remainder of this essay.

## II. Predicting the Output of Intentional Systems

Since the problems of determining intentionality in language behavior are of inevitable concern in studying language behavior, I will propose a conceptualization of intent which I find useful, powerful, and intuitively appealing. D. C. Bennett argues<sup>4</sup> that predicting or explaining the output of a system can proceed at any of three levels: (a) the physical level, (b) the design level, or (c) the intentional level. Consider the example of playing chess against a chess-programmed computer and trying to predict its moves (the output). At a physical level, knowledge of the circuit diagrams and the laws of atomic physics would *in principle* permit accurate predictions. However, given the enormous complexity of chess playing computers and the rather limited intelligence of normal humans, such prediction is out of the question. At a design level, knowledge

of the program instructions governing the computer's game playing would permit accurate predictions *in principle*. However, with the increased sophistication of programming techniques and options that prospect would be useful to only a few individuals in the world! However, if one assumes that (a) the system "possesses" a goal or set of goals (checkmating, protecting the Queen, etc.), (b) the system "possesses" information and a set of constraints on that information defining alternate means to the goal (methods of attack and defense, castling for protection, etc.), and (c) the criteria for choice among alternatives are in some sense rational (the alternatives can be rank-ordered on a "rational" basis given a goal), then the output of the system can be predicted at an intentional level. Chess Masters are capable of playing well against computers not because they understand atomic physics, nor because they have studied computer programming. Rather, they treat their computer opponents like their human ones, as having goals and alternatives to those goals very much like their own and, more importantly, with criteria for choice among alternatives which are either similar to their own or rational in the sense of being understandable given the goals of chess.

Bennett's model gives us a set of criteria for predicting and explaining the output of the communicative as well as other systems. The problem facing the listener in a communicative situation is analogous to the problem facing the Chess Master in the above example. Since the listener does not have access to the cognitive space of the speaker but only to his message, then understanding and responding to the intent of the speaker can only mean understanding and responding to the encoded message; which, in turn, implies that the speaker has an intent and the message has an intent, and that those intents need not be identical or even similar. Julius Stone, in *Legal Systems and Lawyer's Reasoning*, underlines this problem and intimates a solution in line with Bennett's while focusing on the interpretation of judicial precedents:

The error of substituting author's intention for meaning of language is that it ignores the fact that a written work once created acquires a meaning which, though still dependent on men's usage, is still independent of its creator's motives; and interpretation is precisely a search for this meaning.<sup>5</sup>

and

. . . even if it were correct here to search for the author's intention, this author—the author legislator—must reasonably have intended that his language should bind according to the community's understanding of it for the time being, rather than some original understanding of his own.<sup>6</sup>

Thus, judicial interpreters recognize (a) that a multiplicity of meanings can be imputed to a message, and (b) that if there is to be any agreement on the author's meaning or intent, some norm for interpretation (for example, the community's understanding) of the message must be shared by the interpreters. Stone's community norms for interpretation would become, in Bennett's paradigm, the shared rational criteria for choice among alternatives. In addition to the shared criteria for choice, Bennett contends that "valid" explanation and "accurate" prediction will result only if the goals and means to those goals are known and shared by the behavioral or speculative investigators of communication.

Furthermore, if Bennett's stipulation of three levels of analysis is valid for *any* system, then my initial position on the fittingness of reason-explanation to language behavior, to the exclusion of law-like explanation, needs to be modified. The basic issue is not the logical impossibility of law-like or stimulus-response explanations of language behavior, but rather that the nature of the phenomenon is so complex as to defy analysis at the physical or design levels. Toulmin supports the point:

So it would be unreasonable to look for one single mode of explanation applicable to all kinds of human action and behavior. Rather, we should expect to find varied modes of psychological explanation applicable on different levels and in different situations.<sup>7</sup>

The practical issue then becomes, What kinds of questions are best suited to inquiry within the intentional framework? Although it may be possible *in principle* to present physical-level descriptions of language behavior, both the nature of the phenomenon and the questions central to understanding it make the success of such an endeavor doubtful at this time.

In turning away from a stimulus-response approach to language behavior and taking up reason-explanations, I have sought to set down through Bennett's paradigm a set of conditions in which explanation and prediction via reasons will be the

most powerful. However, it is necessary to transform the elements and relations of Bennett's paradigm specifically to the communication situation. The question to be faced next becomes, What conditions of meaning and its transfer will the Bennett paradigm suggest which will ultimately lead to valid explanation and accurate prediction of communicative events?

### III. Meaning as Standardized Usage

Since any theory of communication or rhetoric must ultimately explain the process of exchanging symbolic information, the meaning, as well as the intent, of what I choose to convey must inevitably be explained either implicitly or explicitly. For this purpose, it is possible to distinguish two levels of symbolic information: a personal or *de facto* level, and a social or *de jure* level.<sup>8</sup> That is, in categorizing those experiences with symbols which are learned in the social arena of interaction, certain idiosyncratic connotations and denotations become attached to the symbol as part of its *de facto* meaning. (We will avoid the issue of personal symbols for personal experiences.) Because of the personalized and unique character of *de facto* meaning, it cannot be accurately communicated to others unless (a) there has been a significant overlap of experiences to yield shared significance for the communicating individuals, or (b) the individuals actively attempt to build a shared significance through a process of approximation with *de jure* meanings.

*De jure* meaning, one may argue, differs from *de facto* in that two or more individuals have adopted a common valuing or common understanding for a given symbol or set of symbols. Thus, consensus on the naming, attributes, and/or functions of symbols marks *de jure* meaning. Clearly, *de jure* meanings are readily communicable whereas *de facto* meanings are at best communicable through some process of approximation through *de jure* meaning. Furthermore, the transfer of symbolic information involves complex combinations of symbols which also have meaning different from the mere sum of the meanings of the individual symbols. While any one individual may choose to combine symbols according to his whim, he will not do so if he wishes to transfer meaning accurately. That is, the combinations of symbols chosen will adhere to some norms to which the individuals have agreed and these norms will indicate (a) which combinations are allowed, and (b) what those combinations are to count as or mean.



Two apparently contradictory facts characterize symbols and symbolic activity: (a) symbols are social or shared as has been suggested above, and (b) symbols are flexible with a multitude of both *de facto* and, more importantly, *de jure* meanings. In other words, a given symbol (or combination of symbols) is associated with a set of alternative *de jure* meanings (its range) and in the process of determining which alternative from the range the other has intended, the listener seldom checks more than a few of his "guesses" with the speaker. Thus, we are faced with explaining how the accurate transfer of meaning can occur with greater than random frequency if we concede the inherent flexibility of symbols. I propose that for symbols and their combinations there exists a set of appropriate, conventional, and normative symbol-referent associations and symbol combinations which are cued by the situation within which communication takes place. I shall term these sets of appropriate choices among alternatives, *standardized usages*. I contend that implicit or explicit situational cues reduce the range of *de jure* meanings, thereby increasing the probability of accurate transfer of meaning despite the inherent flexibility of symbols.

At least two dimensions of the situation need to be *cued* (either by the speaker or the physical environment itself) and *recognized* (by the respondent) for standardized usages appropriate to the situation to be shared: (a) the system to which the standardized usage is indigenous (ghetto dialect, congressional parlance, legal terminology, etc.), and (b) the function, purpose, or goal of the interaction (persuasion, understanding, uncertainty reduction, etc.). That is, to attain efficiency and accuracy of communication within an interaction, standardized usages must develop spontaneously or be developed intentionally. However, that postulate presents certain problems. For example, consider a conference of behaviorists and speculative rhetoricians discussing the direction analysis of speech behavior should take. If there is to be any degree of understanding, the two groups must agree to a set of standardized usages to govern their meeting. They may (a) agree to use standardized usages familiar within the rhetoricians' system, (b) agree to use standardized usages familiar within the behaviorists' system, (c) agree to a neutral system (say, of Cybernetics or General Systems' Theory), or (d) agree to build a new set of standardized usages by approximation from existing standardized usages. Whatever their choice, there must exist consensus on a set of standardized usages appropriate to *this* meeting.

Second, each interaction situation can be viewed as a system carrying out some function or set of functions at a given time. Each of these functions is more or less necessary to the maintenance of the system (the interaction situation). If certain functions fail, the system will disintegrate; if others fail, the system may be altered only a little. For example, production functions—"getting the job done"—are often the most important functions of industrial systems, complex organizations, business meetings, and the like; whereas, in family situations and even in some forward-looking complex organizations, maintaining interpersonal relations is as essential as "getting the job done." Now, the relative importance of specific functions or goals for a system determines the degree of accuracy required in communication: the more important the goal, the more severe the accuracy requirements. In other words, the number of alternative *de jure* meanings defines a range of interpretation for symbols and their combinations and this set of alternatives is derived from some existing system of standardized usage. Furthermore, as the function, purpose, or goal of the interaction is cued and recognized by the participants, the range of *de jure* meanings is reduced. But the more crucial the function, purpose, or goal to the interaction situation, the greater the reduction in the range of *de jure* meanings.

An example may help clarify my point. In operator-directed long distance dialing the standardized usages appropriate to greeting and terminating transactions between the customer and operator have a broad range precisely because the functions of greeting and terminating are not at all crucial to the proper functioning of the system. On the other hand, standardized usages for encoding and decoding information concerning the origin and destination of calls allow very little latitude because that information is crucial to the system's functioning. Thus, it is quite clear that the standardized usage mechanism is necessary to explain the better than random frequency of accurate transfer of meaning, given the inherent flexibility of symbols.

Standardized usage can be viewed as deriving from a psychologically consistent set of content, procedural, and translative rules. A rule is a prescription for action consisting of: (a) a protasis indicating the situations in which the rule is applicable and (b) an apodosis indicating the action which ought to, may, or must be performed.<sup>9</sup> If situation X develops (protasis), then Y ought to follow (apodosis). Just as numerous rules for chess

playing form the standardized usage for chess situations, numerous rules governing communicative situations form the standardized usages for those communicative situations.

Content rules guide choice among alternative symbols appropriate to different situations and to the goals of those situations. Thus, a concept capable of being understood if communicated in any of several different messages will have the greatest chance of accurate transmission when communicated in the message style appropriate to a specific situation and function. Translative rules indicate what various symbols are to *count as* or mean, and this definitional process may differ from situation to situation for the same symbol. Thus, highly flexible symbols with broad ranges of *de jure* meanings will have those ranges reduced by translative rules governing the particular symbols in differing situations. Procedural rules guide and govern the organization of symbols in given situations. A set of procedural rules called standard English grammar govern allowable combinations of symbols in a situation such as "writing for a scholarly journal." However, procedural rules are not made up solely of standard grammatical norms, since it is often appropriate in certain situations to invoke procedural rules that violate standard grammatical norms in order to achieve maximal understanding or effect.

Before turning to the task of linking standardized usage with prediction and explanation of language behavior at the intentional level, it may be useful to summarize the preceding discussion of standardized usage. In functioning and communicating in a number of different systems, individuals acquire several standardized usages, each of which has been developed by the particular system for its own ends. In the process of interacting with others and interpreting their messages in many different situations problems with competition among these standardized usages could arise; that is, symbols are flexible and that flexibility can be an obstacle to accurate meaning transfer. Also, each interactive situation has a purpose or goal which is more or less important to maintaining the interactive situation and which, in turn, directly alters the allowed flexibility or range of the symbols used. Thus, in order for there to be accurate transfer of meaning, a standardized usage must be called into operation to govern both encoding and interpretation. Further, in order for the *same* standardized usage to be guiding the choices of all participants in the situation, the communicator must cue his listeners to the function or purpose of this inter-

action and the system to which the standardized usage he has chosen is indigenous.\* By now the link between standardized usage and prediction and explanation at the intentional level should be manifesting itself, so let us turn to the task of formalizing the link.

#### IV. The Functional Prerequisites for the Accurate Transfer of Meaning

The functional prerequisites of a communicative system can be defined as that set of conditions—relationships, structures, ranges of variables, etc.—which must be met in order that the system exist. In other words, the functional prerequisites are the necessary conditions for a system to achieve a specified goal state. Although any number of goals can be specified for communicative systems or situations (e.g., understanding, persuasion, uncertainty reduction, motivation to action), it is clear that none of these goals is achievable without the accurate transmission of symbolic meaning as a necessary condition. I have chosen to focus on communicative systems that require the maintenance of a goal-state which is the accurate transmission of symbolic meaning. By taking such a choice, we focus directly on that set of conditions necessary to explain, predict, evaluate, or prescribe effective messages.

The following are, on this view, the functional prerequisites for the accurate transmission of meaning in a communicative situation:

A. There must exist minimal consensus among individuals within the situation on the basic indicators of understanding and lack of understanding; for example, nodding and shaking the head.

B. The recipients of a message must recognize that the message is directed to them.

C. The recipients must recognize that the communicator intends to produce some effect; at a minimum, the intended effect is understanding.

D. There must exist a stable set of standardized usages approximately governing

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\* The interactive situation may have developed its own standardized usage and hence, there would be no other system to cue; rather, the present situation would cue its own standardized usage.

1. from the speaker's side:
  - (a) symbol choices suited to the system and task, and
  - (b) symbol-combination choices suited to the system and task;
2. from the recipients' side:
  - (a) referent-choice for the transmitted symbol, given the system and task, and
  - (b) referent-choice for combining the transmitted symbols, given the system and task.

(The concept of standardized usage is normative or conventional and, hence, implies that erroneous (nonstandard) choices from the set of alternatives are possible, recognizable, and remediable by others sharing that standardized usage. That is, sanctions, in their broadest sense, are imposed for deviations from consensual positions.)

E. There must be a set of implicit or explicit (verbalized) cues indicating at a minimum:

1. the system from which the standardized usages are chosen, and
2. the functional purpose or task of the interactive situation.

F. There must be a consensus among the communicator and listeners on the set of alternatives available for message construction and those available for message interpretation.

To establish the above conditions as necessary for the accurate transfer of meaning, one need demonstrate only that accurate transfer of meaning is impossible (or at least unlikely) in the absence of one of the conditions. That is,  $p_1 \wedge p_2 \wedge \dots \wedge p_6$  are necessary for  $q$ , if  $\sim p_i$ ,  $i = 1, 2, \dots, 6$ , implies  $\sim q$ .

A. Without minimal consensus on the indicators of understanding, accurate feedback becomes an impossibility. Without that minimal feedback, an individual cannot know if he is tapping a set of standardized usages which are shared with his listener, and accuracy becomes a random phenomenon at best.

B. The necessity of recognizing the "directedness" of a message becomes clear in light of conditions C and E. If the importance of cues for standardized usages (E) and of minimal consensus on intended effects (C) is granted, then one must also grant that the probability of these cues and intended effects being recognized decreases dramatically when recipients of messages are unaware of their roles as recipients. John Searle backs the position:

If I am trying to tell someone something, then (assuming certain conditions are satisfied) as soon as he recognizes that I am trying to tell him something and exactly what it is I am trying to tell him, I have succeeded in telling it to him. Furthermore, unless he recognizes that I am trying to tell him something and what I am trying to tell him, I do not fully succeed in telling it to him.<sup>10</sup>

Conditions C, D, E, and F are Searle's "certain conditions."

C. If Bennett's analysis for accurate prediction and valid explanation of output at the intentional level is applied to prediction and explanation of the message-output of communication situations, then the individuals in those situations must possess and share a goal or set of goals. Although there can be numerous such intended effects on the part of a speaker, the speaker must at least attempt to be understood. Without that minimal intended effect or minimal shared goal, the listeners could never ascertain the intended meaning of a message because the possibility of deception and purposeful misdirection would confound the listener's attempts to interpret. In Bennett's language, the communicator-listener system would no longer be "rational."

D and E. Throughout this discussion the need for a shared perspective concerning the construction and interpretation of messages has been emphasized. Without such consensus, a symbol or combination of symbols, X, could be transmitted, but if both persons, P<sub>1</sub> and P<sub>2</sub>, were asked what the symbol(s) meant and asked to predict what the other meant by X, we would expect only random accuracy between P<sub>1</sub>'s meaning and P<sub>2</sub>'s prediction of P<sub>1</sub>'s meaning. However, the resolution of the problem is more complex than merely achieving consensus on the meaning of a symbol.

The flexibility of symbols implies not only that a given symbol has a range of alternative interpretations as a function of the situation, but (a) that the same concept can be encoded differently in different situations with identical interpretations and (b) that the same concept can be encoded differently in the same situation with differing interpretations. For example, political campaign strategists often gear the presentation of their candidate's position on a key issue to the standards of interpretation of varying geographical localities—in line with (a) and (b) above.

As suggested earlier, if the intent of the speaker is to be correctly predicted through his speech, then the speaker and listener must share the criteria for choice among alternatives.

That is, each must be cognizant of the normative or conventional choices. In cuing the system of standardized usages and the function or task of the interactive situation, the alternatives generated by flexibility of symbols are altered since (a) the system-cue\* calls into play the standardized usages which are conventional to that interactive situation, (b) the functional cue further reduces the alternatives to a subset of the initial set of alternatives defined by the standardized usage and called into operation by the system-cue, and (c) the importance of the function to the interactive situation further narrows the range of alternative encodings and interpretations so that the influence of personal style is minimized. If there were no mechanism for reducing the staggering number of alternatives generated by the flexibility of symbols, the probability of accurate transfer of meaning would be very low indeed. The concept of standardized usage identifies such a mechanism.

In Bennett's language, the function (task or purpose) of the interactive situation, the importance of that function to the interactive situation, and the system from which the standardized usage is derived constitute together the set of constraints which impose restrictions on the alternatives from which the listener will choose his interpretation. The normative or conventional choices, which are the standardized usages themselves, are nothing more than the "rational" criteria for choice which must be shared by the speculative or behavioral investigators of the communicative process if their prescriptions, evaluations, predictions, and explanations are to be valid and useful.

F. In light of the discussion of D and E above, consensus on the set of alternatives available for encoding and interpreting is imperative. However, an example from Ashby<sup>11</sup> may make the point clearer. Consider two kidnapped individuals who are permitted to send one message each to their loved ones. The first is allowed to send one of the following messages:

I am well

I am sick

I am dying,

and chooses the first. The second is allowed only one alternative: I am well. Without knowledge of the alternatives available to each, the recipients of the messages are likely to con-

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\* That is, the system of usage to which the current standardized usage is indigenous.

clude that both are well, whereas knowledge of the alternatives available to each would lead to vastly different conclusions. The notion that what is not said is just as important as what is said takes on a more precise meaning in this framework.

Let us now consider the implications of this formalization for behavioral and speculative investigations of communication.

## V. Some Implications for the Investigation of Communication

A. *Explanations are normative or conventional rather than law-like.* Within the paradigm presented above both behavioral and speculative students of communication must prescribe, predict, evaluate, and explain based on the set of norms or conventions (i.e., standardized usages) which are peculiar to the interactive situation in question. Furthermore, while we have suggested that law-like explanations may be inappropriate for speech acts, we have in no way admitted that the application of law-like explanations to communicative acts is logically impossible. It might be argued that because explanations of intention (or explanations by reasons) are non-contingent, they cannot logically be said to cause the actions (e.g., speech behaviors) that follow and, hence, explanations of intention cannot admit of prediction and control whereas law-like, causal explanations are suited to prediction and control. Such a position is extreme and needs modification. The argument in favor of law-like, causal explanation centers predominantly on the contingency of causes as opposed to the non-contingency of intentions or reasons. However, if I know that a politician intends to win my vote, not only will his actions in the past and present be better understood, but the ranges of his alternative actions in the future are reduced, thereby increasing my chances of predicting his actions.<sup>12</sup> With regard to speech acts: if I assume that the speaker always intends that I understand his message, then I reduce the range of alternative means he seems likely to employ to achieve that end. Furthermore, the systemic and functional cues that the speaker provides further reduce alternatives and, thus, increase my predictive and explanatory power.

Clearly, explanations of intentions are not as powerful predictors as causal or law-like explanations. Under explanations of intention, the action (or conclusion for the syllogism) is not entailed by the major and minor premises but only made more or less probable by them. The analysis of sections II through



IV above has indicated that set of conditions which must occur to achieve maximum predictability of the meaning of a message while maintaining the identity of explanation by reason. I have also argued that the logic of such explanation seems well suited to the logic of language behavior, whereas the logic of law-like explanation seems suited to those aspects of language behavior of only peripheral interest.

B. *Standardized usages must be discovered rather than imposed.* Most inquiry which has as its goal the establishment of law-like relationships seeks to *impose* on the phenomena under study the most parsimonious and predictively powerful law that intuitive genius permits. The work of Kepler on planetary orbits and that of Bohr on atomic physics are excellent examples of this technique. This process of imposing form or pattern on phenomena is also exemplified in the wave-particle conceptions of electromagnetic radiation. But it is important to notice that while each of these theories of light conceptualizes the phenomenon very differently, the physical laws or relationships governing electromagnetic theory do not change as a result of different impositions of pattern. In other words, the logic of natural phenomena is such that its "reality" or patternedness can be imposed by the investigator without destroying the logic of the phenomena.

Such a state of affairs is probably not true of social phenomena in general,<sup>13</sup> and it is certainly not true of communicative phenomena as I have conceived them. The imposition of form on phenomena, when they are normative, conventional, bound to situations, and bound to the unstable shared perspectives of individuals, is at least inappropriate and ineffectual and, probably, impossible. In characterizing communicative behavior in terms of standardized usages we are in effect arguing that the imposition of form or structure by speculative or behavioral investigators is not congruent with the logic of the phenomena. The logic of normative criteria for choice (standardized usage) is such that it *emerges* from an interactive situation through the agreement of participants to share a common perspective in order to achieve some goal. Hence, in investigation, standardized usages must be *discovered* rather than imposed<sup>14</sup> if the investigator's predictions are to be accurate and his explanations valid.

C. *Prescriptions for and evaluations of communication must be situation bound and rule governed.* The previous discussion has some implications for setting down prescriptions for effective

construction of messages. First, regardless of the speaker's other purposes, prescription will assume that he seeks to be understood by his audience. Second, the speaker would be enjoined to be audience-centered by tapping a standardized usage familiar to his audience. Thirdly, the encoding choices made by the speaker will be seen as constrained by the situation. Lastly, prescriptions, themselves, will be seen as normative, conventional and, most importantly, discoverable.

The particular standardized usage adopted in any communicative interaction provides insight into pragmatic, aesthetic, and ethical evaluations. For example, a speaker cognizant of the most effective standardized usage for an existing situation may refuse for ethical reasons to adopt that standardized usage and so suffer the consequences—lack of success. In other words, standardized usages are the appropriate, normative, and expected encoding choices in a situation given a goal; adherence to or deviation from those usages provides information to both a rhetorical critic and the audience. That information can be used to evaluate the pragmatic efficacy, the ethics of choice, and the aesthetic form of the message.

## VI. Summary

I have attempted to investigate the assumptions underlying the law-like explanations of behaviorists and the reason-explanations of speculative investigators as applied to language behavior. I have hoped to point out the weaknesses of both positions and to forge a new position by stipulating the conditions under which the predictive power of reason-explanations is maximal. A set of mechanisms necessary for the accurate transfer of meaning in interactive situations has been posited and described, and the implications of my analysis for prescription, evaluation, explanation, and prediction of communicative acts have been summarized.

## NOTES

<sup>1</sup> Stephen Toulmin, "Concepts and the Explanation of Human Behavior," in T. Mischel, *Human Action* (New York, 1969), p. 85.

<sup>2</sup> Anfinn Stigen, "The Concept of Human Action," *Inquiry*, 13 (Spring, 1971), 4-6.

- <sup>3</sup> Toulmin, pp. 89-94.
- <sup>4</sup> D. C. Bennett, "Intentional Systems," *The Journal of Philosophy*, 68 (February 25, 1971), 87-106.
- <sup>5</sup> Julius Stone, *Legal Systems and Lawyer's Reasoning* (Stanford, 1964), p. 31.
- <sup>6</sup> *Ibid.*, p. 32.
- <sup>7</sup> Toulmin, p. 95.
- <sup>8</sup> D. P. Cushman and G. Whiting, "An Approach to Communication Theory: Toward Consensus on Rules," paper delivered at the Speech Communication Association Convention (San Francisco, 1971), p. 3.
- <sup>9</sup> *Ibid.*, pp. 9-12.
- <sup>10</sup> John Searle, *Speech Acts* (Cambridge, 1969), p. 47.
- <sup>11</sup> W. Ross Ashby, *An Introduction to Cybernetics* (New York, 1963), p. 124.
- <sup>12</sup> Charles Taylor, "Explaining Action," *Inquiry*, 13 (Spring, 1971), 54-88.
- <sup>13</sup> Richard Weaver, *The Ethics of Rhetoric* (Chicago, 1969), pp. 186-191.
- <sup>14</sup> Toulmin, p. 100.