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The Basic Unit of Human Communication

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This paper attempts to give a definitive answer to the question: What is the basic unit of human communication? The inquiry will proceed by establishing communication as a systems concept and will then propose that assertion-in-use-context is the basic unit of human communication, showing the superiority of that unit over others which might be reasonably considered as the basic unit.

In systems theory we may distinguish three kinds of systems, each of which has an appropriate companion definition of communication. We shall assume that in reality there is only one system in existence, which is the totality of the universe. The term system used below should be read as sub-system of the universe. Static systems are geometric arrangements of non-changing parts of some arbitrarily defined whole. Each static system has internal parts (each of which has some internal relationship with every other part), a system boundary, and an environment. Communication in a static system is unobstructed contiguity of parts of a static system. This is a non-transitive relationship. For example, we say that the kitchen of this house communicates with the living room because there is a doorway which leads directly from one to the other. We say that tunnel A does not communicate with tunnel B in the mine because one must go outside the mine into another static system to gain access from tunnel A to tunnel B.

Dynamic systems are first static systems to which change or functioning of internal parts and the external environment have been added. The dynamic aspect of dynamic systems is construed in terms of input from the environment, internal processing of that input, and output from the system to the environment. Communication in a dynamic system is the effect which one or more parts of a dynamic system has upon any other part. This communication is to be taken as transitive, effect transferring from part to part, contrary to the non-transitive nature of static communication. The unit of dynamic communication may be taken to be effective force applied through time, as in foot-pounds of work per minute. For example, the engine of an automobile delivers an output of foot-pounds of power which is transmitted through the transmission, drive shaft, differential, axles, wheels and tires of the automobile; that power translated into friction between the tires and the pavement propels the vehicle along the surface of the pavement. Thus the engine communicates with the tires to accomplish the work of the automobile. If any linkage part is missing or defective (e.g., if the differential is stripped), then the engine no longer communicates with the tires and the functioning of the system is defective.

An agent system is a dynamic system of which at least one part is an agent. An agent is a being whose acts are discretionary: given any act performed in its specific context, if the actor could have acted otherwise then the actor is an agent. This is an ideal definition, for it presupposes an omniscient observer. For mere humans, agency is attributed when the actor acts first one way and then quite another in apparently identical but time differentiated situations. Communication for an agent system is (1) action
of the agent upon the environment to attempt to effect a desired change in
the environment; or (2) action by the agent to interpret present input from
the environment in order to project a hypothesis as to what will happen next
as a basis for communication (1). In other words, agents both send and
receive communication as agents. In the agent communication situation the
universe is divided into two systems: the agent and all he controls, and the
remainder of the universe. Thus agent communication is simply any output
from the agent system to the remainder of the universe or any input from the
remainder of the universe to the agent system. For example, an agent who
reads a newspaper is being affected by an input from the environment in the
receiving of communication; he may then write a letter to the editor in the
attempt to create a change in the environment by sending communication.
Negative examples would be failure of the delivery of the newspaper (so that
no effect of the newspaper is possible on the agent) and failure of the
letter to reach the editor (thus making impossible any change such as that
which the agent desires).

It is now necessary to posit two hypothetical creatures to answer the needs
of the two kinds of agent communication posited above. The receiving of
communication from the universe by an agent we shall denominate assessment;
the sending of communication to the universe by an agent shall be denominate
as assertion. Thus an agent receives input from the universe and processes
it. This processing is never a simple result of the universe acting upon the
agent in a mechanical fashion: the agent is always a creative participant,
injecting his desires and beliefs into the construction which he creates to
represent in his own mind what is happening "out there" in the universe.
Likewise, his attempt to project a cause into the universe which will create
a desired change in the universe is clearly a function of the agent's desires
and beliefs. Thus, agent communication is significantly different from
either static or dynamic communication. Whereas static communication is
wholly a matter of internal relations constrained by spatial contiguity, and
whereas dynamic communication is a mechanical type of input and output
constrained in a mechanical fashion by the physical properties of the
environment and the receiving and producing system, so the input and output
of an agent system is internally shaped by the desires and beliefs of the
agent (beliefs being a function of the desires of the agent). Incoming and
outgoing action is not mechanically determined but is always factored by the
unique nature of the desires of the individual agent.

When we compare assessment with assertion we see that both are necessary to
communication. But assertion is action, whereas assessment is reaction.
Assertion is public and objective, whereas assessment is private and
subjective. Assertion is fixed and final for a given time and place, whereas
assessment may be ongoing, perhaps never concluding definitively among
several possibilities. Assertion is intrusive, offensive; assessment is
protective, defensive. Assertion is a reflection of the assessments of the
asserter, though assessment may remain mute, silent. Assertion tends to
increase in importance with increase of the agency of the asserter, whereas
assessment does not necessarily do so. An asserter is found out for what he
is, whereas an assessor may simply be a blotter. These contrasts suggest
that assertion is the primary factor in agent communication, a better target
for fixing a single unit of communication than assessment would be.

Assertion is the intentional act of an agent who attempts to effect a change
in the universe (the universe outside of himself) in order to change how the universe affects him. He makes this attempt by a more or less calculated launching of a perturbation (an effective force) into the universe. This assertion can take a verbal or nonverbal form, the universe seeming to be indifferent to which form it is. Thus an assertion can be a sentence, an exclamation, any noise, any gesture, any movement of body, perhaps even a thought process, should thought processes be detectable by and therefore influential on some aspect of the universe.

We must also distinguish between assertion in the abstract and assertion in the context of a specific usage by a given agent in a specific environment. Abstract assertions are in reality not assertions but only hypotheses. They are potential assertions, having the form of assertions but lacking the pertinent autobiographical and contextual realities to make them real assertions. All real assertions are thus assertions by an agent in a specific, unique, historic situation. One final preliminary stipulation is necessary. We shall make a basic inclusion of human communication within agent communication. This inclusion cannot be made categorically, for not all humans are agents. But it is typical of adult human beings to be agents. Therefore this stipulation will suffice for the present concern.

It is now possible to state the thesis of this paper precisely. This is the thesis: The basic unit of human communication is an assertion in its historic context of actually being propounded by a real agent. We shall use this concept of assertion-in-use-context as the focus of attention for the remainder of this paper, and shall refer to it by the acronym AIUC.

We shall now state basic laws which apply to the AIUC.
1. Every AIUC is unique, individuated by space, time, quality and author.
2. The summed series of a given author's assertions are his history. (assessments are presumed to be reflected in subsequent assertions.)
3. Every agent is propounding an assertion at every moment.
4. The AIUC of a given moment is the being of the agent.
5. The measure of the agency of an agent is the sum of the agency of the agent assessors which respond positively to his assertion, plus the sum of his effect on non-agent reactors.
6. The limiting factor on the expansion of the agency of an agent is his ability correctly to assess the desires of other agents as an instrument in the fulfilling of those desires of other agents.
7. AIUC is the unique vehicle of message.

Messages are assessments of AIUCs. Messages exist only in the minds of assessors. They are different from intentions, for authors may intend one thing then see that their own assertion must be assessed to have a different message than that which they themselves intended. Messages are the reaction of each sentient, intelligent observer to a given AIUC, including the reaction of the asserter.

Messages have the following components:
1. The asserter's intent is hypothesized.
2. There is a propositional decoding of the assertion.
3. There is an attribution of strength (urgency, importance, authoritativeness, truthfulness, rightness, all these positive or
negative) for that assertion.

4. There is an estimate of the impact or result on the universe of that AIUC being assessed (present result and probable future results.)

Propositional decoding is the observer's mental action of translating the signals of the AIUC into a concatenation of concepts which the observer deems to be a full and adequate representation of what the asserter is saying. This translation may have two or more versions. One version may be the "literal" meaning of the asserter's words which is then contrasted with the deeper or "real" meaning. When someone says, "How are you?" upon meeting you for the first time in the morning, it is usually best to ignore the literal interpretation of the words spoken and answer only the "real intent," which is often simply an acknowledgement that they recognize your presence. This propositional decoding is not necessarily a translation into a standard spoken language. It may be this in some cases. But it is always a translation into the personal concept language of the individual.

The personal concept language of the individual is those concepts which have been formed out of experience and need by each person. If people have many experiences in common, the concepts with which they think about those common experiences will tend to have greater similarity than if they do not have such experiences in common.

The hallmark of understanding of one another's concepts is the ability to cooperate. When people work together over a period of time, language becomes adequate to facilitate extensive cooperation. This, for instance, is what makes government of the people and by the people possible. When a group of people are familiar only with oppression and tyranny, when they have learned to survive that tyranny only by being selfish and devious, they do not have the mind set nor the cooperative habits and attitudes which enable them to govern themselves peaceably. Another way of saying this is that there must be a language of freedom and responsibility in successful use before a people can enjoy freedom and responsibility.

The construction of a message by an observer is very much like the process that takes place as one watches a person draw, and shoot an arrow. If one wishes to understand the archer, one must figure out the archer's target, assess the nature of the arrow (poison tipped, well-fashioned, etc.), have some sense of the power behind the arrow (full or partial draw, 20 lb. bow or crossbow, etc.), and estimate the damage the arrow will inflict on what it strikes as well as the future consequences of that striking. If the arrow is aimed at us, the urgency of determining the message is great, and those slow to translate sometimes do not survive. It is noteworthy that the shooting of an arrow is always an assertion, an AIUC, since all actions by a person are such, as noted above.

It would be extremely helpful if one were able to construct the true and correct message related to each AIUC which one observes. Most persons are aware through the passage of time and the confirmation or disconfirmation of subsequent events that their message constructions vary widely in their degree of accuracy. Intelligence would have us study this matter to learn to be as accurate as we can be at all times, hoping and striving for complete accuracy, but still being cautious enough to recognize that we probably will not attain such extraordinary perceptiveness as mortals. The substitute for
this unerring perceptiveness which most people desire to have is power. The more power one has, the less one needs to be accurate in judging the assertions of others (up to a point). A potentate commands, not needing to cooperate; whatever interpretation he places on his own AIUC will often stand for the truth even if not true. Of course, the downfall of potentates often comes when they blindly paint themselves into a corner in not correctly assessing the intent of someone close to them who intends to usurp their power.

True message portrayal is the province of the gods. Belief that one's message portrayals are true is the province of fools and those who think they are gods. Mere mortals must simply do the best they can, shoring up their guesses by redundancy, tentativeness and humility as needed.

True or false, partially true or insufficiently so, whenever we utter our interpretation of another person's AIUC we are asserting ourselves, and it is then up to our observers to guess what we really mean and how correct we are in interpreting the AIUC which we report. The fabric of society is thus one great AIUC fair wherein everyone is taking in everyone else's AIUCs, making judgments and hanging out their own AIUCs for everyone else to judge and comment on. No wonder the course of wisdom is sometimes to remain silent.

The message one creates for the AIUC of another is the meaning one attaches to the AIUC. No AIUC is self-relevatory. All meaning is attributed by an observer. With a multiplicity of observers there will undoubtedly always be a multiplicity of meanings for any AIUC. Meaning, like message, which meaning is, is always specifically related to the context of assertion.

Thus words and sentences in mention-context have no meaning. Hypothetical or mock-up meanings can be made up for them. But ordinarily they are not intended to be used, which is to say, to have meaning. There are meanings-in-general of words and phrases, which are the modal uses of the linguistic item in question in historic contexts of use. But there are no proper meanings, no necessary or correct meanings of any linguistic structure.

It is important now to compare AIUC with other candidates for the position of most fundamental unit of language. Comparison will be made with phoneme/character, morpheme/word, phrase, sentence, proposition and message.

Phoneme/character: An isolated phoneme/character may mean anything because it means nothing. These are units of syntactic structure, and they play a necessary and decisive role in the use of language. They are the critical factors in creating and determining morphemes and words. But they are not the basic units of language because apart from their use in or as morphemes or words they have a mention-value only.

Morpheme/word: A morpheme or a word apart from an actual use in a living context has no meaning but may have several potential standard meanings and always has an infinite number of potential use meanings. These cannot serve as the basic unit of language because each, until used, can have no meanings.

Phrase: A phrase is yet incomplete, having the same position and shortcomings of morphemes and words.
Sentences in use are assertions in use, even as words and phrases in use may be assertions in use. But to isolate a sentence from a specific use context is to leave it as potential language, not real language. Assertion-in-use-context is an actual linguistic unit, having a manifold richness of meaning indicators both in the body language of the speaker and in the spatial and temporal context of utterance. So we must reject sentence as our candidate for most basic unit of language.

Proposition: Propositions are whatever they are construed to be by their authors, ranging from true descriptive assertions to the essential informational content of any assertion. Propositions are thus specialized sentential usages and suffer the same problems relative to AIUCs as do sentences.

Messages: Message is always the subjective reaction of a participant in the assertion context. Linguistic structures in mention context do not have messages, and messages related to use context are always answers to the question as to what is being asserted. These messages grow and improve with time and the interpretive ability of the observer, even relative to a given AIUC, and they may also deteriorate with time. To make the subjective reaction of the observer the unit of language would be to beg the question, for to ask what is the basic unit of language is to ask what is the basic unit of meaning.

We are thus left with assertion-in-use-context as the basic unit of human communication. Only that unit is an objective starting point for human inquiry, for the interpretation process. Only the AIUC has the reality and richness to provide determinative clues as to what a given person really means by making an assertion is some manner in some particular context.

There are other points which favor AIUC as the basic unit of language.

This use of AIUC is continuous with common sense. Common sense is not always a touchstone, but to defy it is to assume the burden of proof in any matter. But it does seem that we all know that our language teachers are saying something important when they tell us, time after time, that the specific meaning of some syntactical usage must be determined by context.

The AIUC gives us the most behavioral target possible for our interpretive quest, even allowing the electronic capturing of the nuances of speech utterance, body language, physical context, etc. Such capturing is never complete, for the full context of any utterance is all that has gone before and much of what comes after. But we can generally agree on the assertion as an assertion in a specific context, even if we cannot agree on the interpretation.

The use of AIUC is metaphysically parsimonious. It does not necessitate the invention of such creatures as "deep structure," "objective referents" or "platonic categories." It simply points to language use as the self expression of particular human beings in particular contexts.

This use of AIUC recognizes agency in both the speaker and the hearer of language. Thus communication is not forced into the narrow reductionistic or mechanistic frame which robs it of its agentive spontaneity and creativity.
This freedom allows language to rise above human resources and to partake of whatever supernatural potential for language the speakers and hearers may have at their disposal. While this point is a debit rather than a credit for a person of naturalistic philosophic bent, it enhances the linguistic understanding of that majority of mankind who savor contact with the supernatural.

AIUC as the unit of language facilitates consideration of non-verbal languages and non-language actions as part of the actual communication phenomenon. Considered attention to these often-neglected aspects of communication has given dramatists power through the ages and advertisers commercial application in modern advertising techniques, which, even with all the advertiser's pecuniary diverting of basic principles, still function as prime examples of expert communication.

This use of AIUC is also helpful in that it helps to prevent hubris in the human species by reminding us that there is no human voice that is final and authoritative -- about anything -- and that every assertion in its actual context of use is always the personal bearing of personal testimony. Much as we would desire to be the last word, to state eternal truth the way it really is, we must simply settle for saying the best we know and for hoping that someone can successfully construe what we mean to their own edification.

The conclusion of this matter is the hope that focus on AIUC will provide an enhancement to the use and understanding of language by seeing it ecologically, as it really grows in a real world.