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AN APPEAL FOR HOLISM IN LANGUAGE STUDIES: ON THE BASIC CONFORMITY TO THE GENERAL PRINCIPLES, OR WHAT IS THE HOMUNCULUS DOING INSIDE OUR BRAINS?

In our capacity as linguists we ought to be trying to approach language (or, rather the general domain of language) in a holistic manner, that is, we ought not to forget that no conceivable linguistic function stands completely alone, separate to some lesser or greater degree with respect to the rest of the machinery of language. And although most of us would unquestionably admit that a multitude of processing subsystems within the entire language faculty take care of all our daily linguistic activities, which in its own right provides justification for excessive compartmentalization of scholarly linguistic pursuit, it should also be admitted that it is the ultimate effect of communicating information by means of language as an integrated whole that ought to finally constrain us from declaring the sufficiency of little 'splendid isolations' within the otherwise cosy and comfortable linguistic subcompartments in which linguists have been generally pursuing their academic well-being. In other words, the holistic approach to language studies should make it clear that there are limits to studies of language as a system and that one should therefore approach language as constrained by both language-internal and language-external factors.

In what follows I propose my own account of holism in language studies. It is presented by way of a 'decalogue' consisting of the most fundamental postulates that a society of Homunculi 'residing' in our brains has finally agreed to 'draft' after having 'presided over' our thoughts for the tens of thousands of years of our sapiens sapiens predicament, especially as a species communicating by way of language. Obviously, the individual homunculi inside our brains should not be taken literally, but rather as an appeal for recognizing the essential unity of acting (i.e. perceiving and learning language as well as producing speech) and knowing which forms an inseparable dyad within the ontological bounds of an individual human being. Thus, the homunculus inside

us is assumed here to constitute the evolutionarily developed strategy of 'being in the world' which, basically, comprises the following three levels:

- (a) the level of subject – object relationship
- (b) the level of subject – subject relationship (i.e. communication), and
- (c) the level of the ontological status of the subject.

The Language Holist's Decalogue

I. Thou shall seek companionship with other members of your own species

Seeking and elaborating relationships is the essence of our social predicament. The common elements which are the outcome of a prolonged process of socialization and which crucially affect every single individual are the following: (1) the transfer of knowledge (e.g. through developing explanations, providing justifications, raising questions, and learning), and (2) the presence of increased self-monitor which allows every individual member of our species to monitor our own and other people's cognitive states and processes and, subsequently, align them within the dominant strategy of being in the world.

II. Thou shall send and receive messages

Sending and receiving messages are the inescapable elements of the social milieu in which we have always been immersed. Thus, a linguistic message is exchanged between sender and receiver, via a communication channel (most typically the vocal-auditory channel, but not only as happens to be the case with, for example, hearing-impaired individuals). Obviously, both the receiver and sender are of primary importance to the holistically and dynamically-oriented language studies, since language comprehension (perception) and speech production are the processes of greatest utility to the individual users of language in general and of any natural language in particular. Their utility involves the receiver's ability to translate the message into a format in which an individual is able to guide his/her linguistic activities on the one hand, and the sender's ability to shape up the message before it is sent via the communication channel, on the other. That is why we assume that language understanding and speech production constitute an inseparable (and therefore 'holistic') dyad.

III. Thou shall operate with an inner code

The inner code has the central property of being able to guide our communicative activities. In order to meet this contingency, it has been

assumed that it must in some sense consist of the individual's internal (i.e. mental) representation of the external world on the one hand and of a number of co-operating rules and constraints governing their application, on the other. Thus the existence of the inner code (operating in what one may call 'the mode of thought') is essential to generating language as a tool of communication and to securing the subsequent tasks of language comprehension and speech production in the process of communication.

IV. Thou shall keep your internal representation integrated and updated

The current shape of the internal representation which is at the disposal of an individual ought to allow the individual to freely 'browse' in the environment, as it were. That is why it should be appropriately rich and categorized to meet the varied contingencies of the environment and at the same time to help maintain the individual's independence from sensory inputs. It should thus constitute an integrated system of consciousness permitting us to represent the world, our bodies in it, and our integrated selves.

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V. Thou shall regulate your communicative behaviour by means of rules

An individual's linguistic behaviour not only depends on the input received (no matter how complete or incomplete it happens to be) and the strength of external stimulation but involves an intricate inter-play of environment-free norms and sanctions. The sole function of the latter are to enable the individual language user to specify and replicate the expected correct procedures and conventions as well as generate an array of acceptable (i.e. communicatively feasible) interactions among the communicating agents. At the same time, we must remember that linguistic conventions have a value only to the degree to which they support the goal of communicating information and to the extent to which they reduce the degree of possible errors and thus keep possible communicative confusion at a minimum.

VI. Thou shall exercise your memory

The communicative-cognitive system which knows the rules is one that contains a mechanism which is capable of both carrying out a cognitive process and producing linguistic transformations needed to sustain successful (i.e. goal-satisfying) communication. The mechanism obtains input for its activation and is triggered off if a signal is present, that is, located within the

mechanism's domain. In this context, it is essential to emphasize the importance of pattern detectors which must operate first in order to spell out the conditions for the application of a given rule. In addition, the codes which represent crucial information on how to proceed with an implementation of an action must be held by a memorial mechanism which, in turn, must be capable of preserving all-important information on the discrete and categorically-organized units, their interrelationships and their temporal order in a given act of linguistic communication. The homunculus sees to it that the old and new information can meet without exerting a devastating effect upon the communicating agent's cognitive innards.

VII. Thou shall learn

The necessity of working out for oneself a functional capacity to act smoothly in the changing environment is more than obvious. That is why the entire cognitive and genetically-predisposed potential of *Homo sapiens sapiens* has been preadapted to being able to create a general cognitive capacity tuned to the contingencies of the world. This capacity is unquestionably cross-modal in the neural sense of the word and thus involves associations formed between the various neural modalities (e.g. between the limbic and cortical modalities). In a more narrow sense, learning a language by humans is the collective result of producing associations among the auditory, visual, and tactile stimuli via the symbol-sustaining and symbol-producing capacity.

VIII. Thou shall acquire the general and specific rules of safe conduct as early as possible

The homunculus inside us 'ushers' the brain as our central processor to its physiological and functional maturity in a relatively short period of time so that the organism is soon able to cope with a rich array of intricacies of the changing environment and so that the general program of 'being in the world' is triggered off as early as possible and realized by an individual to the fullest degree, i.e. subjugated to the primacy of the principle of species and individual organismic survival.

IX. Thou shall discover the pattern

In complex human mentalesse, the pattern is to be differentiated from the rule(s) in one important respect, namely that the former is the result of the application of the rules. In discovering the pattern, the following general procedure is applied:

- a meaningful combination of elements is discovered
- a pattern-defining rule is created
- the rule is applied to subsequent input so that new instances of pattern conforming to the newly created rule are found
- pattern-defining rules generally involve categories which come into being by a process of extraction of a prototypical category.

X. Thou shall disperse the communicative behaviour over the entire brain as the central processor

The overall functioning of the complex human cognitive system involves a flawless functioning of the brain as a central processor. The homunculus inside us is very much concerned with the overall stability of the brain as the central processor of both incoming and stored information. That is why neurophysiologists have found it desirable to propose that the various functions be spread in a modular fashion over the entire central processor. In this way no temporary disturbance to or failure of a given subsystem will be able to cause the failure of the entire machinery of the brain. The maturational changes must therefore lead to the creation of such a central processor in which responses to a whole range of inputs may be dispersed over the system. In this way, a certain amount of flexibility and variability of communicative behaviours is derived from an ultrastable and multistable central processor and, in fact, is guaranteed by that processor.

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