

Consciousness and Linguistic Competency: Making Interdisciplinary Choices

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Abstract: A difficult problem for interdisciplinary study is deciding what constructs from other fields will comport well with the concerns of one's own academic area. Consciousness is a crucial concept for any discipline concerned with human behavior, but is particularly problematic for human communication scholars since it is not a primitive concept for speech communication. This essay advocates choosing a conception of consciousness that reflects the active role of language in shaping human consciousness and is presented in the theories of Vygotsky and Luria. The author suggests that such a perspective would be more practical and heuristic for communication studies than others currently being advanced since assessments of linguistic competency could then be used to investigate human consciousness.

ONE OF THE MOST PREVALENT of all the problems facing interdisciplinary research efforts is that we must borrow from outside our own discipline in order to conduct studies. The central question is how to make the choice of what to borrow. We obviously cannot integrate all the constructs of a second or third academic field into our investigations. Nor can we take everything available from outside sources into account when constructing theory. The consequence is that we are forced to make choices about which concepts to utilize and which ones to ignore.

The primitive concepts of another field may have originated from an incompatible world view. For example, psychology's dominant epistemological view may be empiricism while ours is rationalism. Combining the products of such antithetical ways of viewing knowledge will be problematic, at best. Choices become even more complex when we try to accommodate probable differences across disciplinary paradigms with respect to ontological, metatheoretical, and methodological assumptions. The difficulty of choosing outside concepts is augmented further because no clearly delineated guidelines exist to aid us in making such choices.

A very essential albeit difficult decision, then, for all of us doing interdisciplinary work is this selection from other academic areas of principles or concepts that will comport well with the concerns of our field. The following essay presents my selections together with my rationale for them while attempting to address the problem of consciousness. Speech communication, to date, has simply been unable to identify a conception of consciousness that will aid us in our efforts to understand and/or predict apparently unintentional human spoken language behavior as well as behavior that is intentional in character.

Articles in a special issue of the *Western Journal of Speech Communication* (1986) reflected the conceptual morass we plunge into when we expand our concern with intentionality or its absence in the communication process to include a consideration of the mental states of consciousness or unconsciousness. The situation is exacerbated by our acceptance of the traditional equation of consciousness with self-awareness that has been made by American psychology (although its preference in this century has been to avoid the topic if at all possible). Common sense informs us that we engage in habitual behaviors of which we are unaware. The acceptance of both of these views forces us to posit the existence of an active unconscious. Such a position encourages the inane belief that each of us possesses an unconscious control center, such as the id, which is reflexively making choices for us and over which we have no control. Since "unconscious" processing cannot be observed, the communication theorist is placed in the untenable position of accepting the existence of such direction on faith, and sometimes of trying to prove both that such unconscious processing follows logical rules, and that it is "the one most in control of human communication" (Hample, 1986).

Thinking in contemporary psychology only obfuscates the issue by combining self-awareness with a focus on retrieval:

Conscious memories are familiar, and we may take them for granted without asserting their veridicality. If the information is not represented in consciousness and not stored in memory so that under some circumstances it can be retrieved, it can be called *nonconscious*. Presumably there are regulatory processes in the body that are of this kind, perhaps the

homeostatic ones that regulate blood and hormones. A *subconscious* process is one that is not available to consciousness, whether it was once conscious or perhaps never conscious, but the information is retrievable to recall under appropriate circumstances, as, for example, by automatic writing under hypnosis. The distinction between subconscious and unconscious is more difficult to make without commitment to some sort of theory. If one wishes to insist upon a logical distinction, an *unconscious* process can be classified as one that is inferred to be similar to a conscious process but is not retrievable except by inference. The inference to unconscious processes from dream interpretation, whether by Freud's or Jung's method, would support this interpretation. (Hilgard, 1980, p. 20).

Limiting our conception of consciousness in this way limits our research options since it follows that if we are not self-aware, then we must be "unconsciously" communicating and such processes, by definition, are not accessible to us. If we persist in this view, then I would be forced to agree with Motley's (1986) prognosis that the prospect of any fruitful investigation of communication processes is rather bleak.

The solution I am advocating, however, to this conundrum is an alternative conception of consciousness as one's mental reflection of realities. This view would be more facilitative of human communication research. I acknowledge that self-awareness is an attribute of human consciousness, but maintain that it can exist only after an individual has attained a minimal level of linguistic competence. Once attained, self-awareness is no longer the delimiting characteristic of human consciousness but rather becomes merely a capacity that we can exercise at will; and I trust that the majority of us utilize research subjects with this level of functioning. Consequently, it seems a futile effort to attempt to ascertain if a given interactant is "mindful" or "mindless" in his or her communication in a given instance. Instead, I suggest that we expand our consideration of consciousness beyond this rudimentary capacity, and adopt a mental reflection of realities perspective which ties human consciousness (once it exists) symbiotically to linguistic competence and investigates its qualitative variance. Such variations are available to researchers, and would offer new facts of communication processing for our examination. Such an expansion would convert the unconscious and its inaccessibility into an irrelevant concept for scholars of human communication. It also seems to follow that our understanding of communicative functioning would be increased greatly if our investigative efforts focused on the interpersonal and cultural roots of such competency rather than attempting to speculate about what might transpire during periods of "unconsciousness."

Usage of the term "linguistic competency" is commonly constrained to synonymy with syntactic knowledge rather than encompassing a broad, general knowledge of one's language. Although this is a popular practice, true linguistic competence requires knowledge of the sounds and meanings of a particular language as well as its syntax before one is capable of a competent linguistic performance in that language. Despite this scope, I limit my focus in this essay to the semantic facet of linguistic competency. This focus is not because of any bias (similar to that noted for syntax) that meaning defines such competency, but rather because of my conviction that it is the semantic dimension that is most intimately involved in the ontogenesis of consciousness. This conviction results from my study of the essential role of word meaning in forming the mental associations or linkages necessary for any occurrence of higher mental functioning (Vocate, 1987) such as intentional self-analysis or other evaluative judgments.

In contrast to the popular narrowing of interpretation that has typified the concept linguistic competency, the term "consciousness" has been expanded to include a plethora of mental states. It has been used to describe sheer wakefulness, passive awareness, self-reflexiveness, cognitive styles, intentionality, and the various levels of mental functioning which result from changes in cortical tone. The reader will no doubt be delighted to learn that I have no wish to attempt a treatment of all of those diverse states in this essay. To me, human consciousness as a mental reflection of realities is an active mental state (with a capacity for self-awareness) characterized by volitional, mediated functioning which originates in the passive reflection of objective reality.

Such a passive reflection is the most general and fundamental activity of the cerebral hemispheres in higher animals according to Vygotsky (1978). The connections formed in the animal's brain are a copy or reflection of the associations occurring among natural phenomena "that signal the appearance of immediately beneficial or destructive events" (Vygotsky, 1977, p. 62), in speech communication terminology, the mental associations possible in this initial stage of development are limited to copies of the connections inherent in natural signs and do not yet include those created by the arbitrary construction of artificial signs or symbols (Faules & Alexander, 1978).

Human consciousness encompasses this stage of passive activity with its attendant contextual influence, but progresses beyond it to actively altering natural connections as well as creating new ones in nature and in the human brain. *As a result of such creation and intervention, the reality of associations or relationships reflected mentally can now include symbolic, cultural, and social entities and relationships as well as those which exist in the physical realm.* The means by which this is accomplished, in my opinion, is spoken language. The acquisition of spoken language engenders the shift from animal to human consciousness as a result of its function as the mediating factor which permits volition (Vocate, 1987), and the resultant

active creation of unique mental linkages. One outcome of the central role of language in this view of human consciousness is that the scope of language is not limited to being a mere collection of sensory representations imprinted on memory, nor to being only self-conscious intentionality, but rather is enlarged to encompass both volitional and habitual acts as well as naturally occurring relationships. Language thereby integrates into human consciousness Popper's three worlds of everything that exists and can be experienced: World 1 (physical objects and states), World 2 (levels of consciousness and subjective knowledge), and World 3 (cultural heritage and objective knowledge) (Popper & Eccles, 1983).

Given this conception of consciousness, it should not be surprising that the major hypothesis of this essay is that human consciousness depends on a minimal level of linguistic competency for its existence, and that it subsequently will vary qualitatively according to the level of competence achieved. It is also posited that one's linguistic competence underlies and constrains all communicative processing whether spontaneous, scripted or contrived (Reardon, 1987). The independent variables of interpersonal communication, like parenting others and cultural language code, which determine one's competence during the initial language acquisition, can become dependent variables in adulthood if one chooses to control their influence. The propositions supporting these conclusions are as follows: (1) human consciousness cannot occur until the acquisition of language; (2) human consciousness is dependent on the linguistically dominant hemisphere of the human brain; (3) human consciousness is characterized by a unified self-perception created by means of language; and (4) the level of human consciousness attained by an individual is dependent upon the cultural level of language development.

Language Acquisition Creates Human Consciousness. This premise is based on the work of two members of the "troika" that redefined Soviet psychology after the 1917 revolution — L.S. Vygotsky and A.R. Luria. Luria, the neurologist, asserted that human consciousness does not exist as an innate quality of the human brain, but occurs as the second of two developmental stages. The initial stage of consciousness is animal consciousness or mere sensory awareness of reality, which is dependent on the elementary sensory systems of the brain and the role of the upper brain stem in maintaining a state of wakefulness. Human consciousness, when it occurs, retains this dependence on the physiological system supporting wakefulness, but must have human language to make "that *leap from the sensory to the rational world*, which is essential for human consciousness" (Luria, 1982, p. 41). This "leap" is made possible by the word's function as a mediating factor between the stimuli of the environment and the response of the individual. It thus becomes an instance of what Vygotsky labelled auxiliary stimuli, or "*stimuli artificially introduced into the situation*" (Vygotsky, 1966, p. 24), which create options or alternatives for human selection and thereby permit choice. Consequently, human consciousness with its reflection of reality is freed from a direct, isomorphic linkage to naturally occurring phenomena, and becomes a reflection of the diverse linguistic organizations inherent in symbolic reality.

However, in its oral/aural form language will retain a dependence on physical reality and immediate experience for its word meanings. Luria refers to this as the sympractical activity of oral language (Luria, 1969), and it is retained even in the literate stage (Ong, 1967, *passim*) of language development when language is performed orally. In essence, Luria is acknowledging the fact that oral language meaning can be supported by extralinguistic aids such as "knowledge of the situation, facial expression, gestures ..." (Luria, 1976a, p. 36), while written language meaning is totally dependent on linguistic forms. Depending upon the speaker's level of linguistic competency, she or he may control the quantity of sympractic activity in a given utterance.

As the basic unit of language, the word has two linguistic functions in the reflection of objective reality. The most basic of these and the first one acquired is the word's referential function, meaning that it can substitute for an object, act, property, or relationship. As a result of this, humans can expand their functioning to include things that are not present, and transmit knowledge from one person to another. This ability to elicit images apart from the thing permits humans to regulate their perception and memory, and to act internally. Despite the freedom from passivity granted by the referential function, it is the second linguistic function of the word that is most significant in the achievement of human consciousness — its abstracting and generalizing function. It is this function that permits the singling out of the essential properties of things, and then generalizes those properties by relating them to other things or properties in a category. Thus, the meaning of the word cannot be limited to its referential function since one word may have many associations and, as a result, numerous meanings.

Consequently, word meaning encompasses all the associative meanings that are included in the word's semantic field apart from any consideration of syntax. These associations include phonetic, morphological or visual, and conceptual associations and may be drawn from one of two systems: (1) denotative meaning or the stable system of associations that is the same for all speakers of a particular language, or (2) connotative meaning or the unique system of relationships and associations that may be salient to a particular speaker in a particular situation. Regardless of whether associative word meaning is being taken from the denotative or connotative system, the type of association serves as an indicator of the state of cortical tone or the level of wakefulness being maintained in the individual. The type of association can be ascertained by means of studies measuring the orienting reflex.

The term "orienting reflex" originated with Pavlov and describes an involuntary reaction which consists of turning with the eyes and head toward the salient stimulus while ceasing other irrelevant activity. It is accompanied by clearly defined

electrophysiological indices such as an inhibition of the alpha-rhythm, and autonomic responses such as a constriction in peripheral blood vessels. In the vernacular, it is the double-take we do when something unusual catches our attention and we concentrate on it. Humans are unique among animals in that this response can be engendered semantically in us once we have acquired language.

Research done by Luria and Vinogradova (Luria, 1973) found that normal, awake subjects had an orienting reflex only to words with semantically similar meanings. In contrast, mildly retarded children responded equally to semantically or phonetically similar words, and to neutral words. The third group they tested, the severely retarded, produced orienting reflexes only in response to words which were phonetically similar to the original word stimulus. Luria saw this research as being evidence that the associations inherent in the word can serve as an indicator of pathological states of functioning. In the normal, neurologically healthy individual, however, this hierarchy of associations can serve as an indicator of the level of wakefulness or state of cortical tone, and Luria uses the writings of James Joyce, Marcel Proust, and Leo Tolstoy as vivid examples of how random images and phonetic associations begin to dominate as the mind reduces its cortical tone and moves toward sleep (Luria, 1973).

Luria sees abstraction and generalization as being the most important function of thinking, and thus considers the word since it provides this ability to be a “*unit of thought*” (Luria, 1982, p. 38) as well as a unit of language. It is a major tenet of Lurian theory that the evolution of word meaning in ontogenesis parallels the evolution of the capacity of individual consciousness to reflect reality, since he holds that changes in word meaning are accompanied by psychological changes as a result of the word’s role in forming mental connections. At the beginning, the most salient characteristic of word meaning is affect, then concrete image, and then the system of logical connections that stand behind the word. The latter stage of development permits the word to acquire a “paradigmatic” character which refers to the location of its meaning “in an hierarchical system of abstract operations” (Luria, 1982, p. 52). In other words, the dominance of semantic linkages is achieved. The evolution of consciousness follows a similar path so that

during the earliest stage of ontogenesis, consciousness has an affective character. Words, through which the world is reflected, evoke a system of practically actuated connections. It is only at the final stage that consciousness acquires an abstract verbal-logical character, which differs from the earlier stages both in its meaning structure and in psychological processes, although even at this stage the connections that characterize the previous stages are covertly preserved. (Luria, 1982, p. 53)

Thus, the developmental stage of an individual’s linguistic competency will influence the consciousness he or she manifests. The fact that differentiation precedes generalization in an individual’s mental development has been known for some time, and Luria asserts that “differentiation is characterized by *concretely based thinking* ...” (Luria, 1982, p. 59). Such dependency on concrete personal experience is reflected in Vygotsky’s observation that the young child thinks by remembering and the adolescent remembers by thinking (Luria, 1976b). Anecdotal evidence of parents also supports this assertion that children think in concrete, visual, and situational terms, and such are the relationships they note between environmental objects before they progress to abstracting aspects of an object and then generalizing those aspects into new logical categories independent of personal experience.

Consciousness Dependent Upon Linguistic Hemisphere. The idea that human consciousness depends on the linguistically dominant hemisphere of the brain was supported by the work of the Vietnam Head Injury Study (Fischman, 1986). Medical and service records of more than 1,200 soldiers surviving brain wounds were examined with 520 being given an extensive battery of tests during a one week stay at Walter Reed. More than half of them suffered only a momentary loss of consciousness or even remained conscious as is illustrated in the following example:

The squad leader was carrying a belt of 30-caliber ammunition over his shoulder when his patrol was ambushed in Vietnam. A mine fragment set off one of the bullets, which exploded into the back of the soldier’s head. He hit the ground, unable to move the left side of his body. But he remained awake. He gave orders to his men, spoke to the medic and waited for helicopter evacuation. He was able to answer doctors’ questions two hours later at the hospital, where they discovered that the bullet deep in the right side of his head had blown away almost 10 percent of his brain. (Fischman, 1986, p. 8)

The retention of consciousness appeared to be linked to the state of the linguistically dominant hemisphere which is usually the left one. The researchers suggest as a result of their investigations that there is more of an interaction between the reticular formation which maintains wakefulness (a rudimentary state necessary for consciousness) and the left hemisphere than there is

with the right, and comment that “the nature of the relationship between wakefulness and language is unclear.... It may be simply on the basis of a shared anatomic feature, or it may involve a more complex interaction” (Fischman, 1986, p. 8). I would suggest that the latter conclusion is more valid since the relationship appears to entail not only a linkage to the wakefulness aspect of consciousness, but also to the cognitions which comprise the content of consciousness and are formulated out of the associations inherent in language.

Support for the existence of complex interaction is provided in the studies of Luria and Khomskaya (1970), which examined the neurological connections that exist between the frontal lobes and those structures of the limbic system and brain stem that are responsible for states of wakefulness, arousal, and the orienting reflex. A significant finding of their experiments was that humans can regulate the orienting reflex by means of speech, and such linguistic control of orienting reactions typifies all normal subjects in an awake state from eight to ten years of age through adulthood. Thus, it seems that the relationship is one which entails more than that of simple anatomical coexistence.

Unification of Consciousness Created by Language. In Western's special issue on consciousness, Anderson (1986) presents the idea emanating from split-brain research that humans have two separate realms of consciousness which correspond to the functioning of the two cerebral hemispheres. Such a view of consciousness is tenable only if one conceives of consciousness as sensory awareness, or if one ignores the fact that consciousness may have been formulated via the acquisition of language long before the surgical separation of the two hemispheres occurred. Some scholars holding this view of consciousness (Bogen, *et al.*, 1972) are equating cognitive style and consciousness. In either event, such perspectives are incompatible with a view which sees consciousness as a reflection of the relationships or associations manifested in the various realities which result from language's transformation of the human brain. The language system unifies simple wakefulness, sensory awareness, self-reflexiveness, and cultural levels of perspective into a single individual entity of self. I recently attended a colloquium in which a philosopher very eruditely presented the case that no one can logically prove that humans have consciousness and computers do not. His audience granted that systematic, logical proof might not be available to demonstrate the difference, but insisted that his cogent argument had done nothing to shake their *belief* in the reality that they were conscious and the machine was not. Such a “sense” of selfhood which resists reductionistic analysis, I think, results from the unifying influence of language on cortical systems, and its viability as a means of intentionally controlling the more elementary sensory systems of the brain (Vocate, 1987). Proving such an assertion, however, is problematic given the current state of neuropsychology and the obligation to constrain our research with normals to noninvasive techniques.

Consciousness Tied to Cultural Level of Language. A developmental progression similar to that of the individual appears to occur on a cultural level when linguistic competency changes from the oral/aural stage to the literate, or what Ong terms the “script” stage of language development (Ong, 1967). Both Ong and Havelock (1963) note the obvious point that oral cultures are totally dependent on human memory for the retention of knowledge, and assert that mnemonic devices such as themes (the battle, the banquet, the homecoming, etc.) and formulaic expression are typical in the expressions of oral cultures. One facet of this was that human characterizations also became formulaic, that is, Odysseus is always described as wily Odysseus while Nestor is referred to consistently as wise Nestor and Penelope is constantly labeled as faithful Penelope (Ong, 1967). Ong emphasizes that such characters are ceremonial characters, larger than life, and that such phrasing serves as a mnemonic device similar to the metrical phrasing of “wine-dark sea,” “rosy-fingered dawn,” etc., that one encounters in Homer.

I concur that such devices assist oral memory, but would suggest that they also reflect a level of consciousness which is unique to the oral/aural culture. Underlying this is the fact that the abstraction and generalization of word meaning at this stage of cultural development is concerned with the reflection of life experiences, and thought (tied to word meaning) is concrete, situational thought.

The thought and consciousness patterns of an oral culture are presented in Luria's *Cognitive Development: Its Cultural and Social Foundations* (1976b). Luria notes that the main function of concrete situational thought is “not the formation of abstract connection and relationship between symbols, but reproduction of whole situations, whole complexes closely connected with specific life experiences . . .” (Luria, 1933, p. 192). This function results, in my opinion, from the fact that consciousness in an oral culture must always be constrained by the inclusion of the sympractic dimension of oral language in its mental connections. Thus, the illiterate people of Uzbekistan in the 1930s were puzzled by Luria's efforts to get them to engage in theoretical reasoning since such thinking would have required from them an independence from the concrete, visual dominance of personal experience that typified their consciousness. An example of this occurred when Luria posed a rather simple (to us) syllogistic riddle; “*Cotton grows well where it is hot and dry. England is cold and damp. Can cotton grow there or not?*” (Luria, 1976b, p. 108). In response to this and similar requests, the people simply refused to make any inferences. The refusal was generally explained by denying the possibility of drawing any valid conclusions about things with which they had had no direct experience. In addition, when pressed to make a conclusion based only on the interviewer's words, those few peasants who then made the logical inference also expressed a general suspicion about any conclusions of a purely theoretical nature, or commented that only the interviewer could know the truth since he evidently had experienced the conditions. Both responses

illustrated their conviction that “real” reality was validated only via personal experience. Consequently, human consciousness as a reflection of reality was firmly linked to personal experience for people in an oral culture.

Self-consciousness appears to be a phenomenon that is limited to sensory self-awareness during the oral/aural stage of a culture, and then changes to the analytical self-consciousness that we ethnocentrically assume is normal with the attainment of the literate stage of language. Thus, self-awareness as well as consciousness varies with the cultural level of language development, and no self-awareness is possible until the acquisition of spoken language permits the existence of a mediating factor between a stimulus and the individual’s response.

An illustration of this dependence of self-consciousness on the cultural level of language development was provided by Luria’s examination of the self-awareness manifested by the illiterate people of Uzbekistan (Luria, 1976b; Ong, 1982). Asking them to evaluate their own character, Luria found that they were generally unable to complete the task, and would instead describe material aspects of their lives such as not having enough clothing or food. It was easier for them to characterize other people than themselves, and if pressed to describe their own personality traits, they often explained that they did not know, but that the interviewer could ask other people.

Other peasants from the same area, who constituted transitional groups, were tested. One group was experiencing the beginnings of social evaluation in collective life, such as the assessment of individual and brigade work efficiency so that the environment was beginning to require a more objective self-awareness. Such requirements were made possible because the peasants were also acquiring some literacy which, upon attainment, would free them from inclusion of the sympractic dimension of primary orality in their thought. At this point, however, requests for self-analysis were still answered by a focus on external sources and criteria. In contrast, another group of subjects, who had had some formal education and were actively involved in collective social life dealing with economic planning, evaluation of work problems, and so forth, described themselves in terms of desirable-social behaviors (Luria, 1976b). Consequently, the gradual movement from sensory self-awareness to awareness of one’s material circumstances to awareness of one’s social skills appears to precede any ability to objectify and analyze one’s own psychological make-up, and to reflect the linguistic and social competencies of the culture. It is my prediction that analytical self-consciousness will not occur until the culture’s language development makes such an objectification of self possible through the development of the written mode of language. Ong (1967) suggests that an outward, away from self, orientation of the acquisition of any knowledge is characteristic of the oral/aural stage of language because all knowledge is acquired from others. The literate or “script” stage of language, in contrast, changes knowledge acquisition into an internal, reflective process as a result of the locus of knowledge in objects such as books. That locus together with written language’s independence of physical reality sets up mental connections that make objective self-analysis possible.

These arguments should clarify for the reader that the “goodness of fit” for communication scholars is much better if consciousness is defined as the mental reflection of realities and is dependent on the achievement of a minimal level of linguistic competency for existence than if it is seen as some variation of self-awareness. It also, I think, solves the heuristic problem we have had with consciousness especially when attempting to investigate competence. We cannot do productive research on communication processes if they are truly the “nonconscious” operations some theorists consider them to be. Consequently, we should choose a different concept of consciousness rather than attempting to manipulate levels of intentional or unintentional processing in our studies. Defining consciousness as the mental reflection of realities permits us to study human consciousness in terms of language, not levels of awareness, thereby providing us with the means to access various communication processes via the mental connections which determine them and are themselves determined by an individual’s level of linguistic competency or development.

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