Language and the structuring of the intellect: Towards the realization of the total man

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“The limits of my language are the limits of my world.”
Ludwig Wittgenstein

“Mediate thought about language is an attempt to step outside one’s own skin of consciousness, a vital cover more intimately enfolding, more closely woven to human identity than in the skin of our body.”
George Sterner

The critical definition of the concept, “the total man”, is encumbered by lot of difficulties – epistemic and pragmatic. First, a man qua man because he is a total entity, a complete homo sapien. However, the phrase “the total man” is used here in a stipulative sense to distinguish the liberally educated person from the pure specialist. Second, even in this contextual sense, the concept of the liberal-minded person is still a problematic. Is liberal-mindedness predicated on a person’s breadth of knowledge, even if in the process the person becomes the proverbial “rolling stone that gathers no mass”? Or is it a factor of a person’s critical and analytic disposition? In talking about a liberally educated person, are we solely concerned with the mind of the person, or are we also concerned with the person’s utilization of his mind’s state-of-being to relate to his external world?

Are we concerned with the character of the person, i.e., the totality of the internalization as well as the manifestation of values approved or disapproved by the society?

Thirdly, and on a different note, the use of the phrase “the total man” in contemporary educational context is prejudicial because it is limited to someone who has been to school. In this sense, the concept becomes as spurious as it is bourgeois for, within our traditional context, there is the idea of someone who has had a broad exposure to traditional educational disciplines. Even if the criterion of liberal education is not on breadth of exposure to knowledge but on character and analytic ability, we have that within our traditional contexts. So, who is a liberally educated person?

The concept of the total man is then seen as difficult to encompass, even in its limited application as being referentially synonymous with the liberally educated and, by implication, liberal-minded person. Fortunately for us, the focus of our attention is not on what is constitutive of the liberal-minded person, but on the role language plays in the formation of a liberal-minded person. Furthermore, what ever criteria are established as constituting the liberally educated person will not alter the role language plays or ought to play in the formation of the person. This is so because the extent to
which we can organize our world and postulate about such cognition is the extent to which we can understand and make use of language.

Language occupies a central place in the evolution of the human being. The commonsense definition of language as a means of communication does not distinguish between animal communication and human communication. In one of his Silliman Lecture series, Jacob Bronowski (1978: 30-36) argues that four factors distinguish human communication as distinct from that of animals in the following ways: (1) “human response to another human signal is rather slow compared to most animal responses”, (2) “prolongation of reference”, i.e., “the ability to use language so that it applies not only to what is going on now but to what went on or to what will go on”, (3) “internalization” – which enables “interior dialogue” to take place in man, and (4) “productivity or generativity of language” – which makes it possible for human beings to reconstitute words and stratify language. These defining characteristics of the language of human beings are important for our discussion because they throw light on the formation of consciousness in man. For example, the ability of man, but an important definitional criterion of man. Secondly, the ability to generate new sentence patterns from fundamental structures contributes significantly to the intellectual growth of man. These factors are some of the major determinants for man as a self-conscious being.

Rene Descartes, chiefly remembered for his philosophy of methodical doubt, was carrying out an interior dialogue with himself when he arrived at his famous cogito ergo sum – a statement which has since then remained a footnote to all rationalist philosophy. Givon (1979: 319), arguing on a different plane, postulates two axioms which are important not only for the affirmation of consciousness in man, but also for our discussion here. According to him,

If an individual is to construe – (i.e.) cognize a universe, that individual must perforce exist.

If an individual is to construe a universe, then that universe must perforce exist.

These axioms are not controversial. They are simply true. For Givon, “these two perception, and cognition: they are, in principle, not deductible from any other knowledge, being preconditon of knowledge.” For our discussion, we need to add our axioms to the effect that:

The existence of a language or a pro-language is a pre-condition for any construal of the universe by an individual.

An individual must be capable of using such a language in order to make such a construal.

Other people can only know that an individual has any construal if that construal has been given verbal articulation, in other words, expressed in language.
With the foregoing, we have now established the four terms that are central to our discussion: man, *universe, thought, and language*. The attribution of the adjective “intelligent” to man is here supposed to be predicated on man’s ability to give a meaningful construal of this universe through conscious thinking and verbalization.

Man exists in time within his universe. Through language, he gives meaning to this universe, and also, through language, he comes to understand more about the universe. The individual’s *cognitive* – competence of himself, others, and the physical world constitute his intellectual world as well as his totalness as a person. Now, what is the composition of the human intelligence, and how does one come to become intelligent? In reviewing “two of the most influential approaches to understanding intelligence”, Robert J. Sternberg (1981: 1—4), says that “Thurstone’s (1938) well-known theory of mental ability … posits seven factors, namely, verbal comprehension, word fluency, number facility, spatial visualization, reasoning, perceptual speed, and memory.” Continuing, he says that the theories of Anderson (1976), Newell and Simon (1976), and Shank (1980) … explain Intelligence primarily in terms of complete language understanding (e.g. sentence and story comprehension) and problem solving (e.g., logical theorem-proving and chess performance). At levels in between these two extremes can be found theories such as Hunt’s (1978, 1980) … which seeks to understand intelligence primarily in terms of reasoning and verbal comprehension (e.g., the solution of analogies and the figuring out of the meaning of previously encountered word in natural context, such as newspaper article).

What is evident from these quotations is that language processing ability is identified Thurstone Anderson, Newell and Simon, Shauk, Hunt, and Sternberg as being an essential component of the human intelligence. Thurstone includes “word fluency” – by which we may understand ease of reasonable speech-making or eloquence – as a factorial component of human intelligence. The omission of this factor by the other writers leaves a serious gap in their expositions because the effectiveness of any verbal or logical comprehension of language ought to include the fluency with which such comprehension ability is made evident to others, at least, for others to be in a position to regard a person as possessing such ability. This fluency of speech or eloquence is not merely verbal artistry, for according to Rainer Dietrich (1985: 75), “The art of speaking is not a matter of speaking in isolation, but of speaking meaningfully in situations with people, of saying what one means.” Hence, he goes further to argue that:

1. **Eloquence, therefore, is knowledge.** “Meaning” something will succeed the more the better one can make use of one’s knowledge by thinking and making deductions,

2. **Ergo eloquence is thinking.** “Speaking in situations” will succeed the more the greater the range of means of expression one disposes of.
3. Eloquence is language capacity or vocabulary. “Saying what one means” will be the more successful the more fluently one is able to select and actuate telling expressions from one’s vocabulary.

4. Thus eloquence in speaking. “Speaking with people” finally will succeed the more the better one understands what they for their part think, feel and want.

5. Eloquence is understanding. Knowledge, thought, vocabulary, speaking and understanding – eloquence depends on these, both singly and taken together.

These deduction have been quoted at length because even when they can be summarised in a sentence, as indeed the author does in his fifth postulation, a summary would do damage to the process through which the conclusion has been derived, and I strongly feel that here both process and conclusion are equally important. What we are then saying is that verbal comprehension and eloquence are equally important indicators of human intelligence; for even “logical theorem proving” and “the solution of analogies” depend on the ability to produce and process language.

This latter point is very important because there is the erroneous impression that verbal comprehension and logical-theorem proving are very different things. Bronowski (1978: 43-63) argues that the symbolic expressions used in science and literature are “grammatical sentences” in their own right, that they are, in fact, a type of meta-language, or what Bronowski himself calls “logical formalizations”. According to him, Newton’s law of gravity:

\[ G = K \frac{m_1 m_2}{r^2} \]

is a grammatical sentence. Such a formulation is an instance of the language of science which has three features. Thus: there are, first of all, symbols which stand for concepts or inferred entities which have the character of the words in these sentences. Then there is a grammar which tells us how things are to be put together, so that for instance

\[ G = K \frac{m_1 m_2}{r^3} \]

is a grammatical sentence. If you did not put \( r^2 \) down but \( r^3 \), that would be ungrammatical and the sentence would not be allowed in the language.

This statement applies to algebraic equation as \( a + b = a + b \), or \( a x b = ab \). With all this, the distinction between verbal comprehension and logical-theorem proving is a
It now remains for us to look at the relationship between language and thought. Without going through its history which dates back to Plato through Ocklam, Locke, Russell, and Austin, to mention only a few of the Philosophers who have concerned themselves with the relationship of thought to language, let it be said that the relationship is now best regarded as that between the egg and the hen. Karl - Otto Apel (1981: 86) supports Schleirnacher’s and W.V.N. Humboldt’s “tenets that language as a general system determines the individual thought as it in turn takes its origin in every act of speech through which individual thought realizes itself.” And only last year, Rev. Fr. P. Odozor reiterated the same idea in his formulation that “ideas are words in their unspoken form.” It is a belief in this formulation which has given rise to the popular definitions of language and thought as “thinking loud” and “silent speech” respectively, the latter being an equivalent of Bronowski’s “interior dialogue”. In this sense also, language is seen to have a direct bearing on human intelligence.

But it is not just that language is the most important factor in human intelligence, that language and thought are organically related, but also that language shapes and determines our perception of the universe and of reality - even though in a dialectical process our universe as well as our perception of reality also influence our language. Two scholars: Edward Sapir and Benjamin Lee Whorf have investigated this relationship to a considerable degree of success. According to Sapir as quoted in Mandelbaum (1949: 90-91),

> It is the vocabulary of a language that most clearly reflects the physical and social environment of its speakers. The complete vocabulary of a language may indeed be looked upon as a complete inventory of all the ideas, interests, and occupations that take up the attention of the community, and were such a complete thesaurus of the language of a given tribe at our disposal, we might to a large extent infer the character of the physical environment and the characteristics of the culture of the people making use of it.

In a similar vein, Whorf (1956: 214) observes that because there is no “absolute impartiality” in the description of nature, even by scientists,

> We are thus introduced to a new principle of relativity, which holds that all observers are not led by the same physical evidence to the same picture of the universe, unless their linguistic backgrounds are similar, or can in some way be calibrated.

A few years back, Terry Kit-Fong Au (1983: 55) summarized the view of what has since came to be called the Sapir-Whorf hypothesis by positing two tenets of this hypothesis in the following manner:
(i) Linguistic Relativity - structural differences between languages will generally be paralleled by non-cognitive differences in the native speakers of two languages.

(ii) Linguistic Determinism - the structure of a language strongly influences or fully determines the way its native speakers perceive the world.

Here again, it has been seen that language has a direct bearing on the shaping of our perception of reality. The way an individual perceives reality is part of his intellectual make-up and the extent to which he can carry on an analytical interior dialogue with himself about the world or universe is the extent to which he can be said as possessing of critical intelligence. In this way also, language contributes to the intelligence. In this way also, language contributes to the intellectual make-up of the person.

So far, all we have been able to accomplish is to demonstrate that language has a very significant role to play in the structuring of a person’s intellect. But the role of language in that direction does not even stop at the levels we have seen. It plays a major role even in the “knowledge-acquisition process. Sternberg (1981: 5-6) talks of knowledge-acquisition components” which he defines as those processes involved in learning new information and storing it in the memory. He identifies “three knowledge-acquisition components” as necessary for any intelligent functioning, thus:

(a) selective encoding, by which relevant new information is sifted out from irrelevant new information (for the specific purpose for which the learning is taking place), (b) selective combination, by which the selectively encoded information is combined in a particular way that maximises its internal coherence, or connectedness, and (c) selective comparison, by which the selectively encoded and combined information is related to information already stored in memory so as to maximise the connectedness of the newly formed knowledge structure to previously formed knowledge structure.

Thus we have come full circle to the conclusion that language plays an immense role in the structuring of the human intellect. Selective encoding here is possible because of the linguistic ability of human beings to delay response and selective combination no less than selective comparison is possible because of the prolongation of reference which is characteristic of human speech, a characteristic which is an indication of man's possession of foresight and hindsight.

All we have said so far can be summarized in the following manner:

(i) articulate and reconstitutive use of language distinguishes man, at least linguistically, from other species.

(ii) whatever criteria we identify as constituting the total man must include the ability to produce and process language.
(iii) this language production and processing ability is the single most important indicator of human intelligence.

(iv) language shapes and determines our perceptual reality of the universe.

(v) in learning new information, language plays an important role.

With the foregoing, it is evident that language plays a major function in the intellectual formation of man. It is obvious too that whatever formulation we adopt of the total man can never be exclusive of the influence of language. It remains for us to discover how the use of English course can contribute to the realization of the total man.

The use of English and study skills course is both remedial and developmental. As a language-based course, it can contribute to the realization of the total man both in a general and in a relative sense. As a language course, it occupies a central role in the formation of the individual. Within that context, its contribution to the formation of the total man can be looked at from many perspectives.

First, total man in our contemporary literacy culture must, perforce, be literate. Literacy entails the ability to read and write in a language. English language is not only the official language in many countries but it is also the most nearly international language in the world. It is a well dominant language of modern technology. In higher institutions, the medium of instruction in almost all disciplines is the English language. The importance of the use of English course as a proficiency course in the use of English language is then really an immense one. For students to study effectively, their comprehension and production ability in English must be improved upon, and whatever they learn through the medium of English goes to the improvement of their intellectual make-up.

Second the non-instrumental mastery of English as a language is desirable in itself. Language is not empty of content, and language mastery implies the control of ideas and thought patterns. It further implies the ability to be analytic and discriminating in speech, but also presupposes a knowledge of a society's adequate communicative behaviour. Thus within our context in which English is the official language, the ability to understand and express ideas in English is not only good in itself but also necessary for effective comprehension of courses studied at the university.

Given this immense role of English in contemporary world, it is mandatory that the use of English course in our universities should be structured to meet up with these needs! We must not stop at merely the comprehension and production skills. Our aim should include that of improving their ability to think in the symbolic language of logic from which other science-based courses derive their meta-language. Undoubtedly, this would lead to a heightened sense in their understanding and appreciation of scientific formulations, and also contribute to their effective performance in verbal or written discourse.
REFERENCES


“You know, we have a very peculiar situation. Young people, when they are in school, are extremely excited by the humanities, even the most traditional subjects. And five years after graduation, they will reject them, basically, and become totally vocational in their orientation. This imbalance isn’t healthy in a long-range sense. As I look at our executive-management people who started out twenty or thirty years ago, I thought that these just-turned-45-year-old managers would ultimately come back to their schools and say, ’Now we need to understand little bit about ourselves and about life!’ But the postgraduate education of our managers, from this perspective, has been a total flop.”