

# Language Resources: Concreteness vs. Abstractness

**Arockia Dhas Calisthu**

Department of Linguistics and Literature  
Jordan University College

## **Abstract**

This study reviews the weaknesses that may inhere in an infrastructure of concrete resources in underdeveloped societies that consequently impose distress on the abstract thinking that ought to function as a significant factor for the development of a well-established society.<sup>1</sup> Because of its potential for an enormous scope of knowledge that coheres with priorities wisely set and managed and a reservoir of energy that sustains reasoning into a far-off future, *the ability to think abstractly* can motivate all concerned towards an optimistic development of society. But this ability requires access to concrete data banks. This ability for abstract thinking results from an integrated development of a body of knowledge that has accumulated through a cognitive process initiated by exposure to concrete data and sustained by insight and wisdom.

The perception of what abstractness is, and the conception of how abstractness relates to sound reasoning, wise decision-making, and systems of implementation that are both practical and ethically viable in developing countries are influenced by various cultural

---

<sup>1</sup> Abstract thinking in developed cultures has produced greater development in comparison to underdeveloped cultures. In developed cultures, abstract thinking enjoys a broader range of possibilities, because there are support systems in place for this broader range: there may be a traditional commitment to such habits as open-mindedness that encourages a multi-faceted relationship with international societies whereas underdeveloped societies may remain confined to more rigid cultural mindsets that do not allow them to participate wholeheartedly in the global network and hence leaves them out of touch with advanced developments. Thus, developed regions remain in the category of producers and underdeveloped societies remain as consumers.

forces that, practically speaking, may include a dynamism that reduces the society to an over-dependence on these cultural forces. Consequently this over-dependence can prevent the society's participation in the operational global network, more precisely, in that dimension of the global exchange of information that truly represents the opportunities – available to any country, developed or developing – for adopting the scientific innovations that are being broadcast in the international public forum and for benefiting from the technological advancements and the consequent expansion of concrete resources. The main objective of this study is to critically analyse the main factors behind the inefficiency of understanding new concepts through the unfortunate absence of a real correlation between concreteness and abstractness of language resources.<sup>2</sup>

One of the most debated questions in sociolinguistic analysis on the correlation between abstractness and its concrete exemplifications concerns the availability of the resources that ought to function as key factors to improve understanding of the transmitted concepts in a new culture where the efficiency of the language diminishes because the linguistic properties that would make the language accessible to local knowledge are simply not available – nor are there available concrete resources in the culture that can provide assistance in the language dilemma.

The main theories that have been developed to account for the hoped-for correlation between concreteness and abstractness are the social cognitive theory of Edwin B. Holt and Harold C. Brown (1931),<sup>3</sup> the functional context theory explained by Thomas Sticht (1976)<sup>4</sup>, context availability theory elucidated by Schwanenflugel,

---

<sup>2</sup> Concrete entities are considered to be individual entities, especially, those of a physical nature. As such they show forth characteristic shapes, parts, materials, and so forth. Abstract entities, on the other hand, refer to universals and so lack individuality and the physical attributes that identify individuals. See D. Crystal (1995) *The Cambridge Encyclopaedia of the English Language*, Cambridge: Cambridge University Press.

<sup>3</sup> See E. Holt – H.C. Brown (1931) *Animal Drive and the Learning Process: An Essay toward Radical Empiricism*, New York: Holt.

<sup>4</sup> See T. Sticht (1976) "Comprehending Reading at Work", in M. Just and P. Carpenter, eds., *Cognitive Processes in Comprehension*, Hillsdale, New Jersey: Erlbaum.

---

Harnishfeger, and Stowe (1988),<sup>5</sup> the dual coding theory of Paivio (1986)<sup>6</sup> and the language game theory introduced by Ludwig Wittgenstein (1953)<sup>7</sup>. These theories shed indispensable light on the central issues presented in this paper.

The vocabulary, grammar, and style of a language are not static, closed systems but open systems that help local and national languages to connect to the international communication network and hence give developing countries access to all advances in abstract, scientific, technological, and ethical thinking. This ability to open language to international breakthroughs is at the heart of the conclusion reached by this present paper.

## Introduction

The abstract thinking that develops in tandem with meaningful strides in intellectual development, i.e., in the development of knowledge and of wisdom unaffected by charades of thought that certain religions may try to insinuate and any social class divisions that are entirely unacceptable has the potential to lead to great development in any society.<sup>8</sup> Current forms of abstract thinking, however, seem highly pretentious in some of the developing cultures especially in Africa and Asia because of the influence of social-ethnic division and emotionally modified cultural aspects such as rituals and customs that some cultures may try forcibly to link to religion and to caste.<sup>9</sup> The capacity for abstract thinking may

---

<sup>5</sup> See P. Schwanenflugel – K.K. Harnishfeger – R.W. Stowe (1988). "Context availability and lexical decisions for abstract and concrete words", *Journal of Memory and Language* 27, 499-520.

<sup>6</sup> See A. Paivio (1986) *Mental Representations*. New York: Oxford University Press.

<sup>7</sup> See L. Wittgenstein (1953), *Philosophical Investigations*. Oxford: Blackwell.

<sup>8</sup> One acknowledges that true religion opens the mind to all valid insights and advances in wisdom since the Author of insight and wisdom – the one who has designed the human mind – is not the human being but rather is God himself (editor's note).

<sup>9</sup> Division refers to differences in the ability to control the means of social production and to differences in class membership. Divisions are crucial for determining political preferences, life style choices, access to health and educational opportunities, and levels of income and wealth.

suffer greatly because of the various forces of culture and other divisive institutions in developing countries that impede abstract thinking.

## 1. What is Abstraction?

In his classic study of Human Understanding, Bernard Lonergan put it this way:

So far from being a mere impoverishment of the data of sense, abstraction in all its essential moments is enriching. Its first moment is an enriching anticipation of an intelligibility to be added to sensible presentations; there is something to be known by insight. Its second moment is the erection of heuristic structures and the attainment of insight to reveal in the data what is variously named as the significant, the relevant, the important, the essential, the idea, the form. Its third moment is the formulation of the intelligibility that insight has revealed. Only in this third moment does there appear the negative aspect of abstraction, namely, the omission of the insignificant, the irrelevant, the negligible, the incidental, the merely empirical residue. Moreover this omission is neither absolute nor definitive. For the empirical residue possesses the universal property of being what intelligence abstracts from. Such a universal property provides the basis for a second set of heuristic procedures that take their stand on the simple premise that the non-systematic cannot be systematized.

... So far from being an impoverishment of sensible data, abstraction is an enrichment that goes beyond them. Because abstraction goes beyond the sensible field, the frontiers of the abstract are not coterminous with the frontiers of the experienced. Hence, full and exact knowledge of the systems to be reached by abstraction by no means denies the existence of an empirical residue that is non-systematic. Again, just as in abstraction we prescind from the empirical residue, so when we come to the concrete applications of abstract principles and laws, we are forced to take into account the non-systematic conditions under which the systematic has its concrete realization.<sup>10</sup>

Abstraction, then, is a process of perceiving meaning, purpose, possibility, intelligibility, significance, value, system and operation in concrete presentations of data that without the process of abstraction may remain inutile as non-systematic empirical residue.

---

<sup>10</sup> B. Lonergan, *Insight: A Study of Human Understanding*, New York: Philosophical Library 1958, 88-89.

---

At the risk of generalization, developing regions like Africa and Asia seem to show evidence of social divisions that obviate the abstract thinking of intellectuals. They are simply not given the opportunity to learn the process of discovery by means of enriching abstraction and insight. The influence of social class is clearly manifest in the academic outcomes within particular educational systems of Africa and Asia especially in group assignments.<sup>11</sup>

The social cognitive theory states that an individual's knowledge acquisition can be directly related to observing others within the context of social interactions, experiences, and outside media influences. The abstract thinking that functions as a key factor for knowledge acquisition is mainly influenced by education and experience in any society.

The functional context theory stresses that learning has everything to do with environmental influence on the person. Knowledge attainment always depends on education and experience in any society. Education and environment function as key factors for the acquisition of that type of knowledge which people typically refer to as wisdom. Emphasis on the educational methodology and the environment, which is in itself a resource, can lead to optimistic development in most of the wealthy societies where education forms the students to be creative.

The context availability theory argues that concrete words activate a broader contextual verbal support, which results in faster processing. The dexterity and agility of abstractness is acquired with the assistance of the existential accessibility of concrete resources that function as the symbols of a wealthy society.

The dual coding theory claims that there exists a dual coding system responsible for the storage of semantic representations related to concepts. The two codes involved are *analogue codes* and *symbolic codes*.

---

<sup>11</sup> The group assignment is a technique that teachers use in most academic disciplines. The group assignment fails to meet its objective because what the students produce is usually not consistent with a measurable growth in abstract thinking in reference to the topic upon which the group assignment is focused. The method adopted by students in group assignments often leaves the burden of research in the hands of one or two persons from the group.

One uses **analogue codes** to mentally represent images. Analogue codes ordinarily retain the main perceptual features of whatever is being represented, so the images we form in our minds are highly similar to the physical stimuli. A notable exception to this is the mental distortion that often accompanies representations of images of a trauma victim. They are a near-exact representation of the physical stimuli we observe in our environment, such as trees, rivers, but also items made by human beings, whether they are elaborate or simple. In this essay, these are referred to as concrete data, or concrete resources.

One uses **symbolic codes** to form mental representations of words. They represent something in a conceptual manner as opposed to a perceptual manner. Similar to the way a watch may represent information in the form of numbers to display the time, symbolic codes represent information in our mind in the form of arbitrary symbols, like words and combinations of words, to represent several ideas. In the present essay this particular form of symbolic coding is referred to as abstractness. Each symbol (x, y, 1, 2, etc.) can represent something other than itself. The specific representations that are involved are established by convention.

One example of such a convention is the letter x. X is often used to represent more than just the concept of an x, the 24<sup>th</sup> letter of the alphabet. It can be used to represent a variable in mathematics and, as such, is often joined to the letter y. X can be a symbol for multiplication in an equation. Concepts like multiplication can be represented symbolically by an “x” because we arbitrarily assign it a deeper concept. Only when we use it to represent this deeper concept does the letter "x" carry this type of meaning.

Linguistic properties function as a coding system of semantic representations in any culture where language customarily reflects the society<sup>12</sup>. Abstractness is related to the concrete representations that constitute the source of the idea about an object. Hence, abstractness requires concrete resources – analogue codes – for

---

<sup>12</sup> People who speak different languages name colours in different ways. The English system is based on wavelengths of light. When a beam of light is passed through a prism, it appears on a surface as a rainbow colours, ranging from red to blue and including all the thousands of discriminable hues.

distinctive acquisition of the new concepts. If thousands of linguistic properties come into play to explain an idea, learners are going to encounter difficulties in the acquisition process of new knowledge. In a word, there would be a lack of a heuristic principle, i.e., a principle by which concepts may be quite adequately explained in as succinct a manner as possible.

In developing regions the understanding of new knowledge suffers because language resources to develop a new idea about an object are limited. New concepts are expected to become understandable in the local language with the availability of linguistic terms that are already meaningful in the culture and are capable of expressing the properties of knowledge and so give access to understanding of the new concepts.

The language game theory posits the dependency of statements on the existential involvements of the ones using the language. Language involves me with non-linguistic activities. If I say, "I am eating now," I am probably engaged in an activity that one normally calls "eating." Eating is a non-linguistic activity. The term 'language-game' is used to refer to:

- Contrived examples of language use that are simpler than our own everyday language. For example, a text message: "How r u?"
- Simple uses of language that correspond to how children are first taught language (training in language).
- Specific regions of our language with their own grammars and relations to other language-games. How we talk about the economy is different from how we talk about our malaria. Health and economics are two regions of our language.
- All of a natural language as an entire family of language-games that either give us easy access to understanding the mindsets, customs, and convictions of other cultures or, on the contrary, deprive us of such access.

These meanings are not separated from each other by sharp boundaries, but blend into one another (as suggested by the idea of family resemblance). The concept is based on the following analogy: The rules of language are analogous to the rules of games;

thus saying something in a language is analogous to making a move in a game. The analogy between a language and a game demonstrates that words have meaning depending on the uses made of them in the various and multiform activities of human life. This fact is going to feed into a very important conclusion to the present essay, namely, that human consciousness is polymorphic.

The words with their etymological references and relations within the linguistic organic structure give rise to thousands of interpretations that are common in a context of literacy.

All the above-mentioned theories explain the strength of language resources with their multiple linguistic properties that make it possible to interpret concepts that are new and relate them to new cultural trends. Hence these theories explain how to utilize the strength of language in order to devise an efficient method that allows for profound understanding with the help of existential reference points, with points of comparison with already existing language resources, and with the help of the concrete resources that become available in new cultural settings.

## **2. Importance of Infrastructure**

According to cognitive theory, the infrastructure of language provides a greater understanding of concepts in the encoding and decoding process that is involved in the transference of an idea that is abstract into the message that is concrete.<sup>13</sup> The cognizance of concepts mainly relies on the agility and dexterity of local knowledge resources to interweave new concepts with what has already come to be known through local traditions and inter-regional, international communication. The ability of local

---

<sup>13</sup> The theory posits the existence of single coding system to which people can understand the uniqueness of the abstract concepts through the linguistic properties. The multiple resources of language in the form of linguistic properties make the understanding of concepts complex. Here lack of expertise with the properties and grammatical features of foreign languages that have multiple meanings and grammatical idiosyncrasies that differ from the local linguistic properties cause misunderstanding and communication breakdown among learners. Therefore accessibility of the global language or the development of grammatical features in local language is expected to give access to local knowledge as well as international knowledge through linguistic properties for the profound understanding of global concepts.



knowledge resources to welcome meaningfully new conceptualizations develops in tandem with the ability of local intellectual resources to render themselves accessible to technological advancement and scientific innovations. In developed countries advanced accessibility means that intellectual resources are available to assist the learners to have experience with concrete exemplifications and innovations that enable a deeper understanding. This new and more profound understanding that depends indispensably on the concrete data banks as a source of insight and the consequent transmission of knowledge and the conceptions that help give rise to that knowledge.<sup>14</sup> The importance of the concrete is expressed with such aphorisms as: "To see is to believe" and "An image is worth a thousand words".

The availability of concrete resources instils more confidence in determining whether an idea is expressing the truth or untruth of what really exists. The inductive processes involved in determining the truth of an idea find their crucial determinants in what is concretely exemplifying or failing to exemplify the idea. In this process, the object that carries the idea in the form of a message functions as the medium. The concrete resources themselves may function as global media and hence do not require the assistance of linguistic properties in the evaluation process of the transmitted concepts. In developed countries resources that make concepts accessible, such as advances in technology and scientific refinements, function as great aids in the enterprise of fortifying the understanding of the abstractness of the concept. But in developing countries the transmission of abstract concepts with lack of rootedness in available concrete resources/ examples greatly diminishes the prospect that the abstract concepts will be understood. Developing countries fail to assist intellectuals with a well-advanced infrastructure because of several forces of culture,

---

<sup>14</sup> Knowledge is an acquaintance that is immediate and unquestionable, linking one with abstract properties, and concrete data of sense together with concrete data of consciousness passing before one's mind. For complete descriptions of judgments of fact and judgments of value and hence the accumulation of knowledge, see B. Lonergan, *Insight*, especially Part II, "Insight as Knowledge."

traditional practices, and situations of material poverty that may be either avoidable or unavoidable.

Language is a most precious possession of human culture and has greatly influenced the patterns of human living by means of both written and oral forms of communication and comprehension at all stages of human development. Since language functions as a communicator and sharer of ideas – ideas that often communicate needs and suggestions, there is a meta-need to discover a way of transmitting our new ways of thinking in oral and written forms of communication that correspond to our new world of rapidly accumulating inventions and discoveries. Advanced discoveries give access to new possibilities for abstract thinking, when new concepts are conveyed in a way that manifest great awareness and adaptation to the particular processes of listening and understanding that typify a given audience.

There is an unmistakable challenge, for example, when the lack of availability of concrete resources and thereby the lack of experience with those same resources, gives rise to a milieu with poor background information about the new concepts at issue. New concepts require the assistance of the existentiality of concrete resources to elucidate the meaning of the concepts.<sup>15</sup> The intelligibility of new concepts and, on the practical level, the ability of the local people to incorporate new concepts into the operational use of their language highlights the distinctive role that language must play in forms that are both oral and written. The lack of concrete resources and the weaknesses of linguistic properties in a culture lead to the fast disappearance of language.<sup>16</sup>

---

<sup>15</sup> See M. Heidegger (1971) *On the Way to Language*, transl. by P. Herz. San Francisco, CA: HarperCollins Publishers.

Existentiality refers to *Da-Sein* as the being-in-the-world who defines himself or herself in terms of possibility. This is not a possibility that arises from the fanciful but rather is rooted in the problematic of the self-being as it actually exists. The term existentiality gives emphasis to this fact that the possibility is intrinsic to the being as it actually exists.

<sup>16</sup> The effect of insufficient infrastructure leads to lack of grammatical features indispensable for giving access to all local and international knowledge. Without these grammatical features there ensues a code mixing of two languages. This code mixing slowly weakens the local language.

### 3. Impact of a Lack of Infrastructure

During the recent past few years, the number of languages has vanished because of the lack of linguistic properties that the society needs in order for the languages to be functional.<sup>17</sup> Communities abandon native tongues because of the unavailability of grammatical properties that give access to developments in local knowledge and international knowledge. The society that is highly influenced by orality has failed to develop the concepts that are the results of abstract thinking beyond the forces of culture. Often these transcultural concepts can be more intelligible to an audience only through concentrated reflection on what is expressed – the kind of reflection that needs a written form that is either unavailable or only of minimal importance in an oral culture.<sup>18</sup>

Education and experience function as key factors to develop a system of knowledge that can be truly called creative.<sup>19</sup> Once the innovations are in vogue, grammatical properties and the ability of the language to incorporate new vocabulary assist the spread of knowledge. New knowledge is born from old knowledge with the help of creative thinking and meaningful expression.<sup>20</sup> The

---

<sup>17</sup> In most oral forms of communication intellectuals find difficulty in using one linguistic feature to describe ideas because of the lack of linguistic properties in their language. So they are in a set of circumstances where they choose to switch codes to another language, i.e., a language that is well established with its linguistic properties.

<sup>18</sup> See W.J. Ong (1982) *Orality and Literacy: The Technologizing of the Word*, London: Methuen. Father Ong has emphasized that the society that is highly addicted to oral culture has failed to improve the kind of creativity that employs critical thinking as a functioning source of knowledge production.

<sup>19</sup> Education and experience function as stimuli for thinking beyond the forces of culture and emotions. Without education and experience individuals and groups can be naively exposed to subjectivist projection, the fallacy of interpreting another's culture within the perspective of one's own culture, and to anthropomorphic projection, the fallacy of explaining existentiality and abstractness in terms of feelings rather than in terms of coherent insights.

<sup>20</sup> The main distinction between old knowledge and new knowledge is that through the process of exploration old knowledge becomes information, while new knowledge is born from a type of abstract thinking that develops in tandem with new innovations in concrete circumstances and so transforms the meaning of the information available through old knowledge.

accessibility of new abstractness becomes easy when language users link the existence of the old knowledge resource reservoir, which is still dynamically functional in the language, to a heuristic capability of accessing the existence of concrete resources that are connected to linguistic properties. Therefore each developing society has to think creatively beyond forces of culture and traditional practice that highly affect the abstract thinking; and the developing society must pay attention to the heuristic character of language in expressing the novelties of an existentially changing scientific/technological concrete order.

In any industrialized society, new knowledge is introduced through education and mass media in a language that guarantees wider diffusion of new concepts because it is known and used by the majority of the people.<sup>21</sup> The role of education and the mass media in facilitating the transmission of knowledge has occupied a significant position in cultural infrastructures.<sup>22</sup> According to Walter Ong, the society which employs better accessibility to media and education assists the learners to update their knowledge and comprehend what they know with the help of a new degree of abstractness.

The window of opportunity for success in integrating transmitted thoughts into cultural frameworks is often closed because there is a lack of the language resources needed to assist intellectuals in their attempts to grasp the new concepts that are easily understandable through the current advanced technology if that technology were available. What also could assist intellectuals in this enterprise are the efficacious cultural dynamics to be found

---

Oral culture is the traditional practice of most developing countries where there is an absence of the type of abstract thinking that brings forth creativity and a richer understanding of the abstract concepts that are born outside of one's own culture.

<sup>21</sup> Industrialized society refers to a society that makes use of technology to enable mass production, and is able to support a large population because of the high capacity for division of labour.

<sup>22</sup> Through his emphasis on the role of mass media and education in his *Orality and Literacy*, Father Walter Ong gives insight about the efficiency of accessibility to conceptual knowledge, practical knowledge and production in today's world of advanced technology and science.

in education and religion.<sup>23</sup> Any society that suffers a lack of accessibility to technology and education may lack understanding of abstract concepts, the type of concepts that require more effort and free thinking. The lack of awareness of the coding system necessary to involve the mind with the forms of abstractness that are most aptly expressed through metaphorical language gives rise to glaring inefficiency and hence a corresponding lack of intelligent networking that forms the interconnections between abstractness and concreteness.

Contextualization of language in both the processes typical of orality and the processes typical of literacy poses its own challenges in most of the cultures where there are limited concrete presentations of data and hence little concrete knowledge that can ground the insights necessary for enriching abstractions. The weaknesses of languages that characterize a specific society with availability of limited number of concrete resources issues forth poor possibilities for development and vitiates even further the languages.<sup>24</sup> In a word, language shortcomings present a vicious circle. Weaknesses in language prevent access to concrete representations of data and the enriching abstractions that arise from them. The lack of concrete resources and the lack of abstraction give rise to an even more vitiated language structure. When local languages cannot incorporate the concrete terminology

---

<sup>23</sup> Language resources refer to the properties that are available for better encoding and decoding in the transference of ideas and the formulation of the message – from the communicator’s point of view – and similarly the coding and decoding involved when one transforms the communicated message into ideas that arise from an adequate understanding of the message – this is the receiver’s point of view. The idea which is the source of communication is abstract. The message which is the grammatical property that gives access to the understanding of concepts is concrete. Without concrete resources, understanding abstractness becomes impossible. The existence of source objects and available grammatical properties assist a profound understanding of abstractness.

<sup>24</sup> English language speakers increase every day because of the advanced linguistic properties that characterize the English language. English links local knowledge sources to international knowledge media while the languages that fail to give access to international knowledge in this world of globalization tend to retard the development of local cultures. Languages that do not encourage interdependence tend to disappear.

of technological and scientific innovations, these innovations remain stigmatized as foreign elements that, supposedly, do not take into account indigenous practices anchored in the local language. Hence they may be too brusquely considered to be residue from a consumer culture that has no place in the indigenous society.<sup>25</sup>

The international recognition of a great number of languages has occasioned the development of useful, purposeful concepts that accompany the advancements in knowledge about science and technology. Countries that do not have access to the language resources remain underdeveloped. The development of any language, in fact, depends on the availability of concrete representations of relevant data. There must be an effort to provide reliable access to these data. New concepts are understood within a language that has a vocabulary and a grammar that enables comparisons among the contemporary concepts available in a culture.<sup>26</sup> In African and Asian culture, mastery over English language may be adversely affected because of factors that may be either external or internal to the cultures. Without elaborating too much, one can just mention South Korea as an Asian country that has mastered English language precisely as an international language, has mastered concrete presentations of data, and has mastered the art of insight and abstraction; and this country, South Korea, has shown her creativity with enterprises that have become

---

<sup>25</sup> See K Prah (1995) *Mother Tongue for Scientific and Technological Development in Africa* (German: Deutsche Stiftung für Internationale Entwicklung). Prah points out that technological advancement and scientific innovation are essential in any culture because they give easy access to global knowledge and develop awareness about life styles that benefit the human person and human society ethically, psychologically, physically and spiritually and in contrast those life styles that may be inimical to psychological, physical, moral and spiritual health. Thus interdependency can generate the abstract thinking that results with greater innovations and advancements.

<sup>26</sup> In *Orality and Literacy*, Fr. Walter Ong discusses possibilities of using comparisons as a literary method for understanding new concepts that are strange to certain cultures. Here Ong stresses the development of advanced practices in local cultures in order to have better understanding. Development in society is necessary in order to have a profound understanding about the concepts that carry heuristic value for any given culture.

---

household names. Samsung is just one example. In short, an Eastern country, South Korea, is the most advanced technological country in the world.

#### **4. Factors Affecting the Cognitive Systems of Africa and Asia**

The current practice for the transmission of thoughts and ideas through orality and literacy seems greatly determinative of the ability of developing countries to enter the mainstream of global academic communication. Global academic language has played a great role for providing local knowledge sources with the assistance they need to develop the intellect in its cognitive processes of enriching abstractions and cultivating insights. The people exposed to the opportunity to experience academic life in developing countries on the African continent, nevertheless, find themselves in a dilemma whether to rely on the same culture of orality in which they have developed their strength of knowledge acquisition and acquaintance with concrete representations of data and enriching abstractions; or whether they should rely on literacy with the intention of developing those language properties that transmit thoughts and ideas in written styles of expression that are multifaceted including the metaphorical and aesthetic styles that function in their own right as meaningful coding systems.<sup>27</sup>

It goes without saying that many African cultures have developed an oral tradition in the form of musical expression and story-telling. When the intellectuals are forced to involve themselves with a new system in their academic disciplines, they suffer.<sup>28</sup> A literary culture requires creativity and at the same time

---

<sup>27</sup> The aesthetic character of language refers to the beauty of language that attracts a manner of intellectual perception and presentation that relies on connotative semantics whereby words function as symbols and may even carry onomatopoeic qualities. Aesthetic styles enable multiple interpretations that every individual is capable of and provide an intellectual context for concentrating on the goodness, purity, forthrightness, and beauty of what is presented. Thus aesthetics functions as a motivator that attracts a person to be more attentive to both the concrete presentations of data and the abstractions that arise from them.

<sup>28</sup> Educational systems that depend largely on literary practice increase the possibility of creativity, initiative, and eventually greater productivity.

stimulates it through its symbolic expressions. This is true both in academic and non-academic disciplines. It is essential that an academic be familiar with literary styles because they bring forth creative dimensions not only to language but to patterns of living that stimulate social, economic, religious, cultural, industrial, scientific, technological, musical, ethical, and artistic development. Mastery of English, for example, as a literary language can be useful to Africa and Asia; but the grammatical features of the various languages used on these two continents is so different from English that it becomes difficult to make English accessible to local knowledge, and to make local knowledge accessible to English. Just to cite one example: some of the African and Asian languages are tonal languages and so they need to be written in a way that they can be pronounced correctly with the proper tones.<sup>29</sup>

A student's indifference to grammatical properties makes it rather difficult to learn and become fluent in a foreign language. Writing is still seen to be an alien practice in an oral culture: some suggest that writing confuses the memory because of the dissimilarities of grammatical properties from one language to another. Perhaps writing has failed in African culture because tradition has not emphasized writing as a privileged instrument for acquiring knowledge of concepts and other forms of abstraction; nor has tradition given much emphasis to the transmission of abstractions in the cultural communication media. Orality, a form of communication where listeners must depend on the speakers, has greatly influenced the culture of developing countries. Because listening does not permit the learner to do a prolonged study of the transmitted message – precisely because the message remains unwritten – the student systematically falls into a state of

---

Involvement with the written word may seem strange for some Africans because of the influence of traditions that accentuate the oral. Oral tradition is the practice of many Africans. Educational advisers and supervisors have failed to adopt new systems that take advantage of literary culture. People memorize, and do not produce. So they remain customers not producers. One reason why this all happens is because they do not have the written word available to them for concentrated thought, insight, improvisation, and invention.

<sup>29</sup> See P. Ladefoged – K. Johnson (2011) *A Course in Phonetics*, 6<sup>th</sup> ed., Boston: Wadsworth/Cengage Learning.



impoverishment of language resources. The student, therefore, is likely to suffer deprivation of the means needed in order to correlate concreteness, insight, abstraction and understanding.

The weaknesses in the coding system create a negative attitude towards self-expression through literary forms of communication. Most languages in Africa use foreign alphabets, which give them access to abstract forms of expression from other cultures.

Colonialism became one of the reasons behind the lack of a capacity to engage in cognitive processes that move from concrete presentations of data to enriching abstractions and insight.<sup>30</sup> Even though the use of foreign alphabets to develop their own literary forms would also give them more access to the linguistic and communication media of other cultures, the fact that foreign alphabets were forced upon our ancestors as if by coercion, left our people indifferent or even resentful towards the literary culture being thrust upon them. Foreign language was not a tool for development: foreign language was a tool for oppression and subjugation. In other words, it was an anti-intellectual tool since it

---

<sup>30</sup> In what concerns the topic of the present essay, Egyptian hieroglyphic script and the African Ethiopian Geeze script dating back as old as 3000 BC and 500 BC respectively prove to be the origins of writing. Under colonial rule, however, all evidence of African advanced skills would have been suppressed, books destroyed and higher skills silenced. The editor notes that colonialism was internationally justified on a premise that the African was less than a human: see Immanuel Kant's incomprehensibly racist attitude towards Africans in his book on aesthetics, *Observations on the Feeling of the Beautiful and Sublime and Other Writings*, ed. by P. Frierson and P. Guyer, Cambridge: Cambridge University Press 2011, 58-59. Kant begins his diatribe by an absurd claim: "The Negroes of Africa have by nature no feeling that rises above the trifling." His thoughtless critique only gets worse from there. In this he joins John Locke, David Hume and Georg Hegel. The amazing lapse in philosophical reasoning on the part of these and other philosophers is called the **subjectivist fallacy**, the tendency to interpret other cultures according to the limitations and prescriptions of one's own culture. In other words, Kant had the confused notion – and indeed false notion – that African cultures needed to be like German rationalist culture in order to be of value. When one rises above the Kantian and colonialist attitude, one learns easily that the panorama of African cultures shows praiseworthy features not to be found in present-day European cultures. Just to mention one: the superior understanding on the part of Africans about the meaning of the term "human family."

seemed to be a rude and a crude replacement of the rich local traditions. Hence language lost its expressive power.<sup>31</sup>

People develop the ability to abstract only when they are exposed to concrete presentations of data. Hence the absence of concrete objects and constellations of data, i.e., the absence of the opportunity to visualize the transmitted concepts, has affected the ability to understand *a posteriori* data presentations that were meant to confirm the truth of the abstractions. In many cultures, oral and written forms of knowledge have become less and less comprehensible to the people if they have not experienced firsthand the data presentations that originate and confirm the content of what is communicated. At the risk of repetition it must be emphasized that understanding concepts without the assistance of the visual aids becomes a difficult enterprise indeed.

The exposure to the source of knowledge lays a strong foundation that generates greater understanding of transmitted concepts in any situation. The finalization of the meaning of transmitted concepts depends on the demonstration of clarification on the basis of the truth of existentiality. The function of grammar in the process of finalizing the transmission of new concepts that interface with verifiable constellations of existential data in a system of interlinkages that enjoys rigorous methodological integrity strengthens the power of the logic that links concreteness to abstractness.

---

<sup>31</sup> Code switching is one of the problems in today's global practice and academic sector as well business sector. The well-educated people using two different languages weaken their acquired language because the mix of foreign language shows that there are not enough grammatical features in their language to express some of the ideas so they are restricted to the option of borrowing words from the foreign language. Thus, the local language falters. In the mix of languages we may find the local language intermingled with English. Because English developed its features historically prior to many other languages, it developed grammatical features that allowed the language user to define local knowledge and international knowledge at the same time that most local languages were not having enough linguistic properties or grammatical features to express informational content derived from foreign cultures. The origin of the language and the countries that use this language show that there is a great interrelationship between the development in patterns of life style and development in linguistic properties.

---

Our proximity to the source of knowledge is of great importance because in many cases, we ourselves function as the channels of communication. The rhythm of speech is a key factor for the accuracy of transmitted concepts.<sup>32</sup> We are the media that bring direct information to people: we are the people's link to the concrete presentations of data, to the enriching abstractions, and to the insights. In other words, we are functioning as sources of information. Communication success depends greatly on how resourceful we are with language.

Orality as a global cultural practice assists human beings to receive and communicate knowledge easily in comparison with the more rigorous communication standards of literary tradition and the thousands of interpretations that are possible especially if what is written in a number of situations is expressed ambiguously. This is why we have needed the science of hermeneutics, popularized by Paul Ricœur. Orality with the accompaniment of nonverbal signifiers enables the accuracy of greater understanding of new concepts that in new cultures is able to develop according to the attentiveness of the communicators – both the receivers and the givers of the communication – and so gradually enhances the clarity of the message.

The new system of thought transference by means of literary tradition, on the other hand, is in a greater position to develop critical thinking that lends itself to creativity. Hermeneutics only accomplishes its aim when the one receiving the message is able to study what he or she has received: this usually means the message has to be written. The exception to this, of course, is the body of researchers who spend the necessary time listening and re-listening to oral presentations that have been taped.

If the intellectuals in developing countries lack experience and interest in expressing themselves through writing, their lack of awareness of the advantages of literary tradition restricts them in their international relationships and consequent accumulation of knowledge. Eventually this lack of experience and interest has repercussions both for the society within which the intellectuals

---

<sup>32</sup> Writing cannot purely transfer what is said in Orality: see Ong, *Orality and Literacy*.

live and work and for the external, international community that is suffering a lack of communication with the local intellectuals.

## 5. The Effect of Insufficient Infrastructure

The utility of language depends on the availability of resources inherent in the language that assist access to local and universal knowledge.<sup>33</sup> At this point in the present essay it should be abundantly clear that there is a big challenge when one is attempting to understand a certain body of knowledge that enters the culture through a foreign language. Father Walter Ong's concept emphasizes that many languages have disappeared in recent years because of an untold story that is really the true one, but yet is one that does not reach the awareness of many people. That untold story is the failure of the available language resources to communicate essential new clusters of information in a way that is understandable to the people receiving the information. Lack of understanding has led to a style that settles uneasily into a pattern of imitation and memorization without comprehension. This pattern is a sign of the inability of language resources to develop systematic linguistic properties that cohere with new clusters of concrete representations of data in a manner that can link the data to heuristic abstractions. This inability obviates a deeper understanding of the abstractions transmitted in the communication process.<sup>34</sup>

The current widespread practice of accepting information from international media and then adapting that information to one's local situation through a process of imitating what the content is communicating without really attempting to understand the ethical, scientific, philosophical, sociological, political, economic and religious implications of the content is simply *acquisition with no awareness*. Our learning process suffers because we tend to want to have some ready-made knowledge to achieve our personal and

---

<sup>33</sup> See W.J. Ong, *Orality and Literacy*; 30<sup>th</sup> ed., London 2013.

<sup>34</sup> Physical properties of language refer to the existence of objects and the grammatical features that function as the coding system of the objects. An abstract idea does not have physical properties. Through the assistance of linguistic properties in the form of concreteness, the abstract is understood. Through the assistance of linguistic properties in the form of concreteness, the abstract is understood.

group purposes and to be identified in the academic world as a well-established, healthy, prosperous society.

The motive of wanting such recognition compels an individual to try to digest as rapidly as possible something that is intellectually and/or scientifically dense. Because the responsible academician feels the pressure, he formulates conclusions, practical implications for the local situation, and consequent policies and methodologies without too much thoughtfulness. He or she lacks the sincerity and modesty necessary to admit that he or she really does not have clear knowledge about the idea that he or she has received as a transmitted message; yet he or she feels the need to inject the transmitted message into the ongoing local media of communication. When people are forced to learn new ideas under these constraints, they tend to resign themselves to memorizing the linguistic properties that function only as a coding system for the language – and not as a system of explanation of incoming messages. Because they succumb to a more or less thoughtless memorizing of the unfamiliar linguistic properties that are necessary to explore and interpret the meanings of incoming messages, individuals neglect the properties inherent in the abstractness that language property resources are intended to elucidate. The final consequence is tragic: they do not really know the language; and they do not really know the content of specific messages that come to them vis-à-vis the language.

## **6. The Lack of Concrete Referents**

Every genre of development depends on the availability of resources within any given culture. The weaknesses of a language that a specific society has accepted as part and parcel of its very identity may become exacerbated if concrete resources available in that society as referents for understanding abstractions are perennially diminishing to the degree of a real impoverishment. The lack of availability of concrete resources results in poor development especially in educational systems: this leads to the fast disappearance of languages.

The everyday language of the marketplace and the village square is not the same as the language of schooling and the media. The language of such formal situations as academics differs from

other formal and informal sectors. International languages of academia suffer when societies and cultures do not recognize the telltale distinctions between everyday language and the language of schooling and the mass media. When one focuses on Africa, one cannot fail to notice that the history of African language and culture shows a reluctance to acknowledge a clear distinction between these two modes of language.

In some parts of Africa and Asia students do not get enough opportunity to practice language in formal situations. The opportunities provided for them to prove their language ability by way of assignments, tests and examinations prove to be quite inadequate so that as a consequence students remain incompetent in language. The current methods for examining students do not encourage critical thinking and rigorous practice of language so that they can enrich their life skills. Rather it inclines them to feel satisfied with mere memorization of materials that a given institution provides for them, an institution that is often a mixture of competent and incompetent professionals. Teachers capable of communicating subject matter effectively are not available: often the reason is that the teachers themselves are not trained to be methodologically resourceful in their pedagogy.<sup>35</sup>

Students skilled in literary methods of communication are ready to add to those skills the hermeneutical abilities needed to employ the proper methods of interpretation for the materials they are reading, and to express themselves in a writing style that make themselves correctly understood even in the international forum. An oral culture with the accompaniment of nonverbal signifiers enables a more accurate understanding of new concepts when the concrete referents indispensable for understanding abstract

---

<sup>35</sup> The current public employment methods are corrupted in most of the academic sectors in developing countries. The intelligence of people is checked giving first priority to certificates, diplomas and the status of the persons without giving any priority to the ability for innovative thinking. Instead of employing competent people, persons known to be of high status are employed. Many times people are employed without interviewing simply by reviewing certificates. Because those with academic responsibility fail to make intellectuals who can think creatively beyond the forces of culture and traditional practices, the labour pool for jobs that require abstract thinking shrinks.

---

concepts are available and pertinent to the content of transmitted messages.

If the language properties in a coding system that are necessary to specify and make distinctions are not available, then the ones using that coding system fail to gain access to new abstract concepts because they are using a coding system that carries a limited range of expressions, a very limited vocabulary and so has to over-rely on metaphors as conveyors for meaning. Those operating with such limited language properties fail to understand the various interpretative ideologies involved in the to and fro of literary communication because they are inexperienced in catching the nuances. The lack of concrete language resources gives rise to the incompetence of those who would want to master techniques of interpretation and expression and so would want to develop their awareness of denotative and connotative semantics of the coding systems that employ a myriad of metaphorical expressions that are available only in languages with a much more sophisticated system of vocabulary. It goes without saying that the number of vocabulary items available in the language must be suitable enough for international messages to enter the language with ease of interpretation and comprehensibility.

The existence of concrete objectivity – objects in the environment with which everyone is familiar – acts as an intellectual control on the accuracy of the ideas expressed through innumerable metaphorical expressions.

Orality has developed the attitude of interpersonal communication with the accompaniment of non-verbal signifiers such as facial expressions and the tone of voice. Oral imitation employs only those linguistic resources that one needs to memorize and so enters easily into a person's mental operations without a rigorous functioning of cognitive process. Strange concepts in new cultures always suffer in the process of the communication if the cultures receiving them do not have the concrete tools for understanding them. Memorization becomes the primary tool for conveying abstract knowledge. But are students only memorizing? Or are they really learning?

Memorizing can only be a successful educational method if those doing the memorizing make the effort to learn and internalize

what they have memorized by using dictionaries and other language resources, by working to understand fully the meanings of words, phrases, and entire bodies of material that they have been memorizing, to develop their vocabulary and tools of interpretation, to develop their understanding of the rules of grammar, and by applying what they have memorized to their personal experience not only in the academic world but in all the details of their daily lives. Only in this way do they become aware of the connections between the language they are using, the content of what they are learning, and the implications of that content for both their own culture and other cultures in the international forum.

Language is closely tied to the visual organizations, combinations, and reorganizations of letters, words, punctuation symbols and grammatical elements. Dictionaries, written grammatical rules, punctuation, and all the rest of the apparatus that make words into something understandable and at the same time as points of reference for further research all manifest the indispensability of the visual character of language. The abstractness of sentences through the use of coding systems and the changes in meaning that take place with just slight differences in the placement of words and punctuation in the organic structure gives rise to a myriad of variations in how ideas can be interpreted. Correct, meaningful, and profoundly influential interpretations of ideas are possible when there are concrete, objective resources to which the people of any given culture can refer when they go to interpret what they are hearing or reading in their language.

At present, the alphabet known as Standard English gives accessibility to a recorded vocabulary of at least 1,500,000 words of which not only present meanings but also hundreds of past meanings are known. Such an extensive vocabulary supply paves the access to a new culture where a coding system with different grammatical properties seeks concrete, objective resources to use as referents in order to understand abstract expressions that derive their meaning from concepts anchored in concrete experience. Concepts have a way of carrying their etymologies with them forever. The words that we use when we speak or write have some untold stories and meanings that enjoy a long and varied history.



The establishment of the bond between the abstractness and the concrete resources enables clear understanding of the transmission of concepts.<sup>36</sup> The presence of the source of a communication with the accompaniment of nonverbal signifiers adds more accuracy to the cognitive process. The receivers of a transmitted message are more competent in their grasp of the various meanings contained in the message and are more aware of whether or not they are understanding the message correctly if they are operating linguistically in a milieu where they are exposed to the relevant concrete referents that give precise cues to the meanings and possible applications of the abstract notions conveyed by the transmitted message. These abstract notions, in their turn, may transcend the day-to-day schemes and patterns of living in the local culture. Those who have experience in cross-cultural communication and the appropriate experience of the relevant concrete data, i.e., the relevant concrete reference points from which abstractions derive their meaning, are in a position to formulate insights, to detect oversights, to make judgments of fact, judgments of value and hence grow in a cumulative knowledge of their own culture and other cultures. Language resources provide the raw materials for all these cognitive processes.

Aestheticism of language through literary creativity with metaphorical expressions is in a condition today to help scientific discourse become available to much larger populations – especially if those populations are not necessarily grounded in technical, scientific discourse. Direct experience with concrete data and the resources within which these data are embedded generates deeper understanding and productivity of intelligence in a culture.

## Conclusion

Admittedly there are weaknesses in the coding system of developing countries that makes it difficult for the residents of these countries to understand accurately the abstract notions that

---

<sup>36</sup> A simply oral dialect will commonly have resources of only a few thousand words, and its users will have virtually no knowledge of the oral semantic history of any words. Written texts all have to be related somehow directly or indirectly to the world of sound that constitutes the natural habitat of language so as to yield their meaning (See Ong, *Orality and Literacy*, 1982).

are communicated to them by media that originate outside the local cultures. The lack of access to the relevant concrete data and the resources that embed those data challenge the populations in developing countries to understand the abstract notions that usually derive from data banks that these countries simply do not have.

Therefore making the concrete resources available for comprehension and cultivation of inter-cultural communication should be a priority: accessibility to these resources makes language more meaningful to those who are using the language; and the language is more likely to last into the distant future.

When the educational infrastructure of a country falters, local languages themselves are liable to disappear.<sup>37</sup> The responsibility of reinforcing the academic infrastructure of a country lies in the hands of the government and of the intellectuals who have the capacity to develop the infrastructure through innovations. To develop innovations one needs to put aside negative attitudes towards foreign languages for indeed foreign languages give access to international knowledge and the existential reality from which that body of knowledge is arising.

The government should develop infrastructure and accessibility to quality education in public sectors within a context of creative benchmarking. The abstract thinking which is influenced by a variety of cross-cultural forces affects development in the ability

---

<sup>37</sup> Education and experience stimulate thinking that generates knowledge that produces new opportunities for abstract constructions that account for all the concrete data of experience. When educational systems that are concerned with seeking the truth in its philosophical, historical, economic, political, sociological, psychological, ethical, scientific, technological, legal, and religious dimensions – and always with methodologies appropriate to the particular dimensions of the truth that are under study – are made accessible to greater and greater segments of the population, everyone grows in their ability to think and communicate in abstractions, and in their ability to make relevant judgments of fact and judgments of value, to communicate the judgments they have established, and act with ethical appropriateness according to those judgments. Therefore each developing society is responsible for giving quality education that is accessible for all. Since quality education provided by private institutions is expensive, accessibility is denied to people who live below the poverty line if governments are not concerned about giving proper financial aid.

---

to think and be aware. The people need to be united in their desire to seek and know the truth within the various domains of human existence – including the domain of eternity. In many developing countries people suffer divisions based on politics and religion. The pursuit of political truth with its ramifications for social and economic ethics and the pursuit of religious truth with its ramifications for the eternal destiny of each and every human being must be pursuits that persons may conduct in freedom – without fear of prejudice, discrimination, coercion, or humiliation.

The abstract thinking that assists the conception and perception of abstractness of an intellectual should not be subject to what philosophers call anthropomorphic and subjectivist projections. Persons and groups cannot give abstract, explanatory power to feelings: this is anthropomorphic projection. Persons and groups cannot give explanatory power to their own cultural perspective when they are attempting to interpret the convictions, tenets, and traditions of other cultures: this is subjectivist projection.<sup>38</sup> An intellectual must engage religion in the pursuit of an objective, eternal truth that withstands the vicissitudes of history. Indeed the intellectual must transcend the boundaries of his or her own culture in order to take advantage of the resources that other cultures and other languages provide in order to understand the ultimate source of all knowledge and conviction, namely, God himself. With trust in the divine author of all that is culturally resourceful and socially productive, all countries, both developing and developed, are in

---

<sup>38</sup> Religion discusses the meaning of life including questions such as: 'Who am I?' 'Is there life after death?' 'Is there a God?' The abstractness of human value as the moral teaching of religion helps the society to build broader relationships with people both from within one's own culture and from other cultures in the international community. Thus, religion functions as an essential factor that gives access to international knowledge and so helps an individual to develop new levels of abstractness. When people, however, attempt to manipulate religion with personal and group misinterpretations of holy books, their abstract thinking may result not only in pretentious claims about their relationship with God but also may result in attempts to brainwash or use other types of coercion to influence the abstract thinking of others. This seems especially true when one tries to buttress one's own political power with religious tenets when the original holy books were certainly not meant to be political tools.

a position to generate knowledge and bring optimistic changes in society. Within the order of the created universe with its panorama of cultures and societies, nations can develop tools for perceiving and abstracting that are all-inclusive, perennially meaningful, and capable of a manifold of clearly beneficial innovation.

In a word, the abstract thinking that does not succumb to the fickle swaying of emotion, to the stranglehold of tradition, or to the prejudice against the adherents of one particular religion or another – this abstract manner of thinking corresponds precisely to the polymorphic form of human consciousness:

For human consciousness is polymorphic. The pattern in which it flows may be biological, aesthetic, artistic, dramatic, practical, intellectual, or mystical. These patterns alternate; they blend or mix; they can interfere, conflict, lose their way, break down. The intellectual pattern of experience is supposed and expressed by our account of self-affirmation, of being, and of objectivity. But no man is born in that pattern; no one reaches it easily; no one remains in it permanently; and when some other pattern is dominant, then the self of our self-affirmation seems quite different from one's actual self.

... In fact, the mind is polymorphic; it has to master its own manifold before it can determine what utterance is, or what is uttered, or what is the relation between the two; and when it does so, it finds its own complexity at the root of antithetical solutions.<sup>39</sup>

The observant reader notices that the polymorphism of human consciousness corresponds to the language-games theory of L. Wittgenstein.

Human beings think, learn, and arrive at new components of knowledge by means of positions and counter-positions, insights and inverse insights, new discoveries and corrections of mistaken interpretations of what has been discovered. The wisdom that leads to practicable solutions for the problems that exist today is a wisdom generated through the humble acceptance of the polymorphism of human consciousness. The dramatic pattern of everyday living intertwines with the intellectual pattern that academia fosters. The practical must at times give way to the mystical especially at the moments of a mystifying illness or the passage through death into eternity.

---

<sup>39</sup> Lonergan, *Insight*, 385-386.

Through education abstract thinking can become a habit even in the early stage of the learning process where people can learn to adapt practical knowledge gained from specific moments of experience with particular problems to new sets of problems. This manner of abstracting, generalizing and universalizing brings creativity. Innovative education that enables creative thinking can make the people perceive the world in a different way, give them the confidence to accept responsibility for analysing existing problems and finding solutions for them.

The disruption of free thinking that occurs with the formation and/or maintenance of classes and divisions in developing countries hampers understanding and acceptance of new, heuristic, logically and scientifically sound concepts. Hence there is a dire need today to use a language that all can understand and accept and that can assist us to understand concepts in their abstractness. I am speaking of a language that functions as a system of thought transference where an idea that is abstract may be formulated in a concrete message that is transmissible and accessible to the local knowledge of the receiver and still remains entirely admissible within the networks of international knowledge.

With a language that admits access to international knowledge, one can obviously generate new knowledge and hence bring forth the intellectual framework that produces new development. Development of the ability to deal with, interpret, and create abstractions is healthy because it interfaces with scientific innovations and technological development and their cross-cultural intelligibility. Wholehearted engagement in the process of formulating what is abstract in a way that is translatable into a concrete message, and creatively welcoming the contents of a concrete message in order to draw forth from the message new concepts and abstractions is a purposeful engagement because it gives rise to solutions for major existing problems in the society of today. In this scenario, the society is in the situation of developing infrastructures that employ grammatical properties that function as a meaningful and heuristic coding system where the object itself functions as an effective medium.

Abstract thinking can result with new knowledge that gives answers to all challenging questions and provides pathways to

solutions to existing problems. Old knowledge gives birth to new knowledge and gives access to a variety of sources that were hitherto inaccessible (Chomsky, 1920).

Not only the English language but every language that reflects the interpersonal and inter-institutional operations of the socioeconomic network in a particular region or country and the processes of abstract thinking that find their way into the public forum of that region or country should give access to international knowledge, too. If a local language has advanced grammatical properties and a vocabulary that is capable of expansion, there is easy access to international knowledge that leads to new innovations with new abstractness.

If local language, on the other hand, is weak in giving access to international knowledge, there should be analyses made precisely in the science of linguistics so that linguists in the local languages can institute acceptable, new grammatical structures within the languages and new rules for the formation of new vocabulary within these same local languages. All of these innovations would be for the purpose of allowing the local languages to express meaningfully abstractions that are arising from within other milieus, other cultures, and other fields of research. All formation of new infrastructures within local languages must, of course, be programmed into textbooks for pupils and students.

The willingness and the ability to enter the international forum in order to grow in one's knowledge of God, the world with its cultures and societies, and the human family with the persons that constitute that family – in a word, the willingness to learn with our eternal destiny in view – are at the basis for encouraging each other to think abstractly, to help others think abstractly, to connect abstract thinking to relevant concrete referents, and to form intelligent conclusions and applications that coincide with moral and ontological truth. Hence abstract thinking itself has a destiny: it encourages the formation of a language that everyone can understand and accept; and hence it encourages the formation of a new world order where peace and harmony will no longer be abstraction but rather existentiality.