Constructive Utility of Language: An Evolutionary Linguistic Perspective at Higher Pedagogical Level

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Abstract

Language is a cognitive system. It is integral part of a man's mental or cognitive structure. As man is societal, his structured language is bound to have influence from the culture around him. If his acquired culture is multi-lingual, then his language shall certainly have different dialects or varieties. This is true in all historical contexts. A multi-lingual nation-state should essentially cater to and proportionately integrate its divergent cultural and lingual components in framing curriculum at all levels of pedagogy to make curriculum unbiased. If this insightful task is attain ed, and the consequent inside and outside classroom delivery of curricular aspects is ascertained, then the students under such teaching-learning-evaluation process in all probability shall grow cognitively harmonious. The process put-up through this research paper has following components derived through Post-Modernist Structuralism.

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- *Language of Curriculum : Matter - Manner Coordination*

- *Principles of Language Acquisition and Learning*

- *Pertinent Structure and Morphology Across Languages*

- *Syntactic Variations and Logical Forms of Language*

- *Unbiased-Simple Language of Curriculum at Higher Level*

Language, which the mankind possesses is most commonly used and most highly developed form of human communication. Historical Linguistics deals with reconstructing the history of language. All human societies belong to one or the other linguistic community. The cognitive skill or language acquisition gives the human species a powerful advantage over others. The linguists use the term 'language' to consider a kind of specifically human phenomenon. The word language is intimately related to the word 'tongue'. "The Greek word 'logos' describes human speech. The word 'logos' meant a faculty of human being and it is the power of thought or speech." (Dhar, 2017, p.19) 'Language' is understood in terms of its properties or characteristics. How a language communicates information has intrigued Indian thinkers since several thousand years. This has given birth to different theories of language analysis. It has long been universally accepted that Sanskrit is a remote cousin of all languages of Europe with the exception of Finnish, Estonian, Hungarian, Turkish and Basque. "All other European tongues

look back to common ancestor in a group of dialects spoken by tribesmen in the Steppe lands of South Russia some years 2000 BC." (Basham ,1997, p.586) Understanding this enormity of this oriental language, Max Muller wrote, " I must begin this series of translations of Sacred Books of the East with three cautions- referring to the character of the original texts here translated; the second, with regard to the difficulties in making a proper use of translations; the third, showing what is possible and what is impossible in rendering ancient thought in to modern speech,"(Max Muller, 1879, Preface) The Sanskrit language, whatever be its antiquity, is of a wonderful structure, more perfect than the Greek, more copious than the Latin, and more exquisitely refined than either, yet bearing to both of them a stronger affinity, both in the roots of verbs, and in the forms of grammar, than could possibly have been produced by accident, so strong indeed that no philologer could examine them all without believing them to have sprung from some common source, which perhaps no longer exists.

The earliest surviving form of Sanskrit, that of Rig Veda bears about the same relation to the classical tongue as does Homeric to classical Greek. At all its stages, Sanskrit is a language of many inflexions, but the Vedas contain numerous forms which later went out of use. The verb is of complexity rivaling the Greek, with a bewildering array of voices and moods, later much simplified. The Vedic noun as in later Sanskrit, has eight cases, and both verb and noun have dual numbers. "The separation of proto-Indo-Iranian language into Avestan and Vedic Sanskrit is

estimated, on linguistic grounds, to have occurred around or before 1800 BCE" (Baldi, 1983, p.51). The hymns of the Rig Veda are composed in the earliest stage of that literary language of which the latest, or Classical Sanskrit, was stereotyped by the grammar of Pā ṇ ini at the end of the fourth century BC. It differs from the latter about as much as Homeric from Attic Greek. It exhibits a much greater variety of forms than Sanskrit does. Its case-forms both in nominal and pronominal inflexion are more numerous. It has more participles and gerunds. It is, however, in verbal forms that its comparative richness is most apparent. Thus the Rig Veda very frequently uses the subjunctive, which as such has entirely died out in Sanskrit; it has twelve forms of the infinitive, while only a single one of these has survived in Sanskrit. The language of the Rig Veda also differs from Sanskrit in its accent, which, like that of ancient Greek, is of a musical nature, depending on the pitch of the voice, and is marked throughout the hymns. This accent has in Sanskrit been changed not only to a stress accent, but has shifted its position as depending on quantity, and is no longer marked. "…The Vedic accent occupies a very important position in Comparative Philology, while the Sanskrit accent, being secondary, has no value of this kind" (MacDonnell, 1917, p.42). Panini's grammar seeks to provide a complete maximally concise and theoretically consistent analysis of Sanskrit grammatical structure. It is the foundation of all traditional and foundational analyses of Sanskrit, as well as great historical and theoretical interest in its own right. "Western grammatical theory has been influenced by it at every stage of its development for the last two centuries." (Kirparsky,1979)

This core of rationality is based on common evolutionary heritage of human species, and it revolves around what Horton calls 'primary theory' developed to cope with a world with middle-sized objects 'interrelated in terms of a push pull conception of casualty, in which spatial and temporal contiguity are seen as crucial to the transmission of change." (Hacking, 1982, p.228) There is perfect commensurability, and no indeterminacy of translations in those boring domains of observations that we share with all people as people have branched off from others as people, we find new interests, "and a looseness of fit between their and our common places. Translation of truths is irrelevant. Communication of ways to think is what matters." (Hacking, 1982, p.61) At a certain level, there exist human universals which undermine strong relativist conclusions derived from anthropological studies of different systems of thought. "…There is a strong core of human cognitive rationality common to the culture of all places on earth and all times since the dawn of properly human social life."(Horton, 1982, p.256) Kosinna's interpretation of these units had two aspects, which it is important to differentiate: " (a) on the one hand they were regarded as an expression of ethnic groups, or peoples; and (b) on the other hand, they were equated with the peoples or tribes first documented historically in a given area."(Veit, 1984, p.326) It is obvious   that the hypothetical character of such identifications of peoples increases as one goes further back in time. Kossinna tried to come to terms with this problem by means of an idea influenced by evolutionary principles and deriving from linguistic concepts. Clearly, the meanings of style have become many. However, all the more central usages of such concepts "…

refer first to form as against substance. Manner as against content. Secondly, they imply some consistency of forms. And third, they may suggest that the forms used in the style cohere sufficiently to integrate in to a series of related patterns."(Kroeber, 1957, p.4) As pointed out, "…there is more that we need to know before we can accept this interesting and provocative idea."(Smith,1981, p.48) Today it is still extraordinarily difficult to identify the areas of cultures with the areas of peoples when we know little more than the names of those peoples from historical sources. "…To mark this kind of equation in periods millennia earlier than the first historical mention of those peoples is a claim which can only be rejected." (Jacob-Friescn , 1928, p.144) Maintenance of this identity now involves an increased interest in cultural authenticity, "…and requires an increasingly deliberate denial of the history of inter-racial and intercultural synthesis which has long been taking place." (Simmons 1981:48) For a 'returning intelligentsia 'bent on rediscovering its 'roots', "…this physical presence confirms on the ground its re-entry in to a living past, for a secular intelligentsia, committed to rationalism and empiricism, archaeology and philology provide the surest basis for their reconstruction. (Smith, 1986, p.180) For instance, a record written in Greek language has been found in Papyrus manu script book discovered at Akhsirinkhus in Egypt dating back to 2nd CAD documents Indian characters speaking Kannada language. "Dr. Hulsh indicated as early as thirty years that these dialogues must have been Kannada. Dr. Shamasastry transformed these Indian characters in Kannada and published in 'Report of the Mysore Epigraphical Branch' in 1926." (Krishna, 2001, p.3) In such

contexts, for textual interpretation, generally every one follows Fleet" (Venkatachalsastry, 2001, p.10) "Recent investigations have focused, for example, on elucidating agricultural developments and origins" (Fuller, 2001, p.171), lithic production techniques (Paddayya, 1996, p.75), the relationship between sites and landscapes (Boivin, 2004, p.253), the role of rock art and ringing rocks (Boivin, 2004b, p.38), and the early distribution of Dravidian languages (Fuller, 2003, p.343).

Philology of Language: Infinite Objective Insights

According to Sapir, language is a purely human and non-instinctive method of communicating ideas by means of a system of voluntarily produced symbols. Noam Chomsky defined language as "…a set (finite or infinite) of sentences, each finite in length (constructed out of a finite set of elements)." (Chomsky, 2002a, p.18) Thus, language is a very important means of communication (oral and written) among the human beings which consists of meaningful sounds, words, and sentences. Keeping these in mind, the linguists have viewed the concept of language into four structural levels viz., phonology (study of sounds), morphology (study of words), syntax (study of sentence structure), and semantics (study of meaning of the words and sentences). 'Syntax' is formed out of two words - Syn 'together' and Taxis 'arrangement'. It is a study how the words that are arranged together to form meaningful sentence. Thus, syntax is the study of rules for how the words or other elements of sentence structure are arranged to form grammatical sentences. Chomsky says that

the task of a linguist is to write grammars, and grammars should be 'machines' which can generate the sentences of a language, not just the sentences of a finite corpus but also sentences as yet unsaid-that they should predict what may be said in the future, just as any speaker can. Chomsky is at some pains to discuss constituent analysis, the method by which linguists have been trying to describe languages, and the method which results in what may be called a phrase structure grammar. If one wished to build a machine (such as a set of formulae) to generate the sentences of a language, one should include first the phrase structure, then the transformations, and third, the level of morphophonemin, the set of rules which translates the final string produced by the last transformation into a sequence of phonemes. (It should be explicitly pointed out that nothing earlier in the grammar ever represents a phoneme.) This is the general scheme of the grammar proposed by Chomsky. From one point of view the human speaker is precisely a machine for generating the sentences of his language and possibly this way of looking at grammar begins to approach the manner in which people actually speak.

In the context of language, normally it has two sides. One is its 'structure' and the other is its 'meaning'. If an ordinary word in English like 'University' is chosen, the syllables constituting that word is its structure. If any change occurs in its formation, it no longer remains as that word. The structure of the word university 'juː .nɪˈ vɜ ː .sə .ti' originally derived from Latin *universities magistrorum et scholarium*. What is meant by university? It generally means 'a community of teachers and

scholars.' (Encyclopedia Britannica, 1911) 'University' means several feelings and pictures reverberate our mind. University means, we do not recollect the idea of an industry or memorize a cine theatre. What exactly university represents none else than that unfold before our mind. As response to a word, what stands before our mind that itself is the meaning of that word. Every word has its own history. Trench, Vendres, Tucker, Breel, Kittariech, Greenaf, Earnest Weekly, Ainaf and others have worked remarkably in that direction. 'Ghatika Sthana' is Sanskrit synonym for 'University'. Prof. Satyanath is of the opinion that these'Ghatika Sthanas' eventually became centres of learning where 'fourteen vidyas' were being imparted. In Indian languages, this kind of work is rare to the extent of almost nil.

Early modern universities initially continued the curriculum and research of the middle ages: " natural philosophy, logic, medicine, theology, mathematics, astronomy (and astrology), law, grammar and rhetoric. Aristotle was prevalent throughout the curriculum, while medicine also depended on Galen and Arabic scholarship. The importance of humanism for changing this state-of-affairs cannot be underestimated" (Ruegg, 1992, p. 56). Once humanist professors joined the university faculty, "…they began to transform the study of grammar and rhetoric through the studia humanitatis. Humanist professors focused on the ability of students to write and speak with distinction, to translate and interpret classical texts, and to live honorable lives." (Grendler, 2002, p.53) "University means a university established or incorporated by or under a Central Act, a Provincial Act or a

State Act, and includes any such institution as may, in consultation with the University concerned, be recognized by the Commission in accordance with the regulations made in this behalf under this Act." (The University Grants Commission Act 1956 and Rules and Regulations under the Act 2002, p.6)

Universities are the seats of higher learning from where the society gets its leaders in Science, Arts and various other fields of national life. University education in India aims at providing knowledge and wisdom which are basic attributes of a well developed personality. University education is a centre for higher branches of learning. The functions of the university are varied. It provides instruction, conduct research and post-graduate studies, and gives affiliation and exten sion to the colleges under it. "…In case of a non-affiliating unitary university, there is no college under it and its function is limited to offering masters programme and conducting research. A university's scope is national in character. The main purpose of establishing a university in a particular region is to make higher education accessible to all sections of the population within its territorial jurisdiction" (The Report of the University Education Commission, Volume I, August 1949a, Introduction). The purpose of all education, it is admitted by thinkers of East and west, is to provide a coherent picture of the universe and an integrated way of life. We must obtain through it a sense of perspective, a synoptic vision, a samanvaya of the different items of knowledge. Man cannot live by a mass of disconnected information. He has a passion for an ordered intellectual vision of the connections of things. Life is one in all

its varied manifestations. "…We may study the factual relations of the different manifestations but we must have knowledge of life as a whole. It cannot be a collection of distracting scraps but should be a harmony of patterns. The subjects we study must be taught as parts of a connected curriculum" (The Report of the University Education Commission, Volume I, August 1949b:30). The strength of the new 'faiths' among intellectuals is partly due to their claim to explain the universe. By professing to interpret all human activity in terms of a single thesis, they give to the modern educated men a sense of assurance and certainly formerly provided by religion. Since education is both a training of minds and a training of souls, it should give both knowledge and wisdom.

In the early 21st century, concern has expressed over increasing managerialisation and standardisation of universities worldwide. In this sense, neo-liberal management models have been critiqued for creating corporate universities (where) "power is transferred from faculty to managers, economic justifications dominate, and the familiar bottom line eclipses pedagogical or intellectual concerns."(Berg and Seeber, 2016 a, p.42) 'A sort of academics' understanding of time, pedagogical pleasure, vocation, and collegiality has been cited as possible ways of alleviating such problems.'(Berg and Seeber 2016b, p.43) While National Laboratories and Research Institutes will play an ever increasing part in furthering the application of science to industry, it is clear that ultimately we have to depend on the universities for an even and constant flow of scientific workers and leaders imbued with zeal and zest for research. Universities have been

rightly recognised as the fountain heads of knowledge and it is in their free atmosphere that we should look forward to vigorous pursuit of fundamental research... " Fundamental research is the source from which extraordinary applications are likely to emerge and unless we keep ourselves in the forefront of fundamental work it is unlikely that we would make much original contribution to applied research"(Bhatnagar S.S.1949, Observation).

Constructive Utility of Language

Language across the curriculum is a curricular enrichment program that provides students with the opportunity to use their skills normally in languages other than English in non-language courses. It aims to infuse foreign language across the curriculum, thus building on the skills of language proficient students in courses where authentic foreign language sources are not a regular component of the curriculum but would complement the course material. The students can extend their knowledge of a second language beyond foreign language courses and apply those skills to course materials, research and projects in non-language disciplines. "In addition, the inclusion of authentic course-relevant source materials in another language enriches course perspectives and prepares students more fully for the cross-cultural and multilingual demands of a global society."(Bender, 2000, Introduction)

The theoretical basis of language across the curriculum derives largely from the Bullock Report, and the work of James Britton, Nancy Martin, and Douglas Barnes. Three central rules of

the concept are (i) language is more than surface structure; (ii) the entire university as an environment influences students' language development; and (iii) language plays a key role in virtually all university learning. Based on these assumptions, a University language policy is concerned with more than the elimination of errors in spelling, punctuation, sentence structure, and usage conventions. It involves broadening teachers' notions and awareness of language, helping students learn to use language, and helping them use language to learn. As one public cation concisely states one of the major functions of language... is its use for learning: "…for trying to put new ideas into words, for testing out one's thinking on other People, for fitting together new ideas with old ones, and so on, which all need to be done to bring about new understanding. These functions suggest active uses of language by the pupil as opposed to passive reception. A language policy is more accurately described, therefore, as a language and learning policy." (National Association for Teaching, 1976, p.1)

Language across curriculum relates to linking different parts and aspects of language education within the university or college, particularly emphasizing the role of language in all subject matter learning. Meaning or the phrase 'Language across curriculum' can be derived at the narrow as well as wider levels. The phrase in its narrow sense suggests the importance of language work and language training in all non-linguistic subjects. In the wider sense, it demands a comprehensive model of language education as the basis of a whole university or college language policy. "…The later includes linking all languages as subjects,

(mother tongue education, foreign language education, second (or third) language education) and the language dimension in all other subjects" (Volmer, 2006, Introduction).

Language in the narrow sense, focuses upon the role of language in subject specific learning and teaching. In addition to many basic goals of language in subject specific learning and teaching, it leads to other forms of functional language use, to measuring new domains and discourse types, and moving towards a more explicit or pre-specific mode of thinking and communicating. In subject specific contexts, language is used as a tool for cognitively demanding tasks and purposes. "…This can be seen as an application of the existing language proficiency in new contexts and as an extension and transformation of this proficiency unto a higher or deeper level of cognitive-academic use" (Volmer, 2006, p.178). In contrast, foreign language education aims at acquisition of another (mostly second or third) language system or language repertoire in addition to that of language in subject specific learning and teaching, "but it does so by focusing on the development of the respective language itself as a code, as a system of rules. Consequently, foreign language education is more concerned with the development of basic interpersonal communication skills than of cognitive-academic language proficiency" (Cummins, 1979, pp.222-251). The kind of approach which we believe will produce the language development we regard as essentially involves creating situations in which, to satisfy his own purposes, "…a student counters the need to use more elaborate forms and is thus motivated to extend

the complexity of language available to him as he has been exposed to different opportunities for language use" (Shaper, 1973, p.314). To understand the importance of language in university education, for all subjects and across the whole curriculum, we have to identify and summarise the basic tenets on which it rests. They are as follows (Corson, 1990, p. 74):

- Language develops mainly through its purposeful use in meaningful and broadened domains;

- Learning involves talking, writing, shaping and moving in reaction to positive perceptions;

- Learning often occurs through speaking or writing as much as through shaping and moving;

- Language utility contributes to a pre-requisite level of learning for cognitive development;

- Language is the medium for reflecting on learning, for improving it, for becoming more or less self-sufficient as learners.

This concept also claims that language and learning as well as language and thinking are deeply linked. Therefore, wishing to acknowledge and further develop students' existing mental and linguistic capacities, Language across Curriculum focuses on active, constructive, potentially autonomous learning. Language plays a central role in learning. No matter what the subject area, students assimilate new concepts largely through language that is when they listen to and talk, read and write about what they are learning and relate this to what they already know. Through

speaking and writing, language is linked to the thinking process and is a manifestation of the thinking that is taking place. "Thus, by explaining and expressing personal interpretations of new learnings in the various subject fields, students clarify and increase both their knowledge of the concepts in those fields and their understanding of the ways in which language is used in each" (Ontario Ministry of Education,1984; quoted in Corson, 1990, p.75). If we understand the extension of language abilities into subject-specific thinking and communication as something that each and every learner must encounter and master as a vital part of his education or 'Bildung'[1], then we can identify more closely what these cognitive and communicative abilities are made up of different university subjects and across the whole curriculum.

Structure and Morphology of Language

The term morphology is generally attributed to the German poet, novelist, playwright, and philosopher Johann Wolfgang von Goethe (1749–1832), who coined it early in the nineteenth century in a biological context. Its etymology is Greek: morph- means 'shape, form', and morphology is the study of form or forms. In biology, morphology refers to the study of the form and structure of organisms, and in geology it refers to the study of the configuration and evolution of land forms. In linguistics morphology refers to the mental system involved in word formation or to the branch of linguistics that deals with words, their internal structure, and how they are formed.

Morphology is the part of linguistics which studies word structure and formation. It is composed of inflectional morphology and derivational morphology. Inflection is derived as the use of morphological methods to form inflectional word forms from a lexeme. Inflectional word forms indicate grammatical relationship between words. Derivational morphology is concerned with the derivation of new words from other words using derivational affixes. Compounding is another method to form new words. A compound word (or a compound) is defined as a word formed two or more words are themselves independent words or free morphemes. A morpheme is a smallest unit of a meaningful language. Morphemes are classified in to free morphemes and bound morphemes. Free morphemes appear as independent words. Free morphemes are further divided in to lexical morphemes and grammatical morphemes. Bound morphemes are often referred to as affixes. They are further classified as inflectional affixes and derivational affixes. They still further are categorized as prefixes, infixes and suffixes.

Thus, morphemes are the smallest meaning-bearing units of the language. As such, they are the fundamental building blocks for communication during both language and reading development. That way, language acquisition is a well established discipline in linguistic field with the beginnings of research in this area going back at least to Ronijat(1916). "…Research conducted since Ronijat's seminal work on bilingualism has lead to a high degree of specialization and to the birth of different schools. The three main schools generative, constructivist and derivational ist all collect empirical data but often give diverging interpretations to the one and all the same data base." (Fuentes, 1984, p.1)

Syntactic Variations and Logical Forms of Language

Study of syntactic variation has been longstanding tradition, but the understanding of what exactly is meant by the term differs. For some the term clearly refers to the language system, and to the structural availability of variants, 'formal alternatives which can be considered optional variants, in the sense that they are nearly equivalent in meaning' (Biber et al, 1999, p.14) For example, standard English as a system provides three options or variants for introducing a relative clause: with a 'Wh' phrase, (The man who I met), with that (the man that I met) and with no relativizer et al, (The man I met) and one might look at how these three variants can be related to each other. Syntactic variation deals with the ways in which sentences are structured and constructed. They consist of or noting morphemes that are combined in the same order as they would be if they were separate words in a corresponding construction. Syntactic phrases are any set of words that satisfy certain syntactic relations or constitute specified syntactic structures. In comparative syntax, 'a general approach has been pursued over the past decade predicted on the notion that universal grammar allows of open parameters, and that part of the job of linguistic theory is to specify what values these parameters may have and how they may be set given primary linguistic data to determine the grammars of particular language' (James and May,1998, p.42).

One important aspect of teaching syntax to native and nonnative undergraduate students alike involves the balance in the overall approach between facts and theory. "Studying systematic

change provides a unique perspective on the language faculty. We know that internal change is regular, e.g. as in linguistic cycles, and when we formulate this change in terms of semantic and formal features this provides insight in to the nature of these features of the syntax- semantic interface" (Gianollo, 2015, p.81). This interface could be understood in two different senses- a technical and a methodological one. "…In the technical sense, change at the syntax-semantics interface is represented by events targeting both structural configuration and the meaning of a certain item. In methodological sense, the term 'interface' is also understood as the theoretical comparison and dialogue between syntactic and semantic models of diachronic processes" (Penka, 2015, p.1) In fact, the investigation of regularity in sound change had been the first empirical field in which linguistics developed in to a science.

Customarily, linguistic description on the syntactic level is formulated in terms of constituent analysis. "…We now ask what form of grammar is presupposed by the description of this sort. We find that the new form of grammar is essentially more powerful than the finite state model, and that associated concept of 'linguistic level' is different in fundamental respect" (Chomsky, 2002b, p.26). Thus, any scientific theory is based on linguistic is based on a finite number of observations, and it seeks to relate the observed phenomena and to predict new phenomena by constructing general laws in terms of hypothetical constructs such as 'mass' and 'electron'. Similarly, a grammar of any language is based on a finite utterances or observations, and it

contains certain grammatical rules stated in terms of particular phonemes, phrases etc. of a language. They are often being referred to as hypothetical constructs.

Logical form is the level of representation that affects the semantic interpretation of a sentence. 'Logical form is sometimes referred to as a *covert* level of representation, because the output of this level is not actually pronounced by the speaker'(Cook, 2007, Introduction). The logical form of a sentence or set of sentences, such as a proposition, statement or truth bearer, is the form obtained by abstracting from the subject matter of its content terms or by regarding the content terms as mere place holders or blanks on a form. In an ideal logical language, the logical form can be determined from syntax alone; "…formal languages used in formal sciences are examples of such languages. Logical form, however, should not be confused with the mere syntax used to represent it; there may be more than one string that represents same logical form in a given language" (Cambridge Dictionary of Philosophy, 1999, p.511-12). Some kind of know ledge of logical forms, though with most people it is not explicit, "…is involved in all understanding of discourse. It is the business of philosophical logic to extract this knowledge from its concrete integuments, and to render it explicit and pure" (Bertrand, 1968, p.53).

Unbiased-Simple Language at Higher Pedagogical Level

Clear and simple language makes your content easy to read and helps all people gather information faster. Mark Twain once said that information is transmitted best when simple and

precise language is used. Some people think that the use of multi syllabic words and intricate structures is a sign of intelligence. "This is not true. It is a far more difficult task to express complex thoughts in simple language. The transformation of our private thoughts in to easily understood language is the bench mark of human cognition" (Halpem, 2002, p.51). Meaning depends not only upon the words that we use to convey it. One exception to the rule that the words used to convey a message is the use of analogy, metaphor. All analogies and metaphors state that two concepts are alike in some way. Good analogies have similar underlying structures even when the topics are highly dissimilar. They maintain much of their underlying structures in the transfer form base to target domains where as surface features are of minimal importance. Poor analogies are ones in which only surface or superficial characteristics are similar.

Until recently, within the transformational-generative approach to understanding language acquisition, it has been a common practice to look at innate principles. Derived from the observation that children master language in the absence of very little linguistic input, the so-called 'poverty of stimulus' argument (Chomsky, 1965c, p.42) is a conjecture based on rather shaky principles, the reason being that it completely overlooks the nature of information processing that is executed by the human cortex. The most straightforward account of the relationship between language and the brain is "…to conceive modular brain systems mediating language competence and performance. Several theories that use this modular approach propose localisation of language processing in particular brain areas" (Fodor, 198, p.38). However,

language is a conscious activity that excites several regions of the brain. Evidence of this comes from Gazzaniga (1988) where it was pointed out that "…involvement of LH interpretive mechanisms closely related to speech clearly distinguishes conscious linguistic activity from unconscious nonresponsive activity. Such conscious activity is posited to be mediated by global workspaces" (Dehaene, Kerszberg, and Changeaux, 1998, p.95). In addition, it has been shown that "linguistic information processing can arise from dynamic states of brain systems, where the 'integrative' attentional" (Bledowski et al., 2003, p.22) activations give rise to " global brain states that can and do support linguistic processing" (Kinsboume, 1988, p.239) .

We need ways to tackle the problem at the origin. In our opinion, the predicament lies also in our conceptualization of what language is and what it does: 'but the exact nature of its state of being and functioning are still matters of controversy'(Hymes, 2009, p.189). The lack of knowledge about language must be offset by specifying what it does to the brain, how and under what conditions it is acquired or learnt, 'what teachers and learners need to know about its nature and function, and only then undertaking the activity of designing curricula to fulfill those needs. General principles of language pedagogy shall be quite practicable as follow' (Ellis, 2004, p.33). Instruction needs to ensure that learners develop both a rich repertoire of formulaic expressions and a rule-based competence; Instruction needs to ensure that learners focus predominantly on meaning and form; Instruction needs to be predominantly directed at developing implicit knowledge of the language while not neglecting explicit

knowledge; Instruction needs to take into account the learner's 'built-in syllabus'. Successful instructed language learning requires extensive language input and opportunities for output; the opportunity to interact in the language is central to developing language proficiency principles. Instruction needs to take account of individual differences in learners; In assessing learners' language proficiency, it is important to examine free as well as controlled learning out-put.

Hence any curriculum development cycle needs to assess the learners' neurocognitive requirements and build them into the content materials. They in turn provide information from both the structural-functional and lexical levels. Such content integration techniques shall ensure greater consolidation at conceptual levels and enhance the skills to handle the input content of varied subjects at the behavioral level, at the same time maximising the consolidation of the neural networks between the interacting regions of activation of every sort.

Note

[1] Bildung is a German word. It means to develop and bring out the full potential of a human being based on his/her nature, but stimulated and structured by education(nurture). This very dynamic concept encompasses the product or relative state reached by a human being as well as the process of becoming educated / becoming one's own self. During this process the mental, cultural and practical capacities as much as the personal and social competencies are being developed and continuously widened in a holistic way.

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