The Origin, Nature and Survival of Language: A Inter-cultural and Inter-environmental View

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INTRODUCTION

While language is a ubiquitous human activity, there is still very little in the academic literature clearly depicting the origin of this social behaviour. However, much more is known and understood about the nature of the systems of language, and how these work for the survival of language in general, and each language in particular. Languages are different to cope with their parochial environments, and yet share various universals common to all languages.

THE NATURE AND ORIGIN OF LANGUAGE

If someone is asked , *What is communication?* The answer may be associated with verbal language - spoken words in conversation. There is no doubt that language with its words is a major system for communication. However, beneath the surface of what may at first appear to be a simple and straightforward system, there lies a complex and intriguing set of interactive ingredients that make up our language.

It is the comprehensive use of these myriad interactive ingredients that makes the various cultures possible through a signaling system of linguistic phenomena (Barber, 1972, pp. 1-2).

The following four elements make up the signaling system in any language:

- Phonology (the sounds)
- Lexicon (the words)
- Semantics (word meanings)
- Syntax (word sequences)

(Fromkin and Rodman, 1981, p. 11)

Phonology is the study of the sound system that makes up a language. In English there are about 45 basic sounds which are combined to make up all

possible words (McCrone, 1990 p. 135). The lexicon is the words of a language - its vocabulary. Semantics is the study of words, their meanings and relationships with each other. Syntax is the order in which the words in a given language are strung together.

Thus language is symbolic of meaning through the assembling of sound into clusters for word formation. These words are in turn then strung together in a specific sequence according to rules so that the message can be conveyed with its literal meaning, along with any emphasis or insinuated meaning from gestures or voice intonation.

All languages have their rules for their peculiar sounds (phonemes), which make up the words. The smallest sound unit in a language, that has meaning, is called a phoneme. For example, the words *day* and *they* are identical in sound except for the initial phoneme (sound) in each word, and this initial phoneme in each word is significant to give each word a particular meaning.

A morpheme on the other hand, is the smallest unit of language that has meaning. In English for example, *-s* in *dogs* means plural; *un-* means negative, as in *undo*; *-er* means doer, as in*teacher*. Because *-s*, *-un*, and *-er* do not occur by themselves, but only in association with other units of meaning, they are called bound morphemes. A morpheme such as *cow* or *man* is called a free morpheme, because it can stand alone and give meaning (Nanda, 1991, pp. 116,117).

Accent can also be very important for meaning in language. For example, the two-syllable Greek word, *pote*, with the accent on the ultimate syllable means *never*, whereas if the accent is placed on the penultimate syllable, the meaning of the word changes to an interrogative *when*. Greek is a highly inflected language and so this phenomenon, of changing meaning as a result of repositioning the accent, is relatively common in the language.

Written punctuation also determines meaning in language. Even in speech, punctuation determines meaning. Punctuation in speech is associated with the written form by using pauses and intonation. Whether Bill, in the two following sentences, is understood to have seen *the mother* or *the brother,* is determined by the grammar whether written or spoken:

- Bill saw the mother of Thomas' brother. (He saw the mother.)
- Bill saw the mother of Thomas, brother. (He saw the brother.)

Intonation (rising or falling pitch) is a rather elusive but very influential factor in language. In the following example, the voice tone and changing pitch lead to specific meaning. That is, as the pitch rises towards the end of the sentence a question is made.

- He is going to the party?

Alternatively, in the following expression, pitch would be relatively stable, or slightly descending, if a statement, or answer to a question were made dispassionately by most speakers of English language:

- He is going to the party.

The language rules in each language indicate not only the meanings of the words from themselves, but also the meanings derived from the specific sequence of words (syntax) of an utterance.

For example, the following two sentences, with the same words, have quite different meanings because their syntax is not the same:

- The dog bit the boy.
- The boy bit the dog.

It is interesting to note that in a highly inflected language like Greek, a change in syntax often does not make any substantial change in the fundamental meaning of the message.

Greenberg (1963) estimates that all languages through these and other characteristics have considerable complexity. And Chomsky (1969, 1976) has argued that the potential number of utterances in any language is infinite.

Three main theories for the origin of language are:

- The Bow-wow theory which suggests that language has developed from imitation of sounds that occur in nature.
- The Pooh-pooh theory which says that language may come from instinctive emotional cries of love, joy and pain for example.
- The Yo-he-ho theory which argues that the origin of language may have its roots in grunts from physical exertion.

However, all three theories remain contentious and in need of much more evidence for their acceptance (McCrone, 1990, p. 111).

In addition to the above attempts for the explanation of the origin of language, Watson (1986, pp. 99-111) has suggested that there may be a cosmological basis for the sounds and origin of language. He draws attention to the fact that the letter *"O"* when voiced, produces the same shape as the letter *"O"* on a tonoscope. Others have shown that words of good-will produce symmetric patterns, but words indicating conflict or violence and hatred produce randomly scattered patterns. The German physicist, Ernst Chladni, has shown that different sounds produce different patterns. Many of these Cymatic forms are organic shapes like concentric

circles, alternating lines, cells in a honeycomb, radiating wheel spokes, vanishing spirals and various wave patterns (Jenny, 1966).

Of course it is well known that there can be incredible symbolic or actual power in sound, as shown by the following examples:

- Joshua's people felled the walls of Jericho with blasts of trumpets.
- A Samurai swordsman can unnerve and paralyze his adversary with a loud cry.
- A soprano or violinist, sustaining a high note, can shatter glass.
- A major key played loudly and suddenly invigorates and excites.

There has been great interest to discover the origin of language, as witnessed by the more than 10,000 individual works on the subject. Most authors speculate freely and only very few agree. Even the major study, *The Origin and Evolution of Language and Speech*, concludes with the remark that the theoretical differences, in this quest, are awesome by noting that,....*the only consolation is that astronomy is in a worse mess* (Fisher, 1983, p. 109).

In spite of the various theories, linguists have no soundly based idea of the origin of language, and the present cosmological theory is in need of further investigation (Watson, 1986, p. 106).

LANGUAGE AS AN INDICATOR

Here we will see that language and culture are so much like the lines of a thumb print on each human hand. Language and culture are a specific image of their:

- Physical and
- Social environments

Indeed the language and culture of any human group are at least partly a result of the twin physical and social surroundings (Leigh, 1999). In this regard it has been argued by many scientists that it is the culture and language of a group that depicts their will to thrive, in the face of environmental pressures, through:

- Adaptation or
- Survival behaviour

In this ever-present survival process there is a dynamic interactive relationship between:

- Language
- Behaviour
- Physical environment and
- Social environment

Thus, when at least one of these four factors changes, the others are obliged to make some change also. This occurs continually in order to reach some unstable equilibrium - a temporary harmonious state between the language, behaviour, physical and social environments. Consequently, the surroundings we live in are not steady state, but are like a dynamic interactive*living* system under constant change and development, both as a whole, and between the constituent components.

Even changes in social philosophy and ideas are expressed by changes in clothing and social behaviour. To illustrate this let us look at the recent history of blue jeans in the western world:

> *The use of neatly pressed trousers for male casual wear lost ground steadily during the 1960s, with blue jeans taking their place. Jeans, originally modified tent-cloth provided for hard-riding American cowboys, were for many years considered to be suitable only for manual labour. Then high-status, idolized Californian males began to display them as ordinary day-wear. Soon they were adopted right across America and Europe, and following this trend came the flop-out posture. The young (youth) ... began to sit or lie on the floors of their rooms instead of in conventional seating, and also on the steps and pavements of cities, their legs sprawled out on rough or unclean surfaces that only jeans could defy. ....* [However] *this process has gone far beyond clothing. There is a deeper change, a change in philosophy, that influences the ... behavior of the young. They have developed an open-mindedness and a relaxed style of thinking that is reflected in ... their actions* (Morris, 1988, p. 29).

Also the culture and language are powerful influences on how each one of us perceives our environment, and this varying perception leads to varying behaviour. For example, the Eskimo in his environment will be aware of many environmental cues and will adjust his behaviour accordingly, and therefore survive. A non-Eskimo, in the same environment, will not be aware of many of the discrete environmental cues and so will be unable to modify his behaviour correctly and so will probably perish. In these dramatic cases, different perception leads to different behaviour which, results either in thriving or perishing.

Many scientists have suggested that the language and behaviour of different peoples illustrate just how they have adapted to their physical environment. For example, Aborigines and Eskimos must hunt and navigate in rather featureless barren landscapes of arid deserts and snowlands respectively. So these two peoples are well equipped with specially developed languages,

behaviors and abilities to cope and thrive. For instance, both groups have good perceptual abilities for appreciating differences in fine detail, and thus perform well on tests using patterns and sketches. Conversely, the Temne people of Africa live in environments that are visually rich and varying. Rarely do they have to travel far from their farms, and thus are not adept in noticing minor differences in the detail of patterns or pictures (de Lacey, 1974, pp. 64,68,90).

Field research has supported the idea that there may be great differences between the way that one group views the world and expresses this view as opposed to the way another group views it. For instance, if we take the Temne and Eskimo as examples (Berry, 1966, 1971) we find that the following differences are present for many words or phrases:

- There is no exact equivalent in the other language.
- There is no similar expression in the other language.

Different cultural groups therefore will tend to acquire, not only the perceptual and intellectual skills, but also the language that is necessary for survival and thriving in their particular physical and social environments.

Indeed to translate from one language to another while maintaining precisely the original meaning is probably never possible. To cite two simple words in Greek:

- *Kafeneeo* (coffee shop)
- *Horio* (village)

The English equivalent word is only approximate as a coffee shop (Kontos, 1991, footnote 18), and villages in England are nothing like they are in Greece or Cyprus.

Thus semantic overlap is never complete from one language to another. No matter how hard we try to translate with full meaning it is just not possible. For instance, even for simple, universal terms like the word *father*, when translated into the Greek *papas* the meaning will have some common understanding; but for many elements of the understanding there will be a considerable difference. An English-speaking child living in New York or London will obviously have quite a different idea of *father* to the village Greek child's idea of *papas*. Of course, biologically there will be considerable agreement on the meaning of the word, but beyond that, the meanings will diverge socioculturally.

Obviously then, in word for word translation of an utterance there is ample room for misunderstanding:

> *Often ill will among nations is exacerbated if not caused by differences in ways of showing intentions. An Egyptian living in the United States was surprised and hurt to learn that his American roommate considered Egyptian President Anwar Sadat to be "rude and arrogant." The American was responding to Sadat's comment, in answer to an American journalist's question: "Invited or not invited, I will come" to discuss the peace negotiations with President Carter. The Egyptian immediately recognized his president's statement as an English translation of a standard formulaic expression that Egyptians commonly use to show the very best intentions to settle a misunderstanding and restore harmonious relations* (Tannen, 1987, p. 192).

Thus the language of different cultural groups will reflect the type of adaptation that is necessary for survival in the physical and social surroundings of each culture. This principle will be true whether the group is Japanese in developed, affluent, urban and industrial Japan, or Arab in relatively undeveloped and traditional Arabian desert villages in Egypt.

Other interesting examples which show the relationship of language with the physical and social surroundings include:

- **Arabs** (Bedouins) have many different words for the different types of camels (Palmer 1973 p. 45). Differentiating camels is obviously associated with their survival and surroundings.
- **Japanese** can speak to another using a selection of many different address forms to indicate explicitly any one of a whole range of relationships - for example, intimate, familiar, neutral, polite, deferential, authoritative. This illustrates the hierarchy and ceremony of interpersonal relationships in the society.
- **Hunanoo**, a tribe in the Philippines, have an incredible 92 different names for the many varieties of rice in their surroundings (de Lacey, Poole and Twomey, 1979, p. 79). Rice is a staple food for them and obviously very important for their survival. Hunanoo also have: forty different linguistic categories for soil quality and mineral content, distinguish 1500 types of plants and cultivate over 400 of them, and recognize over 450 animal types (Nanda, 1991, p. 161). Obviously these people rely heavily upon their knowledge of agriculture and the environment for their survival.
- **The Subanum**, another tribe of the Philippines and a simple agricultural society, have 132 separate words for the diagnosis of disease (Conklin, 1969, pp. 221-233).
- **The Lapps** have many words associated with their reindeer (Trudgill, 1979, p. 27). Reindeer are important for their survival.
- **South American Indians** (some tribes) have many words for the myriad species of birds in their environment, but there is no generic word *bird* in their language (de Lacey, Poole and Twomey, 1979, p. 79). Bird-life is a very distinctive part of their environment.
- **Australian Aborigines** can communicate fluently without words, by using only their myriad gestures as a formal and comprehensive gesture-language (King-Boyes, 1977, p. 39). Ritual and ceremony are valued highly and are extremely important in these societies. Also Eades (1982) reports that Australian Aborigines never ask the question, *Why?*
- **English** people, when speaking, continually use the words *please* and *thank you* in their conversations, and often avoid direct statements. Thus English language and behaviour tends to be periphrastic to avoid offending or alienating the other person.

Also there are few words in English for vegetables which suggest that they were not so much used for food (Fromkin and Rodman, 1981, p. 321).

- **The Hindu language**, Hindi, has separate words for: my sister's husband (*behnoi*), my husband's elder brother (*jait*), my husband's younger brother (*deva*), and my husband's sister's husbands(*nandoya*). Kinship vocabulary is an indication to the nature of the more significant family relations in a culture. The single word *brother-in-law* in English indicates that one behaves similarly towards all the men in those different kinship statuses. The variety of words in Hindi, indicates that each of these categories of people is treated differently (Nanda, 1991, pp. 119,120).
- **Panare** (Latin American Indians in Venezuela) do not have words for the many western Christian words for spiritual concepts. For example, there are no equivalents for guilt, repentance, salvation, sin and punishment. The Panare view of life and the supernatural, is obviously very different to the western Christian view (Lewis, 1990, pp. 182-192).
- **Eskimos** have many generic words for different types of snow (Palmer 1973 p. 45). For example, *aput* for snow on the ground, and *gana* for falling snow. Perceiving and categorizing snow is obviously important for their survival.
- **Greeks** have many different words for various family relationships and relatives that are very important in their large and extended families. Many of these words cannot be directly translated into English, as there is no exact word equivalent or in some cases there is not even an approximate word equivalent.
- **Alaskan Athabaskan Indians** rarely ask questions. For these people, questions are regarded as too powerful to use, because they demand a response. (Scollon, 1982).

In each of the above cases citing Arabs, Japanese, Hunanoo, The Subanum, The Lapps, South American Indians, Australian Aborigines, English, Hindus, Panare, Eskimos, Greeks andAlaskan Athabaskan Indians, we can understand much about the particular groups from the way their language has developed and is used now. For instance, Greeks have large families and the family is a very important part of the culture. Hence this is reflected in the language.

Also the language reflects the special kind of relationship most people feel about their country, even though this relationship may vary from one cultural group to another. Germans and Russians, for instance, refer to their country as:

- The *Fatherland*

But Indians will always refer to their homeland as:

- *Mother India*.

Such expressions, used to refer to a person's country, may also reflect the different perceived roles and responsibilities for parents to their children, and the responsibilities of the country to its citizens. So the term mother or father in reference to the homeland probably suggests that the emotions and ideas, in these different groups, for their respective country, will be rather different: one as a stern, correcting father image, the other as a loving sensitive mother figure.

If we think about the intimacy with which most of us accept and internalize our culture, we see that our culture and we are an integral part of our identity. For example, an Englishman will not only say or feel, *I was born in England,* or *I speak English,* or *I live in England.* But the full power and feeling of his identity is manifest when he says, as he often will:

- *I **am** English.*

Or a Greek, for example, would say:

- *I **am** Greek.*

These statements suggest that the culture, its language and behaviour, is actually internalized and accepted to the point that it becomes an integral part of one's identity and intellectual processes. Of course this naturally and slowly takes place as one grows up, largely unconsciously.

This leads each person to view the ways of his culture as his own ways, and these ways are therefore assumed to be normal and correct. So it goes, almost without saying, that the ways of foreign cultures and their peoples are sometimes seen as subnormal and incorrect, or even worse, unnatural and pathological. And this latter point of view is often manifest in extreme racism.

CULTURAL AND LANGUAGE DISTANCE AND DIFFERENCE

It is the specific culture of each individual that provides the understanding of his surroundings to enable him, through an integrated perception, and system of symbols (which form his actions and language) to adapt to and thrive in his surroundings to communicate his ideas and wishes to others. However, the receiver of the communication must be tuned into the following in order to make sense of the messages received from the other person:

- The sender's cultural **perception** of the world, and
- That same culture's **symbolic systems** (of language and behavior)

For example, two Chinese people will communicate easily using the behaviour and language of their culture, but an Eskimo and a German may not communicate meaningfully using their own symbolic systems with each other.

So it is generally easier for people of the same culture to communicate. If two people are from even slightly different cultures, like say British and American, they usually will be able to communicate without major problems of misunderstanding. However, if people from vastly different

cultures, say Japanese and Arabic, try to communicate with their own language and symbols, there may be not only minimal understanding but also the risk of substantial misunderstanding.

The principle here is that, if the cultures and languages have considerable overlap of ideas and behaviour to express those ideas, as there is between say Dutch and German, then there will be a good level of shared understanding from communication.

Conversely, if the cultures and languages used in a communication are vastly different with minimal overlap, as with say English and Chinese, then it may be that misunderstanding will result from a communication.

This concept of overlap is also expressed by the principle of:

- **Cultural and language distance.**

From this principle then, we can say in general, that a good level of understanding can result in a communication if one particular culture and language is close (similar) to another in the use of their respective:

- Symbols for their
- Behaviour and language

However, if the culture's symbols and behaviour, that make up a person's actions and language, are distant (very different) from another culture's use of symbols and behaviour, then there will be the risk of substantial misunderstanding in any communication.

Lewis (1990, pp. 189,190) highlights the vast difference between the culture and language of the Panare Indians of Venezuela and Western society with its Christian religion. He shows that the thoughts, and words for those thoughts, may not exist in another language, and this can make intercultural understanding very difficult to obtain.

These differences arose from the fact that, as in the majority of Latin American Indian languages, there are no equivalents in Panare for many words basic to the concepts of the Christian religion. For example, there are no words in Panare for:

- guilt
- punishment
- sin
- redemption

Also there are many other difficulties with translation of ideas and words. The idea of a universal god is at variance to the general orientation of

Panare thought. God can not be thanked, only congratulated. *God is love*, may best be translated, *the Great spirit is not angry*.

The Panare mentality and character have developed in a relatively protected environment over thousands of years. And famines were not a threat, plagues are not recorded, and the wars and conflict that have shaped western history, can only be compared to more minor emotional skirmishes, that exist in the more peaceful world of the Panare. Thus the Panare can only grope to understand many words which have been forged in a much more stressful and conflicted society - Western society.

The Biblical stories can only have a shadow of meaning for them. How can the walls of Jericho fall down for a man who has never seen a brick? How can an Indian who has never known dearth, be urged to store up treasure in heaven? What lesson does the Parable of *The Talents* have to a Panare whose language has no word for *profit* or *increase*? Most of the biblical animals are not found in the rain forest and so are totally unknown to the Panare. So how would the *Good Shepherd* be translated? The account of Adam and Eve creates problems as the Panare are horrified by the idea of brothers and sisters marrying among themselves.

It is also true that as a general rule-of-thumb guide-line, the more geographically distant one culture is from another culture, the more difference there will be between the cultures' behaviors and languages. For instance, Spanish and Italian are relatively similar but French and Japanese, or German and Arabic are more geographically distant and so will be very different in ideas and the use of symbols and behaviour to express these ideas.

Sometimes geographical distance is a good indicator of a nation's historical relationships with the bordering or close-by nations. For instance, French, Spanish, Portuguese, Italian and Romanian are all Romance languages, derived from Latin. Romania is quite geographically distant from Spain but has had cultural and linguistic links with Spain over the centuries and these links have kept the languages relatively close, linguistically speaking (de Lacey, 1992).

One helpful rule for all communications is that a person should communicate in a way that the other person will understand what is being told to him. To clearly illustrate this, we can take an extreme case of say an American and a Russian. For them to communicate, at least one of them will have to develop and show his empathy by learning something of the culture and language of the other. Without this there could be a high risk of misunderstanding and potential conflict from any attempted communication.

For an illustration of this, let us take a classic example of how a tragic event occurred, as a result of a visiting priest's not being able to accept Eskimo style hospitality. That is, his not being able to accept the symbols and behaviour of the other culture's expression of hospitality. Indeed, the symbols of hospitality, as we shall see from the one culture were considered by the visiting priest to be immoral and totally unacceptable. The following story recounts the vain attempt of an Eskimo, Ernenek, to show through his wife, Asiak, his best hospitality to a visiting Roman Catholic (celibate) priest:

> *"Maybe our visitor wants some of our best loving hospitality with you Asiak, so make yourself beautiful and ravishing," Ernenek said to his wife. With a silly, half suppressed little laugh, Asiak let her hair down, rolled up her sleeves and dunked her arms into the urine tub, passing her fingers through her hair till it was smooth and shiny. She combed her hair with a fish spine while using the tub contents as a mirror. She scooped up a handful of fat and rubbed it on her face and sat down beside the priest who had watched her with astonishment. He backed up with fright and horror, and she moved intimately closer, offering a grin, herself and a blush. In total bewilderment the priest tried to flee, only to be seized by insulted Ernenek, who was mortified and burst into tears. "You son of a toothless walrus and father of a hairless polar bear," Ernenek cried; "Who do you think you are to insult me like this? I will teach you a lesson." With that he picked him up and threw him against the ice wall of the igloo. The priest was never again going to insult anyone. His head made a thud on the wall. He was dead* (adapted from Ruesch, 1950).

NO CULTURE IS AN ISLAND

Borrowing and lending of customs and language from one culture to another has occurred almost universally for thousands of years. Of course there is no pure culture, for all are hybrid.

In this vein it is interesting to note that as John Donne (1624) said, *no man is an island to himself.* And also **no culture is an island** to itself. For example:

> *When an American awakes in the morning, he is in a bed built on a pattern which comes from the Near East and was later modified in Northern Europe before it was transported to America. The cotton of his sheets is from a plant originally domesticated in India, or linen, domesticated in the Near East,*

or silk, which was originally used in China. All of these materials were spun on a process invented in the Near East. He may then put on his moccasins, originally from the Indians of the Eastern woodlands, and go into the bathroom, whose fixtures are a combination of recent European and American inventions. He will then take off his pyjamas, a garment invented in India, and wash with soap which was invented by the ancient Gauls. When he shaves he performs a ceremony which was a masochistic rite probably derived from either Sumer or ancient Egypt. He returns to the bedroom and dresses. His day-time apparel was originally derived from skin clothing of the nomads of the Asiatic steppes. He puts on shoes made from skins tanned by a process invented in ancient Egypt, and cut to a pattern derived from the classical civilizations of the Mediterranean, and ties around his neck a strip of bright coloured cloth which is a surviving remnant of the shoulder shawls worn by the seventeenth-century Croatians. Before going out for breakfast he glances out the window, made of glass invented in Egypt, and if it is raining he puts on his overshoes made of rubber discovered by the Central American Indians and takes an umbrella, invented in southeastern Asia. Upon his head he puts a hat made of felt, a material invented in the Asiatic steppes. On his way to breakfast he buys a paper, paying for it in coins, an ancient Lydian invention. At the restaurant a whole series of borrowed elements confront him. His plate is made from a form of pottery invented in China. His knife is of steel, an alloy made first in southern India, his fork a medieval Italian invention, and his spoon a derivative of a Roman original. He begins breakfast with an orange, from the Eastern Mediterranean, a cantaloupe from Persia, or perhaps a piece of African watermelon. He also has coffee, an Abyssinian plant, with cream and sugar. Both the domestication of cows and the idea of milking them originated in the Near East, while sugar was first made in India. After his fruit and first coffee he goes onto waffles, cakes made by a Scandinavian technique from wheat domesticated in Asia Minor. Over these he pours maple syrup, invented by the Indians of the Eastern woodlands. As a side dish he may have an egg of a species of bird domesticated in Indo-China, or thin strips of the flesh of an animal domesticated in Eastern Asia which have been salted and smoked by a process developed in northern Europe. When he is finished eating he may read the newspaper, imprinted in characters invented by the ancient Semites upon a material

> *invented in China by a process invented in Germany. For all of these blessings he will thank his Semitic God in an Indo-European language with influences from Latin, Greek, French, Italian, German, Arabic and historic languages of Great Britain and just about every language there is* (adapted from Linton, 1936, p. 326; and Bradley, 1974, pp. 54-74).

To further illustrate the idea of cultural borrowing, let us look at the English language. It is well known that English is a modern language conglomerate formed from many other languages, over hundreds of years, primarily in Europe, and to a much lesser extent from languages in the Middle East and Asia.

However, many people are surprised to find out that English has had, even minor influence, from very exotic languages like Arabic. Obviously *camel, mosque, wadi, sheik, emir, and sultan* directly refer to Arab things, and so come from that language. There are hundreds of other commonly used words in English that have come also from Arabic. And many of these words are of a scientific or technical nature. For example, just to name a few, the following English words have their origins in Arabic:

> *Alchemy, alkali, zero, zenith, nadir, almanac, calliper, calibre, marcasite, camphor, carat, ream, mattress, assassin, hazard, julep, marzipan, coffee, caraway, saffron, sesame, cumin, sugar, syrup, sherbet, shawl, sash, muslin, mohair, cotton, sofa, alcove, arsenal, abode and genie* (Pimm-Smith, 1991, pp. 21-24).

Indeed we can say that the whole world has become a global multicultural village. And through borrowing and lending of items from one culture to another, and inherent internal forces for cultural change, each culture continues to provide the symbolic vehicles for the on-going, continued survival of human groups in their social settings.

English has become the global language. Through various quirks of history, English has become the closest approximation to an international language that the world has seen. Its roots are still to be found in the Gaelic of the Ancient Britons, which has been successfully superimposed with Latin during the centuries of Roman rule, followed by the languages of the Angles and Saxons, still the dominant influence, the Danes, the Vikings and finally the Norman-French.

Because of the multifarious nature of its origins, and the expansive characteristics of the English, who were probably the most successful of the

European colonists, the English language has become an avid consumer of other languages, with perhaps the largest vocabulary of any.

Corson (1982) has shown that English operates essentially at two levels: the *restricted code*, and the *elaborated code*, in Bernstein's terminology. Lower-income children maintain a variety that is mainly Anglo-Saxon, while upper-income children also take in many words of Graeco-Latin origin, which constitute primarily the language of abstract ideas. Corson showed that the professional literature of philosophers, theologians, psychologists and physicists contain 40% of Graeco-Latin words, sophisticated newspapers about 20%, the afternoon tabloids about 10% and children's literature (in English language mainly originating in Northern Europe) about 4%. Corson later replicated his United Kingdom findings in Australia, where he found almost identical results.

For some time, English competed with French, which accounted for 26% of the world language of commerce immediately after World War II; but nowadays the French contribution is estimated at 5% and falling, mainly due to the post-war influence of the Americans.

In an effort to clarify the relative efficiency of standard English, by comparison with other codes of English, Kirk and Hunt (1975-80), in a series of experiments, showed Standard English to be the more efficient form of the language. This is not surprising, since it is the form used by serious writers and speakers wherever English is used.

DYNAMIC FORCES FOR CHANGE

A topic, drawing increasing attention in the past few years, has been the relationship of technological change with cultural and linguistic change. Technological change has often led to a conglomerate language and culture, where the newly introduced items are present beside the traditional items of the old language and culture.

For instance, in Arab countries we see traditional villages beside multimillion-dollar oil and petrochemical refineries. Graduate engineers, in these refineries, who are keeping time, living in nuclear families and interpreting the world through modern science, may be the sons of Arab nomads, who did not keep western-style time, lived in tribal and nomadic groups and had a more theistic interpretation of the world and events. Obviously this shows massive cultural change in a period of only a few years. Indeed, technology is a major force which shapes our society and its culture (Christodoulides, 1992).

The *old* survives with the *new*. However, it is often the case that the new overwhelms the old and supersedes it, or at least forces modification of the old for the thriving of the new. This however, may take some time - even decades. Obviously this will produce cultural and language change. Indeed, changes occur, even in the way people view their environment and the way they think about it and behave within it.

Man's technology, of any particular time, Images what he believes in that particular era. This is because technology is a product of how we see ourselves and the world around us (Harvey, 1993).

To illustrate this further, let us look at the following script, which could well have been taken from a Greek presentation of a computer company in Greece or Cyprus. This script indicates that western technology brings its own language with it. And of course, that means the introduction of new ideas and behaviour. We will see a conglomerate language of Greek and English, in this following text:

Conglomerate language sample

To computer *eivai uia uovtepva nlektrovikn unxavn snmepa*. *H* Computertech eivai uia training *kai* software house *yia sena*.

(This text has English words and Greek words written using English characters. The Greek words (non-bold) are written in English with letters that approximate the Greek characters. The English words are in bold.)

Also the introduction of technology and modernization into many traditional societies, like say Arabic and Sub-Saharan African, has assumed many social changes and some of these are:

- Co-educational opportunities
- Equal opportunity
- Democratic management styles
- Planning
- Deferred gratification
- Investment and hoarding of capital
- Secular political systems
- Changes in morals
- Time keeping
- Professionalism (specialization)
- Prolonged education
- Social and geographic mobility
- Breakdown of large extended families
- Further breakdown of nuclear families to single parent families
- Social philosophy of individualism
- Stress
- Secular scientific method, based on material cause and effect, for problem solving

Obviously such changes in these societies have often caused many growing pains and adjustment difficulties. It has been said by many social commentators that the real challenge, for many of these developing countries undergoing modernization, is to cope with the escalation of cultural and social change.

Again here it is worthy to note, that a culture which is distant from the ideas and behaviors required by modernization will have difficulty in coping with, and adjusting to modernization.

LANGUAGE IN PHYSICAL ENVIRONMENT AND CULTURE

Not only are the words themselves different from language to language, but also the meaning of words differs from language to language. It is sometimes impossible to find the exact translation of a word from one language to another. This is so if the item or idea does not exist in the other language. For instance, when *Robinson Crusoe's Man Friday* described a large sailing ship as a ***canoe with wings***, he was trying to put a strange item for him in the context of his experience - his cultural and language background. Undoubtedly there was no word in his language for the concept of ***large sailing ship*** (Defoe, 1985).

So we see here that each culture has its own items and a specific way of collating and classifying these for a sensible interpretation of the surroundings. Thus ideas, customs, beliefs and prejudices may vary greatly from one cultural and linguistic group to another.

Even within the one nation, different groups can have a quite different culture and language code. The following example highlights just how different two groups' language codes can be within an English speaking nation:

> *A white teacher told of his experience with some Negro boys in southern USA. I asked some boys the colour of the sky. No one could tell me. Then the father of one of them came in, and I told him of the boys' ignorance. I repeated my question without any success. He then grinned and asked his son,* ***"Tom, how sky stan?"*** *To which Tom immediately replied,* ***"Blue."*** (Allen, Ware and Garrison, 1867, p. xxvii).

Language is so closely related to thought that many theorists even suggest that language and thought are virtually synonymous (Beck, 1977, p. 113). Current thinking is that language certainly takes central place in problem solving and cognitive processes generally (Deutsch and Katz, 1968, p. 3) and at least facilitates conceptual and abstract thought. Indeed, the higher

mental abilities could be illustrated as towers built out of language and erected on the foundations of the mind. Particularly grammar is the result of the inborn action-result way that man looks at his environment. It seems universal that languages are broken up into basic units of subject, verb and object (McCrone, 1990, pp. 129,131).

However, even though there are inborn language tendencies in man, fine tuning takes place as the child internalizes its childhood language and culture which present a specific view of the world.

For instance, the Hopi Indians of North America do not have the array of tenses of the English language which allows an English speaker to position events at a precise time. So an English speaker can distinguish between events that have happened, are happening and will happen.

On the other hand, the Hopi language has a sense of timelessness about it as Hopi are more interested in how sure the speaker is of his facts, and so verbs will differ according to whether a speaker is talking about an event which he remembers or expects to happen.

Navaho Indians have a language that is very strange to an English speaker. Nouns and verbs are linked in that language so that the doer is seen not only to cause the event but to be involved in the states of being of the event. Thus a hunter takes part in a deer skinning rather than being the initiator of the action. Also verbs in this language change their form according to the shape of the object about which they refer. For example, a Navaho may say something like, *I will* ***tube-burn*** *my spear*, or *I will* ***sheet-burn*** *my tent* (McCrone, 1990, p. 132,133).

Except for the inherent physiological tendencies, instincts and reflexes, everything that we have in our minds is the result of experience, and the covert mental activity that can deal with that experience through a cognitive process.

Behavioral psychologists have what is fundamentally an elaborate stimulus-response approach to the study of behaviour. Essentially then that approach is descriptive and avoids explaining the processes that take place in the black box - the brain. Behaviorists have shunned making inferences about the mental structures and collations that man may build in his brain in order to classify and understand the world around him. By its very nature, then, the behaviorists' approach is largely descriptive, albeit clinical.

Cognitivists on the other hand have developed a whole new approach of trying to infer what mental process and structures are taking place as a result

of the interaction of man with his environment (Blackman, 1983, p. 43; Dickinson, 1980, p. 4).

The assertion that the way that one's language is categorized and structured affects the thought processes has been called the *Linguistic Relativity Hypothesis* and this is essentially a cognitive view of man. Edward Sapir (1921; 1949) and Benjamin Whorf (1956, pp. 212,214) were the great proponents of this approach and they argued that each language offers a unique world view or perception of reality.

Bernstein (1960, pp. 217-276; 1961b, pp. 163-176) extended the Linguistic Relativity Hypothesis in his study of social class in the Britain. His suggestion was that the English language styles, which he called codes, of the different classes, in Britain, would be different. This difference he argued, indicates that these codes are a manifestation of different views of life and perceptions of reality resulting from the diverse life styles of the classes.

He did in fact find that the language codes of the higher and lower socioeconomic classes in Britain were different and this led to lower IQ scores for the users of a *restricted code*, the lower socioeconomic classes. The restricted code of the lower classes and the *elaborated code* of the higher classes were in essence like different languages even though on the surface they were apparently the English language (Barnes-Gutteridge, 1974, pp. 111,125,129).

The restricted code is characterized by short, simple phrases. On the other hand the elaborated code makes fuller use of modifiers and explanations, and has a bigger vocabulary.

Sapir, Whorf and Bernstein attempted to relate language and perception to the social environment of an individual.

Labov (1973) argued that non-standard English (as a particular example, Black Vernacular English in the U.S.) was as effective and legitimate a language as Standard English (though he wrote himself in Standard English). Kirk and Hunt (1975-1980), however, in an exhaustive series of studies over five years showed Standard English to be the much more precise and efficient form.

Witkin (1967, pp. 233-251; 1978, pp. 20,21,30-37) on the other hand is interested in socialization and language patterns and the development of perception and personality within the physical landscape. He has shown that the people in societies which tend to be authoritarian in child-rearing are *field-dependent* and socially dependent but in cultures where self-

reliance and initiative are encouraged in children the results will be shown in adulthood by a more critical, analytical and higher level of discriminatory ability in their perception of the environment around them.

Agricultural societies which are preoccupied which food storage are more authoritarian in their child rearing practices because their lives are more structured and predictable, and so the results show up in field-dependent adults.

Hunting societies emphasize self reliance, independence and success, again because of life-style characteristics, and so produce adults who tend to be *field-independent*.

Field-dependent people have a social orientation as they tend to seek physical and emotional closeness with others. They have been described as flexible and easy going, and as wanting to help people.

Field-independent people on the other hand tend to be impersonal and to keep people at bay. They might be aloof, individualistic and demanding, and interested in principles and ideas rather than people, though they are usually more flexible and resourceful.

This approach assumes that there is an attunement of a group's cognitive style with the demands of the physical and social setting. Consequently, hunting-gathering societies and sedentary agricultural societies will tend have field-independent and field-dependent people respectively.

Migratory hunters have to find their way around usually in an environment which is visually homogeneous such as the snowlands of the Eskimo or the desert terrain of the Arunta in Central in Australia. Finding food often requires small bits of information from the environment, and analytical ability. Such discriminatory skills are not so important to the sedentary farmer. Hunting societies also often live in small bands and members have to be masters of all trades as there is little specialization. Each person will have to do many things, fend for himself and hunt.

Agriculturists, however, tend to live in larger groups with more elaborate social relationships and specialized social structures.

Berry (1966, pp. 207-229; 1971, 324-336; Witkin and Berry, 1975), who follows in the same school of thought and is a co-researcher with Witkin, attempts to relate perception and language to the physical and social environment of the individual. Berry called this environment the *ecology* of the individual, and proposed the *Ecological Functionalism Hypothesis*. Thus

he further developed the idea that the surroundings of the individual influence the mental processes and the perception of reality.

Field-independence has been found among mobile hunting groups around the world: the Arunta of Australia, the Boat People of Hong Kong, the Cree, Athabaskan, Ojibway and Carrier Amerindians, the Lapps, and the Canadian Greenlandic, and Alaskan Eskimos.

Field-dependence on the other hand has also been found to be prominent in sedentary agriculturists from the four corners of the earth: Southern Nigerians, the Temne and Mende of Sierra Leone, the Nsenga of Zambia, South African Bantus, Tsimshian Amerindians, the Haka of Hong Kong, and Fijian Islanders.

Thus there seems to be considerable support for the idea that how people make their living is important in determining, not only the social forms they adopt, but also the child-rearing practices they develop and the patterns of individual behavior they foster.

In hunting societies children are encouraged to be self reliant and independent. In agricultural societies child rearing is more rigid and harsh, and children are taught to be a member of a group and depend on others (Witkin, 1978, pp. 20,21,30-37; de Lacey, 1974, p. 83).

The assertion that language mirrors the physical and social surrounds of an individual and his perception of reality, was further borne out when it was discovered that a Pygmy hunting group, in the Central African Republic, has as many words for the vegetation in the deep, dark forest in which it hunts, as do Western professional botanists. It is therefore not difficult to see how having words for specific components of the environment may help make these components perceived as discrete, and thereby convert them into a visually and conceptually varied field of individualized components (Witkin, 1978, pp. 36,37).

Berry has attempted to show that the language content of a person will reflect the type of adaptation asked of that individual by the surrounding environment within which he is attempting to strive (de Lacey, 1974, pp. 101,102). Berry specifically predicted that hunting people would have developed a language containing a high number of spatial concepts (Nurcombe, 1976, p. 207).

To see whether the Temne and the Eskimo have a system of geometrical-spatial terms which is consistent with the demands of their environment, Berry (1966) made an analysis of the terms in use in both languages. One hundred terms from English were selected for the possible translation into

Temne and Eskimo. For example, the following terms are some of those which were included:

- square
- triangle
- rectangle
- circle
- oval
- corner
- surface
- symmetrical
- parallel
- horizontal
- vertical
- position
- orientation
- opposite

The following illustration shows a summary of the terms by the class and the language:

Summary of terms by class and language

Class	Language		dE/T
	Temne	Eskimo	
Temne or Eskimo word is a true equivalent of the English word.	57	33	+24
Temne or Eskimo phrase is a true equivalent of the English word.	10	6	+4
Temne or Eskimo word or phrase is derived from an English word.	0	7	-7
No way to express English word in Temne or Eskimo. or A distinction is not made between the word and one in the previous three classes.	33	54	-21

It can be seen that the Temne find it necessary to utilize approximately one third as many geometrical-spatial differentiations in their language as compared to English people. The Eskimo however, differentiate more than half of the geometrical-spatial English concepts in their own language. These observations however, it must be noted, relate to word equivalents in each language.

May be more important is the fact that the Eskimo make, at least linguistically, 28 more distinctions of the type used in the study without borrowing from the English language. The seven Temne borrowings from English may indicate that the Temne are beginning to need these concepts possibly as their culture changes as a result of intercultural contact.

The absence of Eskimo borrowings from English may indicate that the Eskimo find their own system satisfactory. From a less ethnocentric view, it may be suggested that the Eskimo possess an intricate system of language which aids the spatial interpretation of objects and their relationships locationally.

So both Witkin and Berry, in taking a similar approach, investigated the interactions of the physical environment, subsistence patterns, culture, language and childrearing patterns with the development of perception and personality.

LANGUAGE UNIVERSALS

Even though there are many unique characteristics in each language there are also certain characteristics that are shared by all languages around the world (Fromkin and Rodman, 1981, pp. 330,331; Nurcombe, 1976, p. 217; Greenberg, 1963).

Some of these universals that have already been identified are shown below:

- Wherever we find man we find language.
- Each language is adapted to serve man well in his surroundings.
- Each language is a mirror of the physical and social surroundings.
- Similar vocal pitches indicate positive or negative moods in many languages.
- Each language refines and indicates different ways of understanding the surroundings and collating it.
- Language is a survival tool that facilitates man's adjustment to his surroundings.
- Language is a mirror to the physical and cultural environment of each people.
- All languages are at least partly arbitrarily symbolic.
- All languages change as their surroundings change.
- All languages have vowels and consonants.
- All languages can form questions.
- All languages can form commands.
- All languages use sound, word meaning and word sequence as a part of standard usage.
- All languages use similar parts of speech like noun, verb and adjective.
- All languages can relate events to time in some way (e.g., past or present or future), and can create negatives (e.g., I didn't go.).
- All languages are potentially infinite in the number of sentences that can be produced.
- Every normal child has the ability to learn any language irrespective of whatever language he is born into.
- Language is a product of the anatomy, psychology and, social and physical environment of man.
- Language is a function of its historical heritage.
- In most languages the subject goes before the object.
- In most languages sentences include a subject, a verb, and an object, although they may not always appear in that order.
- In most languages there are opposites like dry/wet, long/short, hot/cold
- All languages form sentences.
- Languages borrow and lend words.

CONCLUSION

Language has its own systems which are at least partly idiosyncratic to each particular language. These systems facilitate the survival of language in its various environments, both physical and cultural. And so each language is a powerful indicator of its context. As each linguistic context varies, it can be expected that some languages will be more distant from some languages than others. This difference is not necessarily an inherent deficit in the particular language, but only a specialisation to be effective in a particular parochial environment. In spite of these differences, no culture, and therefore language, is an island. Particularly in recent times of mass communication and information systems and superhighways, we are already seeing that the world is becoming a global linguistic village, albeit a mosaic of various interdependent languages - still a Babylon of languages, but with English appearing as the lingua franca. The changing physical and social environments, and influence from other languages, are the main forces producing linguistic change in each language. Even among this ebb and flow of change in languages in their environments, there are still various universals that can be gleaned across all languages. These universals suggest that mankind wherever present, and whatever genetic pool background each group has, share some ubiquitous fundamental human characteristics – both biological and mental.

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