

**ENVIRONMENTAL INFLUENCE ON LANGUAGE:
PRELIMINARY OBSERVATIONS**

Adel I. Tweissi
Department of English
Mu'tah University
Jordan

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Introduction

Human culture has been recurrently ascribed to the influence of physical and social environments. Hence, language, as an element of human culture, has definitely been influenced by both physical and social factors of the environment.

The purpose of this paper is to present preliminary observations on the influence of environment on language manifested in the influence of physical environment (under which elements like weather, vegetation, animals, typography of the land, and the economic basis of human life are classified), and the influence of social factors (under which religion, parents, sex grouping, and political organization are comprised). However, as Sapir has put it: "The physical environment is reflected in language as it has been influenced by social factors" (Sapir, 1912:227); in other words, the physical environment has always been subject to the influence of the social environment.

Environment may influence any of the major components of language: sounds, vocabulary, and syntax. It must be assumed, however, that the environmental influence on lexicon is far more than that on the other two components, since "lexicon of any language is shaped by and facilitates the total interaction between man and nature" (Hickerson, 1980:127). Consequently, the environmental influence on the vocabulary of language will be the focus of this paper. Such influence, if any on the phonetic and syntactic systems of language is relatively scarce due to the fact that evidence of correlation between these systems and environment is extremely rare compared to the striking bulk of evidence that unrelates them to environment. Sapir says:

"We seem, then, perhaps reluctantly, forced to admit that, apart from the reflection of environment in the vocabulary

of language, there is nothing in language itself that can be shown directly associated with environment". (1912:239).

Physical Environment and Language

The various weather phenomena as well as weather outputs in the different geographical areas exert a great influence on the lexical stock of the various languages of the world. Franz Boas, for example, studied the Eskimos' vocabulary and found a great emphasis on snow and ice related terminology in it. The Eskimos use a larger specialized vocabulary for these items due to the fact that climate has shaped their physical environment with an everlasting huge "pile" of snow. Eskimos have different words for "falling snow", "snow on the ground", "snow packed hard like ice", "slushy snow", "wind-driven flying snow", and so on (Whorf, 1956:216).

A language may include weather vocabulary which is not existent in many other languages; such other languages may even borrow such a vocabulary from the originating language. "Khamsin" and "simoom" are two English words loaned from Arabic. The first refers to "a generally southerly hot wind from the Sahara that blows across Egypt from late March to early May"; the latter to "a strong, hot, sand-laden wind of the Sahara and Arabian deserts". (The American Heritage Dictionary, 1982:700, 1141). Thus, the two terms refer to weather phenomena not familiar to the European land inhabitants.

Related to climate is season naming. Languages in environments where more than the traditional four seasons appear will include season-related terms other than Spring, Summer, Autumn (Fall), and Winter. In Arabic, for example, there are six seasonal terms, two of which have no equivalents in English: [qayd] and [ʿafiir]. The first term indicates the hottest period in Summer when the fruits of the trees ripen; the second (literally means dusty) indicates a period between Summer and Fall during which the air becomes too

dusty due to the much tree-leaves falldown and the blow of the simoom wind. Swiss German also possesses extra season terms. One indicates the period of blooming (Bluejet), another indicates time of leaf falling (Laubris), and a third which indicates time of snow thawing (Durbruch) (Miller, 1968).

Animals form a large part of our non-human environment. The dominance of a certain animal in a certain environment will have influence on the vocabulary used by the inhabitants of that environment. E. E. Evans-Pritchard's study (reported in Hickerson, 1980:112-113) on the Nuer people of East Africa has revealed that kattle, the dominant animals in that area, have a great influence on the vocabulary used in many facets of the Nuer's life. The descriptive vocabulary becomes more complicated, as there are many special words which name patterns of marking and various combinations of colors. For example, the term "role" indicates a white shoulder and foreleg, "kwe" a white face, etc. There is no expression equivalent to time in the Nuer's vocabulary; there is rather, a sequence of activities focussing around kattle which makes up an annual and daily cycle. For the same reason, Bedouin Arabs' dialects have been greatly influenced by the dominance of horses, camels, sheep, and dogs in their life. In Arabic there are distinct words for male-camel, female-camel, and baby-camel: [jamal], [naaqah], and [hwaar], respectively. An Arab Bedouin poet once praised a Moslim Caliph saying what literally means: "You are a dog in honesty and a ram in confronting the enemies". One more example in this respect are Gauchos people of the Argentine who have about 200 expressions for the colors of horses (Miller, 1968).

In maritime societies sea-food is dominant. Consequently, the vocabulary relating to sea and sea-food is very specialized in most cases. For example, the seal is the main food of the Central Eskimo (Boas, 1964). For this reason, Eskimos use a larger specialized vocabulary to indicate the sea: one word is the general term of the seal; another one signifies the seal basking in the sun; a third

one, a seal floating on a piece of ice. Another example is the word "lobster" in the Chinese language. This word has several variations due to the maritime-type of environment many of the Chinese people live in: "lungzhal" (spring lobster) and "tshatl tshoi lungzhal" (seven colored spring lobster) (Blount, 1977:74).

Existence of a certain vegetation in an area whose inhabitants have special dependence on that vegetation will bring about specialized vocabulary. Thus, there are Negro languages which have over 50 terms for various kinds of palm trees due to the fact that these Negroes live on the products of palm trees (Miller, 1968). In Tzeltal language (a language spoken in the highlands of the State of Chiapas, Mexico) there are at least four words for different types of pepper: [tonʔič] "chilipepper", [kazmzutʔič], "chicken defecation chilipepper", [baakilʔič] "genuine chilipepper", and cacawʔič] "round chilipepper" (Blount, 1977: 74). In an environment where pepper plant is not of the same importance it has in the highlands of Chiapas, such a variety of pepper lexicon may not exist.

Color terms in Arabic are derived from environmental aspects. The word [axḍar] (green) is derived from the word [xuḍar] which means vegetable. The correlation here is between the term [axḍar] and the color of vegetable which is mostly green. Likewise, the term [ʔbyaḍ] is derived from the word [bayḍ] (egg). Once again the analogy is between the term "white" and the color of egg which is normally white. The term yellow [aṣfar] also correlates to a dominant yellow metal in the Arabian Sahara: the brass [ṣufar]. Lemon and orange have also influenced color terms in Arabic: the color [burtuqaali] is taken from [burtuqaal], orange; the color [leimuuni] is derived from [leimuun], lemon.

Terrain formations or typology of land may shape or modify language. In his *Names on the Land*, George Stewart says:

"The men who came to Virginia were English, speaking English, and having the desire to vary from the old customs. Yet, even inspite of

themselves, the nature of the land itself and their new ways of life caused them to change--in the ways they gave names, as in much else". (1967: 59).

Thus, people who live in areas where there is a variety of rivers and water sources may have specialized vocabulary such as: creek, rundle, stream, beck, riveret, brook, bog, fen, marsh, swamp, etc. Edward Sapir gives two living examples in this respect: one, the vocabulary of a coast tribe such as Nootka, with its precise terms for many sea animals; two, the vocabulary of inhabitants of a desert plateau, such as the Southern Paiute of Arizona, Nevada, and Utah. Of the terrain vocabulary collected from Paiute's language are the following: divide, ledge, sand, semicircular valley, spot of level ground in mountains surrounded by ridges, plain, desert, knoll, canyon without water, canyon with creek, etc. (Sapir, 1912). Furthermore, mountain dwellers also have much more specialized vocabulary to describe their land forms. One can find expressions like: head, horn, back, nose, or tongue of the mountain (Miller, 1968). Such precision in describing the typological features of a terrain is very essential and necessary to dwellers of an almost uniform land.

To sumup, and as Sapir (1912: 230) points out, it has become evident that the presence or absence of general terms is to a large extent dependent on the negative or positive character of the interest in the elements of environment involved. The more necessary a particular culture finds it to make distinctions within a given range of phenomena, the less likely the existence of a general term covering the range. On the other hand, the more indifferent culturally are the elements, the more likely that they will all be embraced in a single term of general application.

Social Environment and Language

So far, I have discussed the reflection of the physical environment in its people's language. Such a reflection, however, is also true, and to a larger extent, of the social environment. Nevertheless, as Dale (1972: 214, 242) has put it: Geography and social class are not completely independent. Geographic differences become social class differences whenever a sizeable number of people move into a new setting. Complexity of the culture of any social group is depicted in the complexity of the vocabulary of such a group's language. One may take, on the one hand, the complexity in the vocabulary of English-speaking or French-speaking peoples of Europe and America with its extreme specialization, and, on the other hand, the relatively simple or superficial vocabulary of any primitive people like those of the African Boshman tribe or the recently discovered Tasaday people.

Parents are considered one of the most effective social factors in language development. According to several studies, the educational level of parents is much more important to the linguistic development of the child than any other social factors. A detailed study in such a factor will lead into an irrelevant psychological view to this paper. However, an ideal example in this respect would be taken from Thord Erasmie's (a Swedish scholar) field study on 180 Swedish subjects of 4 to 6.5 years of age in order to answer the question: "To what extent is linguistic development influenced by the environmental factors"? Of the results that Erasmie asserted are the following: 1. subjects whose fathers and mothers have a high education experience increase significantly in linguistic ability; 2. the influence from socio-economic factors are greater on boys than on girls (Erasmie, 1976). The second point, however, has a special significance in that it leads us to another important social factor influencing language: sex difference. Such a difference may be reflected in language itself in the form of feminine-masculine gender. Many languages, for example English, Arabic, French, German, Russian, and Italian, have feminine-masculine gender. Yet,

gender in languages whose social sex grouping is strictly divided might be reflected in more than one of the language's components. In modern English, for example, the gender is reflected in pronouns only; in Old English it was reflected in all parts of speech. In Old Arabic, as well as in current Arabic, gender is used in pronouns, verbs, and adjectives as well. For example, Arabic "happy" for masculine is [masruur]; for feminine is [masruurah].

The use of the pronoun "he" as dominant to the pronoun "she" when talking about general matters can be ascribed to several social influences: one, the dominance of men in many of the labor and social activities; two, is the limitations imposed on women's participation in the different facets of life in many of the human societies throughout history. In Arabic, however, it is defined by the grammar of the language that when talking about general matters, the masculine pronoun dominates. The written Arabic grammar was established during the thirteenth century; that is, after the introduction of the Islamic faith. Accordingly, one may find an explanation for such a generalization and definition for the "he" dominance in the Holy Quran. The Quran says in one of its verses that men have the control on women.

In modern societies where women have become on par with men, there has been a notion to find some way by which such sexism will never appear in language. For this reason, the National Council of Teachers of English has recently endorsed the use of "they", "them", "their", etc. with a singular antecedent, as in: "If a person is born of a gloomy temper..., they cannot help it". (Pyles and Algeo, 1982: 223). Other efforts have attempted to eliminate this problem by substituting other words (like person) whenever the word man might be used of both sexes. Thus we have chairperson, anchorperson, and layperson.

The political influence on language resides mainly in the need for standardization of language. Governments throughout history tried to use one controllable variety of language in order to conduct their businesses, to keep

their records, and to communicate with the peoples of the countries. The Islamic rules (believed to be descended from the Divine) were cited in Quraysh's dialect despite the existence of many other dialects prevailing during the seventh century for two main reasons. One, that Quraysh was the dominant tribe in the Arabian peninsula then; and two, was the need for a specific governed language by which any ambiguity in interpreting the rules could be eliminated. John H. Fisher, in his "Chancery and the Emergence of Standard Written English in the Fifteenth Century", argues that standard English was first the language of the Court of Chancery, founded in the fifteenth century to give "prompt justice to English people and to consolidate the king's influence on the nations" (Pyles and Algeo, 1982: 184).

Language can be religiously modified. Religions have introduced vast theological terminology to human languages. Striking evidence can be taken from the huge Christian-related terminology in the European languages, and from the tremendous Islamic vocabulary in Arabic, Farsi, Turkish, and Urdu. After the dominance of Christianity in England by the end of the seventh century, many words of non-Indo-European origins started to emerge in English. Words like nun, priest, bishop, pope, church, catholic, protestant, etc., were to be known since then on. A great Islamic vocabulary stock had to be added to the ancient Arabic by the introduction of the new faith then. Part of that stock was to be loaned by other interested languages through linguistic acculturation. For example, English borrowed many words in this respect from Arabic: Caliph, mufti, imam, muazin, minaret, etc. A new geographical direction has been added to the Arabian (and Moslim) concepts and languages under the influence of the new religion. The direction [qibli], which points to the location of Mecca city in Saudi Arabia (the Arabian Peninsula then), has been conceptualized and linguistically reflected by all Moslims. The term [qibli] was introduced to language for the first time in the late seventh century when the Holy Quran sanctioned that the Old House in Mecca was and is to be

referred to during the five prayers of the day.

The calendar terminology in Arabic has been modified by the introduction of a new Islamic concept of the months of the year. [muḥarram], the first month in the Islamic calendar, refers to a period in the year during which hunting is taboo. In fact the word itself means "taboo". The last month is called [ḏulḥijjah], that is the month of pilgrimage. It is the month during which Moslems go on pilgrimage to Mecca.

In the Nuer society, cows and oxen are symbolic religious features. Accordingly, the Nuer language is strikingly using cow and ox related vocabulary. For example, the young men may be referred to as "bulls" (zinghambaku), or a woman who had more than three children may be called "a cow which has calved three times" (mbuguma) (Beidleman, 1971).

Thus, it is evident that there is a positive relationship between language and the physical and social environments. Environment is always present and people always have contact with it; it is something which people always talk about. Language is the mirror by which all normal human beings reflect nature, or their nature. Yet, the question that will definitely arise from such a discussion to the influence of environment on language is: does language influence environment?

For the physical environment, it is extremely hard to say that language may influence the physical surroundings of Man, for no one can imagine how sounds and words will change nature or the nature of things. Whorf (1956: 207) says: "Talking, or the use of language, is supposed only to 'express' what is essentially already formulated non-linguistically". However, on the social side of the issue one may dare to say that certain perceptual processes are coined by language. Two examples can be given in this respect. The first is from English. In Old English there was a dual form; i.e., a form which was used to talk about exactly two things or persons: for example, [hwajar], "which of two". In current English there is no such a duality. Therefore, the Old

English-speaking person would perceive the word "which" differently from the current English-speaking individual in that the former would have a clearer picture in his/her mind about the thing being addressed; while the latter might get confused in determining whether "which" is referring to one, two, or more objects. The second example is from Arabic. In Arabic, the pronouns are very discrete in that the language has a distinguished pronoun for each number. For example [huwa] is "he", [huma] is they the two (masculine), [hum] is they (plural masculine), [hiya] is "she", [haataan] is they the two (feminine), and [hunna] is they (plural feminine). Such a precision in the pronoun system in Arabic, though might be considered confusing in some sense, provides a clearer perception for the Arabic speaker to determine in definite terms the things or persons being addressed. On the other had, the pronoun "you" in English will not provide the same perceptual clarity, as it is the case in Arabic. That is to say, the nature of language may influence the perceptual process of its speakers. But whether or not language influence environment is a subject yet to be investigated by research in the future.

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