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Factors and Situations of Language Change

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ABSTRACT

This paper 'Some Factors and Situations of Language Change' looks into the causes of language change. It analyzes the external influences such as geography, contact, and social dynamics of language change. Language Change sometimes suggests progress and sometimes decay. The progress may enhance the language, its systems, the prestige of its speakers and the decay may mean sometimes the extinction of the language itself.

Keywords : Language Change, Native Speech, External Influences

Every Language is subject to change. The change suggests the progress in many cases and decay in few. As the habits of the people change when they encounter new situations, new cultures, and new people so also a language. Contrastively, we have another situation, the habits of the people may also change when they get separated from old (acquainted, or familiar) situations, old (acquainted, or familiar) cultures, old (acquainted, or familiar) people, so also a language, when it goes out of contact with an old situation and old culture. This in reality places us in the discussion of language change caused by external factors, mainly geographical.

Causes of Language Change

Fennell (2001:7) puts forth few reasons that cause the language change. She says that language changes because of: 1) geography (separation of one language or variety from another, alternatively closeness-language contact), 2) contact with new vs. old phenomena (the need to adapt to new, different, or changing aspects of society), 3) imperfect learning, 4) a substratum effect, 5) social prestige factors (the attempt on the part of speakers to imitate or acquire linguistic features that are considered 'better' than their own).

She gives the internal factors for language change as: 1) Ease of articulation (is X easier to say/pronounce than Y), 2) Analogy (the application of one phenomenon to others by association), 3) Reanalysis, and 4) Randomness.

Geography is one of the reasons for language change as mentioned above. That is, if the speakers of a language move away from their native land or come into contact with the people of another land, their language changes. Separation of one language (variety) from other, or contact of one language with another language is one of the pertinent causes of language change. If we look at English and its history we notice that Germanic tribes Angles, Saxons and Jutes invaded Britain and settled there. As a result two things happened simultaneously: 1) they got separated from their native place and land, and 2) they came into contact with the native dwellers of Britain. And as such their dialects evolved into a separate entity from the dialects that they spoke in Germanic regions that they used to live; and their dialects also evolved because of their coming into contact with the native dwellers of Britain, known as Celts.

The study of the history of the English language evinces how sometimes language drifts progressively when it encounters new cultures and people.

Leith (1996:96-97) writes: 'About two thousand years ago

there was a place in what is now the north of England which the Celtic Britons named *Caer Eborac*. Then the Romans came and named it *Eboracum*. About 400 years after that the Anglo-Saxons came and named it *Eoforwic*. And About 400 years after that, the Vikings came, and named it *Jorvik*. From this we have today's form *York*.'

This brief history of the place name in England tells us how language changes. The change of letter, the change of sound, the influence of a foreign language, the contact with new culture, all these work to bring change in the language. The external factors often times determine and trigger internal changes. Celtic word *Caer Eborac* was changed by Romans by dropping *Caer*, by adding a vowel 'o' between 'b' and 'r', by replacing 'u' with 'a', and by adding 'um' in the end in the part *Eborac*; and thus giving the word *Eboracum*. Anglo-Saxons turned the *Eboracum* into *Eoforwic* by inserting 'o' after 'E' by replacing 'b' with 'f' and by dropping '-acum' and adding '-wic' thus giving us 'Eoforwic'; and Viking in their turn changed *Eoforwic* into *Jorvik*. 'Eofor' into 'Jor' '-wic' into '-vik' hence giving us 'Jorvik' which later got changed to 'York'. These changes give us the idea that how external factors determine changes internally in a given language. The invasions and contact of people who spoke language other than the native dwellers can bring the change in the name of place. The example cited above is not a case of a complete replacement of the name by invading peoples and nations, but a modification of the word which suits the linguistic adaptability of their own languages. Though in this case the Celtic must have been completely replaced by Anglo-Saxon or Old English, but the example above is a classic example of a change that takes place in a word if that word survives, and if it survives even in other language.

Aitchison (2001:3) quoting Robert Mannyng makes the point that even a simple and colloquial English of mid fourteenth century appears remarkably strange. Robert Mannyng who wrote the history of England claimed that he wrote in a simple language so that ordinary people could understand it. His statement goes:

In simple speche as I couthe,

That is lightest in mannes mouthe.

I mad noght for no disours,

Ne for no seggers, no harpours,

Bot for the luf of symple men

That strange Inglis can not ken.

Even a cursory look of the above verses shows how the words were spelt, how the pronunciation has changed and how the vocabulary has been used. The 'speche' was spelt as 'speche'; 'quote' as 'couthe'; the possessive 'man's' as 'mannes'; 'mouth' as 'mouthe'; 'naught' as 'noght'; 'harpers' as 'harpours'; 'love' as 'luf'; simple as 'symple'; and 'English' as 'Inglis'.

From the pronunciation perspective couthe was rhymed with mouthe, which means either mouth was pronounced as [mauθ] or [mɔ:θ]; English was pronounced as [ɪŋglɪs].

The language of Chaucer today requires special training to be understood because of the massive changes in spelling and pronunciation that have taken place since then. Aitchison points out that Chaucer himself expressed his amazement about the changes that took place in the language. Aitchison [p. 4] quotes from Troylus and Criseyde, the following verses:

Ye know ek, that in forme of speche is chaunge

Withinne a thousand yer, and words tho

That hadden prys now wonder nyce and straunge

Us thenketh hem, and yet they spake hem so,

And spedde as wel in love as men now do.

A close look at these verses shall tell us how the language has changed from Chaucer's time to present day. The words ye, forme, speche, chaunge, withinne yer, hadden nyce straunge, thenketh, hem, spake, spedde and wel, though easy for us to recognize and link with their present manifestations, suggest the way the words got evolved and came to us.

Native Speech and Change brought in by Non-Native Speech

Few samples quoted above are the examples of changes that took place either because of external factors such as invasion of a country, imposition of linguistic components and so on or because of internal factors, like ease of articulation etc. However, these are examples of changes accepted by native speakers of English knowingly and unknowingly. But English is no more restricted to Britain and has spread all over the world because of Britain's world dominance, and later its speakers' scientific and technological dominance. English is spoken in a large part of the world as second or foreign language, and as a preferred non-native variety. Naturally, the changes in all its components and levels are obvious wherever it is spoken as a second and foreign language; and it is needless to cite evidence here as we know how languages differ in sound, word and sentence systems; and when a person learns any language his/her mother tongue influence

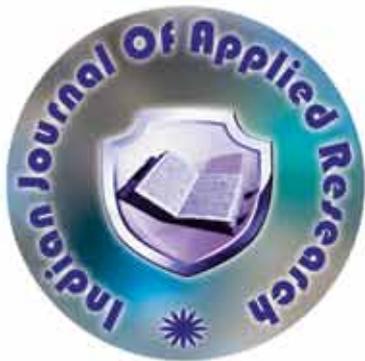
on all levels becomes obvious on the target language. The sound system, the word system and the syntactic system, all get affected (or enriched?). The question is whether these influences are distortions or changes? Whether they are acceptable to the native speakers? Or can they be taken as changes brought out by natural process? No other language faces this situation at such a massive proportion as English does. English spoken in India can be taken as case in point, as it can claim to have become most respected non-native variety of English. The changes in vocabulary can be taken as a process of enrichment, no doubt, but the changes in spelling and pronunciation, can they be accepted. The Anglicizing of Indian words and names acceptable or understandable? Is Indianization (a term undoubtedly controversial given the multilingual society that India consists of) of English Word acceptable? For instance, include the words bandh and gherao in English vocabulary and their Anglicized pronunciation as [bænd] and [gerao] may be acceptable. However, will the use of an English word in an Indian language's plural form acceptable? For example, the word 'university', can it be pluralized as universitian [ju:niversiti:ja:] in English? Is the pronunciation ghost [gho:st] as opposed to [gəʊst] acceptable? And at the level of syntax, Can we accept the syntactic structure I have met him yesterday? so on and so forth. Nevertheless, the massive way in which the English language is being adopted by Indians certainly forces certain changes and at one time or other some of these changes may become acceptable even for native speakers of English. The recent trends in the post-colonial write-ups of the Indian writers in English, who used profusely words from Indian languages and presented Indian pronunciation of Anglicized words, and their acceptability at the international level is a pointer towards non-native varieties' speech habits acceptability by native speakers.

The External Factors and Two Situations

When it comes to external influence that brings changes in any given language, it must always be borne in mind that we have two obviously big situations, 1) language of the Invaders affecting the language of the invaded ones; and 2) language of the Invaders getting affected from the language of the invaded ones. In case of English, the influence of the invading nations first Scandinavians, then French is all-pervasive, bringing changes in syntax, vocabulary, spelling, and pronunciation profusely. I am assuming here English to be constituted of Anglo-Saxons. However, if we go beyond that then, the language in Britain was Celtic, which had been influenced by Latin etc. Almost all the aspects of the language bear the stamp of change. This situation naturally arises in more than one way: if the invading nation comes to rule and settle, and if they are culturally powerful and are superior in skills, social affairs, administration and commerce, then their language dominates. However, if the Invading nations come to settle, but if they are less superior in skills and social affairs and commerce than the invaded nation, then the language of the invaded nation mostly dominates.

REFERENCES

Aitchison, Jean (2001) *Language Change: Progress or Decay?* 3rd edition, Cambridge: CUP | Baugh, Albert C. & Thomas Cable (2000 Reprint), *A History of the English Language*, 4th Edition. London: Routledge | Comrie, Bernard, 'Languages of the world'. In Mark Aronoff and Janie Rees-Miller, eds., *The Handbook of Linguistics*, 19-42. Oxford: Blackwell | Fennell, Barbara A. (2001) *A History of English*. Oxford: OUP | Leith, Dick (1996) 'The Origins of English', Chapter 3, in *English: History, Diversity and Change*. Eds: David Graddol, Dick Leith and Joan Swann; London: The Open University, Routledge



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