ABSTRACT

The aim of this paper is twofold: 1) to examine the nature, scope and function of the paralinguistic features on the basis of a survey of the previous studies, and 2) to make an attempt to search and exemplify paralinguistic features operating at various linguistic and non-linguistic units in several languages. A special emphasis will be placed on the paralinguistic functions of phonetic elements including segmental as well as prosodic features. The term "Paralinguistic feature" has been reexamined and its scope broadened in this paper so that it can accommodate any phonetic features, whether intentional or not on the part of the speaker, that can perform the paralinguistic function of contributing and modifying the basic meaning of words, etc. In view of the growing importance of paralinguistic features, a new term "Paraphonetic feature" is suggested to include exclusively vocal or phonetic media operating as paralinguistic features in human communication. Therefore paraphonetic features include not only prosodic features such as pitch, intensity, duration, speech rhythm and intonation but also segmental elements such as vowels, consonants, voice quality and airstream mechanism involved.

1. Communicative Activities of Human Beings

The communicative activities of human beings can be viewed as involving three distinct and yet interrelated activities: 1) linguistic, 2) paralinguistic and 3) non-linguistic. These three activities differ not only in kinds but also in the degree of their contribution to communicative efficiency, power and precision. The linguistic activity no doubt plays a central role in human communication when compared to paralinguistic and non-linguistic activities. The three communicative activities are all carried out by means of both the vocal and visual media. Therefore the overall structure and the medium of the human communication on activities can be represented as follows:

1. Linguistic activity - vocal(speech)/visual (writing)
2. Paralinguistic activity - vocal/visual(facial /motional)
3. Non-linguistic activity - vocal/visual

It goes without saying that the linguistic activity presupposes a highly systematic and close-knit structure based on contrast or opposition of such linguistic units as phonemes, morphemes, etc., both in speech and writing. On the other hand, the paralinguistic activities serve to add to and modify the basic meaning of lexical and grammatical units whereas the non-linguistic activities are by definition the least linguistic and informative and are typically linked to activities like cries, laughter, screams of joy and despair, and chewing, belching and kissing sounds, etc..

Therefore one might say that paralinguistic activities can be taken as marginal or peripheral compared to the linguistic activities proper which usually take a central role in human communication. In terms of communicative function and power, then, the linguistic activity comes first followed by the paralinguistic and then the non-linguistic activity.
2. What are Paralinguistic Features?

What do we really understand by "Paralinguistic" and how widespread is it in the domain of human communication?

1) The nature of paralinguistic features can perhaps be best illustrated by different shapes of one and the same grapheme in Korean. For instance, the Korean alveolar consonant letters /n/, /d/, and /t/ are quite distinct one from the other in the Korean alphabet although they have the shape // in common, which incidentally represents the shape of the tip of the tongue making contact with the alveolar ridge, i.e. alveolar articulation. But in cursive handwriting the letter /n/ comes in many different shapes, some of which retain their identity as the letter /n/, but others are almost indistinguishable from /d/. Here one might say that the shapes of those that lost their identity completely perform neither linguistic nor paralinguistic functions. Notice that the paralinguistic variants here carry the additional information about the character, emotion, educational background and writing skill of the writer.

2) Similarly, the English /l/ phoneme is said to have allophone variants, clear and dark /l/ depending on the context in which it occurs; clear /l/ before a vowel and dark /l/ after a vowel or syllable-finally, as in /lip/ and /ail/ respectively. However, many Americans use dark variety of /l/ before vowel as in /lili/ ‘lilly’ or /lounli/ ‘lonely’. Here the dark varieties of /l/ occurring before vowels can be regarded as a paralinguistic phenomenon, not linguistic,showing that the speakers are either Americans or speakers of other varieties of English. Likewise one might say that the clear /l/ often used by German or French speakers in pronouncing English words like ‘bell’ or ‘ball’ are simply paralinguistic variants of the English dark /l/, which incidentally shows that they are non-native speakers of English.

3) On the other hand, Japanese and Korean mispronunciation and confusion of English /l/ and /r/ as in ‘lay’ and ‘ray’ or /pl/ and /pr/ as in ‘play’ and ‘pray’ are simply cases of pronunciation errors of the essential linguistic units in English, which is quite irrelevant to paralinguistic activity.

3. Nature and Scope of Paralinguistic Features

Paralinguistic activities have been known to comprise not only verbal/phonetic media such as prosodic features but also non-verbal/visual ones such as facial expressions and bodily gestures integrated with and assisting the communicative function of spoken language.

Although the non-vocal paralinguistic features like facial expressions and gestures of body and hands certainly play a significant role in human communication, this paper will be confined exclusively to the paralinguistic features consisting of vocal/phonetic media.

The term "Paralinguistic feature" is used in a broader sense in this paper than has been customary in linguistics so that it can accommodate all kind of phonetic features, whether intentional or not on the part of the speaker, provided they perform paralinguistic function of contributing to and modifying the basic meaning of words and other units. Therefore, the "vocal paralinguistic features" are taken to include segmental units like vowels and consonants as well as prosodic features such as stress,
4. Linguistic versus Paralinguistic versus Non-linguistic Features

The boundary between paralinguistic and non-linguistic features or the one between linguistic and paralinguistic features is not always clear-cut and it is sometimes difficult to judge whether a certain vocal feature is a paralinguistic or non-linguistic one.

For instance, an interesting example comes from American English [++]**, which is supposed to signal "Yes" or "No" depending on the intonation tune imposed on it. [++]** said with a rising tune means "Yes" whereas it means "No" when said with a falling tune. Is it then, a case of non-linguistic feature or a linguistic one? Or is it to be taken as a mixture of both standing somewhere between the two? The phonetic sequence [++]** cannot really be regarded as a lexical element in English since it is neither a morpheme nor a word carrying any meaning by itself. However, it does represent the affirmative and negative response on the part of the speaker with the help of the proper intonation tune. Can it then be interpreted as a case of the "border crossing" from non-linguistic to linguistic domain or from non-linguistic to paralinguistic one?

Another example worth considering can be quoted from Swedish. One can often hear Swedes say the word **ho**/"yes" with an incoming cold in winter days, i.e. using the ingressive pulmonic airstream mechanism instead of the usual egressive one. The Swedish word **ho** pronounced with the incoming air certainly sounds very unusual to the hearers, especially to foreigners, due no doubt to the ingressive airstream mechanism. Still the basic lexical meaning "yes" is clearly conveyed intact even though the strange voice quality involved is quite unusual. How should we interpret this kind of phenomenon? Would this sort of special voice quality be taken as an element of paralinguistic feature signaling the effect of the cold weather on the speaker's speech organ or is it simply an insignificant non-linguistic feature?

5. In Search of Paraphonetic Features

From now on various phonetic features contributing to paralinguistic activities will be examined. These might be defined as "Paraphonetic feature" in the sense that they are exclusively vocal or phonetic in nature compared to visual or motional paralinguistic features. Following are the examples of paraphonetic features operating at different levels of linguistic units in some languages.

5.1. Segmental units

1) German and French /t/: In French and German where /t/ sound is usually realized as uvular [R] in standard speech and as lingual varieties of [l] in dialects, one might say that the latter is a paralinguistic feature in French and German showing the standard versus dialectal difference.

2) In modern Thai, the consonant cluster /kr/ in /krap/ "a polite sentence final particle for male speaker" is very often realized as [kap] instead of [krap], which is now regarded as old fashioned. Here the [kr] or the word [krap] can be regarded as a paralinguistic feature signaling "old-fashioned speech".

3) There is another interesting phenomenon in Thai language relating to /t/. The fl
ap /r/ sound in Thai is very often replaced nowadays by lateral /l/ as in /kraai/ "what?" [krai] without any change at all in the lexical meaning of the word. Again it might be regarded more as a paralinguistic feature representing the modern trend than a simple case of free variation.

4) The plosive /b/ can be considerably lengthened in English and French emphatic speech; "absolutely" [ab:sələmənt] and ‘absolument’ [absolument] without any change in the lexical meaning of the word but with an additional paralinguistic meaning of "emphasis".

5) Syllable-final liquids /m, n, l/ occurring in stressed syllables can often be lengthened considerably in an emotional and emphatic speech in Korean; e.g. /jam:ka n/ "a moment", /səsil/ "sincerity", /jəsil/ "absolutely". Just like the lengthening of plosive /b/ in English and French words ‘absolutely’, ‘absolument’, this is also a paralinguistic expression of ‘emphasis’ or ‘determination’ on the part of the speaker.

6) In Cockney English /p/ or /t/ is usually realized as or replaced by a glottal stop, as in /peip/ [pei] or [ai], which is no doubt a paralinguistic index identifying the speaker as a Cockney.

7) The realization of the English diphthong /ei/ as /ai/ in Cockney and Australian English may be interpreted as a paralinguistic index of the dialectal variety of English spoken by Cockneys and Australians.

8) In the southeastern dialect of Gyeongsang province in Korea, the alveolar lenis and fortis fricatives /s, h/ and /s/ are not always clearly kept apart since the fortis /s/ is regularly pronounced by many speakers as lenis /h/. Consequently a pair of words like /kaal/ ‘flesh’ and /sal/ ‘rice’ become indistinguishable, both words being realized as /h'al/. Again it is not so easy to tell whether it is a paralinguistic feature indicating a dialectal speech habit or a mere pronunciation error from the viewpoint of standard speakers of Korean.

9) In standard Korean there is a phonological contrast between high back rounded vowel /a/ and the corresponding unrounded one /aɡ/ e.g., /ɡul/ ‘oyster’ and /ɡul/ ‘letter’. In the north Korean language, however, the unrounded vowel /aɡ/ is pronounced with the rounded lips so that it sounds almost the same as the rounded vowel /a/ to the south Koreans. Since the degree of lip rounding is different between the two vowels in the north Korean speech, however it is clearly a case of paralinguistic index of the north Korean speech habit.

10) /t/ in English tends to be followed by a short and weak /s/-like sound following the plosion, specially in the speech of younger generation as in ‘Peter’, ‘better’, etc. In fact /t/ here becomes a kind of affricate /ts/. The same is true of the Cockney English, as in ‘tea’ [tsi]. This could be taken as a paralinguistic feature that characterizes the relevant dialects and the speakers.

11) The articulation position for /t,d,n,l/ sounds are not the same in English and French; alveolar articulation is preferred in English whereas in French dental articulation is more widespread. Therefore the dental/alveolar contrast can be expected to play a paralinguistic role of distinguishing French and English. It is interesting to note in passing that quite apart from dialectal variation in Korea, male speakers prefer alveolar articulation and women dental articulation.

5.2. Vowel length

In standard Korean two degrees of vowel length, long and short, are phonological
ly distinctive as in /ma:l/ ‘speech’ and /mal/ ‘horse’. However, the actual length of a long vowel varies according to the age of speakers. In general, "the younger the speaker the shorter the vowel" principle applies, thus the vowel length variation serving as a reliable paralinguistic index of age and generation in Korean society. At least three degrees of the lexically long vowels may be differentiated, each of which can be assigned to a specific age bracket, say teenagers, people in their thirties or forties, etc. In an extreme case, the long and short vowel contrast may be completely lost, as in the speech of the younger generation.

5.3. Stress and Rhythm

Paraphonetic features can also be found to operate in the speech rhythm of languages.

1) In standard Korean spoken in and around Seoul, a multisyllabic word of CV structure like /hEba-ra-gi/ ‘sunflower’ is pronounced with a stress on the second syllable /ba/, namely /hE-ba-ra-gi/. But in the southern dialect spoken in Gyeongsang province in Korea the stress is shifted to the third syllable /ra/, thus resulting in /hE-ba-ra-gi/, where the stressed syllable is also lengthened and high pitched. The shift of the stress from the second to the third syllable may be taken as a paralinguistic index of the Gyeongsang dialect since nothing in the word has been changed except the dialectal flavor has been introduced.

2) Similarly, the normal rhythmic pattern of a Korean sentence can be replaced by a different rhythmic pattern to add some special effect such as "friendly" and "polite" attitude, etc. For instance, the usual rhythmic pattern "strong-weak-weak" in a Korean sentence like /gabsida/ "Let’s go" sounds unduly "firm" and "definitive". But if the rhythmic pattern is changed to "weak-weak-strong" with the stress shifted to the last syllable /da/, the same sentence conveys much more "friendly" and "polite" attitude of the speaker towards the hearer. Therefore this could be regarded as a classic case of paralinguistic function of speech rhythm.

3) The pattern of speech rhythm varies from language to language as can be demonstrated by the so-called stressed-timed rhythm of English and the syllable-timed French. However, the difference in rhythmic pattern between two dialects of a language can be demonstrated in Korean dialects. The Seoul standard speech is in general closer to the stressed-timed rhythm /sa:ra mi jo:ayo/ “He is a nice man”) whereas the speech rhythm of the dialects of Pyeongan province in the north Korea and Gyeongsang dialects in the south Korea is predominately syllable-timed, in an everyday expression like /sarami joayo/ .

5.4. Intonation

1) The grammatical function of intonation is basically linguistic as can be seen in the transformation of an English statement sentence "You did that." into the corresponding interrogative sentence "You did that?" just by changing the intonational nucleus from falling to rising. Likewise the grammatical function of intonation can be well exemplified by a Korean sentence formed with the final verbal ending /a/ of neutral mood, i.e., /do:ra/ ‘turn’. It can become a declarative sentence "He turns." with a falling intonation, an interrogative sentence "Does he turn?" or an imperative sentence "Turn!" with a high falling intonation.

2) However the grammatical function of intonation is sometimes seen to deviate fro
m the grammatical norm to take up a paralinguistic function. As in English and other languages, the Korean Wh-Question sentence is usually marked by a falling intonation as in 

"What would you like to take?". However, such a Wh-Question sentence is often pronounced by shop assistants or waitresses in a coffee shop and restaurants with a rising intonation, which certainly helps break the ice and convey polite and friendly attitude to the customer. Not the abrupt and business-like attitude expressed by the same sentence said with the falling intonation.

3) Intonational tunes representing attitudinal meanings can be characterized as performing paraphonetic functions in most cases.

For instance, it is widely known that the low fall and high fall tunes imposed on "Yes" in English represent two different attitudes, i.e., "dull/uninterested" and "lively/interested" respectively.

4) Level tune in Korean has a paralinguistic function representing somewhat "arrogant and imposing attitude" of senior and upper-class people. For instance, 

"go" said with a mid-level tune sounds arrogant, imposing and neutral at the same time. Both the verbal ending /ji/ and the intonation tune being neutral as to the mood, it is the context which specifies the mood of the sentence, whether declarative, interrogative or imperative.

5) In Japanese, the segment /le/ with an ultra high fall tune is often used by female speakers engaged in a lively conversation in order to show agreement to a point made by others and to illicit a positive response from the hearer at the same time.

5.5. Speech Tempo

The tempo of speech is also found to operate as an important paralinguistic feature in some languages. The southwestern dialect of Chungcheong province in Korea is widely known for its exceptionally slow tempo of speech. The slow speech tempo is clearly a paralinguistic feature which represents not only the dialect in question but also the peaceful and easy-going character of the speakers. It is perhaps a kind of universal phenomenon that people in anger or engaged in a heated discussion tend to speak faster than usual, but the speakers of the dialect in question are well known for maintaining the slow tempo of speech regardless of the context or situation they are in. On the other hand dialect speakers, specially those of Pyeongan province in north Korea tend to speak at a distinctly fast tempo, thus imparting an impression of "lively", "impatient" and "careless" attitude.

Conclusion

In this paper the nature, function and scope of paralinguistic features have been reexamined and a serious attempt has been made to search paralinguistic features operating at various linguistic and non-linguistic units in several languages. Only those paralinguistic features have been dealt with in this paper which make use of exclusively vocal or phonetic media, disregarding the visual or kinesic features. In view of the growing importance of paralinguistic features, a new term "Paraphonetic feature" has been suggested. Paraphonetic features can therefore be defined as the vocal or phonetic features, produced and utilized irrespective of the intention of the speaker, that can carry out the paralinguistic function in human communication. Paraphonetic features, thus defined, may include
not only prosodic features such as intensity, duration, pitch, speech rhythm and intonation but also segmental units such as vowels and consonants as well as voice quality and airstream mechanism, etc.

References


