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THE HIDDEN ORDER BEHIND HUMAN SPEECH – A TONAL PERSPECTIVE IN ANALYSING WORLD LANGUAGES AND ITS IMPLICATIONS IN SIMPLIFYING THE PROCESS OF LEARNING THE PRONUNCIATION OF GLOBAL LANGUAGES[1]

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ABSTRACT

Traditionally, phonetic alphabets have been devised by linguists to represent sounds of spoken languages. Today, when learning a new language, two widely used phonetic systems are the IPA system and the pinyin system. The IPA system defines tones as nothing more than suprasegmental element of speech. It differentiates between tonal and non-tonal languages. It places emphasis on stress, and marginalizes the existence of tones. For the pinyin system, tones are a basic element of sound.

While we appreciate the differences in approach between these two systems, we notice there has been very little commonality in either system in order to pave the way for a constructive comparison. We are of the opinion that there is a theory, referred to as the Theory of the Six Tones (known also as the Theory of the Hexatave), which defines the common rules of human sound, and can simplify the process of learning how to pronounce words in a new language.

Keywords: linguistics, IPA applications, pinyin wisdom, common features in global languages

1. INTRODUCTION

In the process of learning a spoken language, one of the following two systems is generally used in the world today:

(1) The International Phonetic Alphabet (IPA) system;

(2) A system based on, or derived from, what is known as the pinyin system for learning Chinese (including Mandarin and Cantonese).

2. THE IPA SYSTEM AND THE PINYIN SYSTEM

2.1. Comparison of IPA and pinyin system

The IPA System differentiates between tonal and non-tonal languages. It places emphasis on stress, and marginalizes the existence of tones. It has not elaborated on the origin of tones, or how tones are identified. On the other hand, from the point of view of the pinyin system (or its derivatives), tones are a basic element of sound. Along with what are known as Initials and Finals, the three elements (Initials, Finals and Tones) form the composition of each and every syllable we hear. Yet, up to date, the pinyin system has not addressed the issue why some linguistic experts are of the view that some languages (e.g., English) are non-tonal.

2.2. How the two systems supplement each other

While we appreciate the differences in approach between these two systems, we notice there has been very little common point of contact in either system in order to pave the way for a meaningful and constructive comparison. We are of the opinion that there is a theory, herein referred to as the Theory of the Six Tones, which defines the common rules of human sound. This Theory can be a bridge to connect the gap, and address the difficulties and/ or misunderstandings about tones under both systems. As a result, the process of learning how to speak a new language could be simplified.

3. A DISCOVERY AND POSSIBLE IMPROVEMENTS

Here, we shall explain the theme of this article under the following 3 areas:

1. The Theory of the Six Tones.

2. The wisdom of pinyin system adopted in China.

3. The need to modify the IPA System.

3.1. The theory of the six tones

3.1.1. The essence of the 6 tones in human speech

Essentially, the tones of human speech are comparable to tones in music. The tones in speech

are confined to a band within which there are 6 levels. We call it the "Six-Tone Band". Like the Octave in music, one Six-Tone Band follows another. The lowest tone in one Six-Tone Band is therefore the highest in the next. When human beings speak, a tone is invariably embodied into each syllable. Two tones can be combined to form what appears to be a new tone. Some languages use some of the 6 tones in the Band (e.g. English), others use some others (e.g. Mandarin), and there are some languages, which use all the 6 tones (e.g. Cantonese). A community might have drawn tones from two successive Six-Tone Bands to form the tones used in their languages. This is illustrated by the Mandarin dialect using the highest tone in the higher Six-Tone Band. We have symbolized the tones of the Six-Tone Band by assigning to them a numerical value having 1 as the highest and 6 as the lowest. The extra high tone from a higher Six-Tone Band (e.g., in Mandarin) is assigned the symbol "^". When we compare the tones used in two different languages, we notice that some of the tones are commonly used in both languages, whilst some other tones are used in one language but not in the other.

3.1.2. Use different examples for different students

When demonstrating the 6 tones in the Six-Tone Band, it is desirable to use different sample words and sounds for different listeners, depending on their mother tongue spoken. They should learn from words and sounds they are well familiar with. For English listeners, the following 6 words or sounds, believed to be familiar to English ears are chosen. Thus for Tone 1, one would use the word "sea" as said in "the deep blue sea". For Tone 2, one would use the word "see" as one would say in the exclamation "You see! You didn't listen to what I said, and you are now in trouble!" For Tone 3, one would use "mee" as one would sing "do-re-mee". For Tone 4, one would adopt the sound from the musical "The Sound of Music" as one sings "Far, a long long way to run." For Tone 5, one would use the sound in the syllable "ho" in the word "hotel", and finally for Tone 6, one would use the sound in the syllable "ti" in the word "city". I have chosen words familiar to the English ear to make sure that English students will not forget the examples given to them.

To demonstrate how one would use different demonstrative words to illustrate the 6 tones in the Six-Tone Band in the Chinese language:

For Mandarin speakers, one uses 4 tones: "^", "2", "6-4", and "1" of the Six-Tone Band. Tone ^ can be demonstrated by the character 妈; Tone 2 by the character 麻; tone 6-4 by the character 马; and tone 1 by the character 骂.

For Cantonese speakers, one uses 6 + 1 tones: si1 思, si2 史, si3 肆, si4 市, si5 事, and si6 時 in addition to the extra high tone si^ 詩.

3.1.3. Learning the 6 tones

After becoming familiar with the 6 tones and how they sound like, one is suggested to commit them into memory. The idea is that they should be thoroughly familiar with the minute differences in these tones like knowing do-re-mee-far-so etc., in music, when they learn to sing. To benefit from this newly acquired knowledge, the recitation of the 6 tones as a jingle is a pre-requisite.

3.1.4. Practical use of knowing the 6 tones

The Theory of the Six Tones is a helpful platform from which one can compare the different languages of the world. For example, it is noticed that the English language uses tones 1, 5, and 6 of the Six Tones system, although in rare circumstances, tone 2 is used. Tone 1 can be demonstrated by the syllable "po1" as found in the word "Poland". Tone 5 can be demonstrated by the syllable "po5" in "potential", and tone 6 by the syllable "po6" in "simple".

Thus when we compare the tones found in these two widely used languages - English and Chinese (Mandarin), we notice that Tone 5 of the Band, found in English, is not used in Mandarin. People speaking only Mandarin are used to listening to words in tones ^, 2, 6-4, and 1. They have no experience with Tone 5. For this reason, these Chinese native speakers have a hard time figuring out how to correctly speak English words that are in this tone, and thus, usually have no confidence to speak up. On the other hand, the Cantonese dialect encompasses all 6 tones of the Band, while Mandarin only 4 of them. Thus, it may explain why native English speakers (who are used to using 3 tones in English) would often find it easier to learn Mandarin than Cantonese.

We notice that many people in South East Asia speak English with an accent somewhat different from the people typically brought up in England. A brief analysis into the Malay language may provide an explanation for this phenomenon. For example, the Malay would count the numbers 1 to 5 in their

language as sa3-tu1, du3-a1, ti3-ga1, am3-bat1, lim3-ma1. It is interesting to notice that each word starts with Tone 3 and ends with Tone 1 of the Band. Indeed, it is believed that people in that part of the world are so accustomed to this 3-1 tonal arrangement in their language that when they want to say "coffee", or "morning" or "country", they would respectively pronounce these words as koh3-fi1, moh3-ning1 or kan3-tri1.

Once a student understands the Theory of the Six Tones, he or she would have a way to remind himself or herself how to apply the correct tone to the syllables said in a foreign language. The process of learning the pronunciation of words in a foreign language, including English, is simplified. The simple reason is that looking at the phonetic symbol of a word, e.g., a word in Thai, Cantonese or English, a student has the ability to figure out how to say it, rather than having to listen to what his or her teacher says and then model after it.

3.2.   The wisdom of the pinyin system

We believe the above comparison on the application of tones in various languages has demonstrated the universality on the existence of tones in both tonal and the so-called "non-tonal" languages. Indeed, the pinyin system can be immensely helpful to students wanting to learn a foreign language. This is true whether it is a case of a Chinese wanting to learn English or vice versa. Once it is established that all or any syllable has a tone embodied therein, (and provided the pronunciation of Finals and Initials are mastered), it is clear that every syllable said in any language could be uttered accurately just looking at the symbols, or indeed, the same set of symbols. The wisdom of the pinyin system has made this possible. By insisting that English is a non-tonal language, one would have shut the door for students to use the pinyin system to learn English pronunciation. We respectfully suggest that linguistic authorities do accept the notion that tones are indeed an integral part of all syllables we human beings utter. If teachers of phonetics could reach agreement in this regard, it is perfectly possible to produce a truly international phonetic dictionary to cater for the needs of all languages and dialects.

3.3.   The need to modify the International Phonetic Alphabet System

3.3.1. Suggested modification to the International Phonetic Alphabet System

It is recommended that the International Phonetic Alphabet System requires modification in three important aspects:

(1) A tone for each syllable should be indicated as explained above.

(2) Students should be taught to identify the Finals and the Initials of each syllable they come across, rather than to focus on the pronunciation of consonants and vowels. For example, a student knowing how a vowel is pronounced may still find difficulty in pronouncing a Final derived from that vowel. Thus, one may know how "e" is pronounced and still cannot pronounce "el", "eld", "elf", "elk", "elm", "elp" or "elt" etc.

(3) Considering that most students around the world understand the pronunciation of simple English words, it is suggested that Romanized characters (i.e., letters of the alphabets) should be used to make up the symbols to demonstrate the Initials and Finals of words in different languages. By way of example, the vast majority of students around the World would find it much easier to co-relate the pronunciation of word "close" with the phonetic symbol "klos1" than "kləus". With the modifications herein suggested, the same set of symbols could be used to demonstrate all the syllables of all languages.

3.3.2. How the suggested modifications to the IPA will help in creating a simplified set of phonetic symbols

The following are some examples to demonstrate how a revised IPA will help a student to decipher how words in a foreign language (or dialect) is pronounced:

(1) To say there are no problems with Hong Kong goods:
    "heung1 gong2 foh3 mo4 man5 tai6"

(2) To say I understand in Thai:
    "pom2 kau1 jaai5 lel4".

(3) To count from 1 to 10 in Cantonese:
    "yat1, yi5, saam1, sei3, ng4, look5, chat1, baat3, gau2, sap5".

(4) To say I don't understand in Shanghainese:
    "a3 la1 fat5 dung2 shang6 he1 e6 oh2".

(5) People in Shanghai would say the following to mean "I'd get angry as soon as I see you":
    "ngoh4 keuh3 ji1 nung2 chok1 chi1".

(6) Tibetans would count from 1 to 10 by saying: "jik1 ni1 soom1 shi2 nga4 druk1 du-en1 jed2 goo2 jyoo1".

(7) To say "good morning" in Japanese: "oh5 haai1 yoh1 goh3 jaai2 i1 mask1".

(8) People in Fukien Province in China would say the following to mean "Give him an inch and he would ask for a foot": "nang1 toh2 chim3 goot1".

(9) To learn how to distinguish the 6 tones of Vietnamese, one would be taught to practise saying the following: "ba1, ba5, ba3-2, ba6, ba2, bag5".

(10) English speakers would say "I prefer coffee" (aai5 pri5-fer1 koh1 fi6) whilst people in South East Asia would say: "aai5 pri5-fer1 ko3 fi1".

4. SOME CRITICAL COMMENTS

4.1. Is it necessary to differentiate between Sinitic and non-Sinitic languages in this study?

I see no purpose in drawing a distinction between Sinitic and non-sinitic languages. The one practical difference between spoken Chinese and other languages is that Chinese is mono-syllabic whilst others are multi-syllabic. If we slightly modify the learning process by learning to speak syllable by syllable, applying the correct tone all the way, then, the difference becomes irrelevant.

4.2. Have we considered separately the study of phonetics and phonology in expounding the theory of the 6-Tone?

To expound the 6-Tone Theory, we focus on the study of phonetics. Phonology is appropriate when we go into detail on the peculiarities of individual languages.

4.3. How is the 6-Tone Theory different from earlier propositions?

At the beginning of last century, IPA phonetic methods were already widely used in connection with the teaching of non-Sinitic European languages, yet very little had been done in the way of applying these methods to the study of Sinitic languages. It was with a view to initiate these methods that Daniel Jones and Kwing Tong Woo wrote "A Cantonese Phonetic Reader" in 1912. Throughout the book, Jones and Woo used musical notes to represent the 6 tones of Cantonese [3]. Six years later, in 1918, Daniel Jones adopted the musical notation again in his book "An Outline of

English Phonetics" [2]. If the pitch levels and tone patterns of both Cantonese and English sounds can be represented by the same set of musical notes, we found no reason why we should not explore the possibility of using the 'Six-Tone Band' and the Pinyin system to describe the sounds of global languages. This is verified by additional research on the tone span of English [1].

4.4. Is it fair to level criticism against Western linguists for ignoring the language structures and processing habits in different parts of the World?

There is no intention to level criticism against Western linguists or any party at all. Until we acknowledge the fact that all languages are tonal in nature, so that we have a common platform for comparison, it is not easy to study in depth the minute difference between the tones we hear. The 6-Tone Theory is a bridge to connect the cultural gap.

5. CONCLUSION

Essentially, there are two ways by which one could learn pronunciation of words of a foreign language: The first is by imitation. The second is to learn a method to figure out how to say it. A baby learns through imitation. The electronic dictionary provides models for students to imitate. The Chinese pinyin system provides students with a method to properly produce the sound of different languages. It would be a great loss if we human beings do not learn through this system. This paper has explained why and how the Chinese pinyin system will be of help to students in this regard.

6. REFERENCES

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[3] Jones, D., Woo K.T. 1912. *A Cantonese Phonetic Reader.* University of London Press: London.

[1] In Memory of Professor Daniel Jones and Mr. Kwing-tong Woo, authors of the book "A Cantonese Phonetic Reader", 1912, the latter being the deceased father of the First Author.