A Critical Analysis of the Major Factors of Pronunciation Accuracy

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ABSTRACT

This study investigated the major factors of pronunciation accuracy. Ten target sounds, including phonemes and syllables, are included in the pre-test, an analysis of which shows that the mispronunciation of the randomly chosen target sounds mainly results from L1 negative transfer. It is observed in intervention that some mispronounced target sounds are more difficult to correct than others. However, the hierarchy of difficulty for pronunciation acquisition cannot be constructed without considering the impact of task variables, for even the same subject's performance might vary in post-test including vocabulary reading, sentence reading, and spontaneous speech, in which tasks individual aptitude in perception, mimicry, and monitoring also have a role to play in the improvement of pronunciation accuracy. The study concluded that pronunciation accuracy is an integral part of the speaking process and again on the sidelines of language teaching. Pronunciation accuracy is very important because it is the main source of understanding. If learners cannot utter the correct version of a word, then they are not able to communicate correctly. Pronunciation accuracy helps learners to have a better understanding of speakers and improves their ability to communicate easily and effectively. One of the recommendations made was that pronunciation accuracy should be analyzed as an important part of communication which is incorporated into daily activities.

KEYWORDS: Factors, Pronunciation and Accuracy

Introduction

Pronunciation accuracy is the only aspect of language that calls for close interaction between cognitive and physiological processes. In acquiring new sounds, we are also dealing with a complex re-organizing of the articulator processes (Lund 2003). It is widely observed that foreign language learners might make different types of errors in their communication. Researchers have sought to identify the sources of interlanguage (IL) pronunciation errors, which might contribute greatly to the improvement of pronunciation (Stockman & Pluut, 2002). Contrastive analysis is an early attempt at this aspect. The idea behind this approach is that a comparison of the learners' native language (NL) with the target language (TL) would allow difficulties to be predicted. The English pronunciation of some adult Polish, Spanish, and Chinese speakers suggests that both developmental processes and transfer processes might

influence adult L2 speech production. Therefore, it is important for one to attain as high as possible a degree of accuracy in pronouncing a foreign language. This is especially true for English majors in normal universities, for their utterances will in the future serve as a main source of input on the part of their students, and inaccurate pronunciation seriously disadvantages them as potential English teachers (Liu, 2011). Accordingly, these learners are expected to pay special attention to their pronunciation not only for the goal of success, but also for survival in their future career. Liu and Fu (2011) conducted an empirical study and affirmed the combined effect of instruction and monitoring in improving the pronunciation accuracy of Chinese foreign language learners. However, some issues should be further clarified, such as the source of their pronunciation errors and the potential reasons that result in the subjects' different degrees of improvement after intervention.

Concept of pronunciation

Pronunciation accuracy is a crucial component of the learning of oral skills in a second language (L2). Pronunciation accuracy has always been perceived as a difficult area by teachers and learners. Like listening, pronunciation is sometimes neglected in the process of language teaching in favor of reading and writing, which are rather more likely to lead to success in examination (Ikhsan, 2017). Pronunciation accuracy has an important social value, which means that it should be related to prestige, such as intelligence, professional competence, persuasiveness, diligence, and social privilege. Pronunciation accuracy can provide information about the speaker's geographical and social origin, and in most cases it is the most salient characteristic of non-native speakers (Gelvanovsky 2002). According to Pollard (2008), Pronunciation is an essential aspect of learning to speak a foreign language. Pronunciation accuracy is difficult to some students that English is a foreign language of them. Some teachers and learners complain about difficulties in pronunciation since pronunciation is considered as one of the most complicated but significant features of second language (L2) teaching and learning (Zhang, 2009).

Concept of Negative Transfer

Negative transfer refers to the transfer of effects from the learning of one skill which hinders the learning of another (Lexico 2021). Negative transfer is the interference of the previous knowledge with new learning, where one set of events could hurt performance on related tasks. It is also a pattern of error in human learning and behavior. Negative transfer is the impeding of learning or performance in a situation by learned responses carried over from another situation (Merriam-Webster's 2020). Zhao (2019), negative transfer refers to the interference of mother tongue, sometimes mother tongue cannot promote to learn a foreign language, to some extent even impede the learner to master some new language knowledge; this transfer is named negative transfer). Negative transfer occurs when the learning task of the two languages is relative but different, the learner of foreign language uses the expression and understanding way of mother tongue to replace the way of foreign language. The reason is that the form and the regular system of the mother tongue and the target

language are different but are regarded as same by the learner. The interference of mother tongue is common in the second language acquisition, negative transfer occurs in many ways of language.

Concept of Individual Aptitude

Individuals aptitude assume that a person has inherent strengths and weaknesses, and have a natural inclination toward success or failure in specific areas based on their innate characteristics (Kagan, 2021). Some learners do indeed have an aptitude for language learning and seem to acquire a good pronunciation than others. According to Carroll (2001), four traits constitute language aptitudes, which are: phonetic coding ability, grammatical sensitivity, inductive language learning ability, and memory. The first trait relates to the "capacity to discriminate and code foreign sounds such that such they can be recalled." Grammatical sensitivity concerns "the ability to analyze language and figure out rules." Inductive language learning ability refers to "the capacity to pick up language through exposure." The last component, memory, involves "the amount of rote learning activity needed to internalize something" (Celce-Murcia, Brinton, & Goodwin, 2006). Indeed, aptitude plays an important role in learners' pronunciation development. Though many people have language aptitude ability, but its degree is variable. Some people have more ability but some have less. However, it does not mean that learners who have higher aptitude will be successful but the others will not. Celce-Murcia, Brinton, and Goodwin (2006) pointed out, some learners are in fact fairly balanced in these four traits, whereas others have very strong patterns of strength and weakness. Learners weak in phonemic coding ability would therefore have much more difficulty achieving a readily intelligible pronunciation than those with high aptitude in this domain. Teachers need to be sensitive to such learner differences and not expect all learners to achieve the same level of success in the same amount of time. Gamboa Silva, (2011) said that," learners have same capacity to learn a second language." It means that the students who were mastery in pronunciation had same capacity to learn a second language so the student that had good aptitude would be mastery in pronunciation, but the data was analyzed and found that aptitude was not be the dominant factor influencing students` pronunciation mastery because only 4 of 10 students that had aptitude. 6 of them was influenced by another factor.

Result and Discussion

Table One: Ten vocabulary items in the pre-test (T1)

Word	Acceptable pronunciation	Unacceptable pronunciation	Word	Acceptable pronunciation	Unacceptable pronunciation
Very	/< veri/	[< weri]	Road	/rə< d/	[roud]
Thing	/θ< ŋ/	[s< ŋ]	Window	/< w< ndə< /	[< wendə<]
Had	/hæd/	[hed]	Sun	/s< n/	[sɑng]
Pleasure	/< ple< ə/	[< plerə]	Long	/l< ŋ/	[lɑng]
See	/si:/	[se<]	Down	/da< n/	[dɑng]

Table Two: Words tested in vocabulary and sentence reading

Words tested in vocabulary reading		**Words tested in sentence reading**	
Five	row	live	tomorrow
Faith	wind	think	windy
Mass	run	bad	fun
Measure	song	treasure	strong
C	town	sea	downstairs
Sentences			
(1)	It's windy tomorrow.		
(2)	I think there are lots of treasures in the sea.		
(3)	He feels a strong desire to play downstairs.		
(4)	It's not bad to live in this city, where life is full of fun.		

Table Three: Five Topics in Spontaneous Speech (T4)

1	On Happiness.
2	Sexual Discrimination in China.
3	A Typical Chinese Festival.
4	The Necessity of Environmental Protection.
5	Elaborate on anything which you are interested in.

As it is mentioned in Liu and Fu (2011), the ten target sounds were chosen randomly from teaching practices because of the high frequency of mispronunciation. It is obvious from visual inspection of table 4 that each target sound was accurately pronounced by different percentage of participants in T1 and each was improved to different degrees after the intervention. With reference to the sources of their mispronunciation, the difficulty that each specific sound presents to the participants and the factors that influence their improvement, insights might be gained from an analysis of the participants' performances on each target sound in the tests, their reactions observed during the instruction and the feedbacks from the two scorers.

/v/ and /θ/. These two phonemes do not cause much difficulty to the participants in spite of their non-existence in Mandarin. However, some participants still mispronounced them, and their mistakes can be attributed to the similarity of these two sounds with Chinese [w] and [s]. Fortunately, it was easy for them to identify these two target sounds and pronounce them accurately in T2 and T3, owing to the intervention received. Nevertheless, it was relatively difficult, without the visual help, to monitor the pronunciation of these two sounds appearing in their spontaneous speech. Accordingly, their performances deteriorated slightly in T4, where /v/ appearing in such words as "develop", "however", and "advice" was still mispronounced as [w]. Similarly, the phoneme /θ/ contained in words like "health", "three", and "birth" was mispronounced as [s].

/æ/. Though only 3% of the participants could pronounce this vowel accurately in T1, it was observed during the instruction that this sound was among those that could be

easily corrected and the subjects could produce it correctly in T2. However, the subjects' performances on this sound were not quite satisfying in T4, for this phoneme was often replaced by [e], a sound that is close to Chinese [ai], and thus "happiness" was mispronounced by many participants.

/< /. Only half of the participants produced this phoneme in T4, and 40% of these 15 subjects produced this sound correctly in T1. Though the percentage, compared with the others, was not very low, it caused much difficulty in correction for many subjects. Many words such as "usual" and "division" were mispronounced in T4, with /< / replaced by sound like [r] in Mandarin.

/si:/. As was predicted, many participants substituted [se<] for /si:/ in T1, and it might result from the non-existence of the syllable /si:/ in Chinese, while [se<] has similarity with a sound in the local dialect of Linyi city, which is located at the southeast of Shandong province, China. Fortunately, most of the subjects were capable of pronouncing it properly once the substitution error was pointed out to them. Finally, significant progress was observed in the post-test.

/rə< /. The diphthong /ə< / was often mistaken for Chinese [ou] and the combination of /r/ and /ə< / was often mispronounced as [rou] in Mandarin. Nearly half of the participants made this mistake in T1. Having been used to the pronunciation of [rou], some participants experienced some difficulties in this target sound and could not pronounce words such as "role" and "froze" properly in T4.

/w< n/. This sound was unexceptionally mispronounced as [wen] in Mandarin by all the 30 participants in T1. In addition, the correction of this target sound turned out to be rather difficult. Altogether three participants produced words containing this sound in T4, and only one of them succeeded in its accurate pronunciation.

/< n/. This syllable was usually mispronounced as [ɑng] in Mandarin. Therefore, it was not surprising to note that most participants pronounced the word "sun" as [sɑng] in T1. Though this mistake was quickly corrected by most subjects during the instruction, several learners mispronounced "fun" as something like [fa< n] in T3, which might be attributed to their inferior ability in perception and mimicry observed in intervention. It was also observed that

/< n/ could be mispronounced as Chinese [ɑn] when preceded by /w/, and that is why "one" was produced as [wɑn] by some participants in T4.

/< ŋ/. In spite of the difference between this target sound and the one above, both were mispronounced as [ɑng] by a majority of the subjects. It seemed that this error could be corrected easily once the learners realized where the problem existed, for most of them produced the words "song" in T2 and "strong" in T3 accurately. However, this mistake did reappear in the speech of some students in T4, with [b< lɑng] produced for the word "belong", for instance.

/a< n/. It seemed that this combination presented the greatest difficulty among all the 10 target sounds. All of the 30 subjects in the experimental group substituted [dɑng] for /da< n/ in T1. It was observed during the instruction that many subjects could not produce the diphthong /a< / properly, not to mention its combination with a consonant. In T4, only 2 of the 7 learners succeeded in the pronunciation of this sound, whereas the others still pronounced such words as "found" and "amount" in a wrong way.

The analysis above provides clear evidence to our first hypothesis. That is to say, negative transfer of NL is a predominant force shaping IL pronunciation and this also explains why these subjects exhibited similar substitution habits. In addition, there does exist a hierarchy of difficulty as far as the ten target sounds are concerned, for some mispronounced sounds such as /v/ and /θ/ are much easier for the subjects to correct after intervention than /< /,

/w< n/ etc. However, the hierarchy should be dynamic and different hierarchy structures might be formed with the change of task types. Therefore, it is very difficult to sequence the target sounds exactly due to the interference of task variables.

Table Four: Performances of N in T1, T2, T3, and T4

Target sound		N	Percentage of N			
			T1	T2	T3	T4
1	/v/	30	.63	1.00	.87	.77
2	/θ/	30	.57	1.00	.80	.70
3	/æ/	30	.03	.93	.77	.33
4	/< /	15	.40	.67	.53	.47
5	/si:/	11	.36	.91	.82	.73
6	/rə< /	7	.57	.86	.71	.71
7	/w< n/	3	.00	.67	.67	.33
8	/< n/	20	.05	.90	.80	.65
9	/< ŋ/	11	.09	.82	.82	.64
10	/a< n/	7	.00	.57	.43	.29

Table 4 shows that the most significant progress is achieved in T2 by the participants in the experimental group, whose performances tended to deteriorate gradually in T3 and T4. In T2, the students only needed to direct their attention to the individual words tested in isolation. Therefore, enough time was guaranteed for each participant to monitor their production. In addition, with the learners' concerns for correctness and the help of pronunciation rules learned explicitly, it was not surprising that this task produced the most encouraging results.

Liu, (2011) cited Thompson (1991) observed in his research that "materials artificially constructed with many difficult sounds might exceed the monitoring ability of the experienced SL speakers and might result in greater perceived accentedness than was the case of spontaneous speech". Nevertheless, his argument was partially refuted

by the results of this research, in which the participants generally achieved greater progress in T3 than in T4. Though T3 resulted in better performances than T4, it did, as Thompson (1991) cited by Liu, (2011) argued, place excessive demands on the ability of speakers to monitor their pronunciation. In order to identify the words that contain the target sounds and pronounce them correctly according to the rules learned, it took the participants of the experimental group more time to finish the four specifically constructed sentences compared with their peers in the control group, as was observed during the recording. Consequently, an over-careful style was generally produced in T3 in spite of the higher scores obtained. In T4, attention should be divided among lexical access, syntactic well-formedness, discourse organisation etc., so the participants were not always capable of monitoring their pronunciation accuracy, and thus their scores tended to decrease compared with T2 and T3. Therefore, the first part of the second hypothesis is verified, that is, task variables have their role to play in the improvement of pronunciation accuracy. With reference to the difference in the findings between Thompson's research and this present one, a mitigating consideration lies in the rating method applied in T4. It should be remembered that each target sound was judged to be accurate only when it was properly pronounced in all the words containing it. Therefore, a less strict rating method might result in possible improvement in the scores of T4 and thus the findings of Thompson might be justified.

Conclusion

The study concluded that pronunciation accuracy has being an integral part of speaking process and again to the sidelines of language teaching. Pronunciation accuracy is very important because it is the main source of understanding. If learners cannot utter the correct version of a word, then they are not able to communicate correctly. Pronunciation accuracy helps learners to have a better understanding of speakers and improves the ability of communicating easily and effectively.

Recommendation

1. Pronunciation accuracy should be analyzed as an important part of communication which is incorporated into the daily activities.

2. Government should provide materials that will help citizen to improve their pronunciation accuracy when communicating with peoples.

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