Chinese EFL Students' Errors of Consonant Acquisition

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Abstract

This paper, based upon the Chinese Learner Spoken English Corpus, analyses Chinese college students' common pronouncition errors of English consonants. Statistic analysis indicated the following: (1) The most frequent pronounciation errors were lateral and fricatives; (2) Consonants in which errors occurred during the acquisition were generally of the same type as source consonants; (3) Some errors tended to appear at the specific locations of words, and their distributions in general had no obvious tendencies; (4) Gender differences had little effect upon Chinese EFL learners' consonant pronounciation errors. The main reasons for the Chinese college students' common pronounciation errors of English consonants might be due to the participants' negative transfer of L1 to L2, the overgeneralization of the target language and students' neglect of English pronounciation rules and regularities. Implications and suggestions are provided for the results.

Key words: Errors of English consonant pronounciation; Tendencies of errors; Corpus; Chinese EFL learners

INTRODUCTION

In the past ten years, the focus in English language teaching in China has been shifted to listening and speaking, and remarkable progress has been made in pronounciation teaching as well as researches on phonetics (Cui, 2010; Li, 2011; Hu, 2013; Wang, 2010; Wu, 2012; Zhang, 2010). At the initial stage, researchers simply compared and contrasted the similarites and differences between English and Chinese in terms of phonetic systems (Chen, 2010; Fa, 2011; Gao, 2002; Gao, 2011; Ma, 2004; Tian 2000). In recent years, based upon distinct linguistic theories and various methods, they have been able to study the issues concerning English pronounciation at different levels (Cui, 2012; Mao, 2010; Pei, 2012; Pei & Ding, 2013; Song, 2010; Zhang, 2010; Wu, 2012) and the various aspects of Chinese learners' pronounciation acquisition. Empirical and experimental researches with regard to English pronounciation have been increasing with each passing year (Dai & Lai, 2006; Xv & Wang, 2002; Wang & Sun, 2007). Nevertheless, corpus-based and longitudinal researches are still in urgent and great need.

Within the framework of error analysis theory and based on the Chinese Learner Spoken English Corpus (COLSEC), this paper analyses Chinese EFL learners' common errors of consonant pronounciation in terms of error frequency, error type, error distribution and the effect of gender differences on the errors, aiming to find out the regularities and underlying causes so as to provide implications for teaching English pronounciation in China.

1. THEORETICAL BASIS

Since Selinker's proposal of interlanguage, researches on phonetic system of interlanguage has been one of the focuses in the field of second language acquisition. In spite of the fact that people have different views of some specific relevant issues, the characteristics of interlanguage phonetic system as an independent system has been widely accepted by scholars (Loup, 2008; Major, 2001; Selinker, 1995; Yavas, 1994). Among the researches on rules and regularities of interlanguage pronounciation,

error analysis has gradually replaced contrastive analysis which, as the most basic comparative method of languages, has been used up to now (Yu, 2004).

In China researches with regard to interlanguage phonetic system have benefitted a great deal from the contrastive studies on phonetics between Chinese and English which started in the 1930s-1940s and reached its height in the 1990s, involving the discrepancies in pronounciation between the two languages at various levels (Dai & Lai, 2006). In due course of time theoretical explorations and empirical studies based on various linguistic theories and research methods increased with each passing year (Ma, 2007; Wang, 2004). At the end of the last century researchers began to devote themselvies to finding out the regularities of learners's interlanguage pronounciaton acquisition by means of lareg-scale corpus data (Cheng & He, 2008; Yang & Wei, 2005), and tried to interpret the interlanguage phonetic system from different perspectives, which revealed that interlanguage phonetic research has been gradually developed. In spite of that, the total number of such relevant studies is still limited. Accordingly this paper intends to make an analysis of the regularities of Chinese college students' common errors of English consonant pronounciation and find out the underlying reasons by employing the Chinese Learner Spoken English Corpus (COLSEC) as well as data collected from undergraduates in three consecutive years.

2. RESEARCH DESIGN

2.1 Research Questions
There are three research questions to be answered: (1) Tendencies for Chinese undergraduates' consonant pronounciation errors; (2) Distrubutive regularites of the errors; (3) Effect of gender differences upon the errors.

2.2 Subjects
By employing Yang & Wei's (2005) first-hand corpus in COLSEC, this paper analyses the consonant pronounciation errors of the freshmen in 2010, 2011 and 2012. The participants were composed of 926 undergraduates in all with 399 males and 527 females from Hubei Engineering University, P.R.C.

2.3 Corpus and Method
Up to now, Yang & Wei's COLSEC has been the largest-scale and most authoritive audio corpus which involves widely and extensively with detailed pronounciation error notes for Chinese EFL learners, and thus being more than convincing for analysis.

As for the first-hand data in COLSEC, the researcher classified the labelled single sound pronounciation errors, removed errors which were not clearly labelled or not worth analysing, and eliminated atypical errors and mispronounciations. By analysing the data , the researcher intended to find out the general regularities of

the participants' English consonant pronounciation errors, make contrastive as well as error analyses, aiming to detect the underlying causes for various errors.

3. RESULTS

3.1 Tendencies of Error Frequencies
As it can be seen from Table 1 and Table 2, the most frequent consonant pronounciation error was the lateral /l/, according to the classification of types. Although there was only one lateral in English, it turned out to be at the top of all errors, or there were 156 times of such errors. Lateral was followed by fricatives. Since there were merely 9 such single consonants in English, only the error frequency of /v/, /θ/, /ð/ and /z/ proved to be higher than that of the lateral/l/, respectively 213, 198, 178 and 160 times, followed by other single consonant errors. Other types of errors were successively approximants, nasals, plosives and affricates. If errors of single sounds were calculated in number of times, the fricative /v/ should be at the top of the list, followed by /θ/, /ð/, and /z which are all fricatives, and then the nasal /n/, the approximants /w/, /r/ and the plosive /t/.

While comparing the tendencies of various types of consonant pronounciation errors, the researcher found that participants tended to confuse the same types of consonants, especially plosives and fricatives (see Table 3). For instance, /s/, /θ/ and /ð/ were replaced by /z/, /s/ and /z/; /t/, /p/ and /k/ after /s/ were respectively replaced by aspirates such as /tʰ/, /pʰ/ and /kʰ/. The types which replaced approximants and nasals were different kinds of consonants. Among the approximants, /w/ was replaced by the fricative /v/, and /r/ usually by the Chinese sound "r".

Table 1
Types of Errors and Their Frequencies

Types of consonants	Consonant numbers	Total of pronounciation errors
lateral	1	156
fricatives	8	109.5
approximants	2	45.7
nasals	3	41
plosives	6	29.2
affricates	2	23.5

Table 2
Single Sound Error Frequencies

Source consonants	Error numbers	Source consonants	Error numbers	Source consonants	Error numbers
t	57	d	37	p	41
b	11	k	27	g	2
s	53	z	160	θ	198
ð	178	ʃ	48	ʒ	18
f	8	v	213	w	77
r	60	j	0	l	156
m	12	n	92	ŋ	19
tʃ	19	dʒ	28		

Table 3
Comparison Between Source Consonant Types and Error Types

Source consonant types	Error types			
	Same type	Percentage	Different type	Percentage
Plosives	122	76.7	37	23.3
Fricatives	588	69.2	262	30.8
approximants	5	3.7	131	96.3
lateral	0	0	69	100
nasals	56	48.7	59	51.3
affricates	4	20	16	80
total	797	53.7	688	47.3

3.2 Distribution of Errors

We calculated the number of each consonant pronounciation error at the beginning, in the middle or at the end of words so as to find out the specific location regularities of single consonant error (see Table 4).

Table 4
Distribution of Consonant Pronounciation Errors

Source consonants	Initial	Middle	End
t	11	28	24
d	5	7	29
p	10	31	2
b	5	7	0
k	8	17	7
g	0	0	2
s	15	20	10
z	8	25	133
θ	162	40	24
ð	142	36	12
∫	16	36	4
ʒ	0	22	0
f	0	4	6
v	97	104	63
w	75	5	0
r	34	27	0
j	0	0	0
l	42	56	74
m	0	6	9
n	38	35	25
ŋ	0	0	9
t∫	10	8	5
dʒ	9	20	4

It can be seen clearly from Table 4 that the three single consonants /θ, ð, w/ have obviously more errors at the beginning of words than other consonants which failed to indicate obvious location distribution tendencies. Nevertheless, to what extent these data are convincing has to depend on how frequently these consonants appear at different locations of English words. For example, /w/ is at the beginning of words most of the time and seldom at the end. Similarly, /ŋ/does not appear at the beginning of words and /j/ not at the end. Hence the data with regard to the correspondent distribution proved to be atypical. On the whole, if a student made errors when pronouncing a consonant, there would be no obvious differences between the distributions of the three specific locations.

3.3 Effect of Gender Differences on Consonant Pronounciation Errors

All the data of consonant pronounciation errors revealed that there were 1.98 errors for each male student and 1.56 for each female ($p > 0.05$), which was atypical. Hence it can be concluded that there is no significant effect of gender differences between Chinese EFL male college students and female ones with regard to consonant pronounciation errors.

4. DISCUSSION

In the first place, let's look at the consonant type who had the most frequent single sound errors. Among these consonants fricatives and lateral had the most errors, and in Chinese there are no fricatives such as /θ/, /ð/ and /z/ in English. The types of the consonant pronounciation errors were respectively six, nine and eight, indicating that Chinese EFL college students did have difficulties in the acquisition of the consonants that Chinese phonetic system does not have and that Chinese learners had not obtained the correct way of pronouncing these English consonants. Since they had not formed the appropriate habit of pronounciation, the types of errors tended to be discrete, espacially in dialogues, which could be clearly seen in the disperse of error types for the approximant /r/ (eight types of errors) and the lateral /l/ (seven types of errors). The causes might be due to the fact that Chinese learners do not know much about the regularities of English phonetic system and the spelling-pronounciation corrspondence of English consonants. In comparison with Chinese phonetic system, there are more consonants in English. Thus there are some English sounds which do not exist in chinese phonetic system and are easily replaced by similar Chinese single sounds. This phenomenon is a typical negative transfer of mother tongue in second language acquisition.

The data of comparison between error types and source consonants indicated that some English fricatives could be easily replaced by approximate Chinese ones, while voiced plosives tended to be replaced by their corresponding voiceless sounds. The reason for the former might be that there are no consonants of the same type in Chinese. As for the latter, the reason should be that Chinese learners are unaware of the typical contrast between voiceless consonants and voiced consonants in English. The negative effect of L1 transfer can partly account for the above phenomenon. At the initial stage learners in a very great degree failed to become fully aware of English pnonetic system so that they had to replace some English sounds with Chinese ones. In addition, their pronounciation errors were not corrected in due course of time so that fossilization somehow

occurred. In a word, Chinese EFL learners' inappropriate replacement of English consonants by Chinese ones had much to do with their English teachers' phonetic knowledge system and teaching at the initial stage of English learning (Du, 1998; Lai, 2010).

Secondly, There seemed to be no differences with regard to the distributions of consonant pronounciation errors within words as well as between male and female students' errors, which may reveal that there are some problems to be generalized for Chinese college students in their English consonant acquisition. Once a single sound is mispronounced, the same error will occur at all the locations of words and in the same wrong way. Such universality may imply that there is much room for improvement in China's English phonetic teaching. Although in the past decades the authorities have been advocating listening and speaking first, phonetic knowledge and ability as the most important part of phonetic course, have not attracted sufficient attention of Chinese researchers as well as EFL teachers at all levels. As intermediate and advanced learners, college students still have severe problems in their English pronounciation, which is indeed a great regret in both EFL teaching and research in China.

CONCLUSION AND SUGGESTIONS

With the guidance of error analysis theory and based on the Chinese Learner Spoken English Corpus (COLSEC), this paper analysed Chinese EFL learners' common errors of consonant pronounciation in terms of error frequency, error type, error distribution and the effect of gender differences on the errors and found out the main characteristics and causes for the errors. Hence the following conclusion can be arrived at : (1) The most frequent pronounciation errors were lateral and fricatives; (2) Eerrors of consonant acquisition were generally of the same type as the source consonants; (3) Some errors tended to appear at the specific locations of words, and on the whole, their distributions had no obvious tendencies; (4) Gender differences had little effect upon Chinese EFL learners' consonant pronounciation errors. The main reasons for the above errors might be due to the participants' negative transfer of L1 to L2, the overgeneralization of the target language and students' neglect of English pronounciation rules and regularities. Based on the above conclusion, the researcher has three suggestions to propose for China's EFL phonetic teaching.

Firstly, EFL teachers' qualities should be improved and researches in this field have to be made. EFL teachers, in particular those who teach students' at their initial stage, are no doubt the first to be imitated by students. Researches indicate that in China English has been taught all over the country, there is a very great need of EFL teachers, especially qualified ones for students at their initial stages. The point is that not all of the teachers have been well-trained and they do not have very high phonetic qualities. In addition, there have been insufficient researches which aim at teachers' English phonetic proficiency and EFL ability development.

Secondly, students are supposed to be strengthened in their phonetics at different stages. As a form of the most direct and facial language expression, phonetics should be one of the most important part of EFL teaching at all stages of language learning. In the course of practical teaching, teachers should teach phonetics according to learners' ages and cognitive capabilities. For example, at the initial stage, the most important thing is for students to imitate, to get to know spelling-pronouniation rules so as to master the specific rugularities of English sounds. When it comes to the intermediate and advanced stages, teachers should let the students know something about English phonetic system and combine it with language practice so that students become aware of the differences between English and Chinese phonetic systems from the perspective of knowledge system and fossilization can be avoided.

Thirdly, both teachers and students' awareness of phonetics should be improved. As for the importance of learners' phonetic awareness and how to improve their phonetic proficiency, Chinese researchers have done some work, but they still have a very long way to go (Wang, 2010). Teachers should first of all realize the significance and necessity of the improvement of learners' phonetic awareness. In addition, it is essential to increase teachers's phonetic awareness. Only in this way can teachers meet the students' practical need and improve their phonetic proficiency in due course of time.

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