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## Affecting Factors of Native-Like Pronunciation: A Literature Review

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Teaching and learning native-like pronunciation is one of the most complicated but significant features of EFL and ESL teaching and learning. Due to its complexity, pronunciation has been looked upon as the “Cinderella” of language teaching. This paper firstly emphasized the importance of pronunciation for learners. Based on reviewing a great of research and theories that are relevant to affecting on pronunciation, the paper categorized these affecting factors into internal and external factors. Internal factor focuses on L2 learner themselves, and relates to biologic factors(i.e., age, ear perception, and aptitude) and individual differences(i.e., personality, attitude, motivation, identity, individual efforts, and goal setting), while external factor involves L2 learners’ learning environment, and relates to learners’ native language, exposure, and educational factors. The paper attempts to explain how these factors affect learners to get a native-like pronunciation from a comprehensive perspective, and gives some suggestions for pronunciation teaching.

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Key words: native-like, pronunciation, age, individual difference,  
native language

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## I. Introduction

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. Good pronunciation can promote language learning whereas poor pronunciation can lead to a great hindrance in L2 learning.

Many learners who thought English as a foreign language(EFL) or a second language (ESL) seek to master native-like pronunciation, and want to speak English accurately and fluently. However, some L2 learners have lots of problems with pronunciation because of a wide range of affecting factors.

These affecting factors in pronunciation include more than just phonetic symbols and rules, and it also involves the articulation of individual sounds and the distinctive features of sounds like voice and aspiration, voice-setting features (Esling & Wong, 1983) and stress, intonation, and rhythm. Pennington and Richards (1986) argued there were a range of factors that should be considered as a part of pronunciation, such as native language interference, age affecting. Therefore, in order to make pronunciation teaching and learning effective, it would be worthwhile to take these affecting factors into account.

This paper addresses the factors that affect native-like pronunciation in ESL and ESL situation. It firstly emphasizes the importance of pronunciation, and reviews some research and theories that are relevant to pronunciation. The affecting factors of native-like pronunciation are categorized, by and large, two domains that named as internal and external factors, and attempts to explain how these factors affecting native-like pronunciation.

## II. The Importance of Pronunciation

As individuals, we always learn to speak earlier than learning to read and write. Learning a language means to performance the sounds, utterances, and the words

properly and correctly. One of the general goals in the L2 learning, maybe the most important one, is to speak the target language accurately and fluently like native speakers.

When we talk to other people in English, the first thing they notice, which can create good impression about the quality of our language ability, is our pronunciation. Poor and unintelligible pronunciation will make unpleasant and misunderstanding for both speakers and listeners. In addition, it is clear that limited pronunciation skills will make learners lose their self-confidence and result in negative influence for learners to estimate their credibility and abilities (Morley, 1998).

Lund (2003) pointed out, “pronunciation is the only aspect of language that calls for a close interaction between the cognitive and physiological processes. In acquiring new sounds we are also dealing with a complex re-organising of the articulatory processes” (p. 16). Good English pronunciation will make people understand you easily and be willing to listen to you. Contrarily, poor English pronunciation may confuse people and lead to an unpleasant talking and misunderstanding, even if you used advanced English grammar or vocabulary. Therefore, we can use simple words or grammar structures to make people understand you, but we cannot use simple pronunciation.

According to Gelvanovsky (2002), pronunciation 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 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. Some studies also find that pronunciation usually relate to the indispensable factors for socio-economic success: intelligence, professional competence, persuasiveness, diligence, social privilege, and so on (Hudson, 1980; Dalton & Seidlhofer, 1994).

In addition, pronunciation is vocalized in communication and can be considered as a kind of culture. In the process of talking or speaking, the speaker’s expression, describing or explaining can build up his/her individual cultural space *modus vivendi*, which the cultural space contains the system and hierarchy of values and the individual world view.

The importance of pronunciation was emphasized by many learners, teachers, and researchers, but it should be noted that language learners always have some difficulties

with pronunciation. A lot of researchers contribute to find the factors that affect pronunciation from various perspectives, such as physiology, psychology, and linguistics.

### III. Literature Review

What should be drawn to one's attention is that, in the process of communication, pronunciation plays a crucial role, since successful communication cannot take place without correct pronunciation. Poorly pronounced segments and suprasegments may have the result of disorienting the listener and inhibiting comprehension.

Pronunciation has been seen as the Cinderella of language teaching due to its complexity (Kelly, 1969). It is believed that only few learners can ever attain native-like pronunciation in the foreign language, especially those who learn to speak a second language after puberty (Lenneberg, 1967).

Research in pronunciation is a hot issue in second language acquisition (SLA), and a great of researchers attempted to find the affecting factors for pronunciation. Among these studies, some studies focus on the learning age's affecting for SLA (Harley, 1986; Mackay, Flege, & Imai, 2006), some studies addressed the length of residence in the target language country (Flege, Bohn, & Jang, 1997; Flege & Liu, 2001), and other studies focus on the frequency of using L2 (Flege, Mackay, & Meador, 1999).

Kenworthy (1987) listed the factors that affecting native-like pronunciation. These variables include native language, age, exposure, innate phonetic ability, identity and language ego, motivation, and concern for good pronunciation. Incontestably, it is not easy to give an intact list for affecting factors in pronunciation.

Among innumerable researchers, age seems the indispensable topic for pronunciation. Most of the research (e.g., Flege, 1999; Moyer, 1999; Piske Mackey & Flege, 2001) have been used as evidence to support the Critical Period Hypothesis (Lenneberg, 1967). The general consensus was the younger the better. Younger children learn L2 more easily and quickly than older children (Mayberry & Lock, 2003; Ellis, 2008; Larsen-Freeman, 2008). However, most of these studies concentrated only on immigrant communities.

The influence of psychological factors in SLA have examined by other studies, such

as the capacity of the learners' working (van den Noort, Bosch, & Hugdahl, 2006). Some studies consider the factors other than age (Moye, 2004; Scovel, 1988), and focused on the differences of individual language learners in second language phonological competence. However, some factors have not been explored extensively in L2 pronunciation research, for example phonological memory.

Recent research has demonstrated that acculturation may play a prominent role in learners' language acquisition (Hamers, 1994; Toohey, 2001; He, 2006). Among these studies, some researchers argue that attitudes towards the target language and target community may affect L2 proficiency (e.g., Hamers, 1994; Toohey, 2001) while others indicate that learners' attitudes do not affect L2 proficiency. Also, Norton & Toohey (2001) reported that social factors may influence children' L2 acquisition. But, it has not been examined the specific effects of social identity on language learners' L2 pronunciation accuracy.

As we know, different research method and different research context result in different findings. However, we recognized that there are many factors affecting pronunciation. These factors may be changeable or unchangeable, may be explicit or implicit, and may be internal or external. Based on the research, this paper attempts to analyses affecting factors of native-like pronunciation from a comprehension perspective.

#### IV. Affecting Factors of Native-Like Pronunciation

Wong (1987) stated that the teaching of pronunciation "is not exclusively a linguistic matter" (p.17) and we should take some factors into account, such as, learners' age, native language.

Based on reviewing previous research and theories about affecting pronunciation, the paper will newly categorize affecting factors of native-like pronunciation into two areas, which are named internal and external factors. Internal factor focuses on L2 learner themselves, and involves biologic factors(i.e., age, ear perception, and aptitude) and individual differences(i.e., personality, attitude, motivation, identity, individual efforts, and goal setting). External factor involves L2 learners' learning environment, and relates to

learners' native language, exposure, and educational factors.

## Internal Factors

### Biologic Factors

#### Age

The importance of age as a main factor in SLA field is widely recognized. The general consensus goes like that the younger the better when acquiring a new language and the more accurate her/his pronunciation will be in the target language. Biologically, it has determined period of life when language can be acquired more easily and beyond the period language learning is increasingly difficult to acquire.

Critical Period Hypothesis(CPH) was proposed by Lenneberg in 1967, which claimed that there is a critical age period for language learning(perhaps around puberty). If learners do not learn a foreign language before a certain age, they maybe cannot obtain a better pronunciation than those who learn a foreign language at a proper age. As Nation and Newton (2009) stated,

Usually, if the learner began to speak in the second language before the age of six there will be little or no accent. If the learner began to speak between the age of seven and eleven, the learner is likely to have a slight accent. If the learner began to speak after age of 12, the learners almost always have an accent. (p. 78)

Both positive and negative perspectives for CPH have been given by different researchers. A vast amount of research has been supported CPH and regarding age as primary factor in SLA. It is accepted by most people that it is difficult to have a native-like pronunciation for learners who learn a foreign or second language after puberty. Oppositely, some research (Snow & Marian, 1978; Johnson & Newport, 1989) suggested that "children and adults L2 learners pass through different developmental states in second language learning. Learning depends on the cognitive maturity and neurological factors" (Bista, 2009, p. 13)

"In fact, the CPH was offered as an explanation for why many adults trying to learn a second language seem to have a hard time achieving native-like pronunciation. Indeed, some researchers indicated that as few as 5 percent, or fewer, adult learners could ever

achieve anything like native-like fluency in a second language” (Miller, 2004, p. 2). For the relationship between age and pronunciation will be still controversial.

### Brain

As mentioned above, it seems that children have advantages than adults in language learning. The child’s brain is plastic to compare with an adult, but after 9 years old, brain is growing matures and some functions are assigned to left and right hemisphere, and it will become difficulty to approach to native-like pronunciation. Therefore, the brain gradually becomes stiff, rigid and diminishing plasticity of the brain.

Some researchers and neurologists have claimed that there is a strong relationship between language learning and lateralization. Lenneberg (1967) hypothesized that lateralization is a slow process, and it begins about the age of two and it will be completed about puberty. Before the age of two, the brain has not developed enough, but after puberty it developed too much, and it will lose its plasticity and finish the lateralization of the language function. Therefore, it is believed to be difficult for learners to acquire fluently and accurately native-like pronunciation in a second language when complete lateralization.

However, some researchers hold the opponent point, and indicated that plasticity survives puberty even till to twenties; they still have the possibility to achieve native-like pronunciation (Lund, 2003). It suggests that the human brain has the ability to change and develop over time.

### Ear Perception

Ear perception is a factor that always ignored by many people. There is a common sense that different people have different level of hearing abilities. Some people have a better ear capacity for language learning but some learners do not. Those who have good ear capacity can easily discriminate between two sounds more accurately and be able to imitate different sounds better than others, and result in their pronunciation approach to native speakers.

It is noteworthy that ear capacity relates to learners’ age. That is to say, learners may gradually lose some of their abilities when they become older, and it will difficult for them to pronounce the target language with a native or near native-like accent.

### Aptitude

Some learners do indeed have an aptitude for language learning and seem to acquire a good pronunciation than others. According to Carroll (1962, 1981), 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, 1996, p. 17).

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 (1996) 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 (p. 17).

### Individual Differences

#### Personality: Extraversion and Introversion

Learner’s personality also affects the acquisition in native-like pronunciation. Generally speaking, individual personality relates to extraversion and introversion. The consensus seems that extroversive characteristic plays a positive role on learning native-like pronunciation learning but introversive does not.

Learners who are sociable, courageous, talkativeness, and like to make friends and join groups, tend to express themselves and take part in every activities actively.

Therefore, they have more opportunities to use the target language and improve their pronunciation. Contrarily, a typical introvert as someone who is very shy, quiet, like to stay alone, introspective, and like reading books more than talking with people, cannot find any opportunities to speaking in the target language and practice their pronunciation.

The different personality leads to the different learning style. Compare with extroverted learners, introverted learners are afraid of making mistakes, losing face, feeling nervous when speaking in front of others, feeling uncomfortable in their first attempt at speech in English, and afraid of failure, laughter and ridicule.

In addition, young learners like to perform themselves in front of others, and speaking out their mind without shying. However, with getting maturation, learners become more and more sensitive and do not want to perform themselves in front of others. It is also an important reason that young learners acquire a L2 quickly than adults.

#### Attitude, Motivation, and Identity

Pronunciation is also affected by learners' learning identity and attitudes. "The strongly determine the accuracy of learners' pronunciation are a person's 'sense of identity' and feelings of 'group affiliation'" (Buranavityawut, 2000). Each learner brings different attitude for the target language and the target language community, and it can support or hinder pronunciation skills development.

If a learner has some prejudices or a negative attitude to the target language and community, it will bring bad influence for his/her language learning. For example, some people do not believe that it is necessary to learn a second language, and they think language learning will influence the learners' cultural development in a negative way, and their culture will be imposed on the target language community. Contrarily, if a learner has a positive attitudes and opened-mind for the target language or target culture, it will promote his/her pronunciation development easily and accurately and more have a native-like accent. As Cenoz and Garcia Lecumberrri (1999) pointed out, "in many cases, speakers tend to adopt more or less successfully the pronunciation they value as more positive or the pronunciation they identify with for both their first and second language" (Guiora & Schonberger, 1990).

Motivation is seen as one of the keys that influence the rate and success of language learning (Dörnyei, 1998). Motivation is described as an inner drive, impulse, emotion, or desire that moves one to a particular action. It is said high learning motivation can facilitate language learning and lower learning motivation can influence language learning rate.

It is remarkable that some factors such as intelligence, aptitude, and self-confidence have much contribution to the formation of motivation. For example, to motivate the less intelligent learners will be more difficult than those learners who have better intelligence because these learners cannot appeal to their needs.

Typically, there is intimate relation between motivation with and attitude. According to Gardner and Lambert (1972), motivation can be divided into two basic types, which are instrumental and integrative motivation. The former relates to the utilitarian gains, such as getting a better job, going to a good university, passing an exam. The latter involves positive attitudes toward the target language and target language community, or wants to become a member of the target language community. Gardner and MacIntyre (1991) claimed that instrumental motivation and integrative motivation can promote language learning.

Therefore, if the learner has highly motivation to have a better pronunciation, they will become more eager to take part in the activities and pay more attention to discriminate the sounds of the target language, and grasp any opportunities for using the target language.

#### Individual Efforts and Goal Setting

For many EFL and ESL learners, classroom is the only learning setting for L2 learning. However, we must always remember that teaching never causes learning, but rather creates the conditions in which learning can occur. Therefore, individual efforts become a crucial factor for L2 learning. Have a good pronunciation is not easily for many learners and it needs persistence and a long time to practice, just like making muscle. The more time the learner spends in pronunciation, the better pronunciation will be.

Most studies demonstrated that L2 learner's goal is to produce and to perceive the native-like speakers. "There continues to be debate about whether the model for foreign

language learners should be native-speaker or non-native-speaker English, and if native-speaker English should it be British, American or some other regional pronunciation” (Nation & Newton, 2009). Therefore, we should bear in mind that good pronunciation does not mean perfect American or British accent but sound native-like and intelligible pronunciation.

Therefore, it is important to set up an appropriate goal for pronunciation. It may be not perfect pronunciation but effective communication should always be the ultimate goal. Generally, good pronunciation relates to intelligibility and acceptability. Intelligibility seems to be highlighted by many researchers. Levis (2005) pointed that learners should consider the intelligibility principle and understand as the goal to set up a native-like goal. Jenkins (2002) argues that intelligibility must be the main criterion and describes what calls ‘the Lingua Franca Core’ which consists of phonological and phonetic features that ‘seem to be crucial as safeguards of mutual intelligibility’ in interlanguage talk’ (Nation & Newton, 2009).

### External Factors

#### Native Language

General consensus is that learners’ native language plays a central role in the precise acquisition of pronunciation in a new language. That is to say, learner’s first language is a significant factor to account for foreign accents and influences the pronunciation of the target language. It often relates to interference from the mother tongue, and to cause errors in aspiration, stress, and intonation in the target language, for example, Chinese is a tone language while English is a highly stressed language.

Rivers (1968) pointed that all learners had experiences that they meet a great difficulty in understanding what foreigner said. This is not because of their lack of knowledge of vocabulary, language structure or grammar, but because the sounds they produce seemed peculiar and the voice rose and fell in unexpected places.

Most teachers’ experiences and research studies show that the learners’ first language plays a major influence on learning the sound system of another language (Nation & Newton, 2009). That is to say, every language in the world has different varieties and different accents. “Needless to say, learners of a language speak the target language in

a different way: sometimes slightly different and sometimes highly different than the native speakers' do, which we call foreign accent, the nature of which is determined to a large extent by a learner's native language" (Avery & Ehrlich, 1987, p. 9).

When beginning to acquire a new language, the learner generally tries to employ existing phonological categories from the native language. That is to say, if a particular sound which does not exist in the native language can therefore make a difficulty for learners to find a similar sound in their mother tongue. As if a sound does exist in the native language, but the place of articulation or the manner of articulation of the sound is quite different between two languages, it is also the difficult for learners.

Many researchers attempt to find the differences in the processing of the target language pronunciation by comparing the sound systems between the target language and learners' native language. The results showed that the more differences the sound systems have, the more difficulties the learner will face, but not means impossible. To sum up, if a learners native language has the similar sounds with the target language, it will be easily for him/her learning.

#### Exposure

Exposure, it is difficult to define (Brown, 2007). Generally, it relates to the length of time that the learners live in a target language environment. It does not matter the place or country the learners stay, but depends on how much they use English in their daily life. The more they spend their time for listening and speaking English, the better their English pronunciation will be. According to Krashen (1982), learners acquire a L2 primarily from input, which learners receive a large amount of comprehensible input before speaking.

Children of immigrants may be given as an example. Since these children start their second language learning process in the target language speaking environment, they have more advantages than the children who try to learn the target language in their motherlands because there are differences between the language using and learning. Relates the factor to learners' age, it seems that if young children are exposed to more than one language before the age of puberty, they seem to acquire all languages equally well since it has been claimed that children are better at language learning than adults.

However, it does not simply mean that learners who live in the target language

country will have good native-like pronunciation. On the one hand, the key point is whether the learners grasp every opportunity using the target language and take full advantage of the environment. If the learners have been living in an English-speaking country, then the learners will have many opportunities to listen to and to use English since they will be surrounded by the English speaking environment. In addition, it's very important that they have the desire to associate with native speakers and get to know the new culture and customs.

On the other hand, it should be bear in mind that there are many people who live in an English speaking country, but spend much time within a non-English speaking environment or stick to their native-speaking group even though they are in English speaking country. For this reason, it is not merely exposure that matters, but how the learners respond to the opportunities. Senel (2006) stated that,

Exposure can be a contributory factor, but it cannot be a whole and necessary factor for the development of pronunciation. If a learner is aware of the necessity of being exposed to the target language, she/he should make use of its opportunities. If the learner does that, she/he will be more successful in case of improving his/her pronunciation. (p. 115)

#### Educational Factors

Educational system is an implicit but indispensable factor for L2 learning. It is affected by national social politics, economy development, and national traditions. If the country implements positive educational politics or creates a good learning environment for language learning, it will be good for learners' language learning. Good educational conditions can provide more opportunities for learners to contact the target language or the target language community.

It seems that if a learner lives a non- English speaking country, it will be no advantage for him/her, because learners do not have opportunity to use the target language in a real environment, since except their classrooms and they only be exposed to focused-listening. On the one hand, School should provide space or conditions for students to practice. On the other hand, teachers should encourage students to speak and create opportunities for students to practice. As Celce-Murcia, Brinton, and Goodwin (1996) pointed out,

In EFL settings, especially those where students have little opportunity to surround themselves with native input in the target language, the burden will fall more on the teacher to provide an adequate model of the target language, and to ascertain that students have opportunities outside of class(e.g., in language-laboratory or learning-center environments) to experience samples of the authentic oral discourse of native speakers; similarly, it will fall to teachers to encourage out-of-class conversational use of the target language. (p. 17)

However, many EFL/EFL teachers think pronunciation is too complicated and difficult to teach, and ignore the importance of teaching students with good pronunciation. Here, we have to mention about teacher's accent. As we know, the students' pronunciation mostly depends on teacher's pronunciation and seen teacher's pronunciation as a model. Therefore, it is important for teachers to improve their pronunciation firstly.

## V. Conclusion and Suggestions

This paper lists some important factors that affect native-like pronunciation from a comprehensive perspective. In the case of internal factors, we believed that the younger the learners start to learn L2, the better they can master the language, and this also relates to the brain development, ear perception and innate phonetic ability. Many researchers suggest that, positive attitudes and opened-mind will promote learners pronunciation development and let them accurate and have a native-like accent. Also, if the learner has highly motivation to have a better pronunciation, and set up an appropriate goal for pronunciation, they will master the target language pronunciation much better.

For external factors, native language plays a central role in the precise acquisition of pronunciation in a new language. The learner will easily learn if their native language has the similar sounds with the target language. Exposure is another important affecting factor that includes the attitude that the learner respond to opportunities using the target language.

Having a good pronunciation can help in the communication, particularly intelligibility

(Derwing & Munro, 2005). The better we pronounce the better people understand us. It is unquestionable that these affecting factors have different influences in pronunciation. Some of these factors are unchangeable, for example, it is impossible for us to change the age and phonetic ability of the learners. It is clear that the influence of age is undeniable in language learning process. However, some factors are changeable, such as, some educational factors.

For education factors, teachers play a crucial role for students' learning. Pronunciation is one of the significant aspects of foreign language teaching; also, it is a very serious task. It must be borne in mind that teachers are the models for their students. So, first of all, they should have good pronunciation; otherwise, they can mislead their students. Therefore the teacher should spend some time on teaching pronunciation.

In the process of pronunciation teaching, it is difficult to teach without practice, but students may be boring and depressing for drilling an individual sound for more than a few minutes one time. Therefore, it is important to combine practice pronunciation exercise with more meaningful exercises. Teachers should help students set up an appropriate goal of pronunciation and try to improve their learning motivation, and this will be an important part in language teaching.

## References

- Avery, P. & Ehrlich, S. (1987). *Preliminary Considerations in the Teaching of Pronunciation*. London, England: TESL Center.
- Bista, K. K. (2009). *Age as an affective factor in second language acquisition*. Retrieved September 8, 2009, from [http://www.esp-world.info/Articles\\_21/Docs/Age.pdf](http://www.esp-world.info/Articles_21/Docs/Age.pdf)
- Brown, H. D. (2007). *Teaching by Principles: An Interactive Approach to Language Pedagogy(3rd ed.)*. White Plains, NY: Pearson Education.
- Buranavityawut, N. (2000). *Factors which affect pronunciation learning*. Retrieved September 10, 2009, from [http://media.ngberger.com/\\_ngb\\_kt1/00000010.htm](http://media.ngberger.com/_ngb_kt1/00000010.htm).
- Carroll, J. B. (1962). The prediction of success in intensive foreign language training. In R. Glaser (Ed.), *Training, research, and education(pp.87-136)*. Pittsburgh: University of Pittsburgh Press.
- Carroll, J. B. (1981). Twenty-five years of research on foreign language aptitude. In K. C. Diller (Ed.), *Individual differences and universals in language learning aptitude (pp.83-118)*. Rowley, MA: Newbury House.
- Celce-Murcia, N., Brinton, M. D., & Goodwin, J. M. (1996). *Teaching Pronunciation: A Reference for Teachers of English to Speakers of Other Languages*. Cambridge, NewYork: Cambridge University Press.
- Cenoz, J. & Garcia Lecumberri, M. L. (1999). The acquisition of English pronunciation: learners' views. *International Journal of Applied Linguistics*, 9(1), 3-17.
- Dalton, C. & Seidlhofer, S. (1994). *Pronunciation*. NewYork, NY: Oxford University Press.
- Derwing, T. & Munro, M. (2005). Second language accent and pronunciation teaching: a research-based approach. *TESOL Quarterly*, 39(3), 379-398.
- Dörnyei, Z. (1998). Motivation in second and foreign language learning. *Language Teaching*, 31, 117-135.
- Ellis, R. (2008). *The Study of Second Language Acquisition (2nd ed.)*. Oxford, England: Oxford University Press.
- Esling, J. H. & Wong, R. F. (1983). Voice quality settings and the teaching of

- pronunciation. *TESOL Quarterly*, 17, 89-95.
- Flege, J. E. (1999). Age of Learning and second-language speech. In D. Birdsong (Ed.), *Second language acquisition and the critical period hypothesis* (pp.101-132). Mahwah, NJ: Lawrence Erlbaum Associates.
- Flege, J. E., MacKay, I. R. A., & Meador, D. (1999). Native Italian speakers' perception and production of English vowels. *Journal of the Acoustical Society of America*, 106, 2973-2987.
- Flege, J. E., Bohn, O. S., & Jang, S. (1997). Effects of experience on non-native speakers' production and perception of English vowels. *Journal of Phonetics*, 25, 437-470.
- Flege, J. E. & Liu, S. (2001). The effect of experience on adults' acquisition of a second language. *Studies in Second Language Acquisition*, 23, 527-552.
- Gardner, R. C. & Lambert, W. E. (1972). *Attitudes and Motivation in Second Language Learning*. Rowley, MA: Newbury House.
- Gardner, R. C. & MacIntyre, P. D. (1991). An instrumental motivation in language study: Who says it isn't effective? *Studies in Second Language Acquisition*, 13, 266-272.
- Gelvanovsky, G. V. (2002). Effective pronunciation teaching: principles, factors, and teachability. In P. V. Sysoyev (Ed.), *Identity, culture, and language teaching*. USA: CREEES.
- Guiora, A. & Schonberger, R. (1990). Native pronunciation of bilinguals. In J. Leather & A. James (Eds.), *New Sounds 90* (pp: 26-36). Amsterdam: University of Amsterdam.
- Hamers, J. F. (1994). Role des reseaux sociaux dans le maintien de la langue maternelle, dans le developpement bilingue et dans le developpement de la litteracie [The role of social networks in maintaining the native tongue, in the development of bilingualism, and in the development of literacy]. *Bulletin suisse de linguistique appliquee*, 59, 85-102.
- Harley, B. (1986). *Age in Second Language Acquisition*. Clevedon, Avon: Multilingual Matters.
- He, A. W. (2006). Toward an identity theory of the development of Chinese as a heritage language. *Heritage Language Journal*, 4, 1-28.

- Hudson, R. A. (1980). *Sociolinguistics*. Cambridge, England: Cambridge University Press.
- Jenkins, J. (2002). A sociolinguistically based, empirically researched pronunciation syllabus for English as an International language. *Applied Linguistics*, 23(1), 83-103.
- Johnson, J. S. & Newport, E. L. (1989). Critical period effects in second language learning: the influence of maturational state on the acquisition of English as a second language. *Cognitive Psychology*, 21(1), 60-99.
- Kelly, L. G. (1969). *25 Centuries of Language Teaching*. Rowley, MA: Newbury House.
- Kenworthy, J. (1987). *Teaching English Pronunciation*. London: Longman.
- Krashen, S. D. (1982). *Principles and Practice in Second Language Acquisition*. Oxford, England: Pergamon Institute.
- Larsen-Freeman, D. (2008). *Techniques and Principles in Teaching(2nd ed.)*. New York: Oxford University Press.
- Lenneberg, E. H. (1967). *The Biological Foundations of Language*. New York: Wiley.
- Levis, J. (2005). Changing contexts and shifting paradigms in pronunciation teaching. *TESOL Quarterly*, 39(3), 369-377.
- Lund, K. (2003). *Age and accent*. Retrieved September 8, 2009, from <http://inet.dpb.dpu.dk/infodok/sprogforum/Espr26/Lund-eng.PDF>.
- MacKay, I., Flege, J., & Imai, S. (2006). Evaluating the effects of chronological age and sentence duration on degree of perceived foreign accent. *Applied Psycholinguistics*, 27, 157-183.
- Mayberry, R. & Lock, E. (2003). Age constraints on first versus second language acquisition: Evidence for linguistic plasticity and epigenesis. *Brain and Language*, 87(1), 369-384.
- Miller, S. F. (2004). *Pronunciation and the adult ESL learner*. Retrieved September 8, 2009, from <http://www.pde.state.pa.us/able/lib/able/fieldnotes04/fn04eslpronunciation.pdf>
- Morley, J. (1998). Trippingly on the tongue: Putting serious speech/pronunciation instruction back in the TESOL equation. *ESL Magazine*, 1, 20-23.
- Moyer, A. (1999). Ultimate attainment in L2 phonology: The critical factors of age, motivation, and instruction. *Studies in Second Language Acquisition*, 21, 81-108.

- Moyer, A. (2004). *Age, Accent and Experience in Second Language Acquisition: An Integrated Approach to Critical Period Inquiry*. Clevedon: Multilingual Matters.
- Nation, I. S. P. & Newton, J. (2009). *Teaching ESL/EFL listening and Speaking*. New York: Routledge.
- Norton, B. & Toohey, K. (2001). Changing perspective on good language learners. *TESOL Quarterly*, 35, 307-322.
- Pennington, M. C. & Richards, J. C. (1986). Pronunciation revisited. *TESOL Quarterly*, 20(2), 207-225.
- Piske, T., MacKay, I., & Flege, J. E. (2001). Factors affecting degree of foreign accent in an L2: A review. *Journal of Phonetics*, 29, 191-215.
- Rivers, W. M. (1968). *Teaching Foreign Language Skills (2nd ed.)*. Chicago, IL: Chicago University Press.
- Scovel, T. (1988). *A Time to Speak: Psycholinguistic Inquiry into the Critical Period for Human Speech*. Rowley, MA: Newbury House.
- Senel, M. (2006). Suggestions for beautifying the pronunciation of EFL learners in Turkey. *Journal of Language and Linguistic Studies*, 2(1), 111-125.
- Snow, C. E. & Marian, H. H. (1978). The critical age for language acquisition: Evidence from second language learning. *Child Development*, 49(4), 1114-1128.
- Toohey, K. (2001). Disputes in child L2 learning. *TESOL Quarterly*, 35, 257-278.
- Van den Noort, M. W. M. L., Bosch, P., & Hugdahl, K. (2006). Foreign language proficiency and working memory capacity. *European Psychologist*, 11(4), 289-296.
- Wong, R. (1987). *Teaching Pronunciation: Focus on English Rhythm and Intonation*. Englewood Cliffs, NJ: Prentice Hall Regents.

## 국 문 요 약

### 영어발음에 미치는 요인분석: 문헌연구

장천매 (중앙대학교 대학원 석사)

본 연구는 제2외국어 학습에서 원어민수준(native-like)의 발음 중요성을 강조하고 학습자의 영어발음구사에 영향을 미치는 요인에 대한 관련연구를 학습의 내적·외적요소로 분류하여 조사하였다. 영어발음구사에 영향을 주는 내적요소로는 학습자의 생물학적 요인(예를 들어, 나이, 청각인지 및 태도)과 개인차(예를 들어, 성격, 태도, 동기, 정체성, 개인적 노력 그리고 목표설정), 그리고 외적요소로는 학습자의 학습 환경과 모국어, 노출 및 교육적 환경과 밀접한 관련성을 맺고 있는 것으로 조사되었다. 본 연구는 영어 학습자의 발음습득에 영향을 주는 요소를 분석한 후, 이와 관련하여 올바른 발음 교수를 위한 제언을 하였다.

주제어: 원어민수준, 발음, 나이, 개인차, 모국어