

Fossilization:

Implication for Teaching Phonology in a SL Classroom

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Introduction

Although it has been shown that there exist the ability to attain native like proficiency in morphology and syntax, the inability of many adult second language learners to achieve such proficiency in pronunciation has often intrigued linguists (Adjemian, 1976; Ellis, 1986; Long; Tarone, 1979).

The purpose of this research is to examine age as one of the factors that leads second language (SL) learners to stop processing language data in certain ways and to make suggestions to help them. Following research on second language acquisition (SLA), we will pay attention to the term "interlanguage" (IL) as the first significant theory, which tries to explain SL acquisition; and also to the term "fossilization" as the phenomenon that leads to the freezing of SL learners' interlanguage. We will consider age as one of the most important factors that affects the lack of progression towards the target language (TL), especially in phonology. Finally, we will suggest implications for SL classroom learning, providing possible solutions to help learners develop their pronunciation skills.

1. Interlanguage

The term “interlanguage” (IL) was introduced by the American linguist Larry Selinker (1972) to refer to the SL adult learner’s grammatical system. He described “interlanguage” as a separate linguistic system based on the observable output which results from a learner’s attempted production of a TL (Selinker, 1972: 214). It differs systematically from both the native language and the target language.

In addition to Selinker’s study, there are other notions on IL which are currently involved in the study of SLA. Since SLA work done in the 1960’s and 1970’s (Adjemian, 1976; Corder, 1967; Nemser, 1971; Ellis, 1986; Tarone, 1979), IL has been defined as a series of grammars developed by the language learner at different stages of the SLA process. The IL grammar can be systematic, permeable, transitional and discrete.

IL grammars are systematic in that they exhibit internal consistency. The IL is a system to its own right with forms that neither belong to first language (FL) nor second language (SL). As ILs are assumed to be natural languages, they contain a system of linguistic rules. Although ILs are systematic, they also show some degree of permeability. This permeable nature of IL allows either for the adoption or transfer of rules, or forms from the native language to the IL grammar, as well as overgeneralizations of an improper IL rule in SL contexts (Adjemian, 1976: 308; Ellis, 1986, 50).

ILs are transitional because they can change over time. The term “transitional competence” has been used to describe the set of grammatical intuitions about an IL, which a learner possesses at any given point (Adjemian, 1976: 299; Omaggio, 2001: 476). The fact that interlanguage is progressive and dynamic implies that learners will keep on learning more, therefore over time their competence will change. However, just because systems are dynamic, this does not mean that there is no stability, or that everything is always in flux (Ellis, 1986: 48).

ILs are discrete in the sense that there are differences between an IL grammar and subsequent ILs, which can be developmental stages. Such developmental stages follow

the process known as “U-shaped behaviour” or “backsliding”. Selinker (1972) used the term “backsliding”, as Christian Adjemian pointed out (1976), to refer to the regular re-appearance of fossilized errors that were thought to be eradicated. In other words, the learner falls back on forms in her IL which are more stable than the corresponding forms in the target language.

1.1. Interlanguage in adult second language learners

It has been observed that a SL ceases to develop at some point becoming short of full identity with the target language. Tarone notes that “a central characteristic of any interlanguage is that it fossilizes” (1994: 1715). As David Birdsong argues, fossilization has been considered as a lack of success in SL attainment: “From its origins in the early 1970’s fossilization has been associated with observed non-native likeness. Historically, the diagnostics of fossilization have been pegged to the native standard, and indeed the theoretical linchpin of the construct of fossilization is non-nativeness” (qtd. in Han and Odlin 2006:8).

As Selinker (1972) notes, relatively few SL adult learners reach native-speaker competence. Adults tend to stabilize their language learning at a certain stage and thus the development of the language can cease. The reason for fossilization to occur resides in those SL learners who have achieved a level of competence that ensures communicative success. As Patsy Lightbown speculates: “Fossilization happens when the learner has satisfied the need for communication and or integration in the target language community, but this is a complicated area, and the reasons for fossilization are very different to determine with any certainty” (2000: 179). There are many factors that influence learners: motivation, aptitude, learning strategies, age, personality, cognitive style, etc. This study mostly focuses on age, but this is not to affirm that this is the sole variable that influences the process of acquiring a SL.

2. Age as a relevant factor for SLA

Age is a decisive factor that distinguishes adult SL learning from child SL learning. The relationship between age and SL learning is not as simple as one may think.

Rod Ellis states that the age at which SL learners start learning determines the level of accuracy that can be reached: "rate and success of SLA appear to be strongly influenced by the age of the learner" (1986: 104). He also claims that although children learn at the same rate or slower than older learners, children are more likely to go further than older learners.

2.1. Critical period

The commonly held belief is that children are better language learners than adults. According to the Maturation State Hypothesis (Long, 1990: 255), the human language capacity for language learning declines with age. Maturation constraints predict younger learners will do better than older learners in SLA, this is to say, that those learning an SL during the critical period¹ will do better than those learning a SL after the language capacity has deteriorated. The inability of older learners to achieve native like proficiency suggests that there is a critical period for adult SL learning.

Learners must be exposed to the language before the age 15 to achieve a native like proficiency in morphology and syntax, however only learners who start learning a SL before 6 develop pronunciation completely. After this age, they can become communicatively fluent but they will always have some noticeable accent: "very high standards can be attained starting later, of course, but not, it seems, native like standards" (Long, 1990: 266). Thus, children are the only ones whose phonological attainment can achieve native like pronunciation (Ellis, 1986: 107).

¹ The critical period occurs when language acquisition takes place naturally and effortlessly (Ellis, 1986: 107).

2.2. Cognitive factors

Another negative implication that comes with age is the orientation learners adopt towards a language. Cognitive affective factors are different in younger and older learners. In this respect, adults have the ability to comprehend language as a formal system. This is to say, adults can learn about a language by consciously studying linguistic rules (Ellis, 1986: 108). For children, language is a tool for expressing meaning.

Furthermore, the cognitive development refers to the greater ease with which young children learn languages. Children are less conscious of what they are doing. Ellis (1986: 109) considers this absence of “meta-awareness” beneficial. This is the reason that leads children to learn a SL automatically.

2.3. Affective factors

Affective factors refer to the ability of younger learners to respond easily to the foreign language culture. Ellis (1986: 109) asserts that children can move through the stages of acculturation more quickly because they are seen as less culture-bound than adults.

3. Implications for SL classroom

We have highlighted the difficulties that SL adult learners encounter while learning a language, however not everything depends on them. If adults are more impeded in acquiring SL phonology than children are, then we need to create extra courses and provide activities for adults to achieve more fluency and confidence to speak. Teachers can encourage and guide SL students to learn pronunciation through a communicative approach. A communicative approach avoids making learners study lists of vocabulary, phonological transcriptions or syntactic structures; it supports meaningful and useful language learning by means of real world tasks. Context is important for a communicative methodology. Teachers tend to focus on topics that the learners already know

something about and emphasize common circumstances or settings in which a person uses language.

The Communicative Approach, which started in 1980 and is currently dominant in language teaching, holds that since the primary purpose of language is communication, using language to communicate should be central in all classroom language instruction. According to Marianne Celce-Murcia et al “this focus on language as communication brings a renewed urgency to the teaching of pronunciation” (1996: 7). Our study will highlight some basic principles that will help adult learners keep developing their SL in every linguistic domain, paying special attention to phonology.

3.1. SL learners must hear different sources of input.

Vivian Cook points out that the uniqueness of SL teaching in a classroom involves two different approaches: “language as the medium by which the organization and control of the classroom take place...and...language as the actual subject matter that is being taught” (1996: 121). Recent communicative teaching methods follow Stephen Krashen’s Input Hypothesis. This hypothesis states that it is essential that SL learners are exposed to “comprehensible input”² (Gallaway and Richards, 1994: 240; Lee and Van Pattern, 2003: 26). Language may come first from the teacher providing students with authentic language, defined as “language constructed to fulfil some social purpose in the language community” (Cook, 1996: 123). With the new methods that looked at the communicative situation the students were going to encounter, exercises and courses had to turn away from specially constructed classroom language (non-authentic language) to pieces of language that had been really used by native speakers (authentic language), whether films, conversation CDs, advertisements from magazines, train timetables or other sources. In Cook’s study, it is suggested that there are two justifications

² James Lee and Bill Van Pattern (2003: 26) refer to “comprehensible input” as the most important characteristic of input from the learner’s point of view. The learner must be able to understand most of what the speaker (or writer) is saying if acquisition is to happen.

for the use of authentic text in communicative teaching: a) Motivation and interest because students will be better motivated by texts that have served a real communicative purpose. b) Acquisition-promoting content because authentic texts provide a rich source of natural language for the learner to acquire language from.

The Input Hypothesis leads teachers to emphasize meaning, meanwhile conscious approach to the study of form is considered to have only modest value in the language learning process. A. Omaggio believes that "meaningfulness and familiarity of second-language materials play a crucial role as learners begin to develop their second language skills" (2001: 144). Furthermore, he thinks that learning must be meaningful to be effective and permanent. Meaning can be emphasized by relating input to the learner's existing knowledge. Teachers can activate relevant background knowledge to facilitate learning and retention of new material. Acquirers, who go for meaning, get phonological forms and grammatical structures much more easily (Omaggio, 2001: 44). In addition, the Input Hypothesis advocates a stage by stage approach where input can only be slightly above the student's level of proficiency. The SLA model expands Krashen's idea stating that target language input acts as a potential starting point for acquiring aspects of a SL (Lee and Van Pattern, 2003: 26).

Students in the classroom follow a language learning process where comprehension precedes production in speech. A lot of the target language input goes over the learners' head but only the one that is comprehended semantically has the potential to be acquired. Then, this input is transformed into intake. "Intake" is the language that gets processed in working memory in some way.

There are some processes that learners use to derive intake from input. For instance, in a conversational interaction, learners negotiate the flow and quality of input directed to them. Learners may ask for repetitions and clarifications. These signals cause interlocutors to modify their speech to facilitate the learner's comprehension.

Example: Teacher: Did you have a nice weekend?
 Student: Sorry?
 Teacher: Friday, Saturday, Sunday...did you have fun?

It has been suggested that the optimal situation would be to learn from many different native teachers, thus exposure to different kinds of input (Celce-Murcia et al, 1996: 18). This is unlikely because the number of teachers that a learner is exposed to is usually quite limited due to financial constraints. However, it has been proven that all types of input are beneficial: teacher's language, conversation CDs, advertisements from television, DVDs, other students' interlanguage, etc. (Cook, 1996: 130).

3.2. SL learners must produce large quantities of output.

Although input alone is sufficient for creating a system, input is not sufficient for developing the ability to use language in a communicative context. The kind of processing which is required for comprehension is different from the kind of processing which is required for production and ultimately for acquisition. Producing language serves second language acquisition in several ways. For instance, it enhances accuracy and fluency (Lee and Van Pattern, 2003: 170).

Most learners attend classes where they share the teacher's attention. One to one tutoring is too costly. However, nowadays there are more ways that bring the opportunity of producing foreign language speech. Communicative methods can be combined with computer based materials. This is to say, an automatic system may be used as a complement to the human teacher in pronunciation training. The fluency project at Carnegie Mellon University (CMU) (Eskenazi: 1996) shows how the use of Automatic Speech Recognition (ASR) can help students to improve their accents in a foreign language. Although other studies have worked with a recognizer for learning grammatical structures, vocabulary and culture, Maxine Eskenazi focuses on pronunciation training because he

considers it of great importance: "Below a certain level, even if grammar and vocabulary are completely correct, effective communication cannot take place without correct pronunciation because poor phonetics and prosody can distract the listener and impede comprehension of the message" (1999: 66-67).

This project enables students to participate actively in meaningful conversations by using elicitation techniques. It has been proven that students give appropriate responses to any elicitation sentences in a carefully constructed exercise. This technique provides a fast moving exercise for the students. They achieve automatic reflexes to build an utterance during a real conversation. Consequently, they will be able to maintain a conversational tempo rather than searching for correct structures and words.

Sentence structure and prosody exercise for the FLUENCY Project (bold words are the focus of the exercise).

System: When did you **meet** her? (**yesterday**) - I met her yesterday.

Student: When did you **find it**?

Student: I found it yesterday.

System: **Last Thursday**

Student: I found it last Thursday.

System: When did **they** find it?

Student: They found it last Thursday.

System: When did they **introduce him**?

Student: They introduced him last Thursday.

3.3. SL learners must receive good feedback

Eskenazi (1999: 68) claims that ideal teachers point out incorrect pronunciation any time, however it is necessary to refrain from intervening too often in order to avoid discouraging the student from speaking. We just have to prevent errors from being repeated several times and from becoming hard-to-break habits. The pace of correction,

that is, the maximum amount of interruptions per unit of time that is tolerable, must be adapted to fit each student's personality. Helpful feedback implies that the type of correction offered will give students the tools to deal with other aspects of the same pronunciation problem. Feedback is important to help learners to be critical listeners and develop the ability to notice and autocorrect their own and other's errors. The role of the teacher must be that of a facilitator rather than of an error corrector.

3.4. SL learners should feel at ease in the SL classroom.

According to Eskenazi (1999: 73), student's confidence can be increased by correcting them only when necessary, reinforcing good pronunciation, and avoiding negative feedback. Therefore, one to one instruction is beneficial as it allows students to practice in front of the teacher alone, until they are comfortable with the newly-acquired sounds.

Adapting feedback to the amount of interruption that each student can tolerate is another way to avoid discouraging active production and to obtain better results from correction. When learners are forced to produce sounds that do not exist in their native language in front of their peers, they tend to lose self-confidence (Eskenazi, 1999: 73). As a result, they may stop trying to acquire SL pronunciation by relying solely on FL sounds. Adult learners need to feel self-confident and motivated in order to produce new sounds without inhibition. Learners who are ill at ease have a higher risk of performing poorly, or even abandoning the phonological component completely.

Finally, it is relevant to point out the positive effects that interlanguage discourse might bring to second language learners because non-native students' interaction creates less anxiety and leads to longer conversations (Gallaway and Richards, 1994: 237). Interlanguage input and output in SLA within a small group of learners in SL classes can increase students' opportunities for oral language use. Small group tasks can provide practice in extended, negotiated, varied conversation, which move beyond the display

question-answer sequences that often characterize the teacher's fronted oral activity. As interaction occurs between peers, the resulting interlanguage discourse can satisfy students' needs and interests. Clare Gallaway and Brian Richards (1994: 237) underline that certain kinds of learner-learner interactions can be very helpful in providing language practice.

3.5. Prosody must be emphasized.

When students start learning a new language, some time must be devoted to practice phonemes and intonation that are not present in their native language. This is important because a person with good segmental phonology but with incorrect timing and pitch will be hard to understand. Intonation is the glue that holds a message together. It indicates which words are important, disambiguates parts of sentences, and enhances the meaning with style and emotion.

The teacher can really make a difference in the learning of a second language. Input addressed to non-native students is quite different from the language used in adult native-like conversation. It is possible to use a modified input where some linguistic adjustments (stress, pause, strategies to repair) take place (Lee and Van Pattern, 2003: 42). They can help learners recognise prosody.

Particularly, for phonological and intonation improvement, these last four principles have been taken into account in a computer-based program known as Connected Speech (CS) (Egbert, 2004: 16-21). The goal of the software is to improve clarity and accuracy of spoken communication and to help students to develop effective communication skills. CS is theme based; it incorporates video speeches on different topics. Nine people from different North American accents and ways of speaking provide stories and information to the learner. It provides very easy speech to comprehend and this may assist learners to develop listening skills. Learners can reproduce the sounds through a large number of exercises. The software involves pause groups, pitch change, word and

syllable stress and linked words and also has exercises in minimal pairs and syllable recognition. CS is intended as a supplement to classroom instruction. Then, the instructor can develop communication tasks so that learners get opportunities for real practice.

Conclusion

This research study has focused on age as a relevant factor to be taken into account in adult SL teaching. Due to the Maturation State Hypothesis, phonology is probably the aspect of SL that age affects the most. As we have already mentioned, the age 6 is the beginning of a decline in phonological abilities (Long, 1990: 266). The children exposed to the SL can achieve native like accent. Older learners can only attain high standards with explicit instruction. Specially, adults need sensitive help because they are aware of the need to develop the skill component. They do not consider pronunciation as a knowing-that, but a knowing-how. In addition, adults are more culture bound than children.

In order to help SL adult learners in the learning process, this research study supports the Communicative Approach where the teacher acts as a facilitator for the students, material is contextually meaningful and there is constant use of the SL in the classroom. Teachers' language is particularly important to language teaching because it enhances a great quantity of input, leads to communicative discourse and marks prosody. Cook suggests: "The classroom is a variable, not a constant. Teachers can adapt it in whatever way suits the students and their aims" (1996: 129).

We believe that the constant exposure to input, sufficient opportunities to use the target language, the enhancing role of the teacher to guide and give corrective feedback where necessary, and a relaxed atmosphere in the classroom can prevent or at least minimise fossilization. Furthermore, as it has been proved (Eskenazi, 1999; Egbert, 2004), the use of computers and automatic speech processing brings new possibilities for foreign language pronunciation training. If students can be guided to use the computer as

a complement to classroom instruction, the increased practice time can help their learning.

We should take into account that fossilization occurs with both teachers and students accepting it as an inevitable part of SLA. Ellis affirms that everything in an SL classroom can help students to go further: "The end point of SL acquisition- if the learners, their motivation, tutors and conversation partners, environment, and instrumental factors, etc, are all optimal- is to be as proficient in SL as in FL" (1993: 315). It is therefore our hope that this research study encourages teachers to investigate the phenomenon of fossilization in SL adult learners and to develop more teaching techniques to achieve a better SL learning.

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