

### *Input or intimacy*

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#### Abstract

According to the critical period hypothesis, the earlier the acquisition of a second language starts, the better. Owing to the plasticity of the brain, up until a certain age a second language can be acquired successfully according to this view. Early second language learners are commonly said to have an advantage over later ones especially in phonetic/phonological acquisition. Native-like pronunciation is said to be most likely to be achieved by young learners. However, there is evidence of accent-free speech in second languages learnt after puberty as well. Occasionally, on the other hand, a nonnative accent may appear even in early second (or third) language acquisition. Cross-linguistic influences are natural in multilingual development, and we would expect the dominant language to have an impact on the weaker one(s). The dominant language is usually the one that provides the largest amount of input for the child. But is it always the amount that counts? Perhaps sometimes other factors, such as emotions, come into play? In this paper, data obtained from an English-Persian-Hungarian trilingual pair of siblings (under age 4 and 3 respectively) is analyzed, with a special focus on cross-linguistic influences at the phonetic/phonological levels. It will be shown that beyond the amount of input there are more important factors that trigger interference in multilingual development.

*Keywords:* multilingual acquisition, general language effort, input, emotionality

## 1. Introduction

In the course of multilingual development, the immediate linguistic environment substantially influences the speaker's language repertoire and linguistic configuration. The main factor facilitating the development of the multilingual system, the general language effort, is determined by the speaker's recognition of his/her communicative needs. During childhood, it is the parents' responsibility to support the child's language development and make it possible for him/her to meet his/her communicative needs in all the languages being acquired.

Multilingual acquisition is more complex than bilingual acquisition because the number of languages and their acquisition order increase the complexity encountered in bilingual systems. It is assumed that bilingualism is the simplest form of multilingualism since important changes occur in the learner of a language as soon as the number of languages involved is more than two. This can be attributed to the fact that acquiring two languages leads to the development of specific meta-skills, concerning the acquisition of language systems as a whole that certainly affects the nature of the language acquisition process (Herdina & Jessner, 2002). Mastering three or more languages creates a more comprehensive and heavier language load for the relevant speaker, which has an influence on language stability and language maintenance effort, the effort required to maintain a working multilingual system.

De Houwer (2001) carried out a large scale study of data collected in Flanders on trilingual families to try to find out what proportion of the families concerned provided a realistic chance for their children to become trilingual. The findings of the study, as the author outlines, are quite disappointing: Only about two fifths of the children in the survey, who could have been speaking three languages, actually did. This says a great deal about how difficult it is to maintain and transmit all three languages in a family. As far as children are concerned, De Houwer believes that the likelihood of becoming trilingual is affected by the parental input patterns, that is, whether Dutch (the language of the external environment) is spoken at home, and also whether the parents' language use overlaps entirely, partially or not at all. The presence of Dutch may be an inhibiting factor since, being the language of the environment, its deployment in the home too seriously erodes the communicative need for the use of the other two languages.

The most important criterion determining language growth is the general language effort (GLE), which comprises language acquisition effort (LAE) and language maintenance effort (LME) (Herdina & Jessner, 2002). There is an inversely proportional relationship between LAE and LME. The acquisition of a third language, as a rule, places new demands on the GLE of the speaker. If the speaker cannot increase the amount of GLE, the speaker has to reconsider GLE to meet

the demands of the new system. If the speaker's overall GLE does not suffice to underpin the coexistence of the three language systems, transitional trilingualism may be observed, that is, one language system, following a period of transition, may overwhelm and completely replace the other two language systems.

It appears likely that the existence of a motivational effect is one of the determining factors that leads to the increase of GLE. According to the dynamic model of multilingualism (Herdina & Jessner, 2002), the key to the development of GLE is the multilingual person's communicative needs, which determine positive or negative growth. The greater the (multilingual) communicative needs as perceived by the speaker, the greater the (general language) effort of the speaker to meet these requirements. Herdina and Jessner outline two types of communicative needs: effective and perceived communicative needs. Effective needs, according to the authors, are determined by the actual communicative requirements of the speaker. Perceived communicative needs relate to the fact that a speaker learning a language will anticipate a situation in which his/her language requirements will change; that is, he or she will be required to communicate with speakers of an L2 or L3 to a greater extent than has been the case heretofore. Communicative needs are comprised of personal and social factors. Personal factors refer to the individual circumstances of the speaker, whilst the social factors refer to the speaker's external language environment. The personal environment can be seen as embedded in the social environment. Factors determining language acquisition progress, that is, the rate of change in terms of positive or negative language growth, can be subdivided into age factors, motivational factors, perceptual factors and anxiety.

The age factor in second language acquisition has been both supported and rejected. Supporters of the critical period hypothesis (cf. Lenneberg, 1967) believe in the age-related benefits and constraints of language development both in L1 and in additional languages. They believe that the age of language acquisition has an effect on bilingual or multilingual development, especially at the phonetic level. It is suggested that, owing to the early plasticity of the brain, in early childhood, the articulatory base adapts more easily to the sounds of the acquired language(s), which is less successful at later ages. Räsänen and Pine (2014) claim that proficiency is expected to be greater if a language is acquired early in life in multiple social contexts. However, there are also reports (e.g., Ioup, 1995) of adult language learners who attained a native-like accent and proficiency in their new languages. DeKeyser (2000) found differences between infant and late L2 learners in terms of language learning mechanisms. According to him, children rely on implicit learning while adults can employ explicit learning. However, at this point, another factor comes into play: the manner of language acquisition.

In instructional learning, more conscious learning mechanisms are activated while under natural language acquisition circumstances, general cognitive changes are more reflected. Becoming bilingual or multilingual has a tremendously positive effect on cognitive development (Bialystok, 2001; Barac & Bialystok, 2012) in general. Bialystok also underlines that children exposed to two or more languages in their early childhood must acquire and apply different strategies while developing their languages. This improves brain activity, and impacts not only on the acquisition of a new language but also on any sort of learning (Marian & Shook, 2012) and mental activity. Learning through instruction or in a naturalistic setting not only enhances different brain and mental activities, but also determines the degree of emotionality of the languages in speakers of more than one language (Räsänen & Pine, 2014).

Singleton (2014) believes in the key role of motivation in multilingual development and claims that good results in second language learning can be achieved at any age as long as the person has perseverance. Motivation is mentioned mostly in educational research (cf. Dörnyei, 2001). However, the notion of integrative orientation also has an impact on the developing multilingual, which may efficiently influence the language acquisition process and its outcome. A positive attitude and motivation to learn additional languages and a desire to fulfil the effective and perceived communicative needs will make multilingual development successful.

Many researchers claim that the quality and quantity of input from the target languages play a crucial role in the configuration and proficiency levels of the languages in the multilingual mind. Some infant bilingualism researchers (e.g., Deuchar & Quay, 2000) discuss the situational framework of linguistic exposure for bilingual families, which may create a more balanced amount of input in the two or more languages. While the *one parent – one language* strategy works excellently in most cases, if either parent has significantly less chance to provide input for the child in their language, the resultant bilingual development does not lead to a quasi-balanced state of the languages in the mind. It is also known, however, that language dominance is natural (Grosjean & Li, 2013) and can be partly related to the complementarity principle, which suggests that a bilingual or multilingual person uses his or her languages in different domains of life, respectively. Grosjean also claims that there are hardly any “balanced” or “true” bilinguals (Grosjean, 2010). Still, for the developing bilingual or multilingual child, equal or relatively equal amounts of exposure to each language are desirable if the goal is the fostering of functional multilingualism.

A number of studies deal with how parental input relates to children’s language development and what strategies bilingual parents use to socialize their children’s use of two (or more) languages (Lanza, 2007; Quay, 2008). Tare and Gelman

(2011) analysed English-Marathi bilingual families' dyadic conversations, and they highlight the importance of pragmatic differentiation, metalinguistic strategies and sociolinguistic factors in the language choices of the children. In their study, in the presence of a third (monolingual) party, the children did not show pragmatic sensitivity, which reflects the children's knowledge of the limitations of the monolingual speaker. Metalinguistic strategies used by the parents clearly help the children develop their metalinguistic awareness through discussing language differences, asking the children to give translation equivalents, and so on.

Emotionality is an interesting issue. One might suggest that the degree of emotionality is related to language dominance: The more comfortable one feels in a language, that is, the higher the proficiency level in that language compared to the other language(s) spoken by the person, the more intimate one's relation to that language. One would think that emotions may best be expressed and articulated in the language that provides comfort for the speaker. Räsänen and Pine (2014) in their study found support for the relevance of starting age and proficiency for language and the emotions, but Aycicegi and Harris (2004) came to the conclusion that a nonnative language may have the same, or even stronger emotional connotations than the native language. There is also a presumption that a graded emotionality exists across the languages spoken by a person. These contradictory results indicate that further research is needed to uncover the determining factors in respect of degree of emotionality.

In what follows, on the basis of my study carried out with two children in the process of becoming trilingual, I will present

1. the manner of becoming trilingual;
2. the functional distribution of languages in the childhood trilingualism in question and, in relation to this, the role of the motivational factor and the degree of emotionality in multilingual language growth;
3. the GLE employed by trilingual children and especially by their parents with the goal of encouraging the children to develop their LAE;
4. the struggle against transitional trilingualism in trying to maintain the existence and development of all three languages;
5. the cross-linguistic influences in developing multilingualism.

## 2. Participants, methods

The girl and the boy are siblings born in Canada in a family where the mother is a Persian-English bilingual and the father is a monolingual English Canadian. The children were raised bilingually since their birth. They were exposed to both English and Persian, though the mother was not aware of it. The parents did not

follow the one parent – one language principle and spoke consciously in English to the children and between themselves. However, the mother unconsciously used Persian as well, mostly when the father was away. In this respect, we can speak about something similar to bilingual first language acquisition (De Houwer, 1995) in terms of English and Persian, though the amount of input in Persian was so limited that the mother was not even aware of it. The parents spoke in English at home so English became the language of the family. The mother's first language was Persian, and the father also acquired it to a certain extent. However, unlike the mother, the father never used it at the production level with the children. Later on, when the family moved to Hungary, the mother claimed that the children were being raised monolingually in English, and that she never taught them Persian.

The acquisition of the third language, that is, Hungarian, for the children started when the family arrived in Hungary, when the girl was aged 2;11 and the boy was aged 1;10. The children started attending a Hungarian monolingual nursery school, and the parents started working at the University of Veszprém, Hungary. The acquisition of the third language was going on in natural settings for the whole family though the motivation was much more intense on the side of the children since they had no choice but to adjust both culturally and linguistically to the Hungarian monolingual environment. The parents, on the other hand, had no such drive as they were teaching English or other subjects in English for English major students at the Department of English.

I visited the family fortnightly and observed the children's language growth mainly in the third language. At the same time, it was inevitable for me to follow the parents' attitude towards the languages and especially towards the new language that was available in the immediate linguistic environment. In the first year, I recorded dyadic conversations with the mother, playing sessions when the children were alone and playing sessions with an interlocutor. After a year the family moved to another town; thus in the second, third and fourth years of the observation the visits became less frequent. I recorded the children on audiotape every three months. The recordings were transcribed and the transcripts were included in the CHILDES database (Navracsics, 2004).

### 2.1. Language use in the family

At the beginning of the investigation the family used English at home, and so the dominant language for the children was English. However, when the children were alone with their mother, they were exposed to some Persian as well. This language usage was, though, very restricted, according to the mother. Hungarian was the language of the immediate environment, and the nursery school

the children attended, as others in the whole country, was monolingual. The mother had an instinctive responsibility for promoting the children's ability to acquire all three languages, and she used many different approaches. Among them she used the strategy of requesting a label for a picture or a word in all three languages. In this way she helped the children with LAEs and LMEs. In all the excerpts, the base language is either English or Hungarian, and words typed in italics are code-switches belonging to the language indicated in parentheses.

- (1) Mother: What is *chay* (Persian) in Hungarian?  
 Girl: *Tea, teja* (Hungarian).  
 TEA  
 Mother: Good. What is *seer* (Persian)?  
 Girl: *Tej. Tej* (Hungarian).  
 MILK  
 Mother: What is *sabz* (Persian)?  
 Girl: *Zöld* (Hungarian).  
 GREEN  
 Mother: Good, and what is it in English?  
 Girl: Green.  
 Mother: Very good. How about *meez* (Persian)?  
 Girl: *Asztal* (Hungarian).  
 TABLE  
 Mother: Very good. In English?  
 Girl: Table.  
 Mother: What is *ghermez* (Persian)?  
 Girl: (whispers to boy) *Piros* (Hungarian).  
 RED  
 Boy: *Zöld. Piros* (Hungarian).  
 GREEN. RED  
 Mother: *Piros*. And in English?  
 Boy: Red.  
 Mother: What is yellow in Hungarian?  
 Boy: *Fehér* (Hungarian).  
 WHITE  
 Mother: Yellow.  
 Boy: That's *fehér* (Hungarian).  
 WHITE  
 Mother: *Fehér* (Hungarian) is white.

Figure 1 describes the manner of acquisition of the three languages and the effective communicative needs of the children. In this connection, English and Hungarian are acquired in a natural fashion. The acquisition of Persian is going on in an instructed way, according to the mother. All three languages serve both the effective and perceived communicative needs for the children.

English is used in child to child communication, that is, when the children speak between themselves, and also in child to adult communication, that is, when they speak with their parents or, very rarely, with some relatives or English-speaking friends of the family. Hungarian is used when they talk to each other, when they play and also in the nursery school with Hungarian monolingual children and with their nursery school teachers. It is also used with the Hungarian adult friends of the family and with the interlocutors during the observation period. However, Persian is not used between themselves so there is no child to child communication in Persian. They use it only with their mother.

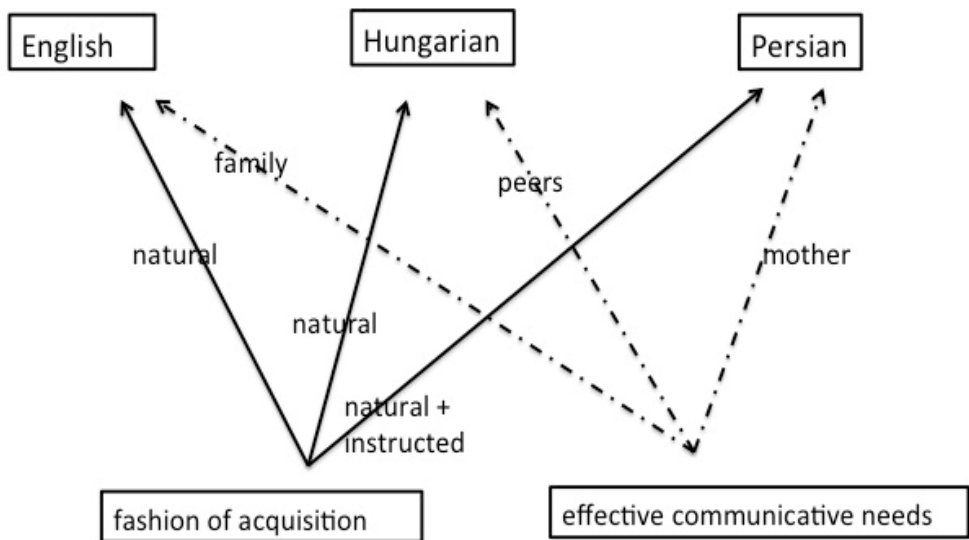


Figure 1 The effective communicative needs of the children and the ways of acquisition of the three languages

As for the perceived communicative needs of the children, the family was not sure how long they were intending to stay in Hungary. On their arrival, the parents' intention was to stay until the children started school.

## 2.2. Becoming trilingual

According to Cenoz (2000, p. 40-41), there are at least four possible acquisition orders in multilingual acquisition: The three language systems may be acquired consecutively; the third system may be acquired after the simultaneous acquisition of the first two; the first language system may be acquired before the simultaneous acquisition of the other two languages; or three languages may be acquired simultaneously. In my subjects' case, we can speak about early third



language acquisition when the first two languages are under development but are far from being mastered. The acquisition of the first two languages is still going on and the LME needs to be very strong in order to maintain the first two languages and avoid transitional trilingualism.

Back in Canada, English used to serve as the base language in the family. Before coming to Hungary, the parents' main goal for the children was the development of English. Language acquisition effort was dominant in the monolingual English environment; no maintenance effort was needed.

The mother was not consciously trying to bring the children up bilingually. Being an immigrant mother in an English-speaking environment, she did not see the necessity of passing on her first language, Persian, to the children. However, as it turned out later, without her deliberate intention, the children had a significant amount of exposure to Persian, especially in emotionally dense situations. There is evidence in the later recordings that during emotionally filled moments or when special treatment was needed, the mother used Persian with the children. During this period, in terms of Persian, neither LAE nor LME had a role in the language development of the children. However, they picked up a fair amount of Persian, and, as a result, quite a few times the children would not obey the mother until she spoke in Persian. They somehow felt that real happiness or a real threat only existed when the mother was using Persian. In one of the recordings, for example, the children got out of control, went into the parents' bedroom and started jumping on the double bed. Some time later they remembered how much fun they had had previously and decided to repeat this experience. The mother asked them in English not to do so, but they would not obey. Then I tried to dissuade them in Hungarian—with no success. Finally, the mother said something in Persian, and the children understood that their mother did not want them to go into the bedroom so they started a different game. In another recording, the children were each given a different gift. They started to fight over each other's toys; they each wanted the other's one, as usually happens with children. They were screaming, shouting and crying, and the use of neither English nor Hungarian helped. Not until their mother asked them in Persian to share the toys and apologize to each other did the quarrel end. And then they apologized to each other in English. At that point, the mother explained that she was not teaching the children; she just read bedtime stories to them in Persian, they said prayers in Persian before falling asleep, and sometimes she named objects in picture books in Persian. This was apparently enough for the children to acquire Persian to some extent. And since the occasions when the mother used Persian were quite intimate, this language gained a more special importance in their lives than the mother would have expected.

The appearance and acquisition of Hungarian changed the whole GLE. In the new extensive environment, Hungarian became vital and inevitable for the children. It was a must for them to acquire Hungarian to survive, to make friends, to have contacts with the social environment. So motivation and socio-linguistic factors came into play. Their personal communicative needs were extended to their social communicative needs. At the time of their arrival the children were normally developed English-dominant bilingual children. Their language competence in English was equal to that of English monolingual children. Their Persian was, however, far behind their Persian monolingual peers, as they had little exposure to it.

The onset of Hungarian as a third language changed the linguistic situation in the family. Hungarian being the language of the environment might have caused a serious threat to the other two languages since the children spent more and more time with their Hungarian monolingual peers either in the nursery school or in the playground. Figure 2 displays the percentage of time devoted to the three languages in the first year of the family's stay in Hungary. The children spent their days from 9 a.m. to 3 p.m. (6 hours) in the monolingual Hungarian nursery school, where they were exposed to Hungarian. In the mornings and in the afternoons (about 7 hours), they used English as a means of communication with their parents and also with English-speaking visitors. Before going to bed, they spent some time (0.5 or 1 hour) with their mother communicating in Persian.

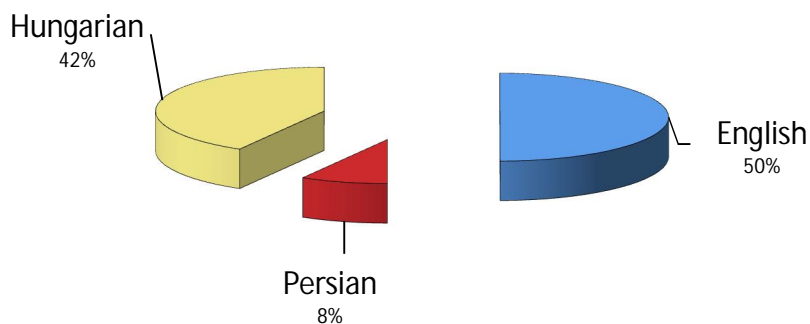


Figure 2 Time devoted per day to the three languages in the first year in Hungary

In 1.5 years the children made good their deficiency in Hungarian, and their Hungarian language proficiency became identical to that of their Hungarian monolingual peers. They could communicate in their community as successfully as their Hungarian peers. With the development of Hungarian it was normal for the children to communicate only in Hungarian, and Hungarian became the language of their games together. They only switched to English when their

parents appeared and started interacting with them. Sometimes they had visitors from Canada or their grandmother came over from England, with whom the children could only talk in English. At mealtimes and in the afternoons and evenings when the parents talked to the children, English still remained the family language; however, there are recordings where the children, on addressing a message to each other, switch to Hungarian even in the presence of the parents. Apart from the annual weekly or fortnightly visits by the maternal uncle, the mother was the only source of Persian; therefore, the children's amount of exposure to Persian remained the same or even decreased as a result of spending less time with their parents and more time with their friends in the playground, at their neighbours', and so on. Figure 3 shows how time was shared among the exposures to the three languages in the second and third years of their stay in Hungary. The children went to kindergarten, where only Hungarian was spoken. In the afternoons, after kindergarten they usually went to the playground, where they kept on playing with their monolingual Hungarian peers. Very often, a next door neighbour nanny baby-sat for the children, when the parents were occupied. So the time spent using only Hungarian was prolonged, the time devoted to English was shortened, but time devoted to Persian remained as previously.

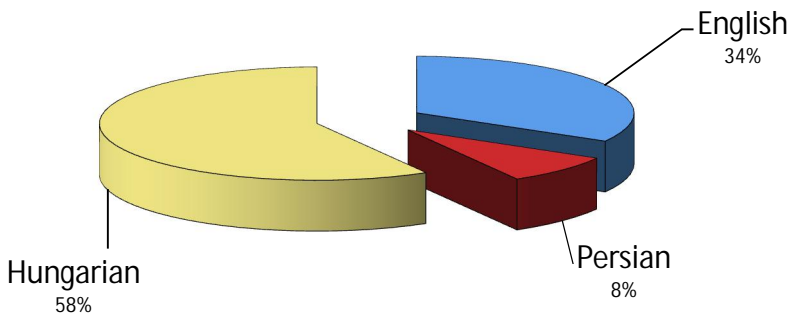


Figure 3 Time devoted per day to the three languages in the second and third years in Hungary

At that time the parents realised that they had to do something actively for their children's trilingual development, and so the mother started to pay attention to the development and maintenance of their English for fear that the children would lose it. This was the time when, under the influence of Hungarian language development, the mother realised that she was responsible for her children's Persian development, too. She started to teach them words, prayers, songs, fairy tales, and so on. Up to this point she had not been consciously involved in any activities

of this kind. Now she started playing “language lessons” with them. The parents started to realize that by not speaking the Hungarian language, they might be excluded from many things in their children’s lives. So they started to learn Hungarian in order to understand their children when they were communicating with one another. However, it was easy for them at that time, as they had moved to a more monolingual environment in a smaller town in Hungary where they had only Hungarian-speaking friends. The mother started to train and practise with the children in the three languages even more intensely so that their pragmatic differentiation and awareness of the languages would be successful and sufficient.

In this context, it can be claimed that Hungarian played a role of a certain type of catalyst in the development of the other two languages for the children. Since it was the language of the social environment, in the beginning, the most motivating thing for the parents was to facilitate the acquisition effort, to help the children with questions, and to place them into the Hungarian context as is shown in Excerpts 2-4 taken from the protocols of the first week of Hungarian acquisition.

- (2) Mother:           What did she (i.e. the Hungarian nursery school teacher) say?  
 Boy:                 She said *tenti* (Hungarian).  
                           SLEEP  
 Mother:             *Tenti?*  
 Boy:                 Yeah, *tenti*. Sleep.
- (3) Mother:           What did you say to Magdi (the nursery school teacher) when the  
 soup was nice?  
 Girl:                 *Finom* (Hungarian).  
                           DELICIOUS
- (4) Mother:           What do you eat in the nursery?  
 Girl:                 In the nursery, er, *kumplilevis*, *kumpiebid* (Hungarian).  
                           POTATO SOUP, POTATO LUNCH  
 Mother:             What’s that?  
 Girl:                 It has *hús* (Hungarian), and *kumpi* (Hungarian).  
                           MEAT, POTATOES

This activity soon resulted in the children developing a very good metalinguistic awareness. Excerpt 5 shows to what extent cultural adjustment and realities determine the choice of language. In the excerpt, we can see that the tea in the nursery school is not like the tea at home, so when the girl speaks about the tea in the nursery school, she uses Hungarian, and when she speaks about the tea at home, she uses English.

- (5) Mother:           Did you have tea?

- Girl: No, it's *teja* (Hungarian) not tea.  
 Mother: *Tea* (Hungarian) is tea (English)?  
 Girl: No, not tea (English). Just *teja* (Hungarian).  
 Mother: Just *teja*.  
 Girl: Yes ... I liked *teja*.

The use of metalinguistic strategies by the mother in the interactions resulted in the children's developed pragmatic and metalinguistic awareness, and, in the second year spent in Hungary, they could enumerate what they could say in the different languages (see Excerpt 6).

- (6) Interlocutor: És perzsául tudsz valamit mondani?  
 CAN YOU SAY SOMETHING IN PERSIAN?  
 Boy: Perzsául? Csak számolni.  
 IN PERSIAN? I CAN ONLY COUNT.  
 Interlocutor: És mit tudsz te még perzsául?  
 AND WHAT ELSE DO YOU KNOW IN PERSIAN?  
 Boy: Csak állatokat.  
 ONLY ANIMALS.  
 Boy: Csak ezeket tanútam meg anyától.  
 I LEARNT ONLY THESE FROM MUM.  
 Interlocutor: Hogy köszönünk perzsául?  
 HOW DO WE GREET EACH OTHER IN PERSIAN?  
 Boy: Köszöntheni? (thinks hard) Anya nem mondta ezt.  
 TO GREET? MUM DIDN'T SAY THAT.

As the children were making progress in the acquisition of Hungarian, they tended to use this third language more and more often. Very soon (in 6 months) it became the language of games and activities between the two children. The parents felt more and more often awkward and sometimes confused because their children would use only Hungarian when together. The end of the first year created a new situation. As a result of the strong acquisition effort, the children became quite fluent in Hungarian, and Hungarian seemed to be the strongest and dominant language in their trilingualism.

### 2.3. GLE and the functional distribution of the three languages

By the end of the third year, the functional distribution of the three languages was the following: On a daily basis, the children would always use Hungarian between themselves and more and more often with their parents, thus forcing them to learn Hungarian so that they could understand what their children were talking about. However hard the parents tried to maintain English as a family language, they realised

that something had to be urgently done in order for the children not to lose it. Persian served as the language of nurturing and expressing emotions, and as such became less and less used. It seemed almost impossible to uphold either LAE or LME so the parents started to arrange a visit to Iran. Unfortunately, for administrative reasons, they could not travel. This failure made the parents undertake more ardent efforts for the maintenance and development of the Persian language. The mother went on teaching the children, as evidenced by Excerpt 7:

- (7) Girl: Mi most számolunk.  
WE ARE COUNTING NOW.
- Interlocutor: Hogyan? Milyen nyelven?  
HOW? IN WHAT LANGUAGE?
- Girl: Hát minden nyelven. Magyarul meg angolul meg perzsául.  
WELL, IN EACH LANGUAGE. IN HUNGARIAN AND IN ENGLISH AND IN PERSIAN.
- Interlocutor: És te is tudsz számolni perzsául?  
AND CAN YOU ALSO COUNT IN PERSIAN?
- Girl: Ühm. (nods)
- Interlocutor: És még mit tudsz?  
AND WHAT ELSE CAN YOU DO?
- Girl: Hát mindent, hát ... ötig számoltam. Minden nyelven ötig.  
WELL, EVERYTHING. WELL ... I COUNTED TO FIVE. IN EACH LANGUAGE TO FIVE.
- Interlocutor: És mit tudtok még? (they don't reply) Beszélgetni szoktatok anyával perzsául vagy csak tanulni?  
AND WHAT ELSE DO YOU KNOW? DO YOU TALK WITH MOM IN PERSIAN OR YOU JUST LEARN?
- Boy: Csak anya thud perzsául.  
ONLY MOTHER SPEAKS PERSIAN.
- Girl: Anya tanít meg bennünket perzsául.  
MOTHER TEACHES US PERSIAN.
- Interlocutor: De hogyan? Leültök...  
BUT HOW? YOU SIT DOWN..
- Boy: Ó má thü - thud.  
SHE ALREADY KNOWS (i.e. the language).
- Girl: Nem, hanem mindig, mindig, mindig úgy beszélünk, mikor reggel – meg este.  
NO, WE ALWAYS SPEAK LIKE THAT IN THE MORNING AND IN THE EVENING.
- Boy: Mi csak angolul tudunk.  
WE CAN SPEAK ONLY ENGLISH.
- Interlocutor: Akkor anya nagyon okos, ugye?  
THEN MOTHER IS VERY SMART, ISN'T SHE?
- Boy: Anya szokott taní- taníthani perzsául.  
MOTHER TEACHES US PERSIAN.

As opposed to the first two languages, Hungarian did not need any LME on the part of the children. They were more and more motivated to use it; what is more, they were even able to make their parents use this language more and more often in the family. Hungarian became more than the language of playing sessions; it became the only link to the outer world, to the external monolingual environment. The personal factor of communicative needs got embedded in the social factor.

In the sixth year the family managed to travel to Canada for three months. The LAE in English became very strong, and as a result, by the end of the third month the children's command of English was equivalent to that of their Canadian English monolingual peers, according to the parents' report. Now they had to become balanced English-Hungarian bilinguals, but their Persian was still behind that of their Persian monolingual peers due to the small amount of input. More and more GLE was needed for them in order not to lose this language.

#### 2.4. The struggle against transitional trilingualism

The GLE, that is, the composition of LAE and LME concerning the three languages can be described in the following way: In the first five years in Hungary there was a large proportion of LAE in terms of Hungarian, and a very little proportion of LAE in terms of the other two languages, whereas the LME was relatively great in relation to both English and Persian. The enormous amount of Hungarian input threatened the possibility of maintaining their English and Persian. The LME in Hungarian could be observed only at the beginning when the mother wanted the children to repeat at home whatever they had learnt in the nursery school. These proportions are displayed in Figure 4.

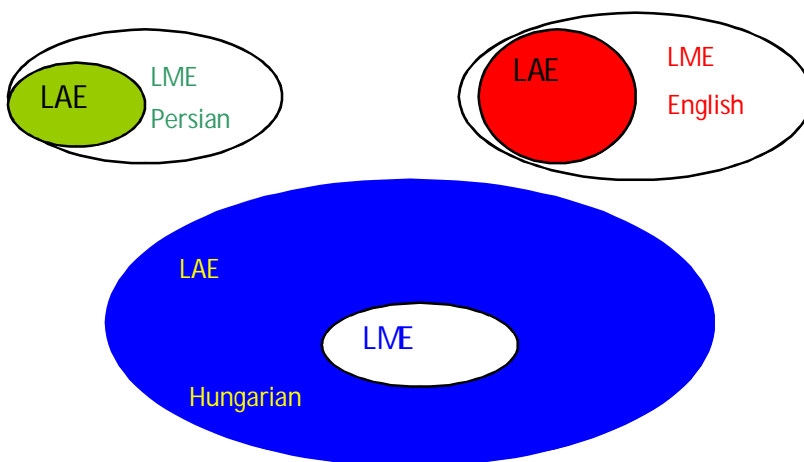


Figure 4 The proportion of LAE and LME in the three languages in the first five years in Hungary

In the sixth year in Hungary (after the visit to Canada) the proportions of LME and LAE did not change. However, their progress in English made them balanced bilinguals or at least much more balanced than they used to be. Their GLE is about the same in English and Hungarian, but the respective proportions of LAE and LME are inversely related. The dominant process in Hungarian is LAE, but in English, LME. In Persian it is also LME that dominates over LAE, but in this instance the whole GLE can be perceived as having a much lesser extent as compared to the other two languages. Figure 5 illustrated these observations.

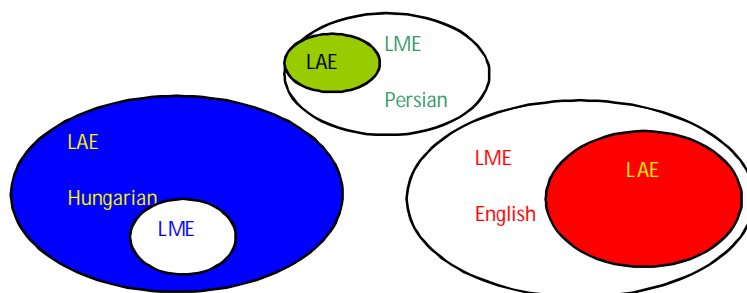


Figure 5 The proportion of LAE and LME in the three languages in the sixth year and onwards in Hungary

For a while I had no correspondence with the family, but I met them in the eighth year of the family's stay in Hungary. Both children were at that time at a Hungarian school where they were performing very successfully. I accompanied the parents to the school and I heard the children play with their classmates in Hungarian. When they noticed their parents, they ran up to their mother and asked her, in English, to let them go home a bit later than usual. The mother told me that they had already learnt to read and write in English, and they were learning these skills in Persian as well. The responsibility for the children being able to engage in these activities in all three languages was rather on the shoulders of the parents; however, it required a lot of acquisition effort on the part of the children, too. All these efforts were worth it. Now the girl studies at a university in Canada and is married to a man of Iranian origin. The boy and the parents are still in Hungary.

## 2.5. Cross-linguistic influences in trilingual language development

In the acquisition process, there is a dynamic interaction between the languages of the bilingual (Li, 2013), and this interaction is even more complex across the multilingual person's languages. In developing bilingualism, according to the dual hypothesis model (Paradis & Genesee, 1996), the child separates the two



systems, but there are some features of each language that may influence the other one. This interdependence may include transfer when features of the dominant language appear in the weaker language at any linguistic level such as phonology, morphology syntax, and so on. In multilingualism, there is an interaction of more than two systems involving continually changing influences that might emerge from the mix of languages acquired at different stages and under different circumstances (Aronin & Singleton, 2012).

When we study multilingual phonological acquisition, we suppose that the phonemic inventories are established for the child in each language, but there are certain elements that may have abnormal features in a given language, owing to cross-linguistic interference. Watson (1991) believes that bilinguals, like monolinguals, simplify their phonological processes but do so cross-linguistically in each language separately: "Any attempt to define patterns or rules in what they do is inevitably hampered by the problem of dominance – the condition of the child being more capable in one language than in the other" (p. 34).

According to Fantini (1985), the developing bilingual has to learn processing skills that are unnecessary for the monolingual. Bilinguals have to recognize that a sound system is entirely arbitrary in that it is possible to use more than one to communicate. They must therefore learn to assign similar physical events to different systems of oppositions according to the linguistic context. However, each phonological system is not necessarily acquired in a way analogous to monolingual acquisition. Fantini also finds that one system will dominate the other so that the child will fail to make some opposition in one language, or at least produce some sounds in a foreign way, due to interference.

English, Persian and Hungarian differ in their prosodic properties (Keshavarz & Ingram, 2002). English has variable stress, Persian and Hungarian have fixed stress: Persian on the final syllable, Hungarian on the initial. The children under observation never had problems with stress differentiation. The consonant systems of the three languages are relatively similar. However, there are some language-specific phonemes that do not exist in the other languages, which never caused any problems for the children. On the other hand, at the phonetic level, certain sounds that exist in all three languages were related to the influences across languages. From among the allophones of the phonemes /p/, /t/ and /k/ it was the aspirated ones that occurred the most frequently in the children's Hungarian speech despite the fact that Hungarian has no such aspirations, except for highly emotional and emphatic expressions. On the other hand, there is aspiration in voiceless plosives word initially in English and in all positions in Persian (Jeremiás, 1986). Aspiration, therefore, must have a cross-linguistic character and is not limited to the language in which it is appropriate but is also extended to another language or other languages.

Studies of voice onset time (VOT) show that bilingual and multilingual children may have VOT values different from the normal monolingual range. Johnson and Wilson (2002), whilst studying VOT data from two Japanese-English bilingual children, found that the children could differentiate their two languages in their speech production lexically and pragmatically, and that they both sounded like adult native-like speakers of both languages. I experienced the same with my observed children in most cases. However, there were occasions when the otherwise normally pronounced sounds sounded strange to the Hungarian ear. I carried out an acoustic analysis of the critical words and measured the VOT values of the voiceless plosives. Some examples can be seen in Tables 1 and 2. In the right hand columns, the average VOT values characteristic of the Hungarian plosives (Gósy, 2001) are given so that they could be compared with the results of the children. Aspiration did not concern only word initial positions (Table 1), but it was also perceivable in invocalic positions as well (Table 2). In addition, there are cases when affricates were aspirated as well (e.g., [kitʰi]).

Table 1 VOT measurements of voiceless plosives in the word initial position in the children's Hungarian speech

Phoneme	Word	VOT (ms)		Norm (ms)
		Boy	Girl	
/t/	<i>teja</i>	38	35	26.59
	<i>tűl</i>	73		26.59
	<i>tudom</i>	92		26.59
/k/	<i>kicsi</i>	47	58	35.31
	<i>kell</i>		42	35.31
	<i>kérsz</i>		60	35.31
	<i>kacsa</i>		68	35.31
/p/	<i>persze</i>		109	18.51

Table 2 VOT measurements of voiceless plosives in invocalic position in the children's Hungarian speech

Phoneme	Word	VOT (ms)		Norm (ms)
		Boy	Girl	
/t/	<i>rajta</i>	166		26.59
/k/	<i>akkor</i>	42	131	35.31

On the basis of the findings concerning word initial and invocalic aspirated plosives and even affricates, we might surprisingly propose that Persian, that is, the weakest language, is the language that dominates over the other two languages' sound systems.

The vowel systems of English, Persian and Hungarian differ in size and phonetic quality. Studying the vowel sound development of the children and

considering the results of the Hungarian phoneme discrimination tests that were applied, we can observe some Persian influence again since the children tend to pronounce the sound /e:/ as /i:/, which is characteristic of colloquial Persian (Jeremiás, 1986). This tendency can be observed in their English speech as well, as they say words like *Teddy bear* and *get up* as [ti:di beə] and [git ʌp].

They also have problems with the quantitative features of the Hungarian sounds. This phenomenon is entirely new to them, since vowel length opposition does not exist in their remaining two languages. In Hungarian, short and long vowels make semantic differences in the words. Excerpt 8 demonstrates that the boy, after three years in Hungary, could still not make a difference between the two vowel sounds.

- (8) Interlocutor:                   Hogy van az, hogy örült?  
   HOW DO YOU SAY 'WAS HAPPY'?
- Boy:                                    *I was happy.*
- Interlocutor:                   Ühm És mi az, hogy őrült? Örült voltam.  
   YES. AND WHAT IS CRAZY? I WAS CRAZY?
- Boy:                                    *I was, I was, I was happy.*

Kehoe (2002) in her study of German and Spanish monolingual and bilingual children also found that bilingual children were lagging behind monolingual children in the acquisition of vowel length contrasts. Hungarian monolingual children develop the ability to discriminate between long and short vowel sounds a little earlier than age 5, but experts dealing with speech impairment claim that at ages 3 and 6 it is often the semantics and context that help them figure out which meaning of these word pairs are to be used.

### 3. Concluding remarks

Becoming multilingual is an extremely complex process that requires very consistent and clear-cut person- or situation-related language use. Raising multilingual children is a great responsibility as the parents or caretakers need to take several considerations into account in order to ensure the smooth development of the children. Detecting the actual and perceived communicative needs is easy in adulthood, but in childhood it is also the parents' responsibility. Once the parents find it beneficial to raise their children in a multilingual context, they must do their best to provide a balance between LAEs and LMEs to make the GLE complete and successful for their children. From the development described above it became clear that one of the languages of the multilingual person will always be dominant, but this is not necessarily the one that provides the greatest amount of input. Implicit learning is very important in childhood, and

as in the case of the children discussed, sometimes the least frequently used language may gain such an importance that it is the one that has the greatest influence on the other, more frequently used languages. What we learn implicitly is related to emotions. As observed, especially at the beginning, Persian was used in emotionally dense situations (either negative or positive), most of the time even without the mother's awareness. This is the highest level of intimacy that can exist in parent-child communication. And this intimacy resulted in Persian being the language that influenced English and Hungarian at the phonetic level.

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