

Language differentiation in a bilingual child

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When four speakers of four different languages interact, the conversation may result in something like:

Stephanie (addressing her mother): "Ja chcem tiež takého výtlačky na play-doh."

Stephanie's mother (to Stephanie): "Wir müssen Emilies Mama fragen wo sie das gekauft hat."

Stephanie (to Emilie): "Wo kauft das?"

Emilie (to Stephanie): „Ich weiß nicht.“

Stephanie (to Toni): "Make a slide?"

Toni (to Stephanie): "Do you want me to make fly?"

Stephanie (to Emily): "Emilie, wo bist du?"

Emilie (to Stephanie): „Wos mochst du da?"

Stephanie (to Toni): "This is slide!"

Stephanie (to Emilie): "Helikopter, eine...ich mach' diss."

Emilie (to Stephanie): "Ok, sitz dich da!"

Stephanie (to Emilie): „Komm zu mir!"

Emilie (to Stephanie): „Ich will Saft."

Stephanie's mother (to Emilie): "Emilie, willst du etwas Saft?"

Emilie (to Stephanie's mother): „Ja."

Stephanie's mother (to Emilie): „Komm, Emilie, ich gebe dir Saft."

As the child matures, he or she gradually learns how to differentiate between languages and what code to use in communication with individual people. The aim of this study is to explore the bilingual child's sensitivity for language differentiation, code-switching, code-mixing and translation. It is based on empirical observation, collection of data in the form of a speech diary and on the interpretation of data reflecting language development of primarily one child between 0 and 4 years old and also of several other children 2 to 6 years old immersed in a bilingual or multilingual language environment.

Keywords: *bilingual education, language differentiation, code-switching, code-mixing, translation*

1. Introduction

Children who learn two or more languages in childhood "have language learning experiences that undoubtedly differ in important ways from children who learn only one" (Bialystok 2004: 88). Monolingual and bilingual children "move in different cognitive worlds, experience different linguistic environments, and are challenged to communicate using different resources, remaining sensitive to different abstract dimensions" (ibid.: 88).

The definition of bilingualism may range from having equal command of two or more languages to having at least some knowledge or at least one skill in a second language (Fantini 1976). The concept of bilingualism is, therefore, "a relative one, it constitutes a continuum rather than an absolute phenomenon and persons may have varying degrees of skills or abilities in the two or more languages involved" (ibid.: 22).

Bilingualism is a phenomenon closely related to or even conditioned by the social domain. According to the social interactionist view children form "a dynamic system with

those in the environment during the language learning process” (García and Náñez 2011: 50). In contrast to the behaviorist view and the innate view, which focused on maturation of biological structures and learning, social interactionists seek “a more complete explanation [...] of language acquisition, [which] should include nonlinguistic properties such as turn taking, shared gaze, and attention between speakers, as well as the social context and cultural environment in which conversations occur” (ibid.: 50-51).

Hamers and Blanc (2003) differentiate between bilingualism and bilinguality. They view bilingualism as “the state of a linguistic community in which two languages are in contact with the result that two codes can be used in the same interaction and that a number of individuals are bilingual (societal bilingualism)” (ibid.: 6). Bilinguality is “the psychological state of an individual who has access to more than one linguistic code as a means of social communication” (ibid.: 6).

Research on bilinguality or multilinguality of children should consider the uniqueness of the human person, his or her nature, which also „resides in the ability to behave symbolically...while the bilingual or multilingual environment creates...a unique identity of the child“ (Balák 2005: 59).

A distinction is made between childhood bilinguality, adolescent bilinguality and adult bilinguality. Hamers and Blanc (2003) point out to the fact that in childhood, “bilingual experience takes place at the same time as the general development of the child,” therefore, one must distinguish

- a) simultaneous early or infant bilinguality when the child develops two mother tongues from the onset of language, which we call LA and LB, as for example the child of a mixed-lingual family; and
- b) consecutive childhood bilinguality when (s)he acquires a second language early in childhood but after the basic linguistic acquisition of his mother tongue has been achieved. In this case and in all other cases of consecutive bilingual acquisition we refer to the mother tongue as L1 and to the second language as L2.

Social networks play an important role in the development of bilinguality in children. Language behaviour can be viewed “as the outcome of societal factors” (Hamers and Blanc 2003, 9). Language behaviour is ‘the product of culture...transmitted from one generation to the next in the socialization process and appropriated by each individual’ (ibid.: 9). Another concept central to the “dynamic interaction between the societal and the individual level is valorisation...[i.e.] the attribution of certain positive values to language as a functional tool, that is, as an instrument which will facilitate the fulfilment of communicative and cognitive functioning at all societal and individual levels” (ibid.: 9).

Mohanty (1994a) (as quoted in Hamers and Blanc 2003: 64-65) emphasizes that “in multilingual environments children are socialized into multilingual modes of communication; in addition to going through the same processes of socialization as the monolingual child..., the bilingual child must also acquire some specific behaviors.” Interactions with others “must occur so that the child will be able to learn what to say, how, where, to whom and under what circumstances.” Certain “communicative functions and intentions, such as indicating, labelling and requesting, must be developed before the child produces the formal linguistic structures to express them” (Hamers and Blanc 2003: 83).

An important concept in analysing language development is that of feedback mechanisms. Feedback mechanism means that “the more the child is successful in using

language to fulfil a particular function, the more value he will attach to it, hence the more motivated he will be to use it for that particular function” (Hamers and Blanc 2003: 19-20).

Among many advantages of bilingualism, the study of Peal and Lambert (as quoted in Hamers and Blanc 2003: 89) points out to those of showing

a greater ability in reconstructing perceptual situations..., superior results on verbal and non-verbal intelligence, verbal originality and verbal divergence tests..., a greater sensitivity to semantic relations between words..., better performance in rule-discovery tasks..., a better performance with traditional psychometric school tests..., a greater degree of divergent thinking.

2. Aims of research and methodology

The present study is primarily concerned with language acquisition processes of one child immersed in a four-language environment (Slovak, English, Spanish and German) between the age 0 and 4, and, to a limited extent, also with one child immersed in a three-language environment (Slovak, English and German) between the age 0 and 2, and a group of children with different ethnic background attending the same kindergarten in Austria with German being the primary language used in communication. Its main aim is to study the sensitivity of these children for language differentiation, code-switching, code-mixing and translation, having at hand a collection of data in a diary documenting natural speech recorded in natural settings. The study attempts to trace general language development features rather than the emergence of particular items.

Since this is a study of a limited number of children, the findings cannot be applied to speech development of all children. Nevertheless, an individual case study may contribute to the general knowledge on the process of acquiring the mother tongue, on bilingual language acquisition, and on the relationship between speech acquisition and the social context.

The group of observed children on whom the present study is based include:¹
Stephanie: 4 years old, mother tongue Slovak, immersed in a four language environment including Slovak, Spanish, English and German, dominant language Slovak, consecutive bilinguality;

Rose: 5 years old, mother tongue Persian, immersed in a German speaking environment, dominant language Persian, consecutive bilinguality;

Isabella: 5 years old, mother tongues German and Slovak, immersed primarily in a German speaking environment, dominant language German, simultaneous bilinguality;

Beatrice: 5 years old, mother tongues German and Czech, immersed primarily in a German speaking environment, dominant language German, simultaneous bilinguality;

Chiara: 5 years old, mother tongues Slovak and Hungarian, immersed primarily in a German speaking environment, dominant language German (German is the common language used in interaction between the parents at home), simultaneous bilinguality;

Benjamin: 6 years old, mother tongue English, immersed in an English and German speaking environment, dominant language English, consecutive bilinguality;

¹ The following description of children observed for the purposes of this research includes the *dominant language* of each child, which is an estimate based on the ratio of time they are immersed in the natural environment where this language is spoken compared to the time they are exposed to the other languages. In the instances of *simultaneous bilinguality*, the child was exposed to both (or all) languages from its birth. In instances of *consecutive bilinguality*, the child was exposed to the second (and third or fourth) language later.

Elijah: 4 years old, mother tongue English, immersed in an English and German speaking environment, dominant language English, consecutive bilinguality;

Ellie: 3 years old, mother tongue English, immersed in a German speaking environment, consecutive bilinguality;

Lina: 5 years old, mother tongues Hungarian, Spanish, English; immersed in an English and German speaking environment, dominant languages English, Spanish and German, simultaneous and consecutive bilinguality (simultaneous bilinguality for English, Spanish and Hungarian and consecutive bilinguality for German);

Emilie: 5 years old, mother tongue Hungarian, immersed in a German speaking environment, dominant language Hungarian, consecutive bilinguality;

Paul: 2 years old, mother tongue Slovak, immersed in a German and English speaking environment, dominant language Slovak, consecutive bilinguality.

3. Language Differentiation

Roberts (1939) and Weinreich (1968) distinguish between three kinds of bilingualism: coordinate, compound and subordinate. In coordinate bilingualism, two equivalents designate separate concepts, while in compound bilingualism the two words refer to the same or combined concept. In subordinate bilingualism “the meanings for new words refer to words in another language, not to concepts” (Bialystok 2004: 101), which happens when a new language is learned through a known language.

More recently, in the experimental study of the mental organization of words and concepts studies have addressed the question of whether the lexicon for two languages is represented or together and what the relation between languages and a meaning system is (cf. *ibid.*: 102). The answer to the first question seems to be that independent representations for the two languages exist in the mind of the person. According to some authors, the answer to the second question is that “the lexical representations for the two languages are independent but the conceptual representations are shared” (*ibid.*: 102-103).

Research shows that the adult bilingual has a differentiated mental representation of two languages (e.g. Bialystok 2004, Hamers and Blanc 2003, García and Náñez 2011); however, most authors find it difficult to uncover the state of mental organization of two linguistic systems in children, especially at the very early stages of language development. Nevertheless, it is supposed that children’s mental representations follow a similar model as that of the adult. Even though the bilingual child’s early representations of two languages may be shared, individual case studies, as the one presented in this paper, support the idea that at very early stages of language development the child may develop the ability to distinguish between the two systems.

As the child’s knowledge and command of the two or more languages (s)he acquires simultaneously or consecutively matures, he learns to differentiate between those languages. On the phonological level, for instance, the child can predict which sounds are possible in a given language and which are not. Similarly, the child gradually learns which words form part of the vocabulary of which language, how sentences are structured in which language, how speech events take place and what stylistic means are used in the corresponding language.

Taeschner (1983) (as quoted in Hamers and Blanc 2003: 61) suggests that increased differentiation between linguistic systems follows a number of stages specific to bilingual development:

in the first stage, the child has one undifferentiated system, both at the lexical and the syntactic level; in stage two the syntax remains undifferentiated but the lexicons are distinct, and in the last stage, both lexicon and syntax are differentiated.

An evident case of shared linguistic representation may be seen on Paul, a two year-old boy whose mother tongue was Slovak and who was also immersed in a German and English natural environment. His utterances often consisted of strings of words, such as *Bye, bye! Tschüss! Wiedersehen! See you! Novinenia!* (= Slovak *dovidenia* 'good bye') or *Hallo! Ahoj! Hi! Hello! Guten Morgen! Malzeit! or Danke (schön)! Bitte (schön)! Ďakujem! Thank you!, Helicopter! Letalo!* (= Slovak *lietadlo* 'airplane'), and so on. Paul had to have an awareness of the fact that the same concept could be expressed in different ways, with different sound and word combinations. However, there seemed to be no significant sign of language differentiation at this early stage of speech development. Interestingly enough, to him the German words *danke* (thank you) and *bitte* (you are welcome, please) meant the same and in his mind they actually referred to 'coins'. Somehow the little boy made the mental association between money and these two German words as he often heard them when his parents paid at the cashier in the store or at a restaurant.

In the case of Stephanie, differentiated mental representation of two languages was evident at a very early stage. Stephanie's mother tongue was Slovak and her dominant language was Slovak. As the examples below demonstrate, at the age of 3 ½ she was able to produce utterances in all four languages (Slovak, English, German and Spanish)². Even though her sensitivity for language differentiation was constantly growing, the precise ratio of how much she knew of each language was unknown. It is assumed that her comprehension was greater than her ability to produce language. It was also obvious that she had best command of the Slovak language due to that fact that it is the language of both of her parents and close relatives. Between the age 0 and 2 she was exposed simultaneously to Slovak and Spanish as her mother talked to her exclusively in Spanish. Due to certain social factors of the environment, however, her mother gradually ceased speaking Spanish to her. Nevertheless, Spanish was still spoken to her occasionally and she was regularly exposed to songs, videos, cartoons, and readings in Spanish. Between 2 and 3 ½ she was exposed to English spoken by native speakers approximately two days a week. Since her 3rd birthday Stephanie had been exposed to German in kindergarten in Austria generally 5 days a week. By the age of 2 ½ she had acquired and actively used a large number of words and short expressions in Slovak, Spanish and English. She knew numbers 1-10 in Spanish and English, she named colors in English (*white, orange, purple, blue, yellow, black, pink, green, grey, brown*) even though she did not always recognize the right color in reality (e.g. called yellow something that was green), she also named different shapes in English (*circle, triangle, square, diamond*) and actually always attached the appropriate name to the appropriate shape. Stephanie named many animals in English: *duck, dog, rabbit, chicken, horse, bear, wolf, pig, butterfly, cow* and often switched to Spanish: *gallo, lobo, gato, perro, zorro, mariposa* or

² Stephanie was immersed in a Slovak, English and German speaking natural environments (a case of natural bilingualism). Spanish was a language that was intentionally taught to her by her mother during the first two years of her age (a case of intentional bilingualism).

Slovak: *kačička, havo, konko, kravička, mačička*, and so on. Spanish was dominant with some nouns, such as *gafas, casa, vamos, luna, zapatos, agua*. She also acquired certain interjections in English, e.g. *Oops!, Oh-oh! or Ouch!*. At the age of 3 Stephanie had memorized a great number of English, Slovak and Spanish songs and nursery rhymes.

At the age of four, Stephanie's speech seems to be greatly conditioned by the social environment. She shows understanding to what code or language is appropriate in a given situation and context. When she is at home, she speaks Slovak to her parents and other family members. When she is in kindergarten, she produces utterances in German: greetings and other institutionalized expressions, such as *Guten Morgen!, Danke schön!, Bitte!, Gut!, Hallo!, Tschüss!*, declarations, requests, questions, and so on. When she is with her American care-takers, she addresses them in English.

Example 1. At a pharmacy in Austria. Stephanie (addressed as 'Števká' by her mother) receives two candies from the pharmacist. Stephanie's mother: 'Was sagst du?'

Stephanie: 'Danke schön!'

Stephanie's mother: 'Pozdrav, Števká!' (telling her in Slovak to say good-bye)

Stephanie: 'Auf Wiedersehen!'

The example above shows that the child understood what language code was appropriate to use with the pharmacist in Austria, even when her mother told her in Slovak to say good-bye as they were leaving the pharmacy. Stephanie was aware that she still had to use a greeting in German, as the person to whom the greeting was addressed was a native speaker of German.

The rest of the children on whom this empirical study is based attended the same kindergarten in Austria. Even though their mother tongues were different from the language they actively used for communication in kindergarten, they all had to a certain degree already acquired some knowledge of German and could form utterances in this language on different proficiency levels. These children's competence in German depended on their age, i.e. the span of time they had been exposed to it (approximately for four hours a day during the school year), on the number of languages they were acquiring or learning at the same time (some of the children were acquiring or learning more than two languages at the same time) and on their individual abilities to acquire or learn a new language.

All of the observed children showed an awareness of two (or more) language systems being used in their environment. Naturally, it appeared that the older children or those who attended the kindergarten the longest showed the highest competence in German. Also, those children who were only acquiring or learning two languages simultaneously seemed to acquire different structures of their second language at greater speed and perform the second language on a higher level than those children, who were acquiring or learning three or four languages simultaneously. Individuality seemed to play an important role in bilingual language acquisition or learning³, as, for example, in the case of Lina, a five year-old girl, who was already quite fluent in English, Spanish, Hungarian and German. The lowest level of competence in German could, naturally, be seen in the case of Ellie, a three year-old

³In the case of the individual children who are the target of observation for this study, some are instances of second language "acquisition" and some are instances of second language "learning", i.e. the children were learning English as a second language in their English class in kindergarten, while they were acquiring other languages (e.g. the languages of their parents, German, etc.) in natural environments.

American girl, whose mother tongue was English and who had only attended the German speaking kindergarten for three months.

4. Code-switching and code-mixing

Before the child acquires proficiency in the different languages, he will most likely mix the structures and vocabulary of the two or more codes in his utterances. Poplack (1980) (as quoted in Hamers and Blanc 2003: 259-260) distinguishes between three types of code-switching:

- (1) extra-sentential code-switching, or the insertion of a tag, e.g. *you know, I mean*, from one language into an utterance which is entirely in another language;
- (2) intersentential code-switching, or switch at clause/sentence boundary, one clause being in one language, the other clause in the other, e.g. *Sometimes I'll start a sentence in English y termino en español* 'Sometimes I'll start a sentence in English and finish it in Spanish'...
- (3) intrasentential code-switching, where the switches of different types occur within the clause boundary, including within the word boundary (i.e. loan blend, e.g. *check-er* (English verb *check* + French infinitive morpheme *-er*).

Different "situational variables seem to affect the type and frequency of code-switching: the topic of conversation, the participants, the setting, the affective aspect of the message and so on" (Hamers and Blanc 2003: 266). Code-switching may result from the bilingual's communicative competence or from the speaker's lack of competence in L2⁴. The former is called bilingual code-switching and the latter restricted code-switching (Cf. *ibid.*: 267).

Code-mixing, as code-switching, "is a language-contact communication strategy, but the speaker of a language, L_x, transfers elements or rules of another language, L_y, to L_x at all linguistic levels, otherwise they would be considered as loans" (*ibid.*: 270). Code-mixing "can be embedded in code-switching" and "the distinction between the two is not absolute" (*ibid.* 270). Unlike "borrowing, which is generally limited to lexical units which may be better assimilated or less well assimilated, code-mixing transfers elements of all linguistic levels and units ranging from a lexical item to a sentence, so that it is not always easy to distinguish code-mixing from code-switching" (*ibid.*: 270). Hamers and Blanc (2003: 270) further explain that

[c]ode mixing can of course express a lack of competence in the base language, such as, for example, lexical items, and in this case code-mixing can compensate for this deficiency. ...code-mixing can be a bilingual's specific code which enables him to express attitudes, intentions, roles, and to identify with a particular group.

Recognition and differentiation between languages in Stephanie's case seem to be present at a very early age, probably since the beginning of her speech development. Code switching begins around the age 1 ½. Stephanie produced utterances in Spanish when addressing her mother, and she formed sentences in Slovak when talking to her father and close relatives. Interference was strong since the outset of the child's speech and continued through the age 3 ½. At present, the degree of control, fluency, interference and switching depend on the exposure to each of the languages (Slovak, Spanish, English and German). As mentioned above, the command of Slovak is salient and most fluent, while the degree of knowledge of

⁴ L₁ = mother tongue or the dominant language, L₂ = second language

the other three languages is difficult to estimate at this age. Stephanie seems to differentiate quite well between Slovak, Spanish and English or Slovak, Spanish and German, nevertheless, she seems to not be quite clear on the difference between English and German. Once her grandmother requested her to ask an American student what her name was and Stephanie readily posed the question: *Wie heißt du?* (= German ‘What’s your name?’). Of course, her grandmother found this situation amusing. Perhaps it might be more difficult for the child to make a distinction between two Germanic languages as they belong to the same Germanic genus and share similar phonological and morphological structures. That would only reinforce the theory that children are so language-sensitive that they can predict which sounds or forms are possible in a given language once they have acquired the language to a certain degree.

Around the age 2 Stephanie demonstrated a much higher degree of code-switching – mostly extra-sentential and intersentential - than around age 3. Her utterances often consisted of a mixture of words in Slovak, Spanish and English. At the beginning, they were only one-word utterances in any of the three languages, e.g. she used to name colors exclusively in English, numbers exclusively in English and in Spanish, shapes exclusively in English and other nouns, verbs and adjectives randomly in any language, e.g. Spanish *gafas* ‘glasses’, Spanish *casa* ‘house’, Spanish *agua* ‘water’, Spanish *vamos* ‘let’s go’, Spanish *luna* ‘moon’, Spanish *[za]pato* ‘shoes’, *duck*, *rabbit*, *dog*, *chicken*, *pig*, Slovak *masielko* ‘butter’, Slovak *[na]písať* ‘to write’, Slovak *čítať* ‘to read’, Slovak *plávať* ‘to swim’, Slovak *[s]p[i]evať* ‘to sing’. Interestingly, most of her verbs were Slovak and most of her nouns and adjectives were either English or Spanish at this age. When Stephanie progressed to the two-word and three-word stage, her utterances were often composed of elements from various languages, e.g. *Daj mi gafas!* (= Slovak ‘give me’ and Spanish ‘glasses’), *Maminka, musíš up and down, up and down!* (= Slovak ‘mommy, you have to [go] up and down, up and down’), *rabbit nemá shoes* (*nemá* = Slovak ‘doesn’t have, has no’), *this is chlebič* (*chlebič* = Slovak ‘bread’), *maminka, budeme happy birthday!* (= Slovak ‘mommy, we will [celebrate/sing] happy birthday’), *budeme hat* (= Slovak ‘we will [put a] hat [on]’), *ideme casa* (= Slovak ‘we are going’ and Spanish ‘home’).

Between the age of 3 and 3 ½ Stephanie showed more sensitivity for language differentiation, she was more capable of appropriate code-switching, and interferences gradually decreased. She seemed to label different people with a particular language and understood that she was supposed to use that particular code with a specific person. She also strictly refused to speak another language to her parents, only their mother tongue (a phenomenon that was not present before). She started going to a German speaking kindergarten in a German speaking country. She regularly met with native speakers of English. Even though she seemed to be brave enough to explore with the new languages, she sometimes showed frustration at not being able to express exactly what she would be able to express in her mother tongue. In those instances she often switched to Slovak even though she may have realized that the other person did not understand her. Her lexical inventory was conditioned by the environment and social factors in which she acquired and developed the language. For instance, when talking about kindergarten, she used utterances and expressions in German, such as *mama ist da* ‘mommy is there’, *danke!* ‘thank you!’, *bitte!* ‘you are welcome!’, *Schuhe an* ‘shoes on’, *anziehen gehen* ‘get dressed’, *Hände waschen* ‘wash your hands’, *setzen* ‘sit down’, *essen gehen* ‘going to eat’, *Guten Morgen!* ‘good morning’, *Auf Wiedersehen!* ‘good bye’, *Lizybus ist da* ‘Lizybus is there’, and so on. She also knew a number of nursery rhymes and songs in German. Clearly, these expressions reflected the

daily activities which take place in kindergarten. With her American caretakers, Stephanie used expressions in English, such as *One, two, three, go!* (when playing hide-and-peek), *I've got you!* (when chasing her friends), *hello!*, *how are you?*, *good morning!*, and so on. She also formed sentences using vocabulary related dolls, school, swimming, skiing, animals, colors, toys, food, house, family, and house chores, e.g. *They're making play-doh, This another one trunk, This my feet, This is a flower-crown, This is mommy circle, This is mine, Please, another candy.* She also enjoyed singing English songs and nursery rhymes to her American caretakers. Stephanie used Slovak in any circumstances when talking to her parents or to her brother. Only occasionally she used intrasentential code-switching, e.g. in Slovak *ideme skaken* 'we're going to jump', she used the wrong suffix for the infinitive form of the verb. The correct form is *skákať*. The inflectional morpheme *-en* is apparently an influence of the German infinitive suffix *-en*.

Between the age of three and four, Stevka spoke mostly Slovak to her one-year old brother. However, there were instances when she addressed him in another language, for example, in German: *Komm!*, *Danke!*, *Bitte* or in English *Please!*, *Sleep!*. Sometimes she used extra-sentential code-switching: *Maminka, už mám takéto vykrajovanie, siehst du?* 'Mom, I already have this cookie mold' (the first part of the sentence is in Slovak), *do you see?* (the tag is in German), or intersentential code-switching: *This is Pica Pica and this is caja.* 'This is Pica Pica (name of a Spanish singing group) and this is a box.', or *This is fertig* 'This is finished'. Interestingly, in intersentential code-switching or in lexical borrowing, she did not follow the same syntactic rules valid for either L1 or L2. For instance, with borrowed nouns from Spanish, she sometimes applied the article with the noun and sometimes she did not: *Maminka, pozri, la luna!* 'Mom, look, the moon!'. *La luna* is a Spanish feminine noun preceded by the feminine definite article *la*. But in the sentence *...this is caja* 'this is a box' she leaves out the Spanish definite article *la* from the feminine singular noun *caja*. More examples of inconsistent article usage before nouns are found in Stevka's Slovak-English intersentential code mixing: *Tatinko má blue car* 'Daddy has a blue car', where the indefinite article *a* is left out from the English noun phrase *blue car*.

Talking in a continuous speech, Stephanie's utterances are often formed in such a way that they include extra-sentential, intersentential and intrasentential code-mixing of three languages: Slovak, English and German.

Example 2. Stephanie's stream of utterances while playing memory game.

"This is duck and rabbit and fish and snake and frog. *Kde je monkey? Toto je Schnipp Schnapp.* And this is...*medik a havko a mačička, zajko, kačička. Toto je kuriatko.* Rabbit, dog, duck and mouse, snake, bird."

The words in italics are in Slovak. The underlined words are in German. *Schnipp Schnapp* is a fast paced card game for children. The rest of the utterances are English. As suggested above, the topic of conversation, the participants, and the setting affect the type and frequency of code-switching. Even though Stephanie's base language is predominantly Slovak, in certain settings and conversations, her base language becomes English or German. It must be emphasized again that both of her parents' mother tongue is Slovak and that is the language spoken at home as well as the language she was mostly exposed to. However, in a German or English-speaking setting and conversations she switches to the corresponding code and the base language becomes English or German, depending on the situation and

borrowing from Slovak or code-mixing is apparently inverted, even though the base language might not be her dominant language.

Example 3. Stephanie (addressed as Stefka) greeting her Austrian friend, Linda, at a playground in Austria.

Stephanie: “Hallo, Linda!”

Linda: “Hallo, Stefka!”

Stephanie: “Eliška ist hier. Schau!”

Linda: “Hallo!”

Stephanie: “Komm, Linda!”

Example 4. Stephanie talking to her English-speaking caretaker and to her brother.

Stephanie (to her brother): ‘This is my stool.’

Stephanie (to the care-taker): ‘This is mine. This is big. This is small. This is big fish. This is big big big big fish. This tall tree....small...This too small.’

Stephanie goes to another room to talk to her father. There are other two English-speaking people in the same room. She naturally switches to Slovak when addressing her father and to English when addressing the American students.

Example 5. Stephanie playing hide-and-seek with her American care-taker.

Stephanie: ‘No, you count!’

‘You found!’

‘You hide!’

‘Me count!’

‘You hide, I count!’

In Examples 4 and 5, English becomes the base language of the conversation. In fact, there are no instances of code-mixing in Stephanie’s utterances. The whole discourse takes place exclusively in English. Even though there are obvious errors: omission of an article, omission of a verb and the wrong use of the object pronoun, the child made a great effort to speak exclusively in the code the other participant in the conversation. Both in Example 3 (the discourse in German) and in Example 4 and 5 (discourse in English), Stephanie showed her ability to recognize the code of the participants in the conversation and addressed them in this code. The level of competence varied in all three languages, however, she was able to communicate her thoughts and achieve the desired functions in all three languages successfully.

An interesting – but not surprising – finding of this case study is that the kindergarten children who shared a common first language (Slovak), as was the case of Stephanie (4), Chiara (5) and Isabella (5), often switched to this language when interaction included exclusively two or all three of them. As mentioned above, the dominant language of both Chiara and Isabella was German as they lived in a mostly German-speaking environment and the common language used by their parents in communication at home was German. However, Chiara and Isabella identified that Stephanie’s first language (the language she ‘knew best’) was Slovak; therefore, they naturally switched to Slovak when they interacted with Stephanie. The case of the children whose mother tongue was English was similar. Interaction among Benjamin, Elijah, Ellie and even Lina usually took place in English.

Interestingly enough, it was very difficult to identify Lina's first language, as she used Hungarian to communicate with her mother, Spanish to communicate with her father, English was the language commonly spoken in the community where the whole family lived and German was the language used in kindergarten. Therefore, English might be considered one of her first languages, as she was exposed to it in a natural environment since she was born. She started learning German in kindergarten.

Even more fascinating was to observe the interaction between two girls, Stephanie (4) and Emilie (5), whose mother tongues were Slovak and Hungarian respectively. Being best friends, they often engaged themselves in communication and their "lingua franca" was German. Both of them had attended kindergarten for one year and three months and had learned most of their German in kindergarten.

Example 6: Stephanie and Emilie at a playground.

Stephanie: „Komm, Emilie, unten!“

Emilie: „Komm oben!“

Stephanie: „Spielen wir auf dem Sand!“

Emilie: „Es geht so!“

Example 7: Stephanie and Emilie at a playground.

Stephanie: „Ist da deine Schwester?“

Emilie: „Schau!“

Stephanie: „Ich hab' einen Hund...der heißt Puppy...“

Emilie: „Ich hab' einen Hund, er heißt...Tobi...“

Example 8: Emilie and Stephanie singing “Ich gehe mit meine Laterne...“

Emilie: „Ich gehe mit meine Laterne und meine Laterne mit mir...“

Stephanie: „Da oben leuchten die Sterne und unten leuchten wir.“

Emilie: „Mein Licht ist aus, ich gehe nach Haus...“

Stephanie: „Meine Emilie ist da...ich gehe nach haus, rabimmel rabammel, rabum!“

Emilie: „Meine Rose ist da...ich gehe nach Haus... rabimmel rabammel, rabum!“

Stephanie: „Mein Benjamin ist da...ich gehe nach Haus...“

Example 9: Stephanie and Emilie playing together.

Stephanie: „Ich habe auch die Plasteline....meine Mama sagt... Schau! Ich moch do!“ (= “ich mache das” in a German dialect).

Emilie: „Do, bitte, ich moch!“ (= “da, bitte, ich mache” in a German dialect)

Stephanie: „Ich brauch' der...“

Emilie: “No, das ist toll!”

Stephanie: „Ich hab' die Elsa!“

Example 10: Stephanie and Emilie on a ride in the car at Christmas time (seeing Christmas lights around).

Emilie: “Lange Fahrt!” “Lange fahren!”

Stephanie: „Schau! Die Lichte! Schau! Der Baum!“

Emilie: “Ich bin fertig!”

Example 11: Stephanie and Emilie playing together in the presence of Toni, an American care-taker (speaking English) and Stephanie's mother (speaking Slovak).

Stephanie (addressing her mother): „Ja chcem tiež takého výtlačky na *play-doh*.“

Stephanie's mother (to Stephanie): „Wir müssen Emilies Mama fragen wo sie das gekauft hat.“

Stephanie (to Emilie): „Wo kauft das?“

Emilie (to Stephanie): „Ich weiß nicht.“

Stephanie (to Toni): „Make a slide?“

Toni (to Stephanie): „Do you want me to make fly?“

Stephanie (to Emilie): „Emilie, wo bist du?“

Emilie (to Stephanie): „Wos mochst du da?“ (= „was machst du da?“ in a German dialect)

Stephanie (to Toni): „This is slide!“

Stephanie (to Emilie): „Helikopter, eine...ich mach' *diss*.“⁵

Emilie (to Stephanie): „Ok, sitz dich da!“

Stephanie (to Emilie): „Komm zu mir!“

Emilie (to Stephanie): „Ich will Saft.“

Stephanie's mother (to Emilie): „Emilie, willst du etwas Saft?“

Emilie (to Stephanie's mother): „Ja.“

Stephanie's mother (to Emilie): „Komm, Emilie, ich gebe dir Saft.“

Example 12: Emilie and Stephanie in the living room pointing at Christmas decoration.

Stephanie: „Emilie, schau! Baum!“

Emilie: „Oh, Lichte!“

Emilie (looking at Stephanie's T-shirt): „Gleiche! Gleiche!“ (They both are wearing T-shirts.)

Examples 6 through 12 demonstrate that Stephanie and Emilie used German as their common language for communication. They used exclusively a language which was their second language and both girls only have a limited command of it (needless to say that, at that stage, they both could express themselves better in their mother tongues). However, they both understood that German was the language they both could speak (to a certain extent) and in order to understand each other, they chose to use it to communicate their thoughts to one another. Most important is the fact that the function role the German language played in the interaction between the two girls was successfully achieved. Surprisingly, the girls were not only able to use German to deliver messages to one other, but they also experimented with their 'new' language and used it in a playful way, for instance when trying to invent different names for their dog (Example 7) and when singing a German song *Ich gehe mit meine Laterne...* and substituting new words for the original words sung in the song (Example 8). Both children were able to speak the appropriate language to speakers of different languages, as shown in Example 11. The children understood the social roles of the languages and were able to choose the right language in the right social context.

⁵ „diss“ is probably a result of interference between English and German. It might be a blend of the English demonstrative pronoun “this” and the German demonstrative pronoun “das”.

5. Translation in bilingual children

The ability and desire to translate from one language into another seems to be a very common phenomenon in bilingual children. Children naturally like to play with language: they often invent new words or just simply play with sounds, they can invent new rules for word-formation and sentence structure or they attach new meanings to words.

Once the bilingual child has matured enough in the process of learning two or more languages and is able to separate one system from the other, he or she often becomes involved in the translation activity and whether in a playful manner or out of curiosity or perhaps for functional reasons tries to find the corresponding equivalents for words and structures in the two or more languages.

Such was the case of Stephanie, whose language development was observed the longest of all children in question as well as of the rest of the children. Stefanie enjoyed asking questions, such as: *Maminka, ako sa povie po nemecky ball* [ball 'lopta']? 'Mom, how do you say *ball* in German?' or *Maminka, ako sa povie po nemecky smiešny?* 'Mom, how do you say *funny* in German?'. Sometimes she would simply repeat the German word she heard in response from her mother: *Aha! Der Ball!* 'Ah! Der Ball!', or *Áno, lustig!* 'Right, *lustig!*' in order to confirm the correct answer as she would remember those words in German.

The other kindergarten children also demonstrated a great sensitivity to language differentiation and their ability to translate from one language to another, especially during their English classes where the teacher (who spoke exclusively in English) would often ask questions such as: *What's this?*, *Does anyone know what this is?*, *Is someone able to tell me what this is?*, etc., while pointing at a certain object and the bilingual children would often translate for the monolingual ones saying: *trousers - hose!* or *That's a shirt! – Das Hemd!*, *That's a duck! – Die Ente!*, and so on. Similarly, when children were given certain commands, for instance: *Sit down!* or *Stand up!*, the children who clearly understood the forms willingly helped those children who did not respond with the appropriate activity by translating these forms to them into German: *Setzen!* or *Aufstehen!*". Very often the observed children showed their understanding of the social function of languages used in different contexts and settings. They comprehended that English was the language used in the English classroom and made an effort to use this language in this particular setting. They tried to approach the English teacher in English by using simple forms, such as *Good morning!*, *Hello!*, *How are you?*, *Thank you!*, *Good bye!*, *What's this?*, *What's your name?*, *I'm fine!*, *My name's Rose.*, *I'm five.* It is important to note that even though German was the source language or first language used in kindergarten, it was not necessarily the first language of all the children. Therefore, it was used as 'lingua franca' among all of the children and those, whose mother tongue was different, had to work with German as the source language as well in order to come into comprehending the English forms.

6. Conclusions

The results of current research in bilingual education of children, including Ronjat's (2013) (as quoted in Hamers and Blanc 2003: 51) suggest that

A bilingual upbringing has no adverse effect on the child's overall development; the phonology, grammar and lexis of both languages develop in parallel; very early on the child becomes aware of the existence of two distinct linguistic codes and acts as interpreter; he rarely mixes the two

languages and mixing tends to disappear as the child grows up; finally, far from delaying the cognitive development of the child, an early bilingual experience fosters a more abstract conception of language.

This study is based on empirical observation, the collection of data in the form of a speech diary and on the interpretation of data of Stephanie a four year-old girl through her language development at different stages between the age 0 and 4; Paul, a two year-old boy and other bilingual 2 to 6 years old children attending the same kindergarten in Austria. The growth of bilingual behaviour including language differentiation, translation, code switching and code-mixing resulting from the social environment in which language development occurred are the main issues briefly discussed in the paper.

In case of Stephanie, the emergence of language differentiation seemed to arise at very early stages of language development and she soon realized that two languages use different vocabulary and forms. The child was aware that communication can take place in a social context in different languages. She was able to label people with the language they spoke and she made an effort to approach the particular person with their language. By the age of four, the child had developed behaviour for multilingual functioning and was able to switch to the appropriate language according to speaker, setting, topic, language hierarchy and social norms, even though her competence in the different languages had not yet reached the level of an adult speaker.

One of the salient conclusions of this research is that in consecutive bilingual language development the mother tongue may not exclusively be the base language in code-switching and code-mixing in every case. In this case-study the findings show that the child's base language changes according to the language of conversation, setting and participants in the conversation. Even though the base language might not be the child's dominant language or mother tongue, it does become the base language, i.e. the language in which most parts of the child's utterances are formed.

Another important finding is that the sensitivity for language differentiation may be developed at very early stages in bilingual education of children. All of the observed children showed the awareness of two (or more) language systems being used in their environment. The older children or those who attended the kindergarten the longest showed the highest degree in competence in their second language. Also, those children who were only learning two languages at a time seemed to acquire different structures of the second language (German) more rapidly and perform the language on a higher level than those children, who were learning three or four languages at the same time. The individuality of the child also played an important role in bilingual language acquisition, as, for example, in the case of Lina, a five year-old girl, who by the age of five was quite fluent in English, Spanish, Hungarian and German. The least competence in German could be seen in the case of Ellie, a three year-old American girl, who had only attended the German speaking kindergarten for three months.

The observed children showed their understanding of the social function of languages used in different contexts and settings. They comprehended that English was the language used in the English classroom and made an effort to use this language in this particular setting. They were also aware of the fact that some children may not have the same command of English as they do and spontaneously often helped the children who may not have always understood the English forms by translating words or forms into German without being encouraged to do so. It is important to note that even though German was the source language

or first language used in kindergarten, it was not necessarily the first language of all the children. Therefore, it was used as 'lingua franca' among all of the children.

The findings from the present research support the idea that the child is aware of the appropriate social norms associated with the different languages in different social contexts and understands the functional roles of languages. The child is also aware of the hierarchical organization of languages in the society and is capable of choosing the right language in a given social setting.

References

- Atkinson, Martin. 1982. *Explanations in the Study of Child Language Development*. Cambridge: Cambridge University Press.
- Balák, René. 2005. Ľudská prirodzenosť ako fundament dôstojnosti osoby. In: *Človek – príroda – kultúra*, 55-67. Brno: Masarykova univerzita.
- Bialystock, Ellen. 2004. *Bilingualism in Development: Language, Literacy, and Cognition*. Cambridge: Cambridge University Press.
- Brown, Roger. 1973. *A First Language: The Early Stages*. Cambridge, MA: Harvard University Press.
- Fantini, Alvino E. 1976. *Language Acquisition of a Bilingual Child: A Sociolinguistic Perspective*. Vermont: The Experiment Press Brattleboro.
- García, Eugene. E., and Náñez, José. E., Sr. 2011. *Bilingualism and Cognition: Informing Research, Pedagogy, and Policy*. Washington, D.C.: American Psychological Association.
- Hamers, Josiane F., and Blanc, Michel H.A. 2003. *Bilinguality and Bilingualism*. Cambridge: Cambridge University Press.
- Roberts, M.H. 1939. The problem of the hybrid language. In: *Journal of English and Germanic Philology*, 38, 23-41.
- Weinreich, U. 1968. *Languages in contact*, rev. ed. The Hague: Mouton and New York: Linguistic Circle of New York, publication no. 2.
- Wells Lindfors, Judith. 1980. *Children's Language and Learning*. New Jersey: Prentice-Hall.

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