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Words of foreign origin in a child's language (a case study)

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Abstract

The paper presents the results of longitudinal research based on authentic data analysis. The research subject was a Czech-speaking monolingual boy. Recordings of the subject's dialogues in communication with adults from the age of three years to the age of 10 years were analysed; parental diaries were used as supplementary material. The author observed the appearance of words of foreign origin in the child's speech. The frequency of words, the degree of their adaptation, and the correctness of use in terms of meaning, grammatical form and pronunciation were monitored. The research also focused on which language the words were taken from and in which semantic field they were located. Some tendencies were traced, e.g. the increasing frequency of words of foreign origin in the child's production over time. An interesting factor was incorrect declension; the child did not respect the difference of the declension paradigm and classified the lexeme with prototypical Czech noun patterns. A shift in semantic fields was also evident. Initially, the child used commonly adapted lexemes. Later, lexemes from English were added, falling into the sociolect of computer-game players and lexemes of the youth sociolect. With the onset of schooling, the number of foreign-language terms from various areas increased, but those lexemes were not often used in the recordings as they were not in the child's area of interest.

Key words

anglicisms; words of foreign origin; language acquisition; developmental psycholinguistics; Czech; vocabulary; lexicon; sociolect

1. Introduction

Children's vocabulary is influenced by the input they get from their environment. Nowadays, input is provided not only by family and preschool/school education but also by the media. Children come into contact with words of foreign origin, primarily anglicisms, starting from a very young age. The objective of this article is to analyse the development of foreign-origin vocabulary in one child's language ontogenesis. Acquisition of words of foreign origin will be examined from various points of view: shifts in frequency during the early phases of childhood, semantic fields, motivations to use particular lexemes, and the child's attitude to the languages of origin will be considered. The degree of the lexemes' adaptation and the correctness of use in terms of meaning, grammatical form and pronunciation will be analysed.

2. Theoretical background

The research into the acquisition of words of foreign origin is part of broader research focused on the acquisition of lexicon and grammar in the target child (Chejnová 2016; 2019). This study predominantly extends the research on foreign vocabulary acquisition, employing an empirical approach that emphasizes the roles of learning, input, context, and the pragmatic dimension. The foundation of this study is rooted in the socio-pragmatic approach to language acquisition.

Tomasello (2005) proposed said approach, positing that children learn linguistic structures through intention reading and pattern finding during their discourse interactions with others. This theoretical

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framework underscores the significance of social interactions and the pragmatic contexts in which language learning occurs.

The crucial theoretical framework is provided by Slančová (2018, p.15), who emphasizes three key aspects of language acquisition: processuality, complexity and interactivity. The attribute of processuality directs research toward the interconnectedness of phenomena over time, examining which phenomena emerge earlier, coexist and follow each other in development. In this study, processuality pertains to the development and shifts in categories of foreign words over time.

The attribute of complexity is demonstrated through the interconnection of all areas of language development, including morphology, syntax, lexicon and pragmatic aspects of speech communication. Although this study does not focus explicitly on acquiring grammatical structures, it aligns with the acquisition of a general lexicon and the pragmatic dimension. Language-system acquisition is inherently linked with the acquisition of communicative competence.

The interactivity attribute emphasizes contextual factors, grounded in the assumption that interaction with communication partners and the effort to achieve communication goals is crucial for acquisition. This is exemplified by the construction of identity through the choice of a sociolect.

Additionally, communication register theory is a vital component of this study. A communicative register is defined as a situationally conditioned mode of language expression associated with a specific type of human activity (Slančová, 2018, p.17) or a mode of language functioning dependent on the nature of the activity and the social environment (Slančová, 1999, p. 61). This concept is particularly relevant in the context of acquiring sociolects.

By integrating these theoretical perspectives, this study aims to provide a comprehensive understanding of the acquisition of foreign-origin words within the broader framework of lexicon and grammar development in the target child.

3. Words of foreign origin

Words of foreign origin can be divided into several types (Filipec & Čermák, 1985; Karlík, et al., 2000):

1) Quotational words and phrases retain original spelling, partly also pronunciation; they do not adapt morphologically (*curriculum vitae, science fiction, fair play*).
2) Borrowed words and phrases, which are still felt as foreign, tend to have fluctuating spellings (*marketink x marketing, dabink x dabing x dubbing*).
3) Words and phrases completely absorbed or domesticated are adapted into the Czech language environment to such an extent that awareness of their foreign origin has disappeared (*košile/shirt, anděl/angel, vzduch/air*).
4) Calques are created by translating parts of foreign words (*provorozený/primo-genitus/first-born, s-vědomí/con-scientia/conscience*) or by translating the structure of an idiom (*im Bilde sein/být v obraze/to be in the picture*). When elements of a foreign language and Czech are combined, hybrid words are created (*fotosoutěž/photo contest, maxisukně/maxi skirt*).

Words of foreign origin influence vocabulary enrichment, and anglicisms are currently the most frequent among them. They are applied in the fields of IT, marketing, advertising, management, banking, economics, science, publishing, sports and lifestyle. Borrowed lexemes are adapted into Czech in various areas. The degree of integration into the target language is different; more frequent lexemes are adapted faster. Adaptation occurs at three levels (Mravinacová, 2005):

1) Adaptation at the orthographic and orthoepic level:
   It is typical for today's anglicisms to accept the spelling and pronunciation close to the original English (*unplugged, public relations*).
2) Adaptation at the morphological level:
   New forms are created by adding formants of a certain declension or conjugation type to the English lexemes that serve as the base word. New words can then express grammatical

categories of Czech (*utilita/utility, adventura/adventure, fulltextový/fulltext as an adjective, scanovat/to scan, chatovat/to chat*).[1]

3) Adaptation at the word-formative paradigmatic level
This is the development of word-forming relationships of borrowed lexical units. The same morphemes with a similar meaning occur in many lexemes borrowed independently of each other (*homeschooling, homeoffice, homepage*). Relationships are formed between words (*hack, hacker, hacking, hackovat/to be hacking, hacknout/to hack*).

4. Data and methodology

The subject is a Czech boy living in Prague. He is the only child in the family. His parents are university educated. The child started attending nursery school at age 4 years and 2 months and elementary school at age 7 years and 2 months. The range covers from 3 to 10 years of age, covering preschool and elementary school (primary school) ages. The child was raised in a monolingual Czech-speaking environment, but due to intensive English lessons from age 7 and exposure to English-speaking media (YouTube, chatting with English-speaking online game players), he could effectively communicate in English by the age of 9 years. Also, he has a passive knowledge of Slovak due to input from the media.

He was recorded twice a month in interactions with his family. The recordings mapped daily routine activities, such as preparing for a walk, cooking, reading picture books, viewing family photographs, drawing pictures, playing desk games and playing on the computer. There was no elicited production, only spontaneous speech. It is necessary to note that in later stages, after reaching the age of 6 years, the child chose the topic to be spoken about during recording, which also influenced the vocabulary used in his speech. For example, when a computer game was commented on, the vocabulary was based on computer-game sociolect. The boy gave written consent to use the data for the purpose of this study at age 13. The mother of the child conducted the research.

The author transcribed the audio recordings according to CHAT, which is a method used in the CHILDES (Child Language Data Exchange System) database (MacWhinney and Snow, 1985; 1990). This transcription is orthographic, not phonetic, and enables the researcher to include information about the context. Words of foreign origin are transcribed according to pronunciation, not orthography. Below is an example of the transcription. The next monologue illustrates the mixture of PC game sociolect, anglicisms, and Slovak words.

Age: 9;10 (9 years 10 months)
Language: Czech, including words of foreign origin
Participants: *CHI = target child, *MOT = target child's mother
Situation: the target child is playing a computer game, Minecraft, at home; his mother is present

*CHI:	*položíme **torč** a jdeme kopat dále a vidíme, že jsme narazili na **bedrok**, což neni špatný, to neni vůbec dobrý, takže tady nemůžeme kopat, no*
	'we put down the torch and go digging further and we see that we hit bedrock, which is not bad, it's not good at all, so we can't dig here, well'
*CHI:	*ale tady vidíte docela dobře ložisko **diamantů**, **kopírovat**, fakt*
	'but here you can see quite well the deposit of diamonds, let's copy, right'
*CHI:	***robíš, robíš** si srandu?*
	'are you joking?' (in Slovak)
*CHI:	***Diskord**, mam novou **sociální** síť, je to **Diskord***
	'Discord, I have a new social network, it is Discord'
*CHI:	*rip braun konkrít, rip braun konkrít, rip braun konkrít, braun konkrít, hnědá konkrítka ripnula, to je smutný, ten vzácnej blok a já ho vykopal, né*
	'rip brown concrete, brown concrete is rip, that is sad, such a rare block and I dug it up, no'

[1] The original foreign word is presented after the slash.

(the child uses the word rip meaning R.I.P., rest in peace, when something is lost forever)

All the transcriptions were thoroughly analysed, and all the words of foreign origin were written alphabetically for each year. The lexemes were checked with the New Academic Dictionary of Foreign Words (Kraus, 2005) to confirm their foreign origin. Then, the lexemes were divided into categories. For the purpose of this study, the following categories of words of foreign origin were analysed (examples for illustration are taken from the target child's recordings):

a) words of foreign origin which are a common part of contemporary Czech and are adapted to the Czech grammatical system (*auto/car, baterie/battery, anténa/antenna*);
b) neologisms which are widespread among a large number of users (*YouTuber, billboard*);[2]
c) terminology from specific scientific fields (*akvamarín*/*aquamarine*, *celodonta*/*coelodonta*/*wooly rhinoceros*);
d) sociolect of computer-game players the child is a part of (*čestka/chest, ačívment/achievement*); in this area, some lexemes are more established, some rather neological;
e) occasionalisms and/or "author's" words of the child, which may not be used by anyone else or which may have been used only once, based on the lexemes of foreign origin (Pomatrex – the name of the game created by the boy based on words of foreign origin);
f) proper names (e.g. *Discord*, *Minecraft*);[3]
g) original words belonging to the original language rather than Czech (*Christmas tree, robit*).[4]

It must be noted that the categories may not be mutually exclusive, e.g. the word *ačívment/achievement* falls into the category of sociolect and, simultaneously, it is an original word belonging to English. If the lexeme is part of a sociolect, it is primarily classified in this category in the presented study. Petrified phrases containing more than one lexeme were counted as one unit (*de facto, rock paper scissors*).

It is evident that not all the lexemes of foreign origin that the child had acquired were used in the recordings; the child's vocabulary (both active and passive) was much larger. However, the choice of words illustrates the tendencies in his active production and the pragmatic motivation to use the lexemes in the particular context; e.g. the child used an English word in a situation when a Czech word could be used.

Based on the authentic data classified into the above-mentioned categories, various aspects of the used lexemes of foreign origin were analysed: the lexemes' rising frequency, semantic fields, sources of origin and level of adaptation (morphology, pronunciation, word formation processes).

5. Previous research

There has been no previous study analysing words of foreign origin acquisition in a child over a long time span. All the studies available concentrated on actual knowledge or passive understanding of selected words by children of a certain age, mostly basic school children. Pre-school children's usage of words of foreign origin has not yet been analysed. The understanding of foreign words by basic school children was analysed by Studená (2006). Her research shows that television and English-language teaching influence children's vocabulary. Furthermore, it was shown that understanding some borrowed words that are contained in the teaching texts for the first grade of basic school causes problems for pupils. Similarly, Poliachová (2008) analysed the understanding of foreign words in basic school children and showed that children did not understand words used in textbooks. Esterková's research (2011) also supports the findings that basic school pupils have problems understanding many commonly used lexemes of foreign origin.

Many words of foreign origin, mostly anglicisms, are used in the discourse of online game players. One of the first studies of this genre was published by Hoffmannová (1998). The features described in

[2] Original English pronunciation preserved.

[3] Original English pronunciation preserved.

[4] Pronunciation of the original language is preserved.

the study are still found in players' communication, and words used in the sociolect in 1998 are still used today. Words of English origin are combined with Czech affixes (*dabl/double, swičnout/to switch, microsofťácký/Microsoft*-adjective). Hoffmannová also mentions various alternatives of word adaptation on orthographic, orthoepic and grammatical levels, e.g. *upgrejdovat* or *apgrejdovat/to upgrade* – imperfective aspect; *apgrejdnout/to upgrade* – perfective aspect. Words of English origin are often used as indeclinable adjectives: *hi-tech námět/hi-tech theme*, *hi-resolution grafika/hi-resolution graphics*. English words or adapted anglicisms are often used even if the Czech words exist (*selektovat/to select, selektovaný/selected, expandovat se/to expand*). Some phrases or words may have a humorous effect (*oddžampnutí kosmické lodi/spaceship jump off*); others resemble scientific style: *multimediálně interaktivně hyperfuturistické megahry/multimedia interactive hyperfuturistic megagames* (Hoffmannová, 1998). Recent research confirms the findings of Hoffmannová; Kopecký (2014) analysed slang used by PC game players of Minecraft and found that players (most were of age 11 to 15) use many anglicisms with Czech morphology (adding inflecting endings according to Czech declension and conjugation paradigms). Players do not respect the norms of spelling and create their own unique slang; numerous acronyms are used (either Czech or English), and players also use emoticons and neologisms. Typical examples of abbreviations include English and Czech acronyms: *wtf (what the fuck), rofl (rolling on the floor laughing), omg (oh my god), btw (by the way*), etc. In addition to acronyms, initial abbreviations such as *HP (health point), XP (experience points), LOL (League of Legends), PVP (player versus player)* are used. Similar results are provided by Kraus's research (2022). The author draws attention to the fact that players try to maintain the international nature of expressions, which corresponds to the context of online games that connect players all over the world. The original orthography is preferred, but there are also adapted forms used. The literature on sociolects often emphasizes expressiveness, language playfulness of speakers and the pursuit of originality. However, these aspects are not typical for the lexicon of Minecraft players. The utterances are in Common Czech, which is a substandard variety and may be perceived as expressive, but players choose the lexicon to form accurate and quick expressions. An interesting factor in the adaptation of new anglicisms is the presence of YouTubers. When the game receives an update, they inform viewers about it in their videos, using new expressions, thus becoming initiators of lexical adoption of the new lexemes (Kraus, 2022). Similarly, Kubala's research (2016) on Minecraft players' language production emphasizes the general tendency to simplify communication. The players use abbreviations, both initial abbreviations and acronyms, but also univerbization. Univerbization is a process by which a fixed collocation of words becomes a single word (*killaura* from *killing aura*). The frequent absence of diacritical marks and punctuation is also related to this trend (Kubala, 2016). Another study on online gamers' sociolect was conducted by Schönbauerová; the author found that there is no fixed norm on how to pronounce anglicisms in the analysed sociolect. Language economy is the most important strategy when selecting a language means (Schönbauerová, 2014). Frequent usage of anglicisms and anglicisms with Czech inflectional endings and suffixes in the language of YouTubers and Let's Players is also documented by Holanová, whose study likewise confirms their impact on children's language development. YouTubers act as role models; they can influence the speech of children and young people. In this regard, however, it is not clear whether the videos influence children/adolescents or, on the contrary, they are adapted to their speech. Both types of influence are probably present (Holanová, 2022).

Research shows that children have problems understanding words of foreign origin, including anglicisms. On the other hand, online games can positively enrich their vocabulary; the acquisition of anglicisms is one aspect of this.

6. A summary of the target child's vocabulary development

The target child's lexical development was not linear; we could refer to lexical spurts – periods when more lexemes were acquired. Comparing the data with Kapalková's (2010) results for Slovak children, the child's active vocabulary was below average at age 23 months; at age 30 months, it was average. For comparison, Clark (2003) suggests that the vocabulary level at 24 months in English-speaking children features between 100 and 600 lexemes; in a later publication, she suggests a range between 50 and 500 lexemes for two-year-old English-speaking children (Clark, 2017). Her assumptions are based on meta-analyses of various studies. The level of 50 lexemes, considered the vocabulary necessary for children to form sentences, was reached at age 1;11 (Chejnová, 2016; 2021).

An educational and psychological counsellor examined the boy at age six; his lexicon results were highly above average on the Wechsler Intelligence Scale for Children (WISC-III).

Table 1 presents the numbers of newly acquired lexemes according to age. The first line presents the age in the year and month of recording format. The second line illustrates the number of new lexemes that were acquired in that month of recording. The third line presents all the lexemes that the child had in his active vocabulary at a particular age.

Table 1a. Numbers of newly acquired lexemes in relation to age

Age	**0;11**	**1;00**	**1;09**	**1;10**	**1;11**	**2;00**	**2;01**	**2;02**	**2;03**	**2;04**
Newly acquired lexemes	1	1	8	15	26	15	24	72	48	40
All lexemes acquired	1	2	10	25	51	66	90	162	210	250

Table 1b. Numbers of newly acquired lexemes in relation to age

Age	**2;05**	**2;06**	**2;07**	**2;08**	**2;09**	**2;10**	**2;11.3**
Newly acquired lexemes	46	134	160	159	105	115	31
All lexemes acquired	296	430	590	749	854	969	1000

Table 2 presents the numbers of newly acquired lexemes of foreign origin, illustrating the rise in frequency and number of newly acquired lexemes of foreign origin after age 7 (school attendance and starting to play computer games).

The first line presents the age in the year and month of recording format. The second line illustrates the number of new lexemes of foreign origin that occurred in that month of recording. The third line presents all the lexemes of foreign origin that the child had in his active vocabulary at a particular age based on the recordings. Passive knowledge of words of foreign origin was probably several times larger. It must be noted that not all the lexemes that the child had in his active vocabulary appeared in the transcriptions as the topic influenced the choice of lexemes; however, the general tendencies could be illustrated based on the obtained data.

Table 2. Newly occurring lexemes of foreign origin in the child's production

Age	**3;00–3;11**	**4;00–4;11**	**5;00–5;11**	**6;00–6;11**	**7;00–7;11**	**8;00–8;11**	**9;00–9;11**
Newly acquired lexemes	33	54	41	74	102	177	106
All lexemes acquired	33	87	128	202	304	481	587

7. Words of foreign origin – semantic fields

The semantic fields of words of foreign origin differed according to age.

Age 3;00–3;11:

The lexemes primarily denoted items from the child's environment. The words were primarily adapted to Czech in all language levels (pronunciation, morphology, orthography): *lampa*/*lamp*, *baterie*/*battery*, *auto*/*car*, *pneumatika*/*tire*[5]

[5] Examples are presented in the following form: lexeme used by the target child – slash – English translation.

Age 4;00–4;11:
The lexemes primarily denoted items from the child's environment, and vocabulary related to cars was frequently used: *karoserie/car body*, *servis/car service*, *kabina/cabin*, *kabriolet/cabriolet* + car brands.

Age 5;00–5;11:
Scientific terms from various fields were acquired, e.g. names of dinosaurs and pre-historic animals: *triceratops, pterodon, euplocefalus, celodonta*; mathematical terminology: *minus, million*.

Age 6;00–6;11:
Acquired lexemes belonged to various categories, e.g. food (*mascarpone, tiramisu*), desk games (*žeton/chip, kasino/casino, distanc/distance, doping*), PC games (*telekineze/telekinesis, power, invisibilita/invisibility*). At this age, the child started to use anglicisms even if he had the Czech equivalent in his vocabulary.

Age 7;00–7;11:
From this age, most of the newly acquired lexemes belonged to the category of PC games; those lexemes were anglicisms, sometimes adapted to Czech morphology: *skeleton, win, hardcore, fail, kraftit/to craft.*

Age 8;00–8;11:
The majority of lexemes were connected to the sociolect of PC game players, and YouTube Let's Players (*army, coin, creative, deck, elite, gem*). Terminology from mineralogy starts to appear (first inspired by Minecraft but later developed in real interest): *akvamarín/aquamarine, krystal/crystal, obsidián/obsidian*.

Age 9;00–9;11:
The majority of lexemes are connected to the sociolect of PC game players, and YouTube Let's Players: *noobský/noob-like, opening, livestream, unboxing, screenshot, superabilita/superability*.

To sum up, at the beginning of the recording (age 3), the child mainly acquired lexemes denoting things of everyday usage; those lexemes were adapted to Czech in all linguistic aspects. Later, scientific terms appeared in his interest areas, such as cars, dinosaurs and minerals. After age six, when the child started to use a computer, play PC games, and watch YouTube, many anglicisms from those areas were acquired.

The sources of input where the child came into contact with the lexemes of foreign origin were various. His family provided the largest part of the input at preschool age. Many lexemes were acquired from desk games (mathematical terminology, names of dinosaurs) and PC games (anglicisms, PC game players sociolect). YouTube was another source that enriched the child's vocabulary. When the child entered the school, the terminology linked to various subjects started to be acquired, e.g., mathematical terminology and linguistic terminology (however, it was not used much in the spontaneous production of the child). On the other hand, vocabulary linked to the child's interest was acquired in voluntary courses (such as computer programming). Active usage of the lexemes was motivated by the child's interests. The sequence of acquisition clearly illustrates the phenomenon of processuality, as some of the categories emerge earlier, then coexist, and some follow later in development (such as employing a specific communication register in specific contexts (sociolect of PC game players).

8. Words of foreign origin – categories

For the purpose of this study, words of foreign origin were subdivided into 7 categories which are not mutually exclusive. Only newly occurring lexemes were quantified in each period of recording. In Table 3, newly occurring lexemes were quantified in percentages. The result shows that in the earlier stages of the child's development, the majority of new lexemes of foreign origin belong to the category of common words which are fully adapted to the Czech language on morphological, orthographic and orthoepic levels, e.g. *auto/car, baterie/battery, parkovat/to park, pneumatika /tyre, rádio/radio*.

From age seven, the most frequent category becomes lexemes belonging to the sociolect of PC game players and computer game programmers, mostly from the popular educational game Minecraft, e.g. *armour, kejvka/cave, fail, hardcore, challenge, chest*. Those lexemes usually keep the original English

pronunciation[6] but are frequently inflected according to the Czech paradigm. As they were used in spoken communication, orthography cannot be commented on.

Other categories are far less frequent. Terminology is used in relation to the child's interest, such as dinosaurs (*triceratops, pterodon*) and minerals (*akvamarín, krystal*). The child acquired terminology of various subjects at school (maths, linguistics, geography) but did not use it much in spontaneous speech. The category of widespread neologisms contained several lexemes from the sphere of new trends (*spinner, YouTuber, hashtag*). These lexemes were neologisms at the time of recording; recently, they are moving towards the category of common words. The vocabulary also contained proper names, e.g. names of car brands (*Citroen, Honda, Opel*), brands of electronic equipment (*Roomba*) and software (*Microsoft*).

Those lexemes which belong to the original language (English, Slovak) and are not part of the specific sociolect of PC game players and form only a small amount of vocabulary, which illustrates that most anglicisms were used in the sphere of PC game players' sociolect. In the category of original words which were not adapted to Czech were, e.g. lexemes *de facto* (Latin origin), *sakrblé* (French origin), *robiť* (Slovak origin), and *sorry* (English origin).

Table 3. Lexemes in categories in percentage[7]

category	3;00-3;11	4;00-4;11	5;00-5;11	6;00-6;11	7;00-7;11	8;00-8;11	9;00-9;11
common words	84.8	66.7	70.7	56.8	34.3	10.2	19.8
widespread neologisms			2.4	1.4	2	3.4	
terminology	12.1	5.6	22	9.5	3.9	1.7	0.9
sociolect			4.9	32.4	52	79.7	68.9
occasionalisms							0.9
proper names	3	24.1			6.9	1.7	5.7
original words		3.7			1	3.4	3.8
total	100	100	100	100	100	100	100
number of newly used lexemes	**33**	**54**	**41**	**74**	**102**	**177**	**106**

9. Adaptation of words of foreign origin on a morphological level[8]

The most significant difference from the adult usage appeared from the age of 4 years, when the child used hypergeneralized forms of words of foreign origin, ignoring their different morphology, such as the accusative form *dinosauruse* instead of *dinosaura, albumu* instead of *alba* (Chejnová, 2015).

Later on, the child used some of the anglicisms from the sociolect of PC game players in adapted forms, changing their form according to Czech declension and conjugation paradigms:

Feminine declension, the most productive paradigm *žena*:

(1) a. *torčka* – 'torč'
b. *furnejska* – 'furnace'
c. *čestka* – 'chest'
d. *vička* – 'witch'

Verbs, the most productive formant *-nout,* paradigm *tiskne* or *mine*:

[6] The child acquired British Standard English at school, so it was the target form for him.

[7] Numbers in the first line indicate age in format year; month.

[8] Examples in this chapter are taken from parental diary as not all of the forms appeared in the recordings.

(2) a. *dilítnout* – 'to delete'
b. *kolektnout* – 'to collect'
c. *retardnout* – 'to retard'
d. *lagnout* – 'to lag'

Verbs derived from adjectives and nouns using Czech prefixation, added to the paradigm *prosí*:

(3) a. *zhárdčili to* – 'they made it harder to play'
b. *vylevlit* – 'to achieve a higher level'

Verbs derived from adjectives and nouns using Czech prefixation, added to the paradigm *kupuje*:

(4) *zabugovat* – 'to bug'

Adjectives derived from verbs:

(5) a. level – *vylevlit* – *vylevlený* – 'adjective denoting the object of a higher level'
b. bug – *zabugovat* – *zabugovaný* – 'containing programme error'
c. lag – *lagnout* – *laglý* – 'delayed'

Diminutives:

(6) *winek* – 'win' (does not denote minor achievement but the positive attitude toward it)

The child's understanding of word formation could be illustrated by a newly coined word *Pomatrex* (he invented a game containing **Po**kemon cards, a **ma**thematical game, and the game Co**rtex**). In the last word, there was a metathesis due to easier pronunciation. Apart from the anglicisms, the child occasionally used words or phrases of Slovak origin:

(7) a. *Robíš si srandu?* – 'Are you joking?'
b. *Prečo?* – 'Why?'
c. *Prečo nie?* – 'Why not?'
d. *Počúvaj* – 'Listen'
e. *Som lama* – 'I am lame' (meaning playing badly).

He also used Slovak declension for English words to get a humorous effect:

(8) a. *noobovia* – 'noobs'
b. *mobovi* – 'mobs'
c. *trollovia* – 'trolls'

The source of the Slovak words was primarily YouTube, as many YouTubers who stream Let's Plays are Slovak. The child had a positive attitude toward Slovak and English and enjoyed actively using words from both languages.

10. Adaptation of words of foreign origin on an orthoepic level

The universal tendency in the adaptation of words of foreign origin (mostly anglicisms) is to adapt them on the morphological level and keep the original spelling. The pronunciation is as close to the original as possible. The target form for the subject was Standard British English pronunciation, which he acquired at school. As the Czech phoneme system is different from the English one, Czech speakers replace the original phonemes from English with Czech ones. The target child got most of the input containing anglicisms on the internet from YouTubers and streamers, and he modified his pronunciation accordingly. Target forms were taken from Cambridge Dictionary Online. This dictionary offers both British and American pronunciations of words, complete with IPA transcriptions. In the following

examples, the child replaced English vowels with Czech vowels and employed the Czech pronunciation of the phoneme r and v:

(9) English pronunciation: game over [ɡeɪm əʊ.və(ɹ)]
The subject's pronunciation: game over [ɡeɪm oʊ̯vr]

(10) English pronunciation: power [paʊə(ɹ)]
The subject's pronunciation: power [pavr]

(11) English pronunciation: treat [tɹiːt]
The subject's pronunciation: treat [triːt]

On the other hand, the child was able to employ some English phonemes which are not present in Czech, such as /w/:

(12) English pronunciation: British /wɪndəʊz/ or American /wɪndoʊz/
The subject's pronunciation: /wɪndoʊz/

The child's pronunciation of anglicisms was influenced by YouTubers and Let's Players. Some of them were native speakers of English, but the majority of them were Czech or Slovak native speakers who function as initiators of the orthoepic adoption of the new lexemes borrowed from English. The child's pronunciation was as close to the original as possible. If the pronunciation was incorrect, it was due to input from YouTubers who were not native speakers of English.

11. Discussion and conclusions

The analysis of words of foreign origin in one's child's language development shows several tendencies according to age (although the stages overlap to some extent):

1) In the beginning, the words of foreign origin were those which belonged to basic vocabulary and were well adapted to the Czech language on all linguistic levels. They did not require any adaptative processes from the child as they followed Czech morphology and pronunciation. They denoted items of everyday usage. The source of the input was mainly the family. The child used words of foreign origin to express his ideas and needs (ages 3 to 5).
2) Later on, scientific terminology was acquired. In spontaneous speech, the child used the terminology of his areas of interest (dinosaurs, evolution, cars and their brands, mineralogy). He knew the terminology of various school subjects, too, but did not use it much in spontaneous speech. The child used the words in accordance with Czech declensional and conjugational paradigms. The child used words of foreign origin to speak about his areas of interest and show his knowledge to others (ages 5 to 7).
3) The usage of PC-game sociolect words, anglicisms, and Slovak words or phrases characterize the third step in acquiring words of foreign origin. At this stage, the child also proved that he could adapt the words both morphologically, phonetically and lexically (word formation processes, creating new words). The child uses words of foreign origin to belong to his referential group of online PC game players. It is a part of his preferred image. His usage of foreign words is influenced by social media (YouTube) and peer groups (from age 7).
4) The study followed three aspects of language acquisition: processuality, complexity and interactivity. Processuality manifested in the sequence of acquisition – first, basic vocabulary was acquired, followed by terminology and later, sociolect. The child kept acquiring vocabulary from all the semantic fields; however, the frequency of words in particular categories changed. Complexity is manifested on the level of adaptation – newly acquired lexemes were adapted on all linguistic levels by the child – he adapted words on morphological, phonological, and word-formation levels. Interactivity manifests in applying a communication register in the context of interaction with other online game players and building up a sociolect vocabulary.

12. Limitations of the study and perspectives of further research

The presented study follows the acquisition of vocabulary of foreign origin in one Czech monolingual child. As vocabulary growth is dependent on the input the child gets, it is obvious that social environment, education and hobbies influenced the areas from which the lexemes were acquired; for example, computer-game playing is a very widespread hobby among Czech children, but it cannot be generalized that all the children (or boys) of a particular age have the knowledge of this sociolect. Therefore, more individual studies would be welcome to compare the areas of interest and their influence on vocabulary acquisition.

Similarly to the majority of studies aimed at language ontogeny, this study describes language acquisition in a boy living in a family with a higher socioeconomic status. Studies of language development of children of various sociological backgrounds are needed. Moreover, most previous studies are aimed at school children. More studies analysing both passive and active knowledge of words of foreign origin in pre-schoolers are necessary.

Appendix: words of foreign origin according to age in categories

3;00-3;11

category	lexemes	number of lexemes in the category	%
common words	auto, baterie, dinosaurus/diník, elektronika, fialová, fix, flek, formela, furt, garáž, internet, kaki(na), katalog, koala, kopie, kuskus, lampa, lavor, lodžie, mandarinka, parkovat, pneumatika, policajt, rádio, tablet, televize, triko, volant	28	84.8
widespread neologisms			
terminology	diktafon (xijon), ikony, aktualizace, kódovat	4	12.1
sociolect			
occasionalisms			
proper names	Piggy	1	3
original words			
		total = 33	100

4;00-4;11

category	lexemes	number of lexemes in the category	%
common words	anténa, autobus, automechanik, autosalon, betlém, bonbon, doktor, elektrika, figurka, fotka, fungovat, gram, havárie, havarovat, kabel, kabina, kabriolet, kamion, karoserie, kiwi, maxi, mixér, mixovat, nula, ordinace, provizorní (provizorský), radar, recept, regál, reklama, semafor, servis, skútr, taxík, traktor, video	36	66.7
widespread neologisms			
terminology	kvé er kód, touchpad, transkript	3	5.6
sociolect			
occasionalism			
proper names	Iveco, Bentley, Porche, Citroen, Mitsubishi, Peugeot, Dácia, Hyunday, Honda, Opel, Gačr, Superman, Unicef	13	24.1
original words	comfort edition, cool	2	3.7
		total = 54	100

5;00-5;11

category	lexemes	number of lexemes in the category	%
common words	balon, bibelot, bonboniéra, bonus, dokument, elektrický, energie, existovat, film, fotit, garážový, holt, IQ (í kvé), karty, katastrofa, konzole, kris kros, kytara, magnetka, matematika, motorka, navigovat, predátor, program, super, test, tygr, verzatilka, zoologická	29	70.7
widespread neologisms	billboard	1	2.4
terminology	evoluce, triceratops, pterodon, euplocefalus, celodonta, milion, minus, sekvence, ypsilon	9	22
sociolect	escape, game over	2	4.9
occasionalism			
proper names			
original words			
		total = 41	100

6;00-6;11

category	lexemes	number of lexemes in the category	%
common words	agresivní, akce, akční, bankrot, dekorace, dezert, disciplína, distanc, doping, finance, fotografovaný, funkční, fyzický, harmonika, kabinet, kameraman, kalendář, kapitán, kaput, kasino, klinika, kód, koláž, kombinovat, komplet, kontrola, likvidovat, menu, mikroskop, mini, oranžový, parkoviště, podium, remíza, renovace, rytmus, sezóna, start, šance, tragický, trenér, žeton	42	56.8
widespread neologisms	flash	1	1.4
terminology	eroze, ingredience, marmoleum, mascarpone, plus, tilapie, tiramisu	7	9.5
sociolect	anger, atak, bank, bird, castle, ctrl alt delete, dabl, fun, green(ový), ideas, impossible, indicie, invisibilita, joy, level, objective, power, rabbit, red, speed, telekineze, try again, unique, vortex	24	32.4
occasionalism			
proper names			
original words			
		total = 74	100

7;00-7;11

category	lexemes	number of lexemes in the category	%
common words	asistentka, démonický, esemeska, expert, explodovat, extra, fama, flaška, fronta, generovat, gepard, gratulovat, kastelán, klasický, klerik, láva, leopard, limit, medúza, meteorit, mistr, neon, pasovat, perfektní, premiéra, pyramida, risk, ruina, série, skór, tuna, typ, typicky, verze, veterán	35	34.3
widespread neologisms	spinner, youtuber	2	2
terminology	akácie, akáciový, frazém, sekunda	4	3.9
sociolect	adventure, angel, armour, cat, cave (kejvka), coal, cobblestone, common, colour, completed, crafting table, creeper, damage, diamant (dajmont), easy, eggs, emerald, end, enderman, enšantit, error, fail, fishing, glitter, golden, hardcore, house, challenge, chest (čestka), chat, ikspé, iron, item, kraftit, mafee (mafeéčko), monster, nether portál, pack, pen, pink, skeleton, solitér, spider, taktizovat, time, TNT (téentéčko), treat, yes, win, windows, wow, zombie	53	52
occasionalism			
proper names	Apple, Facebook, Microsoft, Minecraft, Pokémon, Roomba, YouTube	7	6.9
original words	blues	1	1
		total = 102	100

8;00-8;11

category	lexemes	number of lexemes in the category	%
common words	baron, bomba, demolovat, dynamit, efekt, elixír, fotbalista, historický, idiot, ignorovat, instalovat, logický, luxusně, mapa, materiál, profesionální, speciální, symbol	18	10.2
widespread neologisms	apka, hashtag, computer, klikat, online, restartovat	6	3.4
terminology	akvamarín, krystal, obsidián	3	1.7
sociolect	aréna, archer, army, baglý, barbar, barel, battle, bed, bedrock, big, bilder sink, bildingovat, birch, black, blaze, blok, bon míl, cake, clay, coin, creative, crown (kraunky), deadlý, deck, defect, destroy, elite, epik, fire, forward, friend, food, freeze, full dia, furnace (furnejska), gaming, gardián, gem, ghast, ghost, giant, glowstone, goblin, heal, hogrider, hospital, chán, chart, cheeter, ice, inferno, ingot, invaze, inventář, join, killnout, kontrovat, klan, knight, korpus, kvadrál, kvarzt, lucker, large, legendární, letsplay, lever, lighting, line (lajna), live, lock, maintanance break, marble, milky way, mise, mizérie, mob, mushroom, nice, noob, oak, oh my god, open, oréčko, original, pikex, plebík, pisty, plaňk, plant, player, potion, princess, push, prizmarín, produktivita, remember, random, rank, redstone, really, spellovat, spirit, stick, survival, retry, rip, roll, samuraj, sand, sandstone, sapling, sheep, shit, server, silver, skin, snake, spaunovat, syntéza, špionáž, sword, team mod, testovací, timer, topka, tower, trofej, trollit, update, valkýrie, victory, villager, vyabgrejděná, war, water, wizard, witch (vička), wood, wormatio, zhárdčit	141	79.7
occasionalism			
proper names	Booking, Firefox, Fortnite	3	1.7
original words	de facto, sacrebleu (sakrblé), WTF, LOL, sorry, VIP	6	3.4
		total = 177	100

9;00-9;11

Category	lexemes	number of lexemes in the category	%
common words	automaticky, duplikát, extrémní, generál, hamburger, hokej, informační, instantní, karanténa, kolibřík, kopírovat, lampion, masakr, premiér, populární, rekord, sociální, speciální, statistika, tematický, titulky	21	19.8
widespread neologisms			
terminology	procento	1	0.9
Sociolect	achievement, bee, berries, brain, brown, button, cock, collect, concrete, crossbow, daylight, efficiency, empty, equipment, find, flower, foremost day, furious, gigant, greefing, hole, hopper, how to play, what you think?, chespice, left, livestream, loadgame, man, magic, multifail, my, night vision, no, noobský, opening, oukey, pixel, powercube, point, please, quit, platinum, present, ravenger, ready, retardnout, ribbon, screenshot, select, setting, shalker box, silktouch, slimeblok, solo, spauner, speaking, stone, summon, superabilita, teammate, tiny, torch, trading, unboxing, weather cycle, what, where, where are you, wolf, wonderland, work, world	73	68.9
occasionalism	Pomatrex	1	0.9
proper names	Bookport, Cortex, COVID, Discord, Coronavirus, Viral Brothers	6	5.7
original words	christmas tree, laundry, robiť, rock paper scissors	4	3.8
		total = 106	100

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