The Psycholinguistic Aspects of Global Bilingualism Against the Background of the Society Digitalization Process in Ukraine and Slovak Republic

Психолінгвістичні аспекти глобального білінгвізму на тлі процесу діджиталізації суспільства в Україні та Словакії

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Original manuscript received September 20, 2022
Revised manuscript accepted March 15, 2023
ABSTRACT

**Purpose.** The purpose of the experimental study is to identify the tendencies of the global bilingualism development in the Ukrainian and Slovak languages based on the English loanwords functioning in the individual consciousness of their speakers. The novelty of the research is setting up the main features of the global bilingualism where the young people are the social stratum that represents the basis of the language changes and reacts to the social processes leading to the new perception of the English loanwords that is relevant nowadays. The main hypothesis of the research is the statement about the expansion of the global bilingualism trends connected with the intensive use of the digital technologies. It causes language code switching and the blurring of the language pictures of the world.

**Methods.** The main method of the research is psycholinguistic, more precisely, the free associative experiment and its essence to offer the respondent the stimuli, in our case, the English loanwords, with the aim of evoking appropriate associations.

**Procedure.** The respondents were given a written list of the stimulus words and they had to write down the first word that comes to their mind when responding to the stimuli. For the Ukrainian and Slovak respondents the list consisted of such English loanwords from the area of the social networking: Ukr. контент, Sl. kontent (content); Ukr. скріншот, Sl. skrinshot (screenshot); Ukr. інтерфейс, Sl. интерфейс (interface); Ukr. хештег, Sl. haštag (hashtag); Ukr. чат, Sl. чат (chat); Ukr. клік, Sl. кік (click); Ukr. лайк, Sl. like (like); Ukr. паблік, Sl. public (public). The experiment was conducted two times in 2019 and in 2022 in the Ukrainian and Slovak universities at non-language faculties where the respondents at the age of 17–21 took part: 200 Ukrainian and 200 Slovak students, 100 women and 100 men.

**Results.** There have been four groups of the associations given by the Ukrainians and Slovaks: the same loanword, the other English loanword, the unassimilated English word, the word of the native language. The number of the associations in different groups is dissimilar. The Slovaks gave more associations in English, the Ukrainians had more associations in Ukrainian. The both groups have the tendency to increase the number of the associations expressed with the English words, which are connected with the process of the global bilingualism development caused by the society digitalization era.

**Conclusions.** Due to the globalization processes that are taking place all over the world, the perception of the loanwords is changing. The English language is perceived as an integral part of everyday life. According to the results of the experiments conducted in 2019 and 2022 we can observe the emergence of the associations in English, which indicates the development of a special type of bilingualism, namely global, which is connected with the internationalization of the English language in the world, as well as the peculiarities of its perception. The development of the global bilingualism causes the interaction of two language codes in the consciousness of the individual. The English language is penetrating into the speech of the Ukrainian and Slovak people, changing thinking in the globalizing society. Thus, the shift in the self-concept can affect the transformation in the language picture of the world, that confirms the research hypothesis.

**Key words:** global bilingualism, language code, globalization, digitalization, loanword, language personality, language picture of the world.
Introduction

Today the information revolution has made the humanity witness the language revolution based on the socio-communicative processes of bilingualism.

This phenomena in psycholinguistic aspect is called code-switching, because the person who speaks two languages, switching from one to the other, changes the nature and direction of his thoughts flow at the same time (Misra & Trivedi, 2017).

The social information space involves the inclusion of the world community into a universal language circuit, and this necessitates the development of the new models implementation and the methods of information and communication interaction (Khmel, 2021).

In the modern society, we observe the active processes of globalization that form the polyethnic and polycultural systems, as well as a multilingual personality. The global communication leads to psychological neoplasms in the personal and cognitive area (Plant, 2001).

Some scientists put into circulation the concept of bilingual communicative space, believing that it is the integral component of the general social and informational space and contains the subjects of the communicative activity and objects of communicative influence (Blom et al., 2017).

The development of the global bilingual processes is primarily associated with the features of the information that make it valuable without borders. Thanks to such a powerful support the digital technologies and various means of mass communication the bilingualism is spreading all over the globe on the unprecedented scale (Sobaihy, 2017). The digital era is presented as a new ontogenetic stage that causes evolutionary transformations of the human psyche and human behavior.

The processes of mass transnational communication in the modern world makes the exchange of information on a bilingual basis very fast in the social space (Issa et al., 2022).

The information explosion and its introduction has increased the impact of informational externally induced influences on the human psyche, changing it at the level of the cognitive and emotional areas (Bosco & Gabbatore, 2017). Such changes, affecting all the types of
human activity, naturally lead to the transformation in person’s system of value and semantic orientations, and it determines the relevance of the study of this problem in psychological science.

Exploring the English loanwords we get an idea about the language personality that is connected with the influence on the language consciousness and self-consciousness of the individual.

The loanwords live in a person’s mind, constituting an image of the individual’s world, which is the product of its subjective perceptual, cognitive and affective personal experience (Bialystok, 2007). Nowadays English goes through the obligatory stage of the acquisition of the communicative and pragmatic competence of the speakers. More and more people use the English words but not the loanwords because there is no need to assimilate the foreign lexical items.

The interaction of two or more languages can occur at different levels, where there is such a significant process as transition of code-switching (interlanguage transitions), changing one language into another depending on the situation of the interaction between the individuals (Blom et al., 2017).

Philosophical and psychological approaches that allow to more accurately reveal the essence of bilingualism as a psychological phenomenon, remain underdeveloped. There are the significant works devoted to the bilingulism (Misra & Trivedi, 2017; Small et al., 2009 and others), which cover a wide range of the language problems and new aspects of the information space. The considerable attention has been paid to the changes in the psycho-physiological tonus of the person in the organization of the cognitive processes, regulations of the emotional-value resources (Misra & Trivedi, 2017), the construction of the behavioural processes (Bialystok, 2007). The analysis of the source base indicates that the most obvious and most studied consequences of the informational and technological changes relate to the human cognitive area (Sobaihy, 2017; Plant, 2001). The mismatch between the technical parameters of the digitalization tools to the psycho-physiological and mental characteristics of the human being has also been analyzed (Small et al., 2009).

However, the problems associated with the peculiarities of bilingualism inherent in the modern society, remain not fully developed, as well as the scientific research on the psychological changes related to this phenomenon.
So in our research the global bilingualism assumes that any success contact with the use of different languages where a person has at least elementary knowledge of the language. The study involves the aspects of loanword perception in the psycholinguistic aspect in two language societies.

The significant drawback of the concept of the bilingual generation is a radical change in the life context of the digital age and the cognitive processuality of these changes. It is a priori determined that the information consumed from the screen involves other mechanisms of the information perception, assimilation and processing (Plant, 2001).

The **object** of the research is the processes of global bilingualism in the Ukrainian and Slovak languages.

The **subject** of the study is the peculiarities of the English loanwords verbal perception as the manifestation of the global bilingualism in two language societies at different time intervals.

The **purpose** of the experimental study is to identify the tendencies of the global bilingualism development in the Ukrainian and Slovak languages based on the English loanwords functioning in the individual consciousness of their speakers.

The **main tasks** of the study are:

1. To model associative series defining the concepts related to the field of the social networking in the Ukrainian and Slovak languages,

2. To order the language associations according to the degree of the bilingual perception in two language societies;

3. To give the specific features of the language personality in the bilingual environment caused by the transformation of the cognitive functions and processes.

**Methodology**

The scientific research was carried out using a number of general scientific and psycholinguistic methods. The study requires the involvement of the conceptual and methodological apparatus of such sciences as psychology and linguistics.

In accordance with the tasks set, the theoretical and empirical research methods were used:
(1). the analysis of the perceptions of the loanwords to explain the development of the language personality in the global bilingualism environment;

(2). the comparison of the empirical research data related to the formation of cognitive processes under the influence of global bilingualism processes;

(3). the collection of the empirical data on the level of development of the English language influence on the language personality in different societies (questionnaire and comparative analysis).

The methodological and theoretical basis of the study is the methods of analysis and synthesis as well as the special methods. The comparative method was used to identify the similarities and differences between the aspects of the phenomena under analysis.

The research method is the theoretical analysis of the scientific literature on the psychology of the language picture of the world and the psychology of bilingualism.

The present study was carried out due to the need to clarify the psycholinguistic factors, influencing the uptake of the English-language loanwords by native speakers of the Ukrainian and Slovak languages.

In the study the free associative experiment was chosen to construct the perception of the English loanwords.

The very first association (reaction) that arises in the respondent at the moment when he perceives the word-stimulus was fixed.

The respondents recorded their answers through questionnaires. The processing of the obtained results required the method of quantitative calculations in percentage, which provided an opportunity to reveal the intensity and dynamics of global bilingualism process. In order to further classify the associative reactions of the respondents regarding the use of the language in which they were recorded, the method of linguistic phenomena observing was applied.

At the first stage in 2019, using the method of the representative sampling and free associative experiment, the register of 8 loanwords from the field of the social networking was compiled and the associations were determined.

The register of the lexical stimulus material was the loanwords: Ukr. контент, Sl. kontent (content); Ukr. скріншот, Sl. skrinshot (screenshot); Ukr. інтерфейс, Sl. interfeis (interface); Ukr. хеумез,
The participants had to write the first association to each word. In 2019, 200 language associations were obtained from the Ukrainian speakers, 200 language associations – from the Slovak people. All the associations were divided into the groups according to their language.

At the second stage in 2022 the same experiment was conducted in two language societies. In 2022, 200 language associations were given by the Ukrainian speakers, 200 language associations – by the Slovak people.

**Participants**

In the thesis the respondents were 100 male and 100 female students of the higher educational institutions of Ukraine and Slovakia aged from 17 to 21 years. They were the students of non-language faculties from Volodymyr Vynnychenko Central Ukrainian State University, Ukraine – 200 people at the age of 17–21, 100 women and 100 men.

The same experiment was conducted in University of Žilina in Žilina, Slovak Republic, where 200 people at the age of 17–21, 100 women and 100 men, took part.

In 2022 there were another students of non-language faculties from Volodymyr Vynnychenko Central Ukrainian State University, Ukraine – 200 people at the age of 17–21, 100 women and 100 men, and 200 students from University of Žilina in Žilina, Slovak Republic.

**Results**

The concept of the research is based on the statement about the influence of the global bilingualism on the language personality and the perception of the world picture in the processes of the intercultural communication.

In 2019 all the associations, given by the Ukrainians, were divided into four groups to show language of their writing: the same loanword, the other English loanword, the unassimilated English word, the Ukrainian word (Table 1).
**Контент (content):** the same loanword: контент (content); the other English loanword: файлы (files); блогер (blogger); сайт (site); веб-сайт (website); the unassimilated English word: content (content); website (website); Tik-Tok (Tik-Tok), Youtube (Youtube); posts (posts); the Ukrainian word: зміст (content); інформація (information); джерело інформації (the source of information); данні (data); цікавий матеріал для перегляду (interesting material to view); розвага (entertainment); інформація в інтернеті (information on the Internet); реклама (advertisement); наповнення інформацією будь-якого джерела (content of a source); тема, тематика (topic, theme); цифровий матеріал, що викладається у загальнодоступні ресурси (digital material put into public resources); цифровий продукт (відео, музика і т. д.) (digital product (video, music, etc.)).

**Скріншот (screenshot):** the same loanword: скріншот (screenshot); the other English loanword: девайс (device); смартфон (smartphone); the unassimilated English word: smartphone (smartphone), laptop (laptop); the Ukrainian word: змікек екрана (screen picture); фотографія екрана (the photo of the screen); копія (copy); змікек (snapshot); копіювання або фотографування екрана або тексту (the copy or photo of a screen or text); копія робочого столу (copy of a desktop); збереження поточного стану екрана (saving current screen state); зйомка екрану (screen capture); фіксація екрана у вигляді зображення (fixing the screen as an image); змікек монітора (photo from the monitor); функція на телефоні (phone function), електронна копія картинки (electronic copy of the picture).

**Інтерфейс (interface):** the same loanword: комп’ютер (computer); the other English loanword: меню (menu); порт (port); фейсбук (Facebook); комп’ютер (computer); дизайн (design); навігація (navigation); юзер (user); the unassimilated English word: –; the Ukrainian word: користувач (user); зовнішній вид (appearance); програма (program); обличчя (face); взаємодія (interaction); додаток (application); список (list); елементи (items); екран (screen).

**Хештег (hashtag):** the same loanword: хештег (hashtag); the other English loanword: інстаграм (Instagram); твіттер (Twitter); the unassimilated English word: hashtag (hashtag); Tik-Tok (Tik-Tok); Instagram (Instagram); Twitter (Twitter); the Ukrainian word: решітка (grid); знак (sign); мова (language); символ (symbol); соціальна мережа (social network).
Чат (chat): the same loanword: чат (chat); the other English loanword: смайл (smile); скайп (Skype); Інтернет (Internet); блог (blog); бот (bot); твіттер (Twitter); стікер (post-item); сайт (site); онлайн (online); вайбер (viber); the unassimilated English word: chat (chat); Skype (Skype); Twitter (Twitter); chat (chat), smile (smile); the Ukrainian word: спілкування (chatting); переписка (correspondence); розмова (conversation); діалог (dialogue); повідомлення (message); дискусія (discussion); люди (people); група (group); настрій (mood); коментарій (comment); відеозв'язок (video chat); бесіда (conversation); соціальна мережа (social network);

Клік (click): the same loanword: клік (click); the other English loanword: клікання (clicking); лайк (like); курсор (cursor); інтернет (Internet); the unassimilated English word: — ; the Ukrainian word: мишка (mouse); моргання (blinking); палець (finger).

Лайк (like): the same loanword: лайк (like); the other English loanword: інстаграм (Instagram); фейсбук (Facebook); комент (comment); пост (post); френд (friend); клік (click); смайл (smile); the unassimilated English word: like (like); love (love); the Ukrainian word: клас (class); оцінка (rating); серце (heart); знак (sign); вподобайка (like); увага (attention).

Паблік (public): the same loanword: паблік (public); the other English loanword: блог (blog); паб (pub); the unassimilated English word: VK (VK); public (public); pub (pub); the Ukrainian word: група (group); спільнота (community); люди (people); соціальна мережа (social networking); техніка (technology); публіка (public).

Table 1
The Associations of the Ukrainian Students in 2019

<table>
<thead>
<tr>
<th>Stimulus words</th>
<th>The same loanword</th>
<th>The English loanword</th>
<th>The unassimilated English word</th>
<th>The Ukrainian word</th>
</tr>
</thead>
<tbody>
<tr>
<td>Контент (content)</td>
<td>15</td>
<td>13</td>
<td>4</td>
<td>68</td>
</tr>
<tr>
<td>Скріншот (screenshot)</td>
<td>12</td>
<td>15</td>
<td>3</td>
<td>70</td>
</tr>
<tr>
<td>Інтерфейс (interface)</td>
<td>10</td>
<td>20</td>
<td>-</td>
<td>70</td>
</tr>
<tr>
<td>Хештег (hashtag)</td>
<td>12</td>
<td>5</td>
<td>4</td>
<td>69</td>
</tr>
<tr>
<td>Чат (chat)</td>
<td>12</td>
<td>18</td>
<td>3</td>
<td>67</td>
</tr>
<tr>
<td>Клік (click)</td>
<td>17</td>
<td>11</td>
<td>-</td>
<td>72</td>
</tr>
<tr>
<td>Лайк (like)</td>
<td>15</td>
<td>11</td>
<td>4</td>
<td>70</td>
</tr>
<tr>
<td>Паблік (public)</td>
<td>14</td>
<td>9</td>
<td>2</td>
<td>75</td>
</tr>
</tbody>
</table>
As we can see from the results of the study, the majority of the native Ukrainian speakers had the associations in the Ukrainian language. Also they wrote different English loanwords and unassimilated English words. The number of the associations in the English language is 0–4%. The number of the associations expressed with the assimilated English loanwords is up to 20%. Most associations are written in the Ukrainian language using the native lexical material.

The Slovak respondents had the same groups of the associations for the stimulus words in 2019 according to the language used by the respondents (Table 2).

**Kontent (content):** the same loanword: **kontent (content)**; the other English loanword: **digitálny (digital)**; the unassimilated English word: **video (video)**; **web page (web page)**; **files (files)**, **site (site)**; the Slovak word: **obsah (content)**; **informácie (information)**; **zdroj informácií (information source)**; **súbory (files)**, **webovej stránke (web page)**, **údaje (data)**; **zaujímavý materiál (interesting material)**; **informácie (the information)**; **kanál na získavanie informácií (the channel to get the information)**; **materiál (material)**; **obsah súboru (file content)**; **zoznam (the list of something)**; **príspevky (posts)**; **stránka (site)**; **téma (theme)**; **materiál (material)**; **verejných zdrojov (public resources)**; **hudba (music)**.

**Skrinshot (screenshot):** the same loanword: **skrinshot (screenshot)**; the other English loanword: **smartfón (smartphone)**; the unassimilated English word: **laptop (laptop)**; **copy (copy)**; **screenshot (screenshot)**; **gadget (gadget)**; the Slovak word: **snímka obrazovky (screenshot)**; **obrazovka (screenshort)**; **fotka obrazovky (screenshot)**; **kópia (copy)**; **sníma (shot)**; **fotografia obrazovky na telefóne, na počítači (the photo of the screen on the phone)**; **obrázok pracovnej plochy (the photo of the desktop)**; **zobrazená informácia na obrazovke (the information of the screen)**; **kópia alebo fotografia obrazovky alebo textu (the copy of the screen or text)**; **snímanie obrazovky (screen coverage)**; **fotografia z monitora (monitor photo)**; **fotografia obrazovky zariadenia (the photo of the device screen)**; **funkcia telefónu (telephone function)**, elektronická **kópia (electronic copy)**.

**Interfeis (interface):** the same loanword: **interfeis (interface)**; the other English loanword: **interakcia (interaction)**; **aplikácia (application)**; **dizajn (disign)**; **navigácia (navigation)**; **projektovanie (projecting)**; the unassimilated English word: **menu (menu)**; **Facebook (Facebook)**; **user (user)**, **interface (interface)**; the Slovak word: **počítač (computer)**.
použiteľnosť (usability); rozhranie (Interface) používateľ (user); vzhľad (appearance); program (program); dostupnosť (availability); prístav (port); tvár (face); zoznam (list); položky (lements); ikona (icon); počítačové hry (computer games); používateľ (user); obrazovka (screen); kontrola (control).

Haštag (hashtag): the same loanword: haštag (hashtag); the other English loanword: Twitter (Twitter); hyper link (hyper link); the unassimilated English word: Instagram (Instagram); symbol (symbol); the Slovak word: mriežka (grille); hľadať (search); jazyk (language); zámada (riddle); sociálna sieť (social network).

Čat (chat): the same loanword: čat (chat); the other English loanword: korešpondencia (correspondence); konferencia (conference); fórum (forum); video komunikácia (video communication); koment (comment); the unassimilated English word: chat (chat); smile (smile); Skype (Skype); Internet (Internet); blog (blog); bot (bot); Twitter (Twitter); sms (sms); online (online); talk (talk), video (video); the Slovak word: četovanie (communication); rozhovor (conversation); diaľóg (dialogue); klebetenie (chatting); tok (flood); správa (message); diskusia (discussion); ľudia (people); skupina (group); nálada (mood); flirtovanie (flirt); nálepka (sticker); stránka (site); rozhovor (conversation); sociálna sieť (social network); zoznámnenie (acquaintance).

Klik (click): the same loanword: klik (click); the other English loanword: boj (boy); kliknutie (to click); kurzor (cursor); the unassimilated English word: like (like); Internet (Internet), click (click); the Slovak word: myš (mouse); prepínač (switch); uzávierka (shutter), závierka (shutter); prst (finger).

Like (like): the same loanword: –; the other English loanword: luk (look); kliknutie (to click); klik (click); smajlik (smile); the unassimilated English word: Instagram (Instagram); Facebook (Facebook); cool (cool); comment (comment); post (post); repost (repost); friend (friend); heart (heart); smile (smile); look (look); like (like); the Slovak word: triedu (cool); komentár (comment); prispevok (post); predplatné (subscription); zákaz (ban); hodnotenie (evaluation); priateľ (friend); srdce (heart); znamenie (sign); krása (beauty).

Public (public): the same loanword: –; the other English loanword: komunity (community); the unassimilated English word: blog (blog); post (post); community (community); public (public); the Slovak word: verejnosť (public); skupina (group); chuť (taste); prispevok (post);
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Table 2
The Associations of the Slovak Students in 2019

<table>
<thead>
<tr>
<th>Stimulus words</th>
<th>The same loanword</th>
<th>The English loanword</th>
<th>The unassimilated English word</th>
<th>The Slovak word</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kontent (content)</td>
<td>4</td>
<td>2</td>
<td>37</td>
<td>57</td>
</tr>
<tr>
<td>Skrinshot (screenshot)</td>
<td>5</td>
<td>3</td>
<td>30</td>
<td>62</td>
</tr>
<tr>
<td>Interfeis (interface)</td>
<td>3</td>
<td>2</td>
<td>24</td>
<td>71</td>
</tr>
<tr>
<td>Haštag (hashtag)</td>
<td>2</td>
<td>2</td>
<td>34</td>
<td>62</td>
</tr>
<tr>
<td>Čat (chat)</td>
<td>2</td>
<td>3</td>
<td>34</td>
<td>61</td>
</tr>
<tr>
<td>Klik (click)</td>
<td>2</td>
<td>2</td>
<td>28</td>
<td>68</td>
</tr>
<tr>
<td>Like (like)</td>
<td>-</td>
<td>4</td>
<td>87</td>
<td>13</td>
</tr>
<tr>
<td>Public (public)</td>
<td>-</td>
<td>4</td>
<td>59</td>
<td>37</td>
</tr>
</tbody>
</table>

The research revealed the fact that the Slovak students had fewer English loanwords. However the number of the English words among the associations is greater, 24–87%, because some words are not assimilated in Slovak and they are given in English (like, public).

In 2022 the Ukrainian respondents gave four groups of the associations according to the language of the answer: the same loanword, the other English loanword, the English word, the Ukrainian word (Table 3).

Контент (content): the same loanword: content (content); the other English loanword: файл (file); сайт (site); блогер (blogger); посты (the posts); the unassimilated English word: posts (posts); website (website); digital content (digital content), Tik-Tok (Tik-Tok), Youtube (Youtube), sms (sms), show (show), video (video); the Ukrainian word: зміст (content); інформація (information); джерело інформації (the source of information); дані (data); цікавий матеріал для перегляду (interesting material to view); розвага (intertainment); інформація в інтернеті (information on the Internet); реклама (advertisement); канал для отримання інформації (channel for obtaining the information); матеріал для зйомки (material for shooting); зміст файлу чи твору (content of a file or work); наповнення інформацією будь-якого джерела (the content of any source); список (the list); зміст сторінки / каналу...
(page / channel content); тема, тематика (topic, theme); цифровий матеріал (digital material), публічне джерело (public resource); цифровий продукт (відео, музику и т. д.) (digital product (video, music, etc.)).

Скріншот (screenshot): the same loanword: скріншот (screenshot); the other English loanword: гаджет (gadget); монітор (monitor); девайс (device); скрін (screen); the unassimilated English word: screenshot (screenshot); smartphone (smartphone); laptop (laptop); device (device); screen (screen); the Ukrainian word: зіймок екрана (screen picture); фотографія екрана (the photo of the screen); зіймок (snapshot); картинка робочого столу (the picture of a desktop), інформація, що виведена на екран пристрою (information displayed on the screen of a device); копіювання або фотографування екрана або тексту (the copy or photo of the screen or text); копія робочого столу на комп’ютері або мобільному пристрої (copy of the desktop on a computer or mobile device); зіймок екрана (смартфона, лептопа); охоплення екрану (screen capture); збереження зображення екрана комп’ютера в його пам’яті (saving a computer screen image in its memory); збереження поточного стану екрана (saving the current screen state); зйомка екрану (screen capture); фіксація екрана у вигляді зображення (fixing the screen as an image); функція на телефоні (phone function), електронна копія картинки (electronic copy of the picture).

Інтерфейс (interface): the same loanword: інтерфейс (Interface); the other English loanword: комп’ютер (computer); юзабіліті (usability); порт (port); фейсбук (Facebook); дизайн (design); навігація (navigation); юзер (user); the unassimilated English word: inter (inter); Facebook (Facebook); user (user); list (list); interface (interface); the Ukrainian word: користувач (user); зовнішній вид (appearance); програма (program); доступність (accessibility); обличчя (face); взаємодія (interaction); додаток (application); список (list); елементи (items); іконка (icon); проектування (design); екран (screen); керування (control).

Хештег (hashtag): the same loanword: хештег (hashtag); the other English loanword: інстаграм (Instagram); твіттер (Twitter), меседж (message); тренд (trend); the unassimilated English word: hashtag (hashtag); Tik-Tok (Tik-Tok); Instagram (Instagram); Twitter (Twitter), reels (reels); the Ukrainian word: решітка (grid);
poшук (search); знак (sign); мова (language); символ (symbol); загадка (enigma); посилання (link); соціальна мережа (social network).

Чат (chat): the same loanword: чат (chat); the other English loanword: смайл (smile); скайп (Skype); Інтернет (Internet); блог (blog); флуд (flood); форум (forum); бот (bot); твіттер (Twitter); стікер (post-item); смс (sms); сайт (site); месенджер (messenger), онлайн (online); вайбер (viber); the unassimilated English word: chat (chat); Skype (Skype); Twitter (Twitter); friends (friends); chatting (chatting), Facebook (Facebook), Instagram (Instagram), messenger (messenger); the Ukrainian word: спілкування (chatting); переписка (correspondence); розмова (conversation); діалог (dialogue); балаканина (chatting); конференція (conference); повідомлення (message); дискусія (discussion); рулетка (roulette); люди (people); група (group); настрої (mood); коментарій (comment); бесіда (conversation); соціальна мережа (social network); обговорення (discussion); знайомство (dating).

Клік (click): the same loanword: клік (click); the other English loanword: бой (fight); клікання (click); смс (sms); лайк (like); курсор (cursor); інтернет (Internet); the unassimilated English word: touch (touch), sms (sms); like (like); click (click); the Ukrainian word: мишка (mouse); іконка (icon); вимикання (switching on); затвір (shutter); мигання (blinking); палець (finger).

Лайк (like): the same loanword: лайк (like); the other English loanword: інстаграм (Instagram); фейсбук (Facebook); клас (class); комент (comment); пост (post); бан (ban); френд (friend); репост (repost); лук (look); клік (click); смайлик (smile); the unassimilated English word: like (like); love (love), Youtube (Youtube), smile (smile), repost (repost); the Ukrainian word: підписка (subscription); коментарій (comment); оцінка (rating); серце (heart); знак (sign); вподобайка (like); увага (attention); краса (beauty).

Паблік (public): the same loanword: паблік (public); the other English loanword: блог (blog); пост (post); паб (pub); the unassimilated English word: place (place); transport (transport), Youtube (Youtube); public (public); the Ukrainian word: група (group); спільнота (community); люди (people); жарти (jokes); смак (taste); дно (bottom); соціальна мережа (social networking); техніка (technology).
The numeral of the associations in the English language is 3–8%, in 2019 it was 0–4%. The number of the associations expressed with the assimilated English loanwords is up to 18%, in 2019 it was up to 20%. The associations written in the Ukrainian language using the native lexicial material are fewer; they were 68–75%, now they are 61–71%.

The number of the associations related to the English loanwords and expressed through the graphic means of the English language has increased, which indicates the development of the process of the language globalization and the influence of English on the language picture of the world of the Ukrainians. Also we can say about the global bilingualism promotion.

The Slovak respondents also have differences compared to the previous results. In 2022 they wrote the following associations according to the language of the answer: the same loanword, the other English loanword, the unassimilated English word, the Ukrainian word (Table 4).

**Kontent (content):** the same loanword: kontent (content); the other English loanword: informácie (information), digitálny (digital); the unassimilated English word: Internet (Internet); video (video), file (file), site (site), data (data), web page (web page), content (content); the Slovak word: obsah (content); súboru (files), webovej stránke (web page), údaje (data); zaujímavý materiál (interesting material); kanál na získavanie informácií (the channel to get the information); materiál (material); obsah súboru (file content); zoznam (the list of something); prispevky (posts); stránka (site); téma (theme); hudba (music).
Skrinshot (screenshot): the same loanword: skrinshot (screenshot); the other English loanword: gadget (gadget); smartfón (smartphone); the unassimilated English word: photo (photo); screen (screen); phone (phone); laptop (laptop); device (device); screen (screen); screenshot (screenshot), copy (copy); the Slovak word: snímka obrazovky (screenshot); obrazovka (screenshort); fotka obrazovky (screenshort); kópia (copy); snímka (shot); obrázok pracovnej plochy (the photo of the desktop), zobrazená informácia na obrazovke (the information of the screen); kópia alebo fotografia obrazovky alebo textu (the copy of the screen or text); snímanie obrazovky (screen coverage); elektronická kópia (electronic copy).

Interfeis (interface): the same loanword: interfeis (interface); the other English loanword: interakcia (interaction); aplikácia (application); dizajn (design); navigácia (navigation); the unassimilated English word: Facebook (Facebook); user (user), interface (interface), list (list); the Slovak word: počítač (computer); použiteľnosť (usability); rozhranie (interface) používateľ (user); vzhľad (appearance); dostupnosť (availability); prístav (port); tvár (face); zoznam (list); položky (elements); počítačové hry (computer games); používateľ (user); obrazovka (screen).

Haštag (hashtag): the same loanword: haštag (hashtag); the other English loanword: – ; the unassimilated English word: hashtag (hashtag); Instagram (Instagram); Twitter (Twitter); language (language), link (link), social network (social nework); the Slovak word: mriežka (grille); hľadať (search); jazyk (language); záhada (riddle); hypertextový odkaz (hyper link); sociálna sieť (social network).

Čat (chat): the same loanword: čat (chat); the other English loanword: korešpondencia (correspondence); konferencia (conference); fórum (forum); diskusia (discussion); komentár (comment); koment (comment); the unassimilated English word: chat (chat); smile (smile); Skype (Skype); Internet (Internet); blog (blog); bot (bot); Twitter (Twitter); sms (sms); online (online); talk (talk), video (video), music (music), comment (comment); the Slovak word: četovanie (communication); rozhovor (conversation); ľudia (people); skupina (group); nálada (mood); flirtovanie (flirt); klebetenie (chatting), tok (flood); správa (message); nálepka (sticker); stránka (site); rozhovor (conversation); sociálna sieť (social network); zoznámenie (acquaintance).
**Klik (click):** the same loanword: *klik (click)*; the other English loanword: *kliknúť* (to click); *kurzor* (cursor); the unassimilated English word: *like* (like); *post* (post); *Internet* (Internet), *click* (click); the Slovak word: *myš* (mouse); *prepínac* (switch); *uzávierka* (shutter), *závierka* (shutter); *blikanie* (blinking).

**Like (like):** the same loanword: – ; the other English loanword: *luk* (look); *kliknutie* (to click); *klik* (click); *smajlík* (smile); the unassimilated English word: *Instagram* (Instagram); *like* (like); *Facebook* (Facebook); *cool* (cool); *comment* (comment); *post* (post); *repost* (repost); *friend* (friend), *heart* (heart), *smile* (smile), *look* (look), *good* (good); the Slovak word: *triedu* (cool); *prispevok* (post); *predplatné* (subscription); *zákaz* (ban); *hodnotenie* (evaluation); *priatel’* (friend); *srdce* (heart); *znamenie* (sign); *krása* (beauty).

**Public (public):** the same loanword: – ; the other English loanword: *komunity* (community); the unassimilated English word: *blog* (blog); *post* (post), *community* (community), *public* (public); the Slovak word: *verejnosť* (public); *skupina* (group); *chuť* (taste); *prispevok* (post); *dole* (bottom); *sociálne siete* (social network); *technika* (technique).

### Table 4
**The Associations of the Slovak Atudents in 2022**

<table>
<thead>
<tr>
<th>Stimulus words</th>
<th>The same loanword</th>
<th>The English loanword</th>
<th>The unassimilated English word</th>
<th>The Slovak word</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kontent (content)</td>
<td>1</td>
<td>2</td>
<td>42</td>
<td>55</td>
</tr>
<tr>
<td>Skrinshot (screenshot)</td>
<td>2</td>
<td>2</td>
<td>35</td>
<td>61</td>
</tr>
<tr>
<td>Interfeis (interface)</td>
<td>1</td>
<td>2</td>
<td>34</td>
<td>63</td>
</tr>
<tr>
<td>Haštag (hashtag)</td>
<td>-</td>
<td>2</td>
<td>38</td>
<td>58</td>
</tr>
<tr>
<td>Čat (chat)</td>
<td>2</td>
<td>2</td>
<td>44</td>
<td>52</td>
</tr>
<tr>
<td>Klik (click)</td>
<td>2</td>
<td>2</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>Like (like)</td>
<td>-</td>
<td>2</td>
<td>87</td>
<td>13</td>
</tr>
<tr>
<td>Public (public)</td>
<td>-</td>
<td>2</td>
<td>81</td>
<td>17</td>
</tr>
</tbody>
</table>

Based on the results of the research, we can state that English has become frequently used among the Slovak students, as the number of the English words among their associations has also increased: it is 34–87%, in 2019 it was 24–87. The number of the associations in the native language has decreased from 13–71% to 13–63%.
The number of the associations expressed through the loanwords has also decreased, as the process of the assimilation of the foreign word becomes less relevant in the Slovak language. The students know English and do not need the adaptation of the English loanwords by the means of the Slovak language.

In both language societies, the number of the associations in the English language has increased, which indicates the development of the process of the global bilingualism, when English becomes the second language of the communication and the speakers of the Ukrainian and Slovak languages begin to unconsciously switch language codes, using their native and non-native languages, and it affects the development of the language personality and formation of the general picture of the world.

Different societies have the same psycholinguistic personal characteristics under the influence of the process of the world society digitization.

In the Ukrainian language, we observe the tendency of the language globalization more clearly in view of the later socio-economic and political changes. Despite this, the changes in the consciousness of the language personality are more intense.

The process of the bilingualism in the modern society, unfolding in parallel with the development of the information society, in fact, is a global social process that includes all the problems of information and communication exchange and covers the entire range of the social relations: interpersonal, intergroup, institutional, etc.

The special role in the successful communication is played by the knowledge of the code systems of the foreign languages. In the intercultural communication, each culture is a system of the codes that extends its action to everyday relationships, social and cultural norms, etc. In this regard, in the process of the communication, the problem of encoding (the use of the symbols that can be written, verbal, non-verbal, mathematical, musical, etc.) and decoding information becomes important.

**Discussion**

The idea of the existence of the certain generations and their development is determined by the technological progress. It has
an undeniable theoretical basis that affects the formation of the physical and psychological human characteristics. Cultural-historical paradigm explains the development of the psyche as the appropriation of the historically developed ways and forms of the activity.

The intensification of communicative and informational processes leads to the special understanding of the opposition bilingualism – society and forces to interpret the general social processes in a new way.

We do not know about the consequences of the global bilingualism. The benefits of this process, in our opinion, far outweigh its potential drawbacks. The question is what role the second language will play in the society. Being in a new environment and realizing the new situation, the society and individual are forced to learn new patterns and ways of the communication.

The bilingualism as a process of mastering another language and another culture is the process of gradual adaptation to the leading culture, and without necessarily giving up the own language identity, thus offering the most acceptable social model for the individuals entering the new information culture.

At the same time, the most significant changes in the mental status of the person under the influence of the digitalization processes, occur at the level of the cognitive sphere.

We agree that among the positive effects on the psyche there is the more rapid and selective access to the distant information (Tiv, Kutlu & Titone, 2021).

The bilingualism can also be considered as an important way of information exchange, which is based on the process of interlanguage and intercultural communication and ensures effective socialization, fixation of social relations and, in the end, transformation of the world.

The development of the global bilingual processes is primarily due to the characteristics of the information that makes its value without borders.

Although together with this bilingualism can be considered as a source of problematization of life and activity of the individual who is faced with the need to work hard on improving his abilities in order to effectively navigate the information space that is complicated constantly.

The cognitive impairment is the change in the cognitive processes, manifested by the transformations in the volume, temporal and structural characteristics of memory, unfavorable qualitative and
quantitative restructuring of the mental capacity. The disturbances of the complex brain functions ensure all the aspects of the interaction with the information.

**Conclusion**

The scientific novelty of the study is that: for the first time, a comparative analysis of the influence of the global bilingualism on language personality in two societies has been conducted; the dynamics of this process among the speakers of the Ukrainian and Slovak languages has been revealed.

The English language can be promoted as a common language of the international communication and it leads to the expansion of inter-ethnic communication connected with the global bilingualism.

The analysis of the reactions showed that the most relevant foreign language for the Ukrainian and Slovak speakers’ consciousness is English. When comparing verbal associations related to the different periods of time, there is an increase in the number of the reactions in the English language and a decrease in the number of the reactions in Ukrainian and Slovak.

In the Ukrainian society, the processes of the global bilingualism take place more intensively, since the results of the experiment over three-year period differ significantly. The Slovak respondents were involved in the language globalization more than the Ukrainians in 2019, although the process is ongoing.

Globalization processes have caused the intensive development of bilingualism in Ukraine and Slovakia, which is characterizes with the regular use of the native and English languages, their distribution by the spheres of communication and quick switching from one language code to another.

The result of such language contacts is a deeper penetration of the foreign units into the language consciousness in the form of the foreign inclusions and loanwords. All the data presented in the article tell about the special status of the English language in the speech and life of two societies. Such an infusion of the English vocabulary into the Ukrainian and Slovak speech does not just change the language picture of the world of the individuals, but also affects the overall language picture of the world of the nation.
The formation of the unified information space contributes to the unification of the communicative processes. The globalisation leads to the significant shift towards the communication between the individuals. This causes the development of the global bilingualism characterised by the continuous growth, both in the sense of the wide coverage of the world’s population and the improvement of the language proficiency.

The processes of the adaptation that arise in this case are quite intense and global, they affect many mental functions and properties. This consideration leads to the need to identify the specific factors and components of the digital environment that has the potential impact on the human cognitive activity. Thus, the language personality ceases to interpret the transmitted picture of the world in the native language and begins to rebuild people’s consciousness in accordance with the English realities.

The modern society needs less and less assimilation of the English words in the area of social networks. There are the processes of the unification of the language material of the multinational society. The increase of the associations in English to stimuli expressed by the English loanwords that are adapted in the recipient language suggests that this language has become the basis of the global bilingualism, which has affected the perception of the language material in the mental aspect.

As a result of the new information and communication environment formation the significant changes are taking place in the individual consciousness and in the system of personal values. A person faces the need to change the lifestyle, the way of thinking, the nature of the relationship with the surrounding reality.

The deformation of the self-concept entails the change in the national identification of the individual, and then his relationship to the native language that can lead to the subsequent modifications in the language picture of the world.

In the new bilingual environment, the language personality changes. The processes of cognitive transformation affect the perception of the world. A new paradigm of language functioning appears. It is natural that in such conditions the cognitive-interpretive models of the native language are updated and the bilingualism becomes methodologically necessary.

The generalizations made in the scientific work are the basis for the further multifaceted research in the field of psycholinguistics.
We see the prospect of the further research in the study of the process of global bilingualism in different societies.

**ADHERENCE TO ETHICAL STANDARDS**

**Ethics declaration.** The study was conducted according to the Ethical Code of the Scientist of Ukraine, the norms of professional ethics and the Regulation on the academic integrity of the scientific and pedagogical workers, pedagogical workers and higher education workers of Volodymyr Vynnychenko Central Ukrainian State University and University of Žilina in Žilina.

The participants of the experimental part of the study have been informed in details about the purpose of the study, the conditions and procedure of its conduct, the forms of processing, possible ways of presenting and using the results of the study. The informed consent for the voluntary participation in the study has been obtained from all the respondents.

**Data Availability Statement.** The datasets generated and analyzed during the current study are available from Mendeley: https://www.mendeley.com/reference-manager/library/all-references

**Funding.** No funding has been received to conduct this research.

**Conflicts of Interests.** The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

**Author contributions.** **Leleka T.:** the idea, modeling of the theoretical concept and general design of the research, formulation of goals and objectives of the research, general organization of empirical research, writing abstracts to the article, preparation of the final version of the manuscript, submission of data to the international repository, organizing the experiment, the development of software, data collection and analysis, interpretation of data of the research, preparation of tables and figures in their original form, planning and managing the implementation of experimental activity, selection of stimulus material; data collection and analysis, interpretation of data of the research. **Moskalenko O.:** preparation of the initial version of a manuscript, planning and managing the implementation of experimental activity, selection of stimulus material, drawing up a list of sources used in the APA style, preparation of documents and collection of informed consent from potential participants of the experiment, I’m responsible for compliance with ethical standards of the experiment, collection and analysis, interpretation of data of the research, finalization of tables and figures, mathematical and statistical processing of empirical data.

All authors commented on previous versions of the manuscript. All authors have read and approved the final version of the manuscript.

**Consent for Publication.** The authors jointly consent for the manuscript to be published by the journal.

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References


АНОТАЦІЯ

Мета. Мета експериментального дослідження – виявити тенденції розвитку глобального білінгвізму в українській та словацькій мовах на основі функціонування англійських запозичень в індивідуальній свідомості їх носіїв. Новизна дослідження полягає в встановленні основних рис глобальної двомовності, де молода є тим соціальним прошарком, який є основою мовних змін і реагує на соціальні процеси, що призводять до нового сприйняття
запозиченних слів, що є актуальним в епоху діджиталізації. Основною гіпотезою дослідження є твердження про розширення глобальних тенденцій білінгвізму, пов’язаних з інтенсивним використанням цифрових технологій. Це спричиняє перемикання мовного коду та розмивання мовної картини світу.

**Методи.** Основним методом дослідження є психолінгвістичний, точніше, вільний асоціативний експеримент, суть якого полягає в тому, що респондентам пропонуються слова-стимули, а саме англійські запозичення, з метою викликати відповідні асоціації.

**Процедура.** Респондентам був наданий письмовий список слів-стимулів, і вони повинні були записати перше слово, яке спадає їм на думку під час відповіді на стимули. Для українських та словацьких респондентів список складався з таких англійських запозичень, пов’язаних зі сфери соціальних мереж: укр. контент, сл. content; укр. скріншот, сл. skrinshot (screenshot); укр. інтерфейс, сл. interface; укр. хештег, сл. haštag (hashtag); укр. чат, сл. čat (chat); укр. клік, сл. klik (click); укр. лайк, сл. like (like); укр. паблік, сл. public (public). Експеримент проводився двічі. У 2019 році в українських та словацьких університетах на немовних факультетах взяли участь 200 студентів, 100 жінок та 100 чоловіків, у кожній країні. У 2022 році інші 200 студентів тих самих університетів подали свої асоціації.

**Результати.** Було виявлено чотири групи асоціацій на слова-симоли в залежності від мети дослідження: те саме англійське запозичення, інше англійське запозичення, неасимільоване англійське слово, слово рідної мови. Кількість асоціацій у різних групах неоднакова. Носії словацької мови дали більше асоціацій англійською мовою, українці – питомо. В обох групах спостерігається тенденція до збільшення кількості асоціацій, що виражаються англійським словом, що пов’язано з процесом розвитку глобальної двомовності, пов’язаної з цифровізацією суспільства.

**Висновки.** У зв’язку з процесами глобалізації, які відбуваються в усьому світі, змінюється сприйняття запозичених слів. Англійська мова сприймається як невід’ємна частина повсякденного життя. За результатами експериментів, проведених у 2019 та 2022 роках, можна спостерігати появи асоціацій англійською мовою, що свідчить про розвиток особливого типу білінгвізму, а саме глобального, який пов’язаний з інтернаціоналізацією англійської мови у світі, а також особливостями її сприйняття. Розвиток глобального білінгвізму пов’язаний із взаємодією двох мовних кодів у свідомості особистості. Англійська мова проникає в мовлення носіїв української та словацької мов, змінюючи мислення глобалізованого суспільства. Таким чином, зміна Я-концепції може впливати на трансформацію мовної картини світу, що підтверджує гіпотезу дослідження.

**Ключові слова:** глобальний білінгвізм, мовний код, глобалізація, цифровізація, запозичення, мовна особистість, мовна картина світу.