Are There Benefits of Bilingualism in the Socio-Affective Domain?

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Abstract

The present paper deals with bilingualism from a "hot" point of view: it seeks the answer to the question whether Hungarian-Serbian bilinguals and monolinguals show differences and variations in empathic skills and emotional intelligence. For measuring these variables we have used a modified language history questionnaire, the Hungarian versions of the Davis Interpersonal Reactivity Index (IRI-HU) and the Wong and Law Emotional Intelligence Scale (WLEIS-HU). The data of 208 individuals from Serbia were analyzed. Comparing individuals who are monolinguals and bilinguals, at present use and know languages at various levels, our results have shown that individuals with higher levels of current language knowledge and frequency of language use rate their skills of evaluating the emotions of others and perspective taking as better.

Key words: *benefit; emotional intelligence; empathy; Hungarian-Serbian bilingualism; Serbia.*

Introduction

There are various fields of life where highly developed affective and social skills are relevant for successful functioning (Brust Nemet & Velki, 2016; Živojinović et al., 2019; Šincek et al., 2020).

The most up-to-date publication on the advantages of bilingualism draws attention to the positive effects of bilingualism on open-mindedness, social flexibility and empathy in addition to the cognitive domian (Ramírez-Esparza et al., 2020).

Over the last few decades, various questions have been raised in relation to the topic whether the phenomenon of bilingualism is connected to some non-linguistic cognitive benefits (Bialystok, 2009; Festman & Münte, 2012; Lee, 1996; Yang et al., 2011). For

the latter expectation one explanation is the following: "The prevailing interpretation of the bilingual advantage is that bilingual children have added practice exercising selective attention and cognitive flexibility due to the ongoing demands of coordinating two languages." (Morton & Harper, 2007, p. 719), so bilinguals live among constant language selections and activations and inhibition of the non-adequate language (on bilingual advantages see Bialystok, 1999; 2001; 2006; 2010; 2011; 2015; Bialystok et al., 2004; Bialystok et al., 2008; 2012; Costa et al., 2008; Jávor, 2017a). Advantage has been found on numerous occasions when bilinguals outperform monolinguals on tasks demanding executive control and cognitive effort (Bialystok, 2009), but the topic is controversial, because null results also exist (Duñabeitia & Carreiras, 2015; Paap & Greenberg, 2013; Paap et al., 2015; 2016).

In the past few years a new line of research has emerged on the topic of bilingual advantages. Broadening the area a new focus is directed to the question whether there are some benefits in the social and affective domains of functioning in bilinguals.

Expanding the research questions to the social field, Ikizer and Ramírez-Esparza (2018) have introduced the term of social flexibility in bilinguals, namely the capability to easily conform and function with success in various social settings and to read social cues correctly. They define the above mentioned term as a part of emotional intelligence and their results indicate that bilinguals are better than monolinguals in this particular skill.

On the other hand, investigating emotion processing in bilinguals, Lorette and Dewaele (2015) pointed out that emotion expression and recognition in the self and others can be heightened when the person is using an LX. Their research aimed to establish whether there are differences between L1 and LX users in emotion recognition scores on basic emotions when viewing an L1 English person and also whether the proficiency level in English and the cultural background is important. Their results show a significant positive relationship between emotion recognition and proficiency in LX users (and a marginal one in L1 users). Additionally, participants from Asian cultural backgrounds showed lower levels of emotion recognition in English compared to other LX participants.

Alqarni and Dewaele (2020) set out to unravel the possible relationship between the number of languages known and used on one hand and emotion recognition and trait emotional intelligence on the other. Their results have shown that bilinguals are better than monolinguals in emotion perception in English as a second language. In Arabic no differences were found between monolinguals and bilinguals. Additionally, bilinguals had higher trait emotional intelligence than monolinguals. The results are summed up by the authors in the statement that there is a "small bilingual advantage for emotional and psychological domains" (Alqarni & Dewaele, 2020, p. 1).

Research done so far in Serbia have dealt with two issues: processing of affectively nuanced words in bilinguals' first and second language and theory of mind (ToM) and empathy in bilinguals (Grabovac & Pléh, 2014a; 2014b; Jávor, 2017b).

Grabovac and Pléh (2014a; 2014b) studied Hungarian-Serbian bilinguals from Serbia, early and late bilingual groups. They wanted to test if words with emotional meaning and charge have a differential effect in the first and a second language of a bilingual. An important background variable was whether the second language was acquired, learned and used in more intimate, emotionally laden contexts or just "cool", affectively neutral school settings. They have used the emotional Stroop task, where reaction time is measured to words with different meanings, but the answers are connected to word color (so the words are compound stimuli: meaning and color varies in all of them). Their main findings were that early bilinguals show longer reaction times to negative than positive and neutral words, with no differences between languages; the late bilingual group also showed increased reaction times to negatively laden words and the reaction times (for all verbal stimuli) were longer for words in Serbian, the second language. These results mean that negative words have the deepest impact on processing, somewhat "freezing" attentional functioning presumably for longer processing. Also, emotional content did not affect differentially first and second language processing. Overall, second language processing was more demanding for the late Hungarian-Serbian bilingual group.

Jávor (2017b) compared the ToM (theory of mind) ability and empathic skills of young monolingual and bilingual adults. The ToM ability was measured with the Adult Mindreading Ability Test produced by Kinderman and his colleagues (1998), and the Interpersonal Reactivity Index (Davis, 1983) was used for measuring the two dimensions of empathy: cold (cognitive) and hot (affective) empathy. Cold empathy is the ability to recognize the state of the other person (perspective-taking), that is, this ability is similar to ToM. Hot empathy will appear when the observed emotional state creates a similar state in the observer (McIlwain, 2003). The results showed that the bilingual group had higher scores in both tests than monolinguals.

The benefits of ToM have already been demonstrated by others, especially in children. Kovács (2009) compared false belief reasoning of monolingual and bilingual children, according to the competence vs. performance theory. To do this, she used a classic false belief task and a modified task in a language-switching scenario. In the modified task, the children had to predict where the protagonist would go for ice cream (to the ice cream or sandwich vendor) after hearing the ice cream vendor say it had run out of ice cream, but the sandwich vendor still has some. The protagonist of the story was a Romanian monolingual speaker, who did not understand the ice cream vendor, because it spoke Hungarian. Thus, the protagonist could not use the ice cream vendor's message in order to correct his false belief that the ice cream vendor will give him ice cream. According to the performance theory, bilingual children would outperform monolinguals in both the standard and modified false belief tasks due to increased inhibitory control (since both test tasks require inhibitory processes). In contrast, the competency theory suggests that bilingual children will have an advantage only in the modified false belief task, because bilingual children live in an environment where

language-switching is frequent and the test task was written in such a language-switching scenario. However, Kovács's (2009) bilingual group of 3-year-olds outperformed their monolingual peers in both types of tasks. This implies that a bilingual environment provides benefits in performance: it does not directly affect competence (which is ToM), but overcomes performance limitations, it affects the cognitive processes, which are needed to recognize false beliefs (executive functions).

Also, Nguyen and Astington (2014) found that after matching age and language skills, 3-5 year-old English-French bilingual preschoolers had higher scores on false belief tasks than English monolingual and French monolingual children (Nguyen & Astington, 2014).

This enhanced ToM ability may be the mediatory mechanism mostly toward cold empathy, because these two abilities are strongly interconnected. Furthermore, this increased perspective-taking ability may also help to develop more effective hot empathy (Jávor, 2017b).

From the research topics and results outlined above we can see that cognitive flexibility, social flexibility, theory of mind, emotional intelligence and empathy are intertwined phenomena at an abstract level: they all include perspective taking or switching, but also differ in whether they contain "cold" or "hot" aspects, namely some of them do not include emotions, affective aspects and the others do. Previous research questions also point to diversified interests, which can be classified as the following: research that deals with bilingual cognitive functioning, bilingual emotional functioning and research combining these two.

The aim of the current research is to follow the new research line focusing on "hot" topics in the research of bilingualism. We wanted to compare Hungarian-Serbian individuals from Serbia, who differ in the time when they started acquiring or learning the second language, language proficiency and frequency of second language use on measures of empathy and emotional intelligence.

Hypotheses

H1. We hypothesize that there will be a difference between early bilinguals, late bilinguals and monolinguals on the measures of empathy, particularly cognitive empathy.

H2. We assume that there will be a difference between early bilinguals, late bilinguals, and monolinguals on the measures of emotional intelligence.

H3. We assume that there will be differences on empathy measures between the groups, who show high or low results on general self-rated second language knowledge scale.

H4. We hypothesize that there will be differences in measures of emotional intelligence between the groups who show high or low results on general self-rated second language knowledge scale.

H5. We assume that there will be differences in empathy measures (particularly cognitive empathy) between groups, which differ in the frequency of use of the second language.

H6. We assume that there will be differences in emotional intelligence measures between groups, which differ in the frequency of use of the second language.

Methods

In this study a cross-sectional design was used. The study was done in Hungarian language.

Instruments and measures

Demographic variables

Before completing the questionnaires, participants were asked about the following: age, sex, place of living, level of education, workplace (if applicable), monthly income (if applicable), monthly income of parents (if applicable) and languages used with family members.

Language history questionnaire

The participants were asked about their language learning history using a modified and shortened Hungarian version of Li et al.'s (2006) Language History Questionnaire. The questions aimed to find out the participants' mother tongue, the level of knowledge of a second language, the initial use of the second language at home and in school, the age at which they first encountered the second language. They were also asked to rate their level of reading, writing, listening (understanding) and speaking skills in their mother tongue and second language (a Likert-scale with values between 1 and 7). They also evaluated the frequency of daily usage of their mother tongue and also the second language (each between 0 and 100 %).

As Göncz (2018, 6.) states, these measures, which include self-evaluation of bilingual language competence "have the same pros and cons as the majority of other measures used".

Davis interpersonal reactivity index – Hungarian version (IRI-HU)

The Davis Interpersonal Reactivity Index questionnaire (Davis, 1983, Hungarian translation by Kulcsár, 1998) was used to measure the level of empathy and the original version has four subscales: the first two factors measure cold (cognitive) and the following two hot (affective) empathy. The questionnaire comprises 28 items (7 per factor) and answers are given on a five-point Likert scale (0 - does not describe me well, 4 - describes me very well). In the original questionnaire the four subscales are: 1. Perspective Taking – it measures the level of success in taking over others' viewpoints, 2. Fantasy – shows how actively a person uses his or her imagination to identify with the affective world and behaviors of imaginary characters from books, movies, etc., 3. Empathic Concern – gives information about whether somebody has sympathy for others in times of need, and 4. Personal Distress – this subscale assesses personal vulnerability – the level of unpleasant feelings and anxiety in negative interpersonal

situations. In our sample the factor and parallel analysis showed a different structure: after omitting problematic items, we decided to use a four-factor solution. The first factor had items 8, 9, 11, 21, 25, 28 and its name is Perspective Taking and the subscales' Cronbach alpha is: .768. The second factor, Personal Distress includes items 6, 10, 17, 22, 24, 27, Cronbach alpha: .755, the third factor is made up of items 5, 16, 23, 26 and is named Fantasy, Cronbach alpha: .826, and the fourth factor is Empathic insensitivity (a negative version of concern) comprises a negative item 2 and the items 4, 14, 18, Cronbach alpha: .650.

The wong and law emotional intelligence scale – Hungarian version (WLEIS-HU)

The Wong and Law Emotional Intelligence Scale has 16 items in the original version (WLEIS; Wong & Law, 2002) and the answers are given on a 7-point Likert- scale. The Hungarian adaptation (Szabó et al., 2011) is a somewhat shorter, a 14-item scale. The scale utilizes a 5-point Likert scale as a more user-friendly solution, 1 meaning total disagreement with the statement, and 5 showing total agreement. In our study we used the Hungarian version with the following four scales: self-emotions appraisal, others' emotional appraisal, use of emotion, and regulation of emotion.

After the factor analysis, the results showed that a three-factor solution is acceptable for our sample: 1) emotion regulation (items number: 3, 7, 11, 14), Cronbach alpha: .776, 2), evaluating the emotions of others: items 5, 9, 12, Cronbach alpha: .721, and 3) self-efficacy comprised of items 2,10,13, Cronbach alpha: .807. The factor measuring emotions in the self, did not appear in our study and use of emotion was renamed into self-efficacy due to the content of these items.

Sample

The initial sample consisted of 262 participants, but after deleting participants with ambiguous data or the ones that did not met our criteria, we were left with 208 respondents. They were all residents of Serbia, Vojvodina and all of them were Hungarian L1 speakers. The age range was between 18 and 50 years (mean = 24.19, standard deviation = 7.36). There were 148 female and 60 male participants (71.2 % of females and 28.8 % of males). Based on the answers about bilingualism, there were 66 (31.7 %) early Hungarian-Serbian bilinguals – identified by two criteria: they started learning Serbian before elementary school (before the age of 7) and all had used Serbian at some point at home; 100 (48.1 %) late Hungarian-Serbian bilinguals - they started to learn Serbian in the elementary school and they used Serbian at home after the age of 7 or never; and 42 (20.2 %) Hungarian monolinguals – they did not use Serbian neither at home, nor in school settings. The percent of second language use on a daily basis was the following: 0 % by 7 individuals, less than 25 % by 62 individuals, 25 % by 54 individuals, 50 % by 57 individuals, 75 % by 19 individuals and 100 % by 9 individuals.

Procedure

All of the institutions where data had been collected approved the research design and agreed that the data could be used for research purposes. Individuals submitted a written consent to participate in the study.

The participants were informed in written form about the research purpose, i.e. that it deals with bilingualism, empathy and emotional intelligence and that the study is completely confidential. The participation in the study was on a voluntary basis. Participants agreed to participate in the study before completing the questionnaires. It was also emphasized that the results would not be analyzed at an individual level, but that group trends would be used for the purposes of the study.

In the online questionnaire the first few questions were focused on several demographic variables, after which part the first questionnaire was the Hungarian adaptation of the Language history questionnaire (LHQ), followed by the Hungarian Davis's Interpersonal Reactivity Index (IRI-HU), Hungarian version, and the Wong and Law Emotional Intelligence Scale (WLEIS-HU).

Data collection was done mostly in groups at higher education institutions and individually at home and it was approximately 20 minutes long.

Statistical analyses

Statistical analyses were performed in IBM SPSS, version 25.0. For the analysis of data, we have used descriptive statistics, ANOVA for group comparisons and Pearson correlations.

Results
Testing the hypotheses

H1. We hypothesized that there will be a difference between early bilinguals, late bilinguals and monolinguals on the measures of empathy, particularly cognitive empathy.

For data analysis we used analysis of variance (ANOVA) to compare the three groups. We did not find statistically significant differences (all p values are > .005) between the various kinds of bilinguals and monolinguals on either subscale of empathy.

H2. We assumed that there will be a difference between early bilinguals, late bilinguals and monolinguals on the measures of emotional intelligence.

For data analysis we used analysis of variance (ANOVA) to compare the three groups. We did not find statistically significant differences (all p values are > .005) between the various kinds of bilinguals and monolinguals on either subscale of emotional intelligence.

H3. We assumed that there will be differences on empathy measures between the groups who are high or low on general self-rated second language knowledge.

With an aim to form highly contrasted groups, for this analysis we used two groups: the one with high self-rated second language knowledge (named high second language

knowledge – HSLK group), where individuals had a mean between 6 and 7 (on measures of language knowledge – self-rated reading, writing, understanding and speaking) and the one with relatively low second language knowledge (LSLK group) had mean rating between 1 and 4.25.

In this case we have found significant differences on the subscale of Perspective Taking, $F(1,133) = w6.96$, $p = .009$ (means and standard deviations are in Table 1.).

Table 1

LSLK and HSLK groups on empathy measures

		N	Mean	Standard Deviation
Perspective Taking	LSLK group	67	2.29	0.70
	HSLK group	68	2.60	0.66
Personal Distress	LSLK group	67	2.03	0.69
	HSLK group	68	2.04	0.87
Fantasy	LSLK group	67	1.97	1.11
	HSLK group	68	2.21	1.06
Empathic Insensitivity	LSLK group	67	2.05	0.56
	HSLK group	68	2.04	0.53

H4. We hypothesized that there will be differences on measures of emotional intelligence between the groups who are high or low on general self-rated second language knowledge.

In the case of emotional intelligence, we have also used the above mentioned two groups as categories. We found a statistically significant difference on the subscale of Evaluating the emotions of others, $F(1,131) = 4.77$, $p = .031$ (means and standard deviations are in Table 2.).

Table 2

LSLK and HSLK groups on measures of emotional intelligence

		N	Mean	Standard Deviation
Emotion regulation	LSLK group	67	3.14	0.78
	HSLK group	68	3.18	0.87
Evaluating the emotions of others	LSLK group	67	3.61	0.72
	HSLK group	68	3.89	0.77
Self-efficacy	LSLK group	67	3.74	0.79
	HSLK group	68	4.02	0.95

H5. We assumed that there will be differences on empathy measures (particularly cognitive empathy) between groups, who differ in the frequency of use of the second language.

In the case of hypothesis 5, we again wanted to use highly contrasted groups, so we formed a high frequency (HF) and a low frequency group (LF). In the HF group

we had participants who rated their everyday second language use between 75 and a 100 percent and in the LF group we had participants, who rated their daily second language use at 0, lower than 25 percent or 25 percent.

Comparing these two groups, we have found significant differences on Perspective Taking, $F(1,149) = 4.09$, $p = .045$ (means and standard deviations are in Table 3.).

Table 3

LF and HF groups on measures of empathy

		N	Mean	Standard Deviation
Perspective Taking	1	123	2.36	0.71
	2	28	2.65	0.70
Personal Distress	1	123	2.04	0.78
	2	28	2.26	0.80
Fantasy	1	123	2.05	1.09
	2	28	2.32	1.09
Empathic Insensitivity	1	123	2.02	0.52
	2	28	1.94	0.48

H6. We assumed that there will be differences on emotional intelligence measures between groups, who differ in the frequency of use of the second language.

Comparing the HF and LF groups, we did not find statistically significant differences (all p values are > .05) on subscales of emotional intelligence.

Discussion

The global aim of this study was to test whether there are detectable differences in the level of empathy and emotional intelligence between monolinguals and bilinguals and individuals who vary in their current knowledge and use of a second language. The inspiration for this research came from studies, which show that bilinguals have advantages over monolinguals in various cognitive tasks that include shifting or inhibiting irrelevant information (Bialystok et al., 2004; Bialystok et al., 2008; Costa et al., 2008; Jávor, 2017a). This advantage is assumed to be associated with the experience and exercise with two languages in everyday life, the so called "juggling between languages". Extending this logic and way of thinking to the socio-emotional domain, one can pose the question whether the heightened attentional and monitoring demands in bilinguals lead to other advantages, e.g. an enhanced sensitivity for others' emotional and psychological states and processes?

Following this line of thought we set out to test the question whether people with various levels of bilingualism show differences in self-rated empathic and emotional intelligence skills?

Our first and second hypotheses were not confirmed, because we did not find differences between early and late bilinguals and monolinguals in either empathy or emotional intelligence level.

The third hypothesis was partially confirmed, because individuals with very high self-rated second language knowledge got higher scores than participants with a low level of second language knowledge on Perspective Taking, as a component of empathy, which skill is probably connected to monitoring the environment and sensitively responding to it (e.g. to choosing the right language to use in a particular situation).

The fourth hypothesis regarding emotional intelligence showed a significant difference in the subcomponent of evaluating the emotions of others, i.e. individuals with high second language knowledge showed a higher score in this ability.

The fifth hypothesis was partially confirmed. People who used their second language frequently, i.e. on an everyday basis showed higher levels of Perspective Taking than the group of individuals who could be characterized as rare users of the second language.

The sixth hypothesis, which sought differences in skills of emotional intelligence in bilinguals with high and low frequency Serbian language use, was not confirmed.

Conclusions

Our results indicate that there might be some advantages of a frequent second language use and high-level second language knowledge mirrored in perspective-taking. In sum, we can conclude that it is not the early exposure to two languages, but the proficiency and language use that have the most positive variable effect on the cognitive domains of empathy. We can see an enhanced emotion evaluation related to other people, which might be needed when we try to take the other person's point of view. The perspective taking ability is also connected to cognitive processes, especially to executive functions, like cognitive inhibition and selective attention. People living between two languages must manage their attention between these and select which will be proper in the given context and also they have to inhibit interference from the language which is not in current use (Bialystok, 2001; Bialystok et al., 2004; Poarch & Bialystok, 2015). The executive functions are also needed when we want to take on another person's perspective, because we must inhibit our own viewpoint to be able to understand the other. Therefore, we think that the main bilingual advantage is connected to executive functions, i.e. the increased executive functioning has a positive effect on perspective-taking and this may be a mediatory mechanism to a more developed empathic functioning. That is, bilingualism, second language knowledge and use does not have a direct effect on social competence, but mediating cognitive processes provide these "indirect" benefits.

Our research also enrichens the results in the bilingual socio-affective domain and is a continuation of the work of Ikizer and Ramírez-Esparza (2018), Lorette and Dewaele (2015) and Alqarni and Dewaele (2020), but with entirely new languages such as Hungarian and Serbian.

Limitations of the study

There were some limitations to this study. We examined only self-reported linguistic characteristics (see Göncz, 2017). It would be important to assess language skills with

standard linguistic tests, classical vocabulary tests, and to compare the development of different abilities with the current results. In the future, we plan to take socio-economic status into consideration, because it has a great effect on language and social development. Moreover, it would be interesting to examine the same abilities in individuals with varying Serbian proficiency levels (e.g. Serbian monolinguals and Serbian-Hungarian bilinguals).

References

Alqarni, N., & Dewaele, J. M. (2020). A bilingual emotional advantage? An investigation into the effects of psychological factors in emotion perception in Arabic and in English of Arabic-English bilinguals and Arabic/English monolinguals. *International Journal of Bilingualism*, *24*(2), 141-158. https://doi.org/10.1177/1367006918813597

Bialystok, E., Craik, F. I. M., & Luk, G. (2008). Cognitive control and lexical access in younger and older bilinguals. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *34*(4), 859–873. https://doi.org/10.1037/0278-7393.34.4.859

Bialystok, E., Craik, F. I. M., & Luk, G. (2012). Bilingualism: Consequences for mind and brain. *Trends in Cognitive Sciences*, *16*(4), 240–250. https://doi.org/10.1016/j.tics.2012.03.001

Bialystok, E., Craik, F. I. M., Klein, R., & Viswanathan, M. (2004). Bilingualism, aging, and cognitive control: evidence from the Simon task. *Psychology and Aging*, *19*(2), 290–303. https://doi.org/10.1037/0882-7974.19.2.290

Bialystok, E. (1999). Cognitive complexity and attentional control in the bilingual mind. *Child Development*, *70*(3), 636–644. https://doi.org/10.1111/1467-8624.00046

Bialystok, E. (2001). *Bilingualism in development: Language, literacy and cognition*. New York: Cambridge University Press. https://doi.org/10.1017/CBO9780511605963

Bialystok, E. (2006). Effect of bilingualism and computer video game experience on the Simon task. *Canadian Journal of Experimental Psychology*, *60*(1), 68–79. https://doi.org/10.1037/cjep2006008

Bialystok, E. (2009). Claiming evidence from non-evidence: a reply to Morton and Harper. *Developmental Science*, *12*(4), 499-501. https://doi.org/10.1111/j.1467-7687.2009.00868.x

Bialystok, E. (2010). Global-local and trail-making tasks by monolingual and bilingual children: beyond inhibition. *Developmental Psychology*, *46*(1), 93–105. https://doi.org/10.1037/a0015466

Bialystok, E. (2011). Coordination of executive functions in monolingual and bilingual children. *Journal of Experimental Child Psychology*, *110*(3), 461–468. https://doi.org/10.1016/j.jecp.2011.05.005

Bialystok, E. (2015). Bilingualism and the development of executive function: The role of attention. *Child Development Perspectives*, *9(2)*, 117–121. https://doi.org/10.1111/cdep.12116

Brust Nemet, M., & Velki, T. (2016). The Social, Emotional and Educational Competences of Teachers as Predictors of Various Aspects of the School Culture. *Croatian Journal of Education*, *18*(4), 1087-1119. https://doi.org/10.15516/cje.v18i4.2006

Costa, A., Hernandez, M., & Sebastián-Gallés, N. (2008). Bilingualism aids conflict resolution: Evidence from the ANT task. *Cognition*, *106*(1), 59–86. https://doi.org/10.1016/j.cognition.2006.12.013

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, *44*(1), 113–126. https://doi.org/10.1037/0022-3514.44.1.113

Duñabeitia, J. A., & Carreiras, M. (2015). The bilingual advantage: Acta est fabula. *Cortex*, *73*, 371-372. https://doi.org/10.1016/j.cortex.2015.06.009

Festman, J., & Münte, Th. F. (2012). Cognitive control in Russian-German bilinguals. *Frontiers in Psychology*, *3*, 115, 1-7. https://doi.org/10.3389/fpsyg.2012.00115

Göncz, L. (2018). Generalised ethnocentrism among high-school students in a multicultural setting: the role of the degree of multilingualism. *Journal of Multilingual and Multicultural Development*, *39*(3), 224-239. https://doi.org/10.1080/01434632.2017.1355371

Grabovac, B., & Pléh, Cs. (2014a). Emotional activation measured using the emotional Stroop task in early Hungarian-Serbian bilinguals from Serbia. *Acta Linguistica Hungarica*, *61*(4), 423-441. https://doi.org/10.1556/ALing.61.2014.4.3

Grabovac, B., & Pléh, Cs. (2014b). Szavak érzelmi értékének feldolgozása érzelmi Stroop-helyzetben magyar-szerb kései kétnyelvűeknél. *Magyar Pszichológiai Szemle*, *69*(4), 731-745. https://doi.org/10.1556/mpszle.69.2014.4.5

IBM Corp. Released 2017. IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.

Ikizer, E. G., & Ramírez-Esparza, N. (2018). Bilinguals' social flexibility. *Bilingualism: Language and Cognition*, *21*(5), 957-969. https://doi.org/10.1017/S1366728917000414

Jávor, R. (2017a). Connection between Bilingualism and Executive Functions in Hungarian-Serbian Bilinguals. *International Journal of Sciences: Basic and Applied Research (IJSBAR)*, *31*, 54–65.

Jávor, R. (2017b). Bilingualism, Theory of Mind and Perspective-Taking: The Effect of Early Bilingual Exposure. *Psychology and Behavioral Sciences, 5*(6), 143–148.

Kinderman, P., Dunbar, R. I. M., & Bentall, R. P. (1998). Theory of Mind deficits and causal attributions. *British Journal of Psychology*, *89*(2), 191–204. https://doi.org/10.1111/j.2044-8295.1998.tb02680.x

Kovács, Á. M. (2009). Early bilingualism enhances mechanisms of false-belief reasoning. *Developmental Science*, *12*(1), 48–54. https://doi.org/10.1111/j.1467-7687.2008.00742.x

Kulcsár, Zs. (1998): Egészségpszichológia: ELTE Eötvös Kiadó.

Lee, P. (1996). Cognitive development in bilingual children: A case for bilingual instruction in early childhood education. *The Bilingual Research Journal*, *20*(3-4), 499–522. https://doi.org/10.1080/15235882.1996.10668641

Li, P., Sepanski, S., & Zhao, X. (2006). Language history questionnaire: A web-based interface for bilingual research. *Behavior Research Methods*, *38*(2), 202-210. https://doi.org/10.3758/BF03192770

Lorette, P. & Dewaele, J.-M. (2015). Emotion recognition ability in English among L1 and LX users of English. *International Journal of Language and Culture*, *2*(1), 62-86. https://doi.org/10.1075/ijolc.2.1.03lor

McIlwain, D. (2003). Bypassing empathy: A Machiavellian theory of mind and sneaky power. In B. Repacholi & V. Slaughter (Eds.), *Individual differences in theory of mind: Implications for typical and atypical development* (pp. 39-67). Hove, UK: Psychology Press.

Morton, J. B., & Harper, S. N. (2007). What did Simon say? Revisiting the bilingual advantage. *Developmental science*, *10*(6), 719-726. https://doi.org/10.1111/j.1467-7687.2007.00623.x

Nguyen, Th.-K., & Astington, J. W. (2014). Reassessing the bilingual advantage in theory of mind and its cognitive underpinnings. *Bilingualism: Language and Cognition*, *17*(2), 396-409. https://doi.org/10.1017/S1366728913000394

Paap, K. R., & Greenberg, Z. I. (2013). There is no coherent evidence for a bilingual advantage in executive processing. *Cognitive Psychology*, *66*(2), 232–258. https://doi.org/10.1016/j.cogpsych.2012.12.002

Paap, K. R., Johnson, H. A., & Sawi, O. (2015). Bilingual advantages in executive functioning either do not exist or are restricted to very specific and undetermined circumstances. *Cortex*, *69*, 265–278. https://doi.org/10.1016/j.cortex.2015.04.014

Paap, K. R., Johnson, H. A., & Sawi, O. (2016). Should the search for bilingual advantages in executive functioning continue? *Cortex*, *74*, 305–314. https://doi.org/10.1016/j.cortex.2015.09.010

Poarch, G. J. & Bialystok, E. (2015). Bilingualism as a model for multitasking. *Developmental Review*, *35*, 113–124. https://doi.org/10.1016/j.dr.2014.12.003

Ramírez-Esparza, N., García-Sierra, A., & Jiang, Sh. (2020). The current standing of bilingualism in today's globalized world: A socio-ecological perspective. *Current opinion in psychology*, *32*, 124-128. https://doi.org/10.1016/j.copsyc.2019.06.038

Šincek, D., Duvnjak, I., & Humer, T. J. (2020). Empathy and gender effects on cyber-violence among Croatian youth. *Psihologija*, 53(4), 377-392. https://doi.org/10.2298/PSI190801002S

Szabó, A., Kun, B., Urbán, R., & Demetrovics Zs. (2011). Kezdeti eredmények a Wong és Law Érzelmi intelligencia skála (Wleis-hu) hazai alkalmazásával. *Mentálhigiéné* és *Pszichoszomatika*, *12*(1), 1-15. https://doi.org/10.1556/Mental.12.2011.1.1

Wong, Ch.-S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The leadership quarterly*, *13*, 243-274. https://doi.org/10.1016/S1048-9843(02)00099-1

Yang, S., Yang, H., & Lust, B. (2011). Early childhood bilingualism leads to advances in executive attention: Dissociating culture and language. *Bilingualism: Language and Cognition*, *14*, 412–422. https://doi.org/10.1017/S1366728910000611

Živojinović, J. B. I., Backović, D., Soldatović, I., & Belojević, G. (2019). Correlates of Burnout Syndrome among Belgrade Medical Students–A Cross-Sectional Study/Korelati sindroma sagorijevanja među Beogradskim studentima medicine-studija prijeseka. *Croatian Journal of Education*, *21*(4), 1213-1230.

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Postoji li korist od dvojezičnosti u socioafektivnoj domeni?

Sažetak

U ovom radu govori se dvojezičnosti iz „vruće" perspektive, točnije pokušava se naći odgovor na pitanje pokazuju li mađarsko-srpski dvojezični govornici i jednojezični govornici razlike i varijacije u vještinama empatije i emocionalne inteligencije. Za mjerenje spomenutih varijabli, koristili smo prilagođeni upitnik o jezičnoj povijesti, mađarsku verziju Davisova Indeksa interpersonalne reaktivnosti (IRI-HU), te Wong i Law Skalu emocionalne inteligencije (WLEIS-HU). Analizirani su podatci dobiveni od 208 ispitanika u Republici Srbiji. Uspoređujući pojedince koji su jednojezični i dvojezični, koji trenutačno koriste i znaju svoje jezike na različitim razinama, rezultati su pokazali da osobe s višim razinama znanja jezika i većom učestalošću trenutačnoga korištenja jezika procjenjuju kao bolje svoje vještine procjene emocija drugih osoba te vještinu promjene perspektive.

Ključne riječi: *emocionalna inteligencija, empatija, korist, mađarsko-srpska dvojezičnost; Srbija.*

Uvod

Postoje različita područja života u kojima su visoko razvijene afektivne i socijalne vještine važne za uspješno djelovanje (Brust Nemet i Velki, 2016; Živojinović i sur., 2019; Šincek i sur., 2020).

Najnovija publikacija o prednostima dvojezičnosti, uz kognitivnu domenu, skreće pozornost na pozitivne učinke dvojezičnosti na otvorenost, društvenu fleksibilnost i empatiju (Ramírez-Esparza i sur., 2020).

Tijekom posljednjih desetljeća, pojavljivala su se različita pitanja o tome je li fenomen dvojezičnosti povezan s nekim nelingvističkim kognitivnim učincima (Bialystok, 2009; Festman i Münte, 2012; Lee, 1996; Yang i sur., 2011), a za koje je jedno od objašnjenja sljedeće: „Prevladavajuća interpretacija prednosti dvojezičnosti je ta što dvojezična djeca imaju dodatno iskustvo u vježbanju selektivne pažnje i kognitivne fleksibilnosti zbog neprestanih zahtjeva koje nameće koordiniranje dvaju jezika." (Morton i Harper, 2007, str. 719), stoga dvojezične osobe žive neprestano birajući jezik te aktivirajući ili inhibirajući neodgovarajući jezik (za prednosti dvojezičnih osoba vidjeti Bialystok, 1999; 2001; 2006; 2010; 2011; 2015; Bialystok i sur., 2004; Bialystok i sur., 2008; 2012; Costa i sur., 2008; Jávor, 2017a). Ova prednost potvrđena je u mnogim situacijama u

kojima su dvojezični govornici nadmašili jednojezične u zadatcima koji zahtijevaju kontrolu izvedbe i kognitivni napor (Bialystok, 2009), no tema je kontroverzna jer također postoje rezultati koji to ne pokazuju (Duñabeitia i Carreiras, 2015; Paap i Greenberg, 2013; Paap i sur., 2015; 2016).

Tijekom posljednjih nekoliko godina, pojavio se novi pravac u istraživanju teme prednosti dvojezičnosti. Širenjem područja istraživanja, fokus se usmjerio na pitanje postoje li neke prednosti u društvenoj i afektivnoj domeni djelovanja dvojezičnih osoba.

Širenjem istraživačkih pitanja u društveno područje, Ikizer i Ramírez-Esparza (2018) uveli su novi termin, društvena fleksibilnost kod dvojezičnih osoba, točnije sposobnost lake prilagodbe i uspješnoga funkcioniranja u različitim društvenim okolnostima i točno iščitavanje društvenih signala. Gore navedeni termin definiraju kao dio emocionalne inteligencije, a njihovi rezultati ukazuju na to da su, kada je riječ o ovoj vještini, dvojezične osobe uspješnije od jednojezičnih.

S druge strane, istražujući emocionalne procese u dvojezičnih osoba, Lorette i Dewaele (2015) ukazali su na to da iskazivanje emocija i prepoznavanje kod sebe i drugih može biti pojačano kada osoba koristi neki drugi jezik LX. Njihovo istraživanje pokušalo je utvrditi postoje li razlike između L1 i LX govornika u rezultatima prepoznavanja emocija i to kod osnovnih emocija u odnosu na L1 govornike engleskoga jezika te koliko je važna razina znanja engleskoga jezika i kulturno podrijetlo. Rezultati su pokazali značajnu pozitivnu povezanost između prepoznavanja emocija i znanja jezika kod LX govornika (te marginalnu značajnost kod L1 govornika). Nadalje, ispitanici azijskoga kulturnog podrijetla pokazali su niže razine prepoznavanja emocija u engleskome jeziku u usporedbi s govornicima drugih jezika LX.

Alqarni i Dewaele (2020) pokušali su razjasniti moguću povezanost između, s jedne strane, broja jezika koje znamo i koristimo i prepoznavanja emocija, te odlika emocionalne inteligencije s druge strane. Rezultati su pokazali da su dvojezični govornici bili uspješniji od jednojezičnih u percepciji emocija u engleskome kao drugome jeziku. Kod arapskoga jezika nisu uočene razlike između jednojezičnih i dvojezičnih govornika. Nadalje, dvojezični govornici imali su više odlike emocionalne inteligencije nego jednojezični govornici. Autori su sumirali rezultate u tvrdnji da postoji „mala prednost kod dvojezičnih osoba u emocionalnoj i psihološkoj domeni" (Alqarni i Dewaele, 2020, str. 1).

Dosadašnja istraživanja provedena u Srbiji bavila su se s dva pitanja: procesiranje afektivno nijansiranih riječi kod prvoga i drugoga jezika dvojezičnih govornika te teorija uma (ToM) i empatija kod dvojezičnih govornika (Grabovac i Pléh, 2014a; 2014b; Jávor, 2017b).

Grabovac i Pléh (2014a; 2014b) također su proučavali mađarsko-srpske dvojezične govornike iz Srbije, rane i kasne skupine dvojezičnih govornika. Cilj im je bio testirati imaju li riječi s emocionalnim nabojem i značenjem različiti učinak u prvom ili drugom jeziku dvojezičnih govornika. Važna pozadinska varijabla odnosila se na pitanje usvajanja drugoga jezika, točnije je li taj jezik usvojen u intimnom i emocionalno

nabijenom kontekstu ili u *cool*, afektivno neutralnom kontekstu škole. Istraživači su koristili emocionalni zadatak Stroop u kojemu se vrijeme reakcije mjeri u odnosu na riječi različitih značenja, ali koje su istovremeno ispisane različitim bojama (riječi su, dakle, složeni podražaji: značenje i boja variraju u svim kombinacijama). Najvažniji nalazi su da rani dvojezični govornici pokazuju dulje vrijeme reakcije na negativne riječi nego na pozitivne i neutralne riječi, bez razlike u jezicima; kasni dvojezični govornici također pokazuju povećano vrijeme reakcije na riječi negativnoga naboja, a vrijeme reakcije (za sve verbalne podražaje) bilo je dulje za riječi na srpskom jeziku, odnosno njihovom drugom jeziku. Ti rezultati znače da negativne riječi imaju duboki utjecaj na procesiranje, na određeni način „zamrzavaju" funkciju pažnje vjerojatno za dulje procesiranje te da emocionalni sadržaj nije različito utjecao na procesiranje u prvom i drugom jeziku. U cjelini, procesiranje na drugom jeziku bilo je zahtjevnije za skupinu kasnih mađarsko-srpskih dvojezičnih govornika.

Jávor (2017b) je usporedila sposobnost teorije uma i vještine empatije mladih odraslih jednojezičnih i dvojezičnih govornika. Sposobnost teorije uma mjerena je testom Sposobnosti čitanja misli za odrasle osobe (*eng*. Adult Mindreading Ability Test) koji su izradili Kinderman i suradnici (1998) te testom Indeks interpersonalne reaktivnosti (*eng*. Interpersonal Reactivity Indeks) (Davis, 1983) koji je korišten za mjerenje dvaju dimenzija empatije: hladna (kognitivna) i vruća (afektivna) empatija. Hladna empatija je sposobnost prepoznavanja stanja druge osobe (preuzimanje perspektive), odnosno, ova je sposobnost slična teoriji uma. Vruća empatija pojavit će se kada promatrano emotivno stanje stvori slično stanje kod promatrača (McIlwain, 2003). Rezultati su pokazali da je dvojezična skupina imala bolje rezultate u oba testa u odnosu na jednojezičnu skupinu.

Prednosti u funkcioniranju teorije uma već su mnogi dokazali, posebno kod djece. Kovács (2009) je usporedila zaključivanje temeljeno na netočnom vjerovanju (*eng*. false belief) jednojezične i dvojezične djece, prema teoriji jezične kompetencije i jezične izvedbe. Za dokazivanje toga koristila je klasični zadatak netočnoga vjerovanja i modificirani zadatak u scenariju jezičnoga prebacivanja. U modificiranom zadatku djeca su morala pretpostaviti kamo će protagonist otići po sladoled (k prodavaču sladoleda ili sendviča) nakon što su čuli prodavača sladoleda da je ponestalo sladoleda, ali da prodavač sendviča ima još nešto sladoleda. Protagonist u priči je rumunjski jednojezični govornik koji nije razumio prodavača sladoleda jer je on govorio mađarskim jezikom. Stoga, protagonist nije mogao razumjeti poruku prodavača sladoleda kako bi ispravio svoje netočno vjerovanje da će mu prodavač sladoleda zaista dati sladoled. Prema teoriji jezične izvedbe, dvojezična djeca bi nadmašila jednojezičnu djecu i u standardnom i modificiranom zadatku netočnoga vjerovanja s obzirom na povećanu kontrolu inhibicije (jer oba zadatka zahtijevaju procese inhibicije). Za razliku od toga, teorija kompetencije ukazuje na to da će dvojezična djeca imati prednost samo u modificiranom zadatku netočnoga vjerovanja jer dvojezična djeca žive u okruženju gdje je prebacivanje jezika učestalo, a zadatak je napisan upravo u takvom scenariju

prebacivanja koda. Međutim, u istraživanju koje je provela Kovács (2009) dvojezična skupina trogodišnjaka nadmašila je svoje jednojezične vršnjake u obje vrste zadataka. To podrazumijeva da dvojezično okruženje daje prednost u izvedbi: ne utječe izravno na kompetenciju (što je teorija uma), ali nadmašuje ograničenja u izvedbi, utječe na kognitivne procese koji su potrebni da bi se prepoznala netočna vjerovanja (izvedbene funkcije).

Nakon povezivanja dobi djece i razina jezičnih vještina, Nguyen i Astington (2014) također su otkrili da su predškolci, dvojezični govornici engleskoga i francuskoga jezika, u dobi od 3 do 5 godina imali bolje rezultate u zadatcima netočnoga vjerovanja od djece jednojezičnih govornika engleskoga ili francuskoga jezika (Nguyen i Astington, 2014).

Ova povećana sposobnost teorije uma može biti mehanizam medijacije prema hladnoj empatiji jer su te dvije sposobnosti snažno povezane. Nadalje, povećana sposobnost preuzimanja perspektive također može pomoći u razvoju vruće empatije (Jávor, 2017b).

Prema temama istraživanja i prikazanim rezultatima možemo vidjeti da su kognitivna fleksibilnost, teorija uma, emocionalna inteligencija i empatija isprepleteni fenomeni na apstraktnoj razini: svi oni uključuju preuzimanje perspektive ili prebacivanje, ali isto tako se razlikuju u tome sadrže li „hladne" ili „vruće" aspekte, točnije neki ne sadrže emocije, afektivne aspekte dok ih drugi sadrže. Prethodna istraživačka pitanja također ukazuju na različitost interesa što se može klasificirati na sljedeće načine: istraživanja koja se bave kognitivnim funkcijama dvojezičnih govornika, emocionalnim funkcijama dvojezičnih govornika i istraživanja koja kombiniraju oba prethodno spomenuta pitanja.

Cilj ovoga istraživanja prati novi smjer istraživanja koje se fokusira na „vruće" teme u istraživanju dvojezičnosti. Željeli smo usporediti mađarsko-srpske pojedince iz Srbije koji se razlikuju s obzirom na vrijeme kada su počeli usvajati ili učiti drugi jezik, razini znanja jezika i učestalosti korištenja drugoga jezika u mjerama empatije i emocionalne inteligencije.

Hipoteze

H1. Pretpostavljamo da će postojati razlika između ranih i kasnih dvojezičnih osoba i jednojezičnih osoba u mjerama empatije, posebice kognitivne empatije.

H2. Pretpostavljamo da će postojati razlike između ranih i kasnih dvojezičnih osoba i jednojezičnih osoba u mjerama emocionalne inteligencije.

H3. Pretpostavljamo da će postojati razlike u mjerama empatije među skupinama koje su visoko ili nisko procijenile svoje znanje drugoga jezika.

H4. Pretpostavljamo da će postojati razlike u mjerama emocionalne inteligencije među skupinama koje su procijenile svoje znanje drugoga jezika kao visoko ili nisko.

H5. Pretpostavljamo da će postojati razlike u mjerama empatije (posebice kognitivne empatije) među skupinama koje se razlikuju u učestalosti korištenja drugoga jezika.

H6. Pretpostavljamo da će postojati razlike u mjerama emocionalne inteligencije među skupinama koje se razlikuju po učestalosti korištenja drugoga jezika.

Metode

U ovome istraživanju korištena je transverzalna ili metoda poprečnoga presjeka. Istraživanje je provedeno na mađarskom jeziku.

Instrumenti i varijable
Demografske varijable

Prije popunjavanja upitnika, ispitanici su dali podatke o sljedećem: dob, spol, mjesto stanovanja, razina obrazovanja, radno mjesto (ako je primjenjivo), mjesečna primanja (ako je primjenjivo), mjesečna primanja roditelja (ako je primjenjivo) i broj jezika koje koriste s članovima obitelji.

Upitnik o jezičnoj povijesti (Language History Questionnaire)

Ispitanike se pitalo o njihovoj povijesti učenja jezika koristeći modificiranu i skraćenu, mađarsku verziju upitnika o jezičnoj povijesti (*eng.* Language History Questionnaire) (Li i sur., 2006). Pitanjima se željelo saznati koji je materinski jezik ispitanika, poznavanje drugoga jezika, inicijalno korištenje drugoga jezika kod kuće i u školi, dob u kojoj su se prvi puta susreli s drugim jezikom. Ispitanici su također procijenili razinu znanja vještina čitanja, pisanja, slušanja (razumijevanja) i govorenja na materinskom jeziku i drugom jeziku (korištena je Likertova skala s vrijednostima od 1 do 7). Ispitanici su procijenili učestalost svakodnevnoga korištenja materinskoga jezika i stranoga jezika (svaki u procjeni od 0 do 100 %).

Kao što tvrdi Göncz (2017, str. 6), ova mjerenja koja uključuju samoprocjenu jezične kompetencije dvojezičnih osoba „imaju prednosti i nedostatke kao što je slučaj kod većine drugih mjera".

Indeks interpersonalne reaktivnosti (Davis, 1983) – mađarska verzija (IRI-HU)

Indeks interpersonalne reaktivnosti (Davis, 1983, prijevod na mađarski izradila je Kulcsár, 1998) korišten je za mjerenje razine empatije i poput originala ima četiri podskale: prva dva faktora mjere *hladnu* (kognitivnu) empatiju, dok druga dva mjere *vruću* (afektivnu) empatiju. Upitnik sadrži 28 čestica (7 po faktoru), a odgovori se pridružuju Likertovoj skali od pet stupnjeva (0 – ne opisuje me dobro, 4 – jako dobro me opisuje). U originalnom upitniku, četiri podskale su sljedeće: 1. Preuzimanje perspektive – mjeri razinu uspješnosti u preuzimanju stajališta drugih, 2. Maštanje – pokazuje koliko aktivno osoba koristi svoju maštu da bi se identificirala s afektivnim svijetom i ponašanjem izmišljenih likova iz knjiga, filmova i dr., 3. Empatična briga – daje informaciju o tome ima li netko suosjećanja za druge u teškim vremenima i 4. Osobna uznemirenost – ova podskala procjenjuje osobnu osjetljivost – razinu nelagodnih osjećaja i osjećaja tjeskobe kod negativnih interpersonalnih situacija. U našem uzorku, faktor i paralelna analiza pokazala je drukčiju strukturu: nakon isključivanja problematičnih čestica, odlučili smo se za četiri faktora. Prvi faktor (čestice: 8, 9, 11, 21, 25, 28) odnose se na Preuzimanje perspektive (Cronbachov alpha za podskalu bio

je: ,768), drugi faktor, Osobna uznemirenost uključivao je čestice 6, 10, 17, 22, 24, 27, Cronbachov alpha: ,755), treći faktor pod nazivom Maštanje činile su čestice 5, 16, 23, 26, Cronbachov alpha: ,826, a četvrti faktor Empatična bezosećajnost (negativna verzija brige) činile su negativna čestica 2 i čestice 4, 14, 18, Cronbachov alpha ,650.

Skala emocionalne inteligencije (Wong i Law) – mađarska verzija (WLEIS-HU)

Skala emocionalne inteligencije (WLEIS; Wong i Law, 2002) u originalnoj verziji sadrži 16 čestica, a odgovori se daju na Likertovoj skali od 7 stupnjeva. Prilagođena mađarska verzija (Szabó i sur., 2011) nešto je kraća i čini ju 14 čestica. Također se u njoj koristi Likertova skala od 5 stupnjeva kao skala više prilagođena korisniku u kojoj 1 označava potpuno neslaganje s tvrdnjom, a 5 označava potpuno slaganje. U našem smo istraživanju koristili mađarsku verziju s četiri skale: procjena vlastitih emocija, procjena tuđih emocija, korištenje emocija i reguliranje emocija.

Nakon faktorske analize, rezultati su pokazali da je rješenje s tri faktora prihvatljivo za naš uzorak: 1) reguliranje emocija (čestice pod brojem: 3, 7, 11, 14), Cronbachov alpha .776, 2), procjena emocija drugih: čestice 5, 9, 12, Cronbachov alpha ,721 i 3) samoučinkovitost koju čine čestice 2, 10, 13, Cronbachov alpha ,807. Faktor koji mjeri vlastite emocije nije se pojavio u našem istraživanju, a korištenje emocije preimenovano je u samoučinkovitost s obzirom na sadržaj tih čestica.

Uzorak

Inicijalni uzorak činilo je 262 ispitanika. Nakon izuzimanja ispitanika koji su dali nejasne podatke ili onih koji nisu zadovoljili kriterije uzorak je imao 208 ispitanika. Svi ispitanici su stanovnici Srbije, Vojvodine i svima je mađarski jezik materinski jezik (L1). Dob ispitanika bila je između 18 i 50 godina (srednja vrijednost = 24,19, standardna devijacija = 7,36). U uzorku je bilo 148 žena i 60 muškaraca (71,2 % žena i 28,8 % muškaraca). Na osnovi odgovora o dvojezičnosti, 66 (31,7 %) ispitanika bili su rani mađarsko-srpski dvojezični govornici – počeli su učiti srpski prije polaska u osnovnu školu (prije dobi od 7 godina) i svi su se u nekom trenutku koristili srpskim jezikom kod kuće, 100 (48,1 %) ispitanika su kasni mađarsko-srpski dvojezični govornici koji su počeli učiti srpski u osnovnoj školi, a srpskim jezikom koristili su se kod kuće nakon sedme godine života ili nikada. Ostatak ispitanika, 42 (20,2 %) su jednojezični govornici mađarskoga jezika koji se nikada nisu koristili srpskim jezikom, ni kod kuće, ni u školskom okružju. Postotak korištenja drugoga jezika na dnevnoj bazi je sljedeći: 0 % - 7 ispitanika, manje od 25 % - 62 ispitanika, 25 % - 54 ispitanika, 50 % - 57 ispitanika; 75 % - 19 ispitanika i 100 % - 9 ispitanika.

Postupak

Sve institucije u kojima su prikupljeni podatci odobrile su ovu vrstu istraživanja i složile su se da se podatci mogu koristiti u svrhu istraživanja. Ispitanici su predali pisani pristanak za sudjelovanje u istraživanju.

Ispitanici su pisanim putem obaviješteni o namjeri istraživanja, točnije da se radi o istraživanju dvojezičnosti, empatije i emocionalne inteligencije te da je istraživanje u potpunosti anonimno. Sudjelovanje u istraživanju bilo je na dobrovoljnoj bazi. Ispitanici su dali svoj pristanak za sudjelovanje u istraživanju prije nego što su popunili upitnike. Naglašeno je da rezultati neće biti analizirani na razini pojedinca nego da će se prikazati trend skupine isključivo za svrhu istraživanja.

U *online* upitniku prvih nekoliko pitanja bila su usmjerena na demografske varijable, nakon čega su ispitanici pristupili popunjavanju prilagođene mađarske verzije upitnika o jezičnoj povijesti (LHQ). Uslijedilo je popunjavanje mađarskoga Davisova upitnika Indeks interpersonalne reaktivnosti (IRI-HU) i potom popunjavanje Wong i Law Skale emocionalne inteligencije (WLEIS-HU).

Prikupljanje podataka bilo je uglavnom u skupinama na institucijama za visoko obrazovanje te individualno kod kuće, a trajalo je otprilike 20 minuta.

Statističke analize

Statističke analize rađene su korištenjem programa IBM SPSS, verzija 25.0. Za analizu podataka korištena je deskriptivna statistika, ANOVA za usporedbe među grupama i Pearsonove korelacije.

Rezultati
Testiranje hipoteza

H1. Pretpostavili smo da će postojati razlika između ranih dvojezičnih govornika, kasnih dvojezičnih govornika i jednojezičnih govornika u mjerama empatije, posebno kognitivne empatije.

Za analizu podataka korištena je analiza varijance (ANOVA) kako bi se usporedile tri skupine. Statistički značajne razlike nisu uočene (svi $p > ,005$) među različitim vrstama dvojezičnih govornika ni na jednoj podskali empatije.

H2. Pretpostavili smo da će postojati razlika između ranih dvojezičnih govornika, kasnih dvojezičnih govornika i jednojezičnih govornika u mjerama emocionalne inteligencije.

Za analizu podataka korištena je analiza varijance (ANOVA) za usporedbe između tri skupine. Statistički značajne razlike nisu uočene (sve $p > ,005$) između različitih vrsta dvojezičnih govornika ni na jednoj podskali emocionalne inteligencije.

H3. Pretpostavili smo da će postojati razlike u mjerama empatije između skupina koje imaju visoku ili nisku samoprocjenu znanja drugoga jezika.

S ciljem formiranja visoko kontrastnih skupina, u ovoj smo analizi koristili dvije skupine: one koji imaju visoku samoprocjenu znanja drugoga jezika (visoka procjena znanja drugoga jezika - HSLK skupina), gdje su srednje vrijednosti kod pojedinaca bile između 6 i 7 (pri mjerenju znanja jezika – samoprocjena čitanja, pisanja, razumijevanja i govorenja) i oni s relativno niskom procjenom znanja drugoga jezika (LSLK skupina) čija je srednja vrijednost bila između 1 i 4,25.

U ovome smo slučaju otkrili značajne razlike na podskali Preuzimanje perspektive $F(1,133) = 6,96$, $p = ,009$ (srednje vrijednosti i standardne devijacije prikazane su u Tablici 1).

Tablica 1

H4. Pretpostavili smo da će postojati razlike u mjerenjima emocionalne inteligencije između skupina koje imaju visoku ili nisku razinu samoprocjene znanja drugoga jezika.

U slučaju emocionalne inteligencije, također smo koristili već spomenute dvije skupine kao kategorije. Uočena je statistički značajna razlika u podskali Procjena emocija drugih osoba, $F(1,131) = 4,77$, $p = ,031$ (srednje vrijednosti i standardne devijacije prikazane su u Tablici 2

Tablica 2

H5. Pretpostavili smo da će postojati razlike u mjerama empatije (posebno kognitivne empatije) između skupina koje se razlikuju u učestalosti korištenja drugoga jezika.

Kod hipoteze broj 5, ponovno smo htjeli koristiti visoko kontrastne skupine i stoga smo formirali skupinu visoke frekvencije (HF) i skupinu niske frekvencije (LF). U skupini HF ispitanici su procijenili korištenje drugoga jezika na svakodnevnoj bazi između 75 i 100 %, a u LF skupini ispitanici su procijenili korištenje drugoga jezika kao 0, manje od 25 % ili 25 %.

Uspoređujući ove dvije skupine uočili smo značajne razlike u varijabli Preuzimanje perspektive, $F(1,149) = 4,09$, $p = ,045$ (srednje vrijednosti i standardna devijacija prikazani su u Tablici 3).

Tablica 3

H6. Pretpostavili smo da će postojati razlike u mjerenju emocionalne inteligencije između skupina koje se razlikuju u učestalosti korištenja drugoga jezika.

Uspoređujući skupine HF i LF nismo uočili statistički značajne razlike (sve $p > ,05$) na podskalama emocionalne inteligencije.

Rasprava

Opći cilj ovoga istraživanja bio je ispitati postoje li razlike u razinama empatije i emocionalne inteligencije među jednojezičnim ili dvojezičnim govorniciima, koji se razlikuju u znanju i u učestalosti korištenja drugoga jezika. Inspiraciju za ovu hipotezu pronašli smo u istraživanjima koja su pokazala da dvojezični govornici posjeduju neke prednosti u odnosu na jednojezične govornike u različitim kognitivnim zadatcima koji uključuju aktiviranje ili inhibiranje nevažne informacije (Bialystok i sur., 2004; Bialystok i sur.,2008; Costa i sur., 2008; Jávor, 2017a). Pretpostavka je da je spomenuta prednost povezana s iskustvom i vježbom s dva jezika u svakodnevnici, tzv. „žongliranjem među jezicima". Proširivanjem ove logike i načina razmišljanja u socioemocionalnu domenu, može se postaviti pitanje dovode li povišene razine pažnje i praćenja kod dvojezičnih govornika i do drugih prednosti, npr. do povišene razine osjetljivosti za emocionalna i psihološka stanja i procese drugih osoba?

Prateći tu liniju misli, odlučili smo ispitati pokazuju li osobe s različitim razinama dvojezičnosti razlike u samoprocjeni vještina empatije i emocionalne inteligencije?

Naša prva i druga hipoteza nisu potvrđene, jer nisu uočene razlike među ranim i kasnim dvojezičnim govornicima i jednojezičnim govornicima kada je riječ o razini empatije ili emocionalne inteligencije.

Treća hipoteza je djelomično potvrđena jer su pojedinci s visokom samoprocjenom znanja drugoga jezika imali bolje rezultate od ispitanika s nižom procjenom znanja drugoga jezika kada je riječ o Preuzimanju perspektive – komponenti empatije koja je vjerojatno povezana s promatranjem okoline i osjećajnijom reakcijom na okolinu (npr. dok biraju jezik kojim će se koristiti u određenoj situaciji).

Četvrta hipoteza vezana uz emocionalnu inteligenciju pokazala je statističke razlike kod podkomponente procjene emocija drugih, točnije dvojezične osobe s visokom procjenom razine znanja ostvarile su veći rezultat u ovoj vještini.

Peta hipoteza je djelomično potvrđena. Dvojezične osobe koje često koriste drugi jezik, odnosno svakodnevno, pokazale su više razine u varijabli Preuzimanje perspektive od skupine dvojezičnih govornika koja se može okarakterizirati kao rijetki korisnici drugoga jezika.

Šesta hipoteza kojom se ispitivala razlika u vještini emocionalne inteligencije kod dvojezičnih osoba s visokom i niskom učestalošću korištenja srpskoga jezika nije potvrđena.

Zaključci

Naši rezultati ukazuju na mogućnost postojanja neke prednosti kod dvojezičnih osoba koje se učestalo koriste drugim jezikom ili ga znaju na visokoj razini koje se ogledaju u preuzimanju perspektive. Općenito gledajući, možemo zaključiti da nije rana izloženost dvama jezicima, nego ovladanost jezikom i korištenje jezika ta koja ima pozitivan učinak uglavnom na kognitivne domene empatije. Možemo uočiti povišenu procjenu emocija koja može biti potrebna pri pokušaju uviđanja stajališta druge osobe. Ovakva sposobnost preuzimanja perspektive također je povezana i s kognitivnim procesima, posebno s izvršnim funkcijama poput kognitivne inhibicije i selektivne pažnje. Dvojezični govornici također moraju svoju pažnju odrediti s obzirom na svoja dva jezika: odabrati onaj koji je primjereniji u određenom kontekstu, a u isto vrijeme moraju onemogućiti ometanja iz drugoga jezika koji u tome trenutku ne koriste (Bialystok, 2001; Bialystok i sur., 2004; Poarch i Bialystok, 2015). Ove izvršne funkcije također su potrebne kada želimo preuzeti perspektivu druge osobe jer moramo inhibirati vlastito stajalište kako bismo mogli razumjeti drugoga. Stoga, smatramo da je glavna prednost dvojezičnih osoba povezana s izvršnim funkcijama, odnosno povećano izvršno funkcioniranje ima pozitivan učinak na preuzimanje perspektive, a to može biti posrednički mehanizam prema empatičnom djelovanju. Točnije, dvojezičnost nema izravni učinak na društvene kompetencije, nego posrednički kognitivni procesi omogućuju ove „neizravne" prednosti.

Naše istraživanje obogaćuje rezultate u domeni dvojezičnoga socioafektivnoga istraživanja, te je nastavak rada koji su započeli Ikizer i Ramírez-Esparza (2018), Lorette i Dewaele (2015) i Alqarni i Dewaele (2020), ali uključujući potpuno druge jezike poput mađarskoga i srpskoga jezika.

Ograničenja istraživanja

Ovo istraživanje ima i neka ograničenja. Proučili smo isključivo samoprocjenu jezičnih vještina (vidi Göncz, 2017). Bilo bi važno procijeniti jezične vještine koristeći standardizirani jezični test, test vokabulara te usporediti razvoj različitih sposobnosti s dobivenim rezultatima u ovome istraživanju. U budućnosti, planiramo uzeti u obzir i socioekonomski status ispitanika jer on može imati snažan učinak na jezik i na društveni razvoj. Štoviše, bilo bi vrlo interesantno ispitati sposobnosti pojedinaca različitih razina znanja srpskoga jezika (npr. srpski jednojezični govornici i srpsko-mađarski dvojezični govornici).