

Emotional Resonance of Arabic-English Bilinguals

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Abstract

The Sapir-Whorf hypothesis has inspired many researchers to investigate the relationship between language and thought. However, little attention has been paid to Arabic. The current study aimed to examine Arabic-English bilinguals' perceptions of emotional words in their first and second languages. In addition, the current study aimed to detect whether gender is a significant variable affecting individuals' viewpoints. The sample consists of 20 men and 29 women, with ages ranging from 19 to 31 years. The study adopted both qualitative and quantitative methods in which the participants rated each question on a 5-point Likert scale. In addition, open-ended questions obtained informative responses from the participants. An independent t-test was used to detect differences between men and women. The results indicate that Arabic-English bilinguals feel higher emotional intensity when using their first language than when using their second. In addition, the participants' independent variables, such as frequency of use, language proficiency, and context of acquisition, were significant because they affected their perception of emotional words in their first and second languages. Moreover, the results did not indicate any gender differences between men and women. Thus, this study provides insights into Arabic-English bilinguals' perceptions of emotional terms in both languages.

Keywords: Sapir-Whorf hypothesis, emotional resonance, Arabic-English bilingualism, Kuwait

1. Introduction

The emotional resonance of individuals who are fluent in Arabic and English is an essential concept for studying bilingualism. People who speak these two languages can experience, comprehend, and empathise with the emotions of their speakers, allowing them to bridge the gap between very distinct and different cultures and gain a more in-depth understanding of the feelings associated with each language group. This will result in improved links and communication between the two language groups and can lead to a society in which people from various backgrounds can better understand each other.

Language is a communicative tool that enables people to interact with each other and also influences the speaker's thinking and perception. Wolff and Holmes (2011) state that language shapes the way people think about and perceive the world. People from different speaking countries may have different perceptions of emotional words, and colours, for example. Consequently, the speakers of two or more languages have different conceptual representations. Wierzbicka (2004) has reported that bilinguals/multilinguals have multiple selves as they describe themselves. They propose that the same story could be told differently depending on the language used; therefore, the same story could have different connotations and illocutionary effects.

A growing body of literature has investigated the relationship between language and emotionality to determine whether the Whorfian hypothesis correlates with reality. Bilinguals are expected to have different perceptions of emotional words in their first (L1) and second (L2) languages. Moreover, various independent variables (e.g. age, gender, level of proficiency, and frequency of use) are crucial in determining bilinguals' emotional resonance and connotations of emotional words in their L1 and L2. For instance, many language researchers and specialists have examined different types of emotions such as anger, happiness, and sadness. For example, Dewaele (2004) focuses on swearwords and taboo words (S-T) and their illocutionary/perlocutionary effects among bi- and multilinguals. Dewaele (2008) also examines the resonance of the phrase "I love you" in multilinguals' languages in another research. Various other studies have also revealed bilinguals' autobiographical memories since they provide evidence for feeling emotionally charged when using their L1 or L2 (Schrauf, 2000; cf. Mortensen et al., 2015).

Taboo words continue to be widely employed in research on emotional resonance in language processing because of their powerful emotional resonance. Controlling for the equivalent taboos of words in other languages can be challenging. Regarding a person's L1, the severity of punishment for using taboo words (particularly among children) can vary significantly across time and society (Weimer et al., 2022). According to Colbeck and Bowers (2012), bilinguals are more likely to be influenced by taboo terms in their L1 than in their L2. This holds true even if a bilingual person speaks both languages fluently and frequently. Arguably, bilinguals' perspectives can be significantly influenced by variables such as gender, and bilinguals tend to process taboo terms differently concerning their spoken

language. It has been demonstrated that gender has a crucial effect on how bilinguals interpret words that connote feelings and emotions. Schindler and Bublitzky (2020) have identified the distinct impacts of low-level visual characteristics, emotional relevance, and voluntary goals on behavioural responses. Unlike in the classroom, learning a language through immersion has many advantages, including early acquisition, high competency, and deeper emotional resonance. Intuitively, this stands to reason that a young person who is learning a language will be laden with sentimental significance throughout their life. Because language originates at home, everyday speech reflects the entire gamut of human feelings. Furthermore, because emotional regulation mechanisms emerge at approximately the same time as early language in childhood development, it is reasonable to assume that the dynamic system in the brain forms strong connections with words learned at a young age.

This study aims to investigate the resonance of emotional words in the L1 and L2 of Arabic-English bilinguals in Kuwait, as little attention has been paid to Arabic in language studies. In addition, this study aims to examine the factors that can affect bilinguals' perceptions of emotional words in L1 and L2. Although the research adopts some of the methods used by Dewaele (2005) and Hwang (2018), this study attempts to narrow down the differences among participants. For example, Dewaele's (2005) sample consists of participants who are not equal in educational level, language proficiency, and so on; further, many studies examining the relationship between language and emotions have included participants from different countries. Therefore, the current study focuses on two predominant languages spoken in Kuwait: Arabic and English.

2. Literature Review

2.1 Bilinguals' Emotional Intensity

The theory of bilinguals experiencing different emotional intensities stems from their linguistic relativity. This theory hypothesises that speakers of different languages experience different conceptual systems; therefore, linguistic relativity claims that languages affect individuals' cognition and thoughts distinctively, that is, bi- or multilinguals may experience different conceptual systems depending on their language (Wolff & Holmes, 2011). From this perspective, many specialists and researchers on bilingualism and emotions have attempted to ascertain whether L1 emotional words correspond to L2 emotional words regarding resonance and illocutionary effects. Furthermore, they have aimed to identify the factors that may affect bilinguals' perceptions of emotional words.

Individuals' L1 has been found to be more emotional and evocative than their L2 (Dewaele, 2004). In Dewaele's (2004) study, the researcher examined the emotional intensity of swearwords and taboo words in multilinguals' languages. The researcher collected data using an online questionnaire consisting of both qualitative and quantitative questions. The sample consisted of 1039 multilingual individuals. The findings of this study indicate that participants viewed swearwords in their L1 as stronger and more intense than those in their L2. However, Dewaele identifies that an individual's L1 does not necessarily have to be more evocative than their L2 because a bilingual's various variables determine their attachment to a specific language. For instance, the context of acquisition, which indicates whether the L2 was acquired in a naturalistic or instructed context, age at acquisition, level of proficiency, and frequency of use can result in weaker or stronger effects (Dewaele, 2004). Thus, languages learned after puberty appear to be less emotionally intense than those learned earlier. In addition, Dewaele (2004) concludes that whenever an individual's L1 becomes a non-dominant language (i.e. L1 attrition), emotional and taboo words will become less evocative. The same pattern has been identified by Dewaele (2008) when investigating the emotional weight of the phrase "I love you" in multilinguals' languages and perceptions. It has been concluded that the participants perceived terms of endearment in their L1 as having more emotional resonance (Dewaele, 2008). Dewaele (2008) further argues that variables such as educational level and gender do not significantly affect multilinguals' perceptions of emotional phrases; however, variables, such as L2 proficiency and frequency of use, do influence how multilinguals perceive emotional words.

Consequently, examining the relationship between language and emotions should be based on various variables of participants, because they signify bi- or multilingual perceptions of L1 and L2 emotional words and provide researchers with informative data that can illustrate their attachment to a specific language. Thus, a variable such as the context of acquisition offers evidence of feeling higher emotional intensity when using S-T words or words that express love. When language is learned in the instructed context only, meaning that exposure to a language occurs through formal education and classrooms, reduced emotionality in the L2 might occur because of the absence of L2 emotional contexts. Therefore, studies with participants who learn their L2 in different contexts show differences in the way they perceive emotional words, since those who learn their L2 in an instructed context have little emotional attachment to their L2; more specifically, the two languages are differentially embodied (Dewaele, 2013). In contrast, bilinguals who learn their L2 in a naturalistic or mixed context will be more attached to the second language because it is more experienced. In addition, Dewaele (2004) investigated the gender variable in which he wanted to know if women perceived S-T words differently than men. However, gender differences were not observed because both genders reported that S-T words in the first language might be more intense. Consequently, the findings of the aforementioned studies support linguistic relativity, as language influence can be observed. Pavlenko (2007) provides evidence of the influence of language. The researcher suggests that telling a story's events in the same language is more emotionally evocative than telling the same story in L2 since bilinguals find discussing emotional topics challenging.

2.2 The Skin Conductance Response and Autobiographical Memory

The skin conductance response (SCR) is a commonly used psychophysiological measurement of the emotional weight of a given visual or auditory stimulus. Several studies have explored differences in bilinguals' emotional arousal using SCR, including studies by Harris et al.

(2003, 2006), to not rely only on participants’ opinions and personal experiences. Researchers have expanded their approaches to investigating the connectedness between language and emotions in bilinguals’ experiences by applying scientific and psychophysiological methods to determine whether an individual’s L1 is more evocative than their L2 and, if so, what factors affect their attachment to a particular language. In a previous study by Harris et al. (2003), a group of Turkish-English bilinguals’ SCRs was elicited by different stimuli (n=32) and the participants were asked to rate the pleasantness of words from various categories, including taboo words, reprimands, and aversive words. The words were presented in the participants’ L1 and L2, and the fingertip electrodes monitored their SCRs. The experiment indicated high responsiveness to taboo words in both languages; however, most remarkably, reprimands in the participants’ L1 were more resonant than reprimands in their L2.

Moreover, studies of bilinguals’ autobiographical memory have pinpointed the differences between an L1 and L2. Autobiographical memory is the activation and reconstruction of emotional events that occurred in the past. Previous experiences have emotional, psychological, and mental components (Schrauf & Durazo-Arvizu, 2006). Studies of bilinguals’ autobiographical memories have shown that their memories and emotional experiences are categorised according to their language (Harris et al., 2006). This suggests that the attachment or detachment of a particular language depends on factors such as socialisation and emotional experiences. Furthermore, bilinguals may feel highly connected and attached to their L1 because it is the language in which the most intense, emotional, and genuine events occurred (Pavlenko, 2007). Thus, an individual’s autobiographical memory that activates the details of an event and the language in which it occurs explain the differences in their experienced emotional intensities between their L1 and L2 (Harris et al., 2006). The influence of bilinguals’ autobiographical memories can be found in the work by Harris et al. (2003), who revealed that Turkish-English bilinguals experienced higher emotional intensity in their L1, even though they resided in the United States.

3. Data Collection

This study adopts the methods used by Dewaele (2005) and Hwang (2018) with some modifications that correspond to this specific research.

3.1 Demographic Characteristics of Participant

Table 1 provides participants’ demographic information. Because the current research aims to narrow down the differences among participants, the sample consisted of Arabic-English bilinguals who were chosen from different Kuwait University majors. They were aged 19 to 31 years. Moreover, 20 men and 29 women were selected to compare their perceptions of emotional words in their L1 and L2. Most participants reported being equally fluent in Arabic and English based on self-rated proficiency questions. The participants were considered late bilinguals because most had learned English around the age of seven years. In addition, they learnt their second language in naturalistic and instructive contexts before puberty. Three participants were excluded from the sample; two had a low level of proficiency when asked to rate their L2 proficiency. Although the third participant was Kuwaiti and spoke Arabic, her first language was Tagalog which did not fit the requirements of the sample.

Table 1. Research participants

Variables		N	Total
Gender	Men	20	49
	Women	29	
Age Group (years)	17–19	2	49
	20–22	24	
	23–25	20	
	27	2	
	31	1	
Nationality	Kuwaiti	44	49
	Non-Kuwaiti	5	

3.2 Instrument

The questionnaire was distributed through a social media platform. We obtained the participants’ consent in order to allow them to answer the questionnaire freely and without disclosing their personal information. Upon receiving the questionnaire, they were provided with clear instructions about how to complete it themselves independently by using their devices without having to be supervised or assisted by a research assistant or supervisor. The questionnaire comprised two sections; the first section aimed to detect the participants’ demographic information and linguistic background. The second section consisted of various questions that examined the participants’ perceptions of emotional words in both languages. The questions were in English, with some Arabic expressions used to detect the emotional intensity of Arabic expressions. The questionnaire followed both quantitative and qualitative approaches. The quantitative questions were rated on a 5-point Likert scale (1=Strongly Disagree to 5=Strongly Agree), while the qualitative questions included two open-ended questions.

3.3 Procedure and Data Analysis

Questions related to participants’ demographic information and linguistic background were used to help analyse the data because independent variables such as gender, language proficiency, and frequency of use are fundamental in affecting their perceptions of L1 and

L2 emotional words. The Likert scale questions were analysed using MS Excel version 16.0, to calculate the mean score of each question. In addition, an independent samples t-test was used to investigate gender differences by comparing the mean scores of male and female participants. A Cronbach’s alpha reliability test was used to test the validity of the questionnaire. At the same time, the open-ended responses provided explanations for feelings of higher or lower emotional intensity. Thus, the mixed methodology provides a study with numeric responses and open-ended responses that help understand why some bilinguals feel less emotionally charged when using their L2.

4. Findings

4.1 General Overview

As shown in Table 2, the terms of endearment used to express emotions and feelings were more resonant in the participants’ L1. The mean score for the first question is 4.17 when asked if the Kuwaiti Arabic equivalent of ‘I love you’ (*aḥibbik* (m.), *aḥibbiċ* (f.)) has higher emotional intensity, indicating that Arabic terms of endearment have higher emotional weight and connotations. Moreover, apologising in Arabic has a stronger elocutionary effect than in English, as noted in Question 3, when asked if they feel higher emotional intensity when apologising in Arabic. For Question 6, two-thirds of the participants (23.3% Agree and 43.3% Totally Agree) reported that venting out and talking about emotional topics in English was easier than in Arabic.

In contrast, the mean score for Question 4 was low, since participants did not view English and Arabic S-T words as equal; taboo words in both languages do not have the same emotional weight. However, the participants’ responses to questions 2 (whether they preferred to express their anger in their L2) and 5 (whether they felt attached or detached from English) did not have a positive or negative response since the mean scores represent a neutral range. The findings of the current study show that it is easier to express emotions in English. Hence, we confirm the research hypothesis; many responses showed higher emotional intensity to L1 emotional words, which was supported by the participants’ answers to the open-ended questions.

When people are exposed to emotional words in their L2, bilinguals are more likely to devote more attentional resources to such terms than when presented with neutral words (Schindler & Bublatzky, 2020). This was the case even when emotional words were present in their L2. However, attention paid to emotion recognition can shift distinctly depending on the language in which the terms are delivered.

Table 2. Mean scores of participants’ responses

	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Totally Agree (5)	Mean
Q1: Do you feel higher emotional intensity when you say the Arabic equivalent of ‘I love you’?						4.17
Q2: If you are angry, do you prefer to express your anger in the L2?						3.07
Q3: Do you feel higher emotional intensity when you say the Arabic equivalent of ‘I am sorry’?						4.44
Q4: Do taboo words in your native language have the same emotional weight in the L2?						2.24
Q5: Do you feel more ‘coldness’ (detachment) when you speak in English than in Arabic?						2.94
Q6: Is it easier for you to talk about emotional topics in your L2?						3.84
Q7: Do you feel a stronger intention of refusal if you say the Arabic equivalent of ‘No’?						3.97
Total Mean:						3.5190

4.2 Gender Differences

Research on bilingualism focusing on emotion identification has yielded several unexpected discoveries. Researchers have examined how gender can influence Arabic-speaking bilinguals in interpreting emotional terms in their mother tongues, as compared to their L2, English (Abdel-Hamid et al., 2020). According to Grégoire and Greening (2019), bilinguals perceive emotions more accurately in their L1 than in their L2. Furthermore, bilinguals can experience emotions in their best language, regardless of the language they speak as their native tongue. As a result, it has been suggested that gender may have a role in how people who speak two languages perceive emotions. Gender affects bilinguals’ ability to recognise emotions, which has implications for bilingual education (Abdel-Hamid et al., 2020).

As our research aims to detect the differences between men and women—to determine whether gender affects their perceptions of emotional terms, an independent sample t-test was used. From Table 3, the results did not confirm any significant differences between men and women ($p > .05$). These results are consistent with Dewaele (2004).

Table 3. Means scores between men and women

Questions	Men	Women
Q1	4.7692	3.7058
Q2	2.8461	3.2352
Q3	4.6923	4.2352
Q4	2.1538	2.2941
Q5	3	2.8823
Q6	3.5384	4.0588
Q7	4.2307	3.7647
Total mean	3.6043	3.4537
<i>p</i> -value .749 Not Significant		

Note. Significant at (p -value $< .05$), not significant at (p -value $> .05$) on 2-tailed tests

4.3 Cronbach's Alpha

Cronbach's alpha reliability test was used to test the reliability of the questionnaire. The alpha coefficient for the test was .14, indicating that the internal consistency was low because the acceptable value ranges from .6–.7. Although the minimum number of participants required to conduct a reliability test was not determined, the current study had a small sample size (n=49) compared to studies with a larger sample size. In addition, the number of questions (n=7) may not have been sufficient for conducting a reliability test.

Table 4. Reliability statistics

No. of items	Sum of the item variances	Variance of total scores	Cronbach's Alpha
7	9.6376	10.8671	.14

5. Discussion

5.1 Bilinguals' Different Emotional Intensities

The current research results indicate that Arabic-English bilinguals experience different emotional resonances when using their L1 and L2. Terms of endearment that express affection and love may be more intense if uttered in Arabic, unlike English which seems to be less evocative. Moreover, many responses indicate that taboo words in their L1 have a higher emotional resonance than taboo words in their L2. More than half of the participants reported that taboo words in both languages are not equal regarding intensity. The participants mentioned that uttering S-T words in English provides them more freedom, as they do not feel out of bound or disobedient. Hence, their responses indicate that they are emotionally attached to their L1. These findings can be better understood from the responses to Question 5, when participants were asked whether they felt detached when using the L2. Although the mean score of this question has a neutral value, one-third of the participants gave a higher value (Agree and Totally agree) which in turn might explain why taboo words, terms of endearment, and apologies in English are less resonant than in Arabic. In addition, speaking about an emotional topic in an L2 is preferable, as seen in the results of the question that asked if the participants preferred using English to express their emotional state. Most of the participants answered with "Agree" and "Totally Agree" indicating that English is their favourable language when expressing their feelings in any communicative event.

Accordingly, the participants' responses to the qualitative questions provided the current research with an explanation of their answers. The participants were asked two questions; the first was chosen to reveal the language they preferred for emotional terms and the reason for it. The second question aimed to reveal whether the participants noticed that their emotional experiences and contexts differed according to the language they used. On the one hand, most participants outlined that they prefer to use Arabic to express love because it delivers exactly how they feel. They described their L1 as being more intense, honest, evocative, and expressive. On the other hand, English was used when they did not want to expose themselves, as one participant connected their L2 with formality and reported that their preference depended on the addressee. If the addressee was a close person, Arabic was used, because the words seemed more genuine and sincere. Their responses to this question explain why they feel higher emotional intensity when saying 'I love you' or 'I am sorry' (*āsif* (m.), *āsfa* (f.)) in Kuwaiti Arabic than in English. However, when it comes to an emotional experience such as a conversation that expresses someone's emotional state, an L2 may be preferred over an L1. Most participants reported that talking about an emotional topic in their L1 was not like in their L2 because they experienced different emotional intensities. The Arabic language is more serious and resonant; the participants outlined that they had trouble finding the right words in an emotional context, which explains why they would prefer English to emotionally vent. One participant reported that English was easier because she did not feel as exposed using Arabic, and the L2 language gave her more freedom to convey what she felt without feeling uncomfortable. Thus, the open-ended question answers why two-thirds of the participants chose 'Agree' and 'Totally Agree' when they were asked if their L2 was easier to use when talking about emotional topics. These results are similar to those reported by Hwang et al. (2018).

5.2 Independent Variables

The relationship between emotional reactivity and the participants' independent variables was significant, as they were found to affect their responses and perceptions of the L1 and L2 emotional words. The frequency of use determines the language that is more emotional because continuous language practice leads to its dominance. Because most participants resided in the Arabic-speaking country, Kuwait, Arabic is a more practiced/used language than their L2. The results indicated that the participants felt a higher attachment to their L1. Although most participants learned English at a young age, before puberty, they reported that Arabic was their dominant language. Attachment to their L1 was evident in the participants' responses, as they did not view terms of endearment as equal in both languages. This might explain how socialisation strengthens a language; the more a language is used in multiple contexts, the more resonant it is.

Furthermore, the context of acquisition affected the participants' perceptions of emotional terms in their L1 and L2. Most participants reported that they learned their L2 in a mixed context (formal education and natural use of the language outside the classroom). In contrast, their native language, Arabic, was naturally acquired. This indicates that the L1 is more resonant because it was acquired through natural exposure. Therefore, the participants had more experiences, including emotional experiences, in their L1 than compared to their L2. However, this study did not reveal any significant gender differences between men and women. The two groups had almost the same perception of S-T and emotional words, whereby S-T words in English were considered as less emotionally intense. The current results match previous findings in the literature by Dewaele (2004) who similarly did not find gender differences.

6. Conclusion

This research delved into the emotional connotations of words in two languages by investigating Arabic-English bilinguals' perceptions. The findings indicate that bilinguals, regardless of gender, perceived emotional words in their L1, Arabic, as more resonant than their counterparts in their L2, English. Therefore, the findings identify the idea of language influence, as bilinguals experience different levels of emotional intensity depending on the language they use. Moreover, the current research reveals that Arabic-English bilinguals' perceptions are affected by their personal experiences and independent variables, including frequency of use, language proficiency, and context of acquisition. Language and emotion are substantial aspects of the human experience that are intricately connected. An implication of studying bilingualism is understanding the emotional resonance of individuals fluent in Arabic and English. In addition to allowing L1 and L2 speakers to bridge the gap between cultures that are distinct and different, they can gain a deeper understanding of the emotions associated with each language group by experiencing, comprehending, and empathizing with their speakers' emotions. As a result, better links and communication will be developed between the two languages and a society where different backgrounds can better understand each other will emerge.

Nevertheless, the current study was limited by the small number of participants and the low Cronbach's alpha score. This study may be helpful for further studies examining the impact of emotional words among Arabic-English bilinguals in other Arab nations. It can be argued that bilinguals will respond differently to emotional resonance of their first and second languages if a sufficiently sensitive behavioral experimental paradigm is applied to a well-characterized sample of bilinguals. Further research should be undertaken to investigate that emotional resonance differs between L1 and L2 when utilizing psychophysiological or behavioral measures.

In conclusion, Arabic-English bilinguals experience emotional resonance in both languages, which allows them to draw on their cultural heritage and personal experiences to create a unique identity. This emotional resonance creates a sense of interconnectedness and understanding that bridges cultural and linguistic boundaries. As a result, bilinguals can express themselves in meaningful ways in both communities, making them invaluable members of both the Arabic and English-speaking worlds.

References

- Abdel-Hamid, L., Shaker, N. H., & Emara, I. (2020). Analysis of linguistic and prosodic features of bilingual Arabic-English speakers for speech emotion recognition. *IEEE Access*, 8, 72957-72970. <https://doi.org/10.1109/ACCESS.2020.298786>
- Colbeck, K. L., & Bowers, J. S. (2012). Blinded by Taboo Words in L1 but Not L2. *Emotion*, 12(2), 217-222. <https://doi.org/10.1037/a0026387>
- Dewaele, Jean-Marc. (2004). The Emotional Force of Swearwords and Taboo Words in the Speech of Multilinguals. *Journal of Multilingual and Multicultural Development*, 25, 204-222. <https://doi.org/10.1080/01434630408666529>
- Dewaele, Jean-Marc. (2008). The Emotional Weight of *I love you* in Multilingual Languages. *Journal of Pragmatics*, 40, 1753-1780. <https://doi.org/10.1016/j.pragma.2008.03.002>
- Dewaele, Jean-Marc. (2013). Multilingualism and Emotions. In Carol A. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics*, pp. 3876-3883. Oxford: Blackwell Publishing.
- Grégoire, L., & Greening, S. G. (2019). Fear of the Known: Semantic Generalisation of Fear Conditions across Languages in Bilinguals. *Cognition and Emotion*, 34(2), 352-358. <https://doi.org/10.1080/02699931.2019.1604319>
- Harris, C. L., Ayçiçeği, A., & Gleason, J. B. (2003). Taboo Words and Reprimands Elicit Greater Autonomic Reactivity in a First Language than in a Second Language. *Applied Psycholinguistics*, 24, 561-579. <https://doi.org/10.1017/S0142716403000286>
- Harris, C. L., Gleason, J. B., & Ayçiçeği, A. (2006). When is a First Language More Emotional? Psychophysiological Evidence from Bilingual Speakers. In Aneta Pavlenko (Ed.), *Bilingual Minds: Emotional Experience, Expression and Representation*, pp. 257-283. Cleveland, Buffalo, Toronto: Multilingual Matters Ltd.
- Hwang, Y. (2018). Different Intensity of Emotions in Bilingualism. *Studies in English Language & Literature*, 44, 349-370. Retrieved from <http://www.aellk.or.kr/datax/thesis/11518000696961.pdf>
- Mortensen, L., Berntsen, D., & Bohn, O.S. (2015). Retrieval of Bilingual Autobiographical Memories: Effects of Cue Language and Cue Imageability. *Memory*, 23(2), 138-156. <https://doi.org/10.1080/09658211.2013.873809>
- Pavlenko, A. (2007). Autobiographic Narratives as Data in Applied Linguistics. *Applied Linguistics*, 28, 163-188. <https://doi.org/10.1093/applin/amm008>
- Schindler, S., & Bublatzky, F. (2020). Attention and Emotion: An Integrative Review of Emotional Face Processing as a Function of Attention. *Cortex*, 130, 362-386. <https://doi.org/10.1016/j.cortex.2020.06.010>
- Schrauf, R. W. (2000). Bilingual Autobiographical Memory: Experimental Studies and Clinical Cases. *Culture & Psychology*, 6(4), 387-417. <https://doi.org/10.1177/1354067X0064001>
- Schrauf, R. W., & Durazo-Arvizu, R. (2006). Bilingual Autobiographical Memory and Emotion: Theory and Methods. In: Aneta Pavlenko (Ed.), *Bilingual Minds: Emotional Experience, Expression and Representation*, pp. 284-311. Cleveland, Buffalo, Toronto: Multilingual

Matters, Ltd.

Weimer, A., Koniakowsky, I., Nazir, T. A., & Huckauf, A. (2022). Behavioral Evidence for Differences in Emotional Resonance during Processing First- and Second-language. *International Journal of Bilingualism*, 26(6), 784-798.

<https://doi.org/10.1177/13670069211073578>

Wierzbicka, A. (2004). Preface: Bilingual Lives, Bilingual Experience. *Journal of Multilingual and Multicultural Development*, 25, 94-104.

<https://doi.org/10.1080/01434630408666523>

Wolff, P., & Holmes, K. J. (2011), Linguistic Relativity. *Wiley Interdisciplinary Reviews: Cognitive Science*, 2, 253-265.

<https://doi.org/10.1002/wcs.104>

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