A contrastive analysis of emotions and thoughts across Arabic and English as foreign languages in narratives written by bilingual Jordanian university students studying in Hungary

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The present study aimed to explore bilinguals' narratives in their two languages by examining their emotions by comparing the number of adjectives and adverbs used to describe a photo. The study also examines whether the thoughts expressed in their narratives are similar in Arabic and English. Data were collected from 18 Jordanian Arabic-English bilingual university students residing in Hungary, through narratives formed to describe a thematic apperception test photo. To compare the number of adjectives and adverbs, data were analyzed using SPSS 20, and qualitative thematic analysis was conducted to explore the themes in the narratives. The results of this study indicate that when participants used their first language (L1), they did not tend to employ a greater number of adjectives and adverbs in their writing. In other words, the use of adjectives and adverbs in L1 does not appear to be more frequent than in other languages. Findings also indicate that participants would describe the same photo differently by presenting different thoughts when using their L1 and L2. This study presents further evidence that bilinguals use their two languages differently.

Keywords: emotions, thoughts, bilinguals, narratives, cross-linguistic

1. Introduction

In an increasingly globalized world, bilingualism has become a compelling subject of exploration and analysis, presenting a unique intersection of linguistic, cognitive, and sociocultural dimensions.

Bilingualism is generally known to involve the ability to use two or more languages in daily life (Grosjean, 2013). In 1996, it was estimated that approximately two-thirds of the world's children were raised in bilingual families and environments (Crystal 2004). Bilingualism is not only a common phenomenon but also a valuable skill in our increasingly interconnected world, opening doors to diverse cultures, enhancing cognitive abilities, and facilitating effective communication across linguistic boundaries (Bialystok 2009).

In light of the escalating global population of bilinguals, there has been a surge in research dedicated to understanding their language use, with particular emphasis on the

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interplay between bilingualism and emotions. While earlier investigations into bilingualism often disregarded the emotional dimension, contemporary scholarship has shifted its focus to examining the intricate relationship between bilinguals' language choices and their emotional expression. This evolving research landscape underscores the significance of emotional aspects in the realm of bilingualism, a viewpoint supported by numerous scholars including Dewaele (2005, 2007, 2008, 2010).

Dewaele (2005) indicated that it is important to incorporate emotions and emotion words into L2 textbooks, as incorporating emotions into textbooks enhances the learning process by making them engaging and memorable. Emotion-related vocabulary and expressions provide context for language learning, enabling learners to understand how words are used in various emotional situations.

According to Vygotsky (2012), being able to convey the same idea in other languages helps a person perceive language as one specific system among many, and improves the understanding of linguistic processes. In other words, individuals gain a deeper understanding of how language works by recognizing common principles and patterns across different languages. This understanding enhances their ability to analyze and compare linguistic structures and mechanisms, making them more adept at navigating diverse linguistic systems.

Research into bilingualism has focused on the relationship between first language (L1) and second language (L2) in individuals; however, there is still a lack of studies conducted to explore the relationship between L1 and L2, and emotions and thoughts in bilinguals. To my knowledge, no studies have been conducted to investigate emotions and thoughts, particularly in the case of Jordanian students who study in a foreign country, namely Hungary. Understanding the emotional and cognitive experiences of Jordanian students in a foreign academic environment is important, as this has not been explored before. These findings provide valuable insights into this particular group's experiences and challenges. The current study aimed to explore the relationship between bilingualism and Jordanian students' emotions in L1 and L2 by analyzing written narratives. This study also aimed to explore Jordanian students' thoughts by comparing themes appearing in their L1 and L2 narratives. By conducting this study, a deep understanding of participants' emotions and thoughts in L1 and L2 will be gained, which will help bilinguals better understand themselves and how their emotions and thoughts are expressed in L1 and L2 to better express themselves in both languages.

2. Literature review

In the literature review section, the exploration begins with bilingualism and emotions, presenting various definitions. Subsequently, previous studies on emotions and thoughts were discussed. Finally, the section concludes by discussing narratives in L1 and L2.

2.1. Bilingualism and second language learning

Researchers have attempted to find a proper definition of bilingualism for those who can be considered bilingual. Presenting an accepted definition of bilingualism and who can be considered bilingual is not an easy task. Franson (2011) states that individuals with different variables, such as age at language acquisition, language proficiency, and language use, may all be categorized as bilinguals. Having many aspects related to bilingualism provides a wide range

of definitions. Bloomfield (1994) argues that a bilingual person must have native-like competence in both languages, according to which bilinguals are people who are as competent as natives in their two languages and who have equal fluency levels in their first and second languages. The previous definition was considered to belong to the maximal view of bilingualism, arguing that one must develop native-like proficiency in both languages in order to be regarded bilingual.

However, this perspective faces challenges from other researchers who have offered alternative definitions. According to Butler and Hakuta (2004), bilinguals are "individuals or groups of people who obtain communicative skills, with various degrees of proficiency, in oral and/or written forms, to interact with speakers of one or more languages in a given society".

Grosjean (2013) proposes that "bilingualism is the regular use of two or more languages or dialects". According to him "bilinguals are individuals who can use two languages alternately or produce meaningful utterances in two or more languages to achieve successful communication who use two or more languages (or dialects) in their everyday lives."

In the current study, Grosjean's definition was adopted, which views bilinguals as those who regularly use two or more languages or dialects in their daily communication. This definition acknowledges the practical use of multiple languages by the participants in this study.

2.2 Emotions and thoughts in bilinguals

Emotions are vital to human life; they give humans the ability to function in a given environment and keep people in societies better connected (Harkins & Wierzbicka, 2001). Many studies on bilingualism have focused on the relationship between language, emotion, and thoughts. According to Harkins and Wierzbicka (2001), how people understand and recognize their emotions depends on the vocabulary in their L1. "Different languages are linked with different ways of thinking as well as different ways of feeling; they are linked with different attitudes, different ways of relating to people, and different ways of expressing one's feelings (Wierzbicka, 2004).

Many studies conducted on emotion and language compare the emotional connections people have with their L1 and L2. Research conducted on emotional expressions in bilinguals indicates that they usually do not express their emotions in the same way, depending on the language used. Previous research has indicated that bilingual L1 is considered a language of emotions. Marcos (1976) indicated that L2 is often related to intellectual functioning and is relatively detached from emotions, whereas L1 is more connected to the heart and used to express emotions.

Several crucial questions have been raised regarding the relationship between bilingualism and emotions. Scholars have attempted to determine whether emotions are universal, experienced in the same way as a reaction to the same situations across all cultures, or whether they are culture-specific. Markus and Kitayama (1991) investigated differences in the way individuals express their emotions by comparing Easterners and Westerners and how they see themselves. In the West, the self is perceived as independent and self-contained, while in the East, people consider themselves more interdependent (Markus & Kitayama. 1991). They argued that individuals with independent personalities put themselves first; their goals and wishes are always their top priority, and as a result, their emotions are expressed more freely and openly, which shows the freedom to express negative and positive feelings. However,

interdependent individuals have more emotional bounds (Markus & Kitayama, 1991). Individuals in collectivist cultures have the concept of putting their group's interests first before their own.

Pavlenko (2006) claims that individuals experience the same emotions, but various languages might provide various means to enable us to access our feelings and emotions and build the way we express our emotions. Her study on Russian–English bilinguals revealed that some emotional concepts are not the same in these two languages in many aspects (Pavlenko, 2006). She argues that in English, emotions are considered states and expressed using adjectives, but in Russian, emotions are considered processes and expressed using verbs.

In a study of Russian emotion vocabulary in American learners' narratives, Pavlenko and Driagina (2007) found that in individualistic, independent cultures, individuals favor using nouns and verbs to express their emotions. In contrast, in interdependent cultures, people mostly use emotion verbs, which are exclusively used to express emotions. With regard to the Arabic context and more specifically, the Jordanian context, there is a lack of studies on the relationship between bilingualism and emotions and thoughts. To my knowledge, no study has been conducted to investigate bilingual Jordanian students' emotions and thoughts in the languages they speak.

2.3 Adjectives and adverbs as indicators of emotional content

The current study compared participants' emotions and thoughts in their two languages. Although the claim that the number of adjectives and adverbs are indicative of emotional content is commonly accepted, it is important to note that specific studies and authors have contributed to substantiating this argument. Researchers in linguistics and sentiment analysis have explored the relationship between linguistic features, including adjectives and adverbs, and emotional expressions. For instance, in their study of sentiment analysis, Pang and Lee (2008) emphasized the significance of adjectives and adverbs in identifying sentiment polarity in texts. They argued that these linguistic elements play a crucial role in expressing emotions and opinions and their analysis demonstrated that the presence and distribution of adjectives and adverbs strongly correlate with the emotional tone of the text.

Similarly, Turney and Littman (2003) researched the classification of sentiments in product reviews. They found that the frequency of specific adjectives and adverbs was a key factor in determining the sentiments of reviews, highlighting the importance of these linguistic features in conveying emotional content. Pennebaker and King (1999) conducted studies on expressive writing and emotional disclosure in psychology and language. They observed that individuals who disclosed their emotions through writing tended to use more emotional words, including adjectives and adverbs, suggesting a connection between linguistic expressions and emotional release.

The above studies collectively support the idea that the use of adjectives and adverbs is a reliable indicator of emotional content in a language. These findings reinforce the understanding that the choice and frequency of these linguistic elements significantly contribute to the emotional tone and sentiment expressed in written or spoken communication.

The decision to focus the current study exclusively on adjectives and adverbs in comparing emotions in Arabic and English narratives is grounded in a well-established body of research and theory within linguistics and sentiment analysis. The choice to exclude other parts

of speech such as nouns and verbs is deliberate and guided by the specific contributions of past studies and authors.

Adjectives and adverbs have consistently emerged as crucial linguistic elements in expressing emotions and sentiments across various studies. The literature review highlights the work of Pang and Lee (2008), Turney and Littman (2003), and Pennebaker and King (1999), who demonstrated the significant role that adjectives and adverbs play in identifying sentiment polarity, determining sentiment in product reviews, and expressing emotions in written disclosures.

By focusing on adjectives and adverbs, the current study aligns with a growing body of evidence that these linguistic features are reliable indicators of emotional content in language. These studies emphasize the importance of choice, frequency, and distribution of adjectives and adverbs in conveying emotional tone and sentiment. Consequently, limiting the scope to adjectives and adverbs allows for targeted investigation of specific linguistic elements that have been consistently associated with emotional expression.

In Arabic linguistic tradition, the choice and placement of adjectives and adverbs are recognized as powerful tools for conveying emotional nuances. The rich morphological and syntactic structure of the Arabic language allows for precise expression of emotions through careful selection and arrangement of these descriptive elements. Unlike other languages, where emotional content might be distributed across various parts of speech, Arabic places particular emphasis on the role of adjectives and adverbs in shaping the emotional tone of communication.

The linguistic nuances of Arabic, including its use of adjectives and adverbs, have been extensively explored in Arabic linguistics and literature. Scholars have highlighted the emotive power embedded in Arabic, paying specific attention paid to how adjectives and adverbs contribute to the expressive quality of texts. By focusing on these linguistic features, the current study not only aligns with broader trends in sentiment analysis but also acknowledges the unique linguistic characteristics of Arabic, where adjectives and adverbs are recognized as prominent vehicles for conveying emotions.

In summary, the decision to exclusively examine adjectives and adverbs in the context of Arabic and English narratives is not only methodologically grounded, but also considers linguistic nuances specific to Arabic. Recognizing the particular role that adjectives and adverbs play in expressing emotions in Arabic further justifies their isolated investigation in this study, offering a targeted and culturally informed approach to understanding emotional content in narratives.

2.4. Narratives in L1 and L2

Narratives are often used to express feelings and share experiences (Johnstone, 2004). Prior studies have focused on writing using a second language to demonstrate the relationship between first language (L1) and second language (L2) writing. Ostler (1990) conducted a study to compare English texts written in four language groups (i.e., English, Arabic, Spanish, and Japanese). He concluded that ESL students who completed a writing task were influenced by the styles used in their own cultures.

Han *et al.* (1998) in their study compared oral narratives about personal experiences presented by Korean, Chinese, and American preschool children and suggested that Asian children mention their memories in a brief, general, and less emotional way, while American

children describe their memories in a more detailed and emotional way; they also include their own opinions and beliefs. Investigating cross-cultural narratives has shown that linguistic expressions that provide and show the narrator's ideas, feelings, and perspectives differ between Asian and American narrators. Han *et al.* (1998) claim that American narrators express and reveal their emotions and feelings more openly than Asian narrators.

Some researchers believe that Chinese parents focus on societal values and morals because of their connection with Confucianism (Chao, 1995). Mullen and Yi (1995) claim that Chinese children are more affectionate and sensitive towards people's feelings, but they tend to keep their feelings to themselves and do not show them. On the contrary, American parents encourage their children to express their feelings and interests openly because their culture favors individuality. Chao (1995) argues that American parents and caregivers tend to push their children to express their emotions and feelings more than the Chinese do.

Söter (1988) studied narratives written in English by Arabic and Vietnamese second language learners and English-speaking students in Australia. Their task was to write a bedtime story in English for presentations to young children. Söter's results revealed that English-speaking students directly presented the plot with a clear sequence of events. Vietnamese ESL students tended to focus on the relationships between the settings and characters, while Arabic participants focused their attention on describing characters' personality traits. A previous study enabled Söter to conclude that using second language writing and narratives can help reveal individuals' native cultural thinking and ideas.

Lee (2003) compared narratives written in English by two groups: native speakers of English, and Chinese speakers learning English. Participants in both groups were college students whose task was to form a story in English using only a group of pictures presented to them. The results indicated that Chinese learners of English produced more clauses containing a coda by informing people about what to do or what not to do.

Stavans (2003) conducted a study to compare narratives written by second-language learners in their two languages. The participants were bilingual adults of Hebrew-English and English-Hebrew languages. She examined the influence of L1 on L2 narratives and compared them with monolinguals. Her results revealed that English monolinguals use a mixture of tenses and do not overuse or prefer a specific tense in their narratives. Hebrew monolinguals showed a clear preference for using the past tense, and English-Hebrew bilinguals used the past tense more often than English monolinguals when telling a story using their L1 English. She concluded that in narration and storytelling, bilinguals and monolinguals differ in various ways.

While many studies have revealed that culture has an effect on second-language writing and narratives, other studies have revealed contradictory results. Mohan and Lo (1985) argued that having similarities between the English and Chinese languages can help students with the writing process more positively than having negative interference.

Prior studies indicate that investigating narratives in language bilinguals provides deeper insights into their emotions and thoughts, and enables researchers to gain a better understanding of bilingualism. The current study aims to fill the gaps in the literature and complement research on emotions and thoughts in L1 and L2 by analyzing written narratives.

3. The present study

In light of the literature and research gaps presented above, an exploratory qualitative research approach was adopted to achieve the aim of this study. Qualitative data is important in emotional research. According to Dewaele and Li (2020), as emotions are subjective and fleeting experiences, the use of quantitative data to investigate them is insufficient. According to Ross and Rivers (2018), few qualitative studies have explored emotions. Although several studies have examined emotions and thoughts in second language communication, much remains to be discovered about how Jordanian bilinguals living in Hungary present their emotions and thoughts in their L1 and L2 narratives. Examining how Jordanian bilinguals living in Hungary express their emotions and thoughts in narratives in both their native language (L1) and second language (L2) holds significance beyond filling a research gap. This research is vital because it can lead to a deeper understanding of the sociocultural, psychological, and linguistic dynamics of play in this specific bilingual community. This knowledge is essential for developing more culturally sensitive language education programs, fostering effective intercultural communication, and promoting social integration among bilinguals. Additionally, this study contributes to the broader field of linguistics and psychology, helping us to understand how bilingualism affects emotional expression, cognitive processes, and the intricate relationship between language and emotions.

3.1 Research questions

By exploring the following questions, valuable insights are aimed at contributing to the emotional experiences and linguistic expressions of Jordanian bilinguals in Hungary, thereby enhancing their understanding of bilingualism, emotions, and language. The research questions were as follows.

1) Do Jordanian students use adjectives and adverbs differently in their L1 and L2, and if so, what is the difference?

2) Do the narrative descriptions of photographs by Jordanian students in their native language (L1) and second language (L2) vary in terms of the thoughts and emotions conveyed, and if so, what is the difference?

3.2 Context

This study explores the emotional and linguistic experiences of Jordanian bilinguals living in Hungary. The decision to adopt a qualitative research approach stems from the recognition that emotions are inherently subjective and transient phenomena, making quantitative data alone insufficient for comprehensive investigation. While prior research has provided valuable insights into emotions, only a limited number of qualitative studies have thoroughly explored them, especially within the unique context of Jordanian bilinguals residing in Hungary. This context is significant as it offers a window into the sociocultural, psychological, and linguistic dynamics within this specific bilingual community.

This study holds broader significance beyond addressing these gaps, shedding light on the sociocultural, psychological, and linguistic intricacies of this specific bilingual community. This

has implications for the development of culturally sensitive language education programs, effective intercultural communication, and promotion of social integration among bilingual individuals. Moreover, it contributes to the fields of linguistics and psychology, advancing our understanding of how bilingualism shapes emotional expressions and cognitive processes in the unique context of Jordanian bilinguals in Hungary.

3.3 Methods

3.3.1 Participants

Participants were recruited through an announcement made on a Facebook group for international students studying in Hungary asking only Jordanian students to participate in this study. Eighteen adult Arabic students participated in the study. The original number was larger; however because of the number of participants, this was the final number. There were nine males 50%) and nine females50%. The participants' ages ranged from 24 to 36 years, with a mean age of 28 years (M = 28, SD = 4). They all lived in Hungary and were students at the same university. The level of education ranged from a bachelor's degree to a master's degree at a university, with a master's degree being the most frequent level (60%). All participants speak Arabic (L1) and English (L2) fluently. Arabic is their first language, and they all have a very similar proficiency level in English, as all of them obtained a score above 74 in the TOEFL IBT or 6 in the IELTS. This requirement was set by the university to enroll in the program. All participants started learning English at the primary school level and interacted with both English and Arabic daily. They all spent a similar amount of time speaking in English; only one of the participants reported using English between two and five hours a day, while the rest spent between five and eight hours each day using English.

The selection of Jordanian participants residing in Hungary is indicative of the convenience sampling approach used in this study. This choice likely stems from practical considerations such as the researcher's accessibility to this specific population and the availability of a community of Jordanian residents in Hungary. Additionally, the decision to include participants in Hungary may also reflect an interest in exploring the cross-cultural aspects of emotional expression, acknowledging the potential influence of different cultural contexts on linguistic patterns. However, it is crucial to recognize that convenience sampling may impact the generalizability of the findings, and the results should be interpreted within the context of the chosen sample, considering the potential variations in emotional expression that may exist within the broader Jordanian population or in different cultural settings.

3.3.2 Instrument

To address the aforementioned research questions, a picture from the Thematic Apperception Test (TAT) (Murray & Morgan, 1935) was selected. The Thematic Apperception Test typically consists of a series of ambiguous images or scenes, and the individual being assessed is asked to create a narrative or story for each image. The stories they generate are believed to reflect their subconscious thoughts and feelings, providing valuable insights into their inner world, personal experiences, and psychological functioning. It was presented by American psychologists, Henry

Murray and Christina Morgan in 1930. The TAT is considered one of the most popular personality tests (Richards, 1948). TAT can be used for many reasons. In the current study, a TAT picture was used to express participants' feelings. TAT is often used to allow individuals to express their feelings indirectly (Richards, 1948). A TAT picture was also used to help explore the thoughts of participants by exploring the themes presented (Richards, 1948). Picture 4 was selected, in which a man turns away from a woman who is grabbing his shoulder. The specific choice of this particular photo in the Thematic Apperception Test (TAT) was deliberately made. It features both men and women in the scene, making it an interesting stimulus for exploring participants' thoughts and emotions in a context involving both genders. Using this image, researchers aimed to observe how individuals perceive and construct narratives when presented with scenarios involving male and female characters.

A methodological approach was adopted to ensure the validity and reliability of the results. Participants were divided into two groups: one group started by describing the picture in their first language (L1) and then switched to their second language (L2), whereas the other group began with their second language (L2) and then transitioned to their first language (L1). This sequence was designed to eliminate any potential practice effects that could skew responses. By ensuring that half of the participants began in L1 and the other half in L2, this study aimed to provide a more accurate and unbiased understanding of how individuals interpret and narrate stories based on the same image regardless of their language sequence.

3.3.3 Procedures

The participants were given instructions in their first language, Arabic, via email to write a story describing what was happening, what had happened before, and what they expected to happen in the future. They were also asked to describe what they thought the characters were thinking and feeling. Participants had to write stories in the first language, Arabic, or the second language, English, and send back the stories written in an email. After three weeks, the participants were sent the same pictures again and instructed to tell a story in their other language. The stories were medium length, and each story had to contain at least 150 words; however, no maximum length was set. Texts were collected and saved as Word documents. The participants were informed about the study without revealing any information about the actual purpose.

3.3.4 Data analysis

To determine whether participants' narratives in L1 were more emotional than those in L2, the number of adjectives and adverbs in the narrative was compared using two Excel sheets to organize the results, one for all Arabic stories and the other for English stories. Each participant was assigned a number and adjectives and adverbs were counted.

Quantitative content analysis was used to explore the themes presented in the narratives. All stories were collected and placed in Word documents. First, data were analyzed quantitatively. The number of adjectives and adverbs were counted manually in each story, and their percentages were counted using a calculator. The number of words in each story was counted, and the percentages of adjectives and adverbs in each text were calculated. SPSS 20 was used to compare the means and check whether the results were significant.

A qualitative analysis of the texts was also conducted to explore the thoughts and themes presented. Thematic analysis was carried out, and this approach was chosen because it best suited the research questions. According to McLeod (2011), thematic analysis is a flexible, straightforward approach. Braun and Clarke (2006) outlined a six-stage process for thematic analysis that included data familiarization, code generation, theme generation, theme review, theme definition, theme naming, and final write-up. These stages were meticulously followed to ensure reliability of the results. All narratives were reread, and written keywords were used to describe the main topic; then, the number of each topic was listed to indicate how many participants chose the same topic. To compare bilinguals' thoughts in both languages, the stories were analyzed, and each story was given a keyword according to the topic the participants gave. The keywords were entered into an Excel spreadsheet. Keywords were selected according to the frequency of appearance in the topic, and finally, the numbers were compared to ensure that all results were reliable. All the steps for the analysis were conducted and checked twice to ensure that all the numbers were accurate to avoid any mistakes and have precise results. A new Excel sheet was used to classify the texts according to the topics; each topic had to be mentioned next to the number of times the same topic occurred.

4. Results

These results are presented below to show the variation in topics selected by participants in both languages. The results highlight the contrast in the number of adjectives and adverbs used by participants in both languages, indicating variations in their usage between L1 and L2.

4.1 Percentage of adjectives and adverbs used by participants in both languages

Participants tended to employ a slightly greater number of adjectives in their first language and fewer adjectives in their second language. An Independent sample t-test was carried out to compare the means of the adjectives in both languages and check if the results were significant. The results revealed a significant difference in the scores between L1 narratives (M = 3.03, SD = .84) and L2 narratives (M = 3.35, SD = .80), t (2.1) =14, p< .001. These findings suggest that participants use more emotions in their L1 when compared to the emotional significance of the L2. This indicates that participants employed significantly more adjectives in their first language than in their second language.

The results of an independent sample t-test examining the use of adverbs in Arabic and English stories revealed no significant differences. The mean percentage of adverbs in both languages was 50% and the t-test did not yield a statistically significant result ($p > 0.05$). This suggests that participants exhibited a comparable frequency of adverb usage in both their first and second languages, indicating a lack of significant differences in emotional expression between the two languages.

Overall, while the use of adjectives demonstrated a statistically significant distinction, suggesting a tendency for higher emotional expression in the first language, the results regarding adverbs did not support such differences. It is crucial to interpret these findings with

caution, recognizing that the observed emotional expression disparities may not be practically meaningful and that the generalizability of the results may be limited.

Although not aimed at broad generalizability, these qualitative findings provide a rich foundation for further research and theoretical development of the nuanced relationship between language and emotions, advancing our understanding of this intricate interplay in a bilingual context. Therefore, despite their limited generalizability, the results of this study hold substantial significance for advancing scholarly discourse and guiding future investigations into the intersection of language and emotion.

4.2 Theme recurrence

The results indicated that participants in L1 described the picture differently, while the participants did not describe the same picture the same way in their L1 and L2. The picture depicts a young woman trying to stop a young man by holding her shoulders. Approximately 67% of the participants, when using their L1, described the husband controlling his wife, which makes sense in Arabic culture, as it is very common for men to prevent their wives from working or going out. Some 10% saw it as the man going into a fight and stopping him, and the rest, 23%) thought that the husband was leaving his wife and she was stopping him. In English, the results were different: 62% described the man as trying to protect the lady, 23% picked the theme of the husband leaving his wife, and the remaining 10% saw the male as trying to leave the lady.

For example, one participant described the same photo differently, depending on the language used.

English version:

Leave me alone I can't believe after all the love we went through you cheated on me" he said angrily leaving the girl who was nothing before she met him. He was the result of her fame after arranging a job meeting with his friend who was filming a movie and looking for an actress. "Please," she said, "I can't live without you, it was a mistake and I didn't know it would go that far". "I will go to find that jerk and beat him to confess where he put my money that he stole while you are sleeping, and then you will never see my face again"

Arabic version:

كانت صباحًا جميلًا يوم الأحد، وكانت السيدة الشابة تقف في الشارع عندما حاول مجموعة من الشبان في الشارع التقرب منها. عندما وصل زوجها لمقابلتها، حكت له عن ما حدث للتو. كان زوجها غاضبًا وأصيب بالجنون، قائلاً: "سأذهب وأعلم هؤلاء الأشخاص الذين لا قيمة لهم درسًا هامًا وسأجعلهم يندمون على كل كلمة قالوها". حاولت السيدة الوقوف بين يديه لترجوه ألا يذهب، قائلة: "من فضلك عزيزي، لا تذهب، ألا ترى مدى خطورتهم؟ أخشى أن يضرّوك،" لكن الرجل أصر على الذهاب. ذهب ودارت معركة كبيرة بينه وبينهم، حتى جاءت الشرطة وأخذتهم جميعًا إلى مركز الشرطة للتحقيق في الحادثة.

Translation of the Arabic version:

It was a beautiful Sunday morning; the young lady was standing on the street when a group of young men in the street tried to hit her. When her husband arrived to meet her, she told her about what had just happened and she was very scared and worried. He was furious and went crazy saying "I will go and teach those low lives an important lesson and will make them regret every word they say". The lady, extremely worried about her husband, tried to strongly beg him not to go, saying "Please dear don't go. Can't you see how dangerous they look? I am afraid they may harm you". But the man insisted on going. He went and had a very big fight with them until the police came and took them all to the police station to investigate the accident. The lady felt sad, and nervous, and deep down she felt that it was her fault.

An explanation of the change in the stories between the two languages could be that bilinguals' thoughts are affected and connected to the language they use, so they think differently. Another explanation could be that the participants were instructed to write in a certain language, so their minds directed them to form a story about the language and culture they are using.

5. Discussion

One of the aims of this study was to analyze the differences in the ways bilinguals wrote their narratives in L1 and L2. The first research question aimed to check whether bilingual narratives in L1 are more emotional than in L2 by comparing the number of adjectives and adverbs used. The results reveal that in the Arabic stories, the percentage of the participants' adjectives is 55%, while in the English stories, the percentage was only 45%. The findings of the current study indicate that L1 narratives written by Jordanians are not more emotional than are L2 narratives. The findings are in line with Pavlenko (2006), who argues that L1 is not always considered the language of emotions and L2 the language of detachment, speakers may use these languages to index a variety of affective stances, and they may also mix two or more languages to convey emotional meanings" (p. 131). The results of her study on language choice in emotional exchanges between multilingual parents and their children (Pavlenko, 2008) suggest that the reason for having a language that is more emotional than the other does not have to do with the language being the first or the second language, but it has more to do with language dominance.

Extending this discussion, Altarriba and Basnight-Brown (2007) support the idea that language dominance and context play pivotal roles in determining emotional expressions. Their study on bilingual emotionality found that individuals may express emotions more vividly in the language they consider more dominant, corroborating the current study's emphasis on language dominance as a determinant of emotional content.

Moreover, Dewaele's (2005, 2007, 2008) exploration of emotional expression in multilingual individuals echoes the findings of the current study, emphasizing the influence of various factors such as the age of acquisition, proficiency, and acquisition context. Dewaele's research underscores the nuanced nature of emotional expression, challenging the simplistic view that emotional intensity is determined solely by language hierarchy.

Adding another layer to the discussion, Schrauf (2000) conducted a study on emotional expression in the narratives of multilingual individuals and found that language proficiency

significantly influenced emotional tone. Similar to the current study, Schrauf's findings underscore the importance of considering proficiency levels when understanding emotional nuances across languages.

Moving on to the second research question, which explored whether participants exhibited different thought patterns in their two languages, literature on linguistic relativity was referenced. Whorf (1956), Lucy (1992), and Imai and Gentner (1997) investigated cross-linguistic differences in cognitive processes and suggested that language structure can influence thought patterns. The current study aligns with this literature by proposing that bilinguals may present different themes when expressing themselves in L1 and L2.

Additionally, research by Pavlenko and Driagina (2007) on the use of particular parts of speech in collectivist versus individualistic cultures adds another layer of complexity to the discussion. Their findings align with the current study's emphasis on cultural influences on linguistic expression and emotional communication, highlighting the need to consider cultural contexts when interpreting the results.

In conclusion, this study contributes to the ongoing discourse on language, emotions, and thoughts in bilingual contexts. These findings are in line with previous research by Altarriba and Basnight-Brown, Dewaele, Schrauf, Pavlenko, and Driagina, collectively emphasizing the intricate interplay of language dominance, proficiency, and cultural influences in shaping emotional expressions and thought patterns in bilingual individuals. This complexity underscores the need for a nuanced understanding of the relationships between language, emotions, and cognition in diverse linguistic and cultural contexts.

6. Conclusion

The current study provides a general overview of bilingual Jordanian students who speak both Arabic and English fluently and live in a bilingual environment in which they constantly use both languages. This study focused on how they expressed their emotions and thoughts. The main purpose of this research was to analyze how bilinguals express themselves in narratives written in both languages, with a focus on their ideas and use of adjectives and adverbs, which were analyzed and compared to check the difference in the way they were used.

The results indicate that many participants do not use more adjectives and adverbs in their L1 narratives than in their L2 narratives, suggesting that L1 narratives are not more emotional than L2 narratives and that Jordanian students who live in Hungary do not express more emotions in their L1 narratives than in their L2 narratives. Furthermore, the findings of the study revealed that bilingual Jordanian students living in Hungary produce different narratives in their first and second languages, as most international students in Hungary think differently when they change the language they use. The participants provided a completely different story when they changed their L1 to L2.

The significance of the current study is not only to complement studies on bilingualism but also to link bilingualism to other fields of study, such as psycholinguistics and sociolinguistics. Including bilingual variables in research on emotions and thoughts would enrich these domains and reveal the holistic nature of bilingualism. Another important aspect of this study is that it aims to generate insights that will be useful for researchers in the fields of multilingualism and L2 learning in the future. L2 textbook authors need to pay more attention to the emotional aspect of language use (Pavlenko & Driagina, 2007) and the way bilinguals think

in different languages. Therefore, it is worthwhile to focus more on how emotions and thoughts are related to bilingualism and second language learning, which helps L2 learners become more aware of their emotions in L2 and how they are expressed since they are different from their L1. It is expected that teachers become aware of the emotions, thoughts, and differences between the two languages.

Like all research, this study has some limitations. A limitation of the current study is the time gap between the two narrative writing sessions. Due to time constraints, the researcher had to ask the participants to write another story again after three weeks, which may not be considered a long time and may cause a practice effect in which participants may have a memory of the narratives they wrote the first time.

Research conducted on international students in Hungary to examine their emotions and thoughts in these two languages is limited. Future studies, follow-up interviews, and questionnaires can be conducted to include participants' own opinions about their emotions and thoughts in the two languages they speak and to check whether the findings that the researcher came up with are in line with the way they feel, which would be of great value in achieving triangulation and increasing the truthfulness of the results. Future studies should also be conducted on bilinguals and multilinguals to compare language and thought in three or more languages. Further, future studies should compare the emotions of males' and females' in the different languages they speak.

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Appendix

Thematic apperception test picture: