

## A Review Study About Gender Differences in Expressive Language: Spoken and Written Language Differences<sup>1</sup>

*İfade Edici Dilde Toplumsal Cinsiyet Farklarına Dair Bir Derleme Çalışması:  
Yazılı ve Sözlü Dil Farkları*

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Geliş tarihi/Received: 09.01.2023 Kabul tarihi/Accepted:16.10.2023 Yayın tarihi/Published:31.12.2023

### ÖZET

Bu derleme makalesi, çocukluktan itibaren ortaya çıkan ifade dilindeki cinsiyet farklılıklarını biyopsikososyal model perspektifinden açıklamayı amaçlamıştır. Örnek araştırma çalışmaları verilerek özellikle anne babanın ifade edici dilin duygusal bileşeni üzerindeki rolü belirtilmiştir. En önemli bulgu, ebeveyn ve çocuk cinsiyetinin çocuğun duygusal dışavurumu üzerinde etkileşime girebileceğidir; Anneler, çocuklarını kendilerini duygusal olarak ifade etmeye babalardan daha fazla teşvik etme eğilimindeyken, kız çocukların hem anneleri hem de babaları, erkek çocukların ebeveynlerine göre çocuklarını duygusal olarak daha girişken olmaya motive etmektedir. İfade edici dilin ve daha spesifik olarak duygusal ifadenin ebeveyn tarafından sosyalleştirilmesi hem yetişkinler hem de ergenler arasında sözlü iletişimde ve yazılı dilde bazı cinsiyet farklılıklarına neden olur. Benzer cinsiyet farklılıkları çevrimiçi iletişimde de gözlemlenebilir. Görünen o ki, bu farklılıklar hem genel olarak dilsel etkililik düzeyiyle hem de dilin çoğunlukla duygusal ifade olan duygusal bileşeniyle ilişkilidir. Alan yazın, dilde cinsiyet farklılıklarının önemli bir kısmının çocukların yaşadığı sosyalleşme süreçleriyle ilgili olduğunu ve bu cinsiyet farklılıklarının özellikle erkek çocuklarını sosyal ve duygusal gelişim açısından dezavantajlı bir konuma getirebileceğini belirtmektedir. Gelecekteki çalışmalar, dildeki cinsiyet farklılıklarını ve bu farklılıkların arkasındaki nedenleri hem biyolojik hem de sosyal perspektiflerden daha fazla araştırabilir. Ayrıca aile ve okul ortamı gibi ilgili bağlamlarda toplumsal cinsiyet eşitliğine yönelik bazı müdahale programları geliştirilebilir ve uygulanabilir.

**Anahtar Kelimeler:** dil, toplumsal cinsiyet, duygusal ifade, sosyal medya, iletişim

### ABSTRACT

This review article aimed at explaining gender differences in expressive language that emerge beginning from the childhood from the biopsychosocial model of perspective. Afterwards, especially parental role on emotional component of expressive language was specified by giving example research studies. The most important finding was that parent and child gender may interact on child's emotional expressiveness; while mothers tend to encourage their children to emotionally express themselves more than fathers, both mothers and fathers of girls motivate their children more to be emotionally assertive as compared to parents of boys. Parental socialization of expressive language and more specifically of emotional expressiveness results in some gender differences in both oral communication and written language among both adults and adolescents. Similar gender differences can also be observed in online communication. It seems that these differences relate both the level of linguistic effectiveness in general and mostly emotional component of the language, which is emotional expressiveness. Literature indicates that a substantial level of gender differences in language is related to socialization processes that children go through and such gender differences may put especially boys at a disadvantaged position in terms of social and emotional development. Future studies may further investigate gender differences in language and reasons behind such differences from both biological and social perspectives. Besides, some intervention programs for gender equality can be developed and applied in related contexts such as families and school environment.

**Keywords:** language, gender, emotional expression, social media, communication

<sup>1</sup> **Önerilen Atıf/Suggested Citation:** Borhan, N. (2023). A Review Study About Gender Differences in Expressive Language: Spoken and Written Language Differences. *Gelişim ve Psikoloji Dergisi*, 4(8), 76-95.

## BACKGROUND OF THE STUDY

General opinion suggests that language use of women and men differ from each other considerably. Speech patterns of women and men have been thought as very distinct as if they are speaking two different languages. However, contrary to expectations, gender differences in language are not that obvious but these differences are sufficient to form gender “dialects”. (Romaine, 2008). Then, we might ask why do such differences exist between men and women in terms of language?

The existing literature related to this topic (Araz & Akman Direkçi, 2019; Mendoza et al., 2021; Piersoul & Van de Velde, 2023; Plug et al., 2021) is not sufficient to cover and explain gender differences in language and communication in a broader term, including the theoretical background, the effect of parental gender socialization process on the development of gender differences, gender differences in both spoken and written language, the reflection of gender differences on different developmental stages (childhood vs. adolescence), and gender differences in the social media context. Yet, there is a need for a summary of the related literature that displays all these findings simultaneously to get the whole picture about this subject. Therefore, the current review study will try to reach this aim by explaining theoretical reasons of such gender differences in language, what kind of gender differences found in the previous research regarding spoken and written language and communication, the importance of parental role on the development of gender differences, whether the adolescence period reflects gender differences found in childhood. In the current study, whether social media is affected by these gender differences in language will be shed light on, too. Moreover, it would be more inclusive to reveal studies examining gender differences in language on both the content and the linguistic level. Current literature does not generally encompass both; some studies focused on gender differences only on the linguistic level (Lange & Zaretsky, 2021), and some other studies demonstrated gender differences only in emotional content (Svane et al., 2022). To reach a more precise and more generalizable conclusion about gender differences in language, either linguistic variables or content variables such as emotional expression, all studies should be summarized, and a conclusion should be drawn based on the findings. There are also differences in methodological techniques used in the related literature; some language studies utilized zoom out technique which includes evaluating a certain construct by giving that construct an arbitrary score by either observation method or use of a standard measure, whereas some studies focused on zoom in technique, which means basically the frequency count of a certain construct (e.g., examining number of emotion words used) (Al-Harashseh, 2014; Bohanek & Fivush, 2010; Grysman & Mansfield, 2020). The current study will include studies from both coding techniques to be more comprehensive.

### Theoretical Background of Gender Differences in Language

Answering the question of why men and women differ in terms of language can be grounded on three theoretical explanations; which are the *biological* theory, the *sociological* theory, and the *social constructionist* theory (Adani & Capanec, 2019; Bell et al., 2006; Chaplin, 2015; Chilosi et al., 2023; Endendijk et al., 2023; Leaper & Ayres, 2007; Yaffe, 2023). While biological theory assumes that biological sex differences including brain organization and functioning can explain gender differences in language, the other two approaches focus on effects of social processes on differential language development between males and females. Studies have been supported sociological and social constructivist theories more rather than the biological theory (Bell et al., 2006; Rinaldi et al., 2023; Xia, 2013). Social factors, in general, or, more specifically, society, may sometimes benefit from even language itself to create and spread gender differences in language. As a result, the origin of gender differences in language use and communication may also be explained by the fact that specific languages sometimes have an explicit gender bias, thus having individuals use language in a manner that is in

accordance with their gender (Caliskan et al., 2022; Esaulova et al., 2022; MacArthur et al., 2020; Menegatti & Rubini, 2017; Zhou et al., 2019). The presence of such biases in some languages would lead to the negative representation of women and femininity as more powerless, childish, and emotional while aggrandizing men and masculinity to reflect their representation favorably.

Despite the undeniable role of social parameters on gender differences in language use, biological theories should also not be underestimated. Indeed, as Adani and Capanec (2019) explained, the effect of neurobiological factors such as sex hormones on gender differences in language cannot be overridden. Furthermore, the facts that male children are more vulnerable to language-related disorders, including those with a neurological basis, and that brain development is completed earlier in girls supports the role of biology on gender differences in language and communication (Chilosi et al., 2023; Wallentin, 2020).

It has been known that there are some sex differences in brain development including anatomical and functional differences that can emerge even before the birth of an infant (Cook et al., 2023; Kumpulainen et al., 2023; Lawrence et al., 2023; Proverbio, 2023). From the biological perspective, there is a prevalent idea that gender differences in language may result from such discrepancies between male and female brains. However, this may not be the case. In the systematic review conducted by Etchell et al. (2018), it was specified that the previous research is inconsistent and there are only few studies supporting the idea that sex differences in brain is associated with differences in language related skills. On the contrary, they claimed that sex differences in brain usually do not match with gender differences in language. Yet, it was also stated that sex differences in cognitive development should not be reduced to brain, and other cognitive differences in many areas should be further investigated. Nevertheless, it would not be denied that the female brain is advantageous regarding having a more specialized and efficient information transfer system during language-related tasks as compared to their male counterparts (Xu et al., 2020). Therefore, focusing on the interaction between differences in brain regions and functions and social and psychological factors together would point out a more appropriate way to understand gender differences in language (Proverbio, 2023).

When the gender differences in language regarding emotional expressiveness is considered from the biopsychosocial view of perspective, social determinants may play more crucial role as compared to biological sex differences or cognitive differences. According to biopsychosocial model suggested by Chaplin (2015), gender differences regarding emotional expression component of language become more obvious due to different socialization processes that were imposed by parents, peers, and other adults. Social environment and culture also determine how a child should express her emotions in accordance with gender roles (Kathuria et al., 2023; Pugh et al., 2023; Vishkin et al., 2023). Especially cultural characteristics would matter regarding whether parents internalize egalitarian or traditional gender ideology when transferring the emotional socialization process to their children. This is because parents with a more egalitarian gender view are less likely to consider the child's gender when interacting and teaching emotional expression (Svane et al., 2022). Traditional families, on the other hand, would consider the child's gender and interact accordingly. Parents from a more collectivistic and relatively sexist culture like Turkey's would be more likely to raise children by adopting traditional gender norms since having a more traditional gender view would have kind of a higher social survival value for the individuals in such societies (Bozok, 2018; Koca et al., 2011; Sakallı et al., 2018).

As an infant grows up and becomes a preschool child, these processes end up with enlarged gender differences in emotional expressiveness that are in line with traditional gender roles. Especially, parents play a crucial role in shaping emotional expressiveness of their children (Endendijk et al., 2023; Portengen et al., 2023; Yaffe, 2023). It can also be speculated that

parental differential attitudes and behavior for male and female children may not only influence their emotional expression. Apart from that, differences in the oral and written language use of adolescents and adults in relation to the linguistic structure found in many studies (e.g., Albuquerque et al., 2023; Schultheiss et al., 2021) Apart from that, gender differences in oral and written language use among adults concerning the linguistic structure found in many studies would originate from exposure to such parental discrimination based on gender when they were children.

### **Gender Differences on Emotional Expressiveness: Parental Role**

Since mothers and fathers behave differently while interacting with their daughters and sons, the gender differences in emotional expressiveness is mainly due to parental socialization process. Such a process starts very early; even parents of infants may exert such gender differences (Brody, 2000). Parents tend to maintain stereotypic gender roles while communicating with their children; their toy and play preferences, discipline, and communication styles may change as a function of the child's gender (Bürümlü-Kisa & Sahin-Acar, 2020; McDonnell et al., 2019; Mesman, & Groeneveld, 2018; Morawska, 2020; van der Pol et al., 2015). For instance, Chaplin et al. (2005) observed parents and their preschool-aged children during a game that arouses emotions. They found that fathers showed more interest in their daughters' submissive emotions (sadness and anxiety) and their sons' disharmonious emotions (anger). Cassano et al. (2007) examined how gender affects parental socialization of children's sadness regulation. It was indicated that both mothers and fathers are more likely to promote the expression of sadness in their daughters. In the study of van der Pol and her associates (2015), similar results were shown. There may be a slight difference between mothers and fathers, but it seems that both parents associate emotions that are stereotypically labeled as feminine with their girls, while the reverse is true for boys.

How fathers and mothers respond to their children's emotions differ, as well (Bayraktar Garside & Klimes-Dougan, 2002; Brown et al., 2015; Nelson et al., 2009; Root & Rubin, 2010). Mothers seem to play along with traditional gender roles and feminine stereotypes when having a conversation with their children. Cassano and his associates (2007) indicated that fathers use more minimization method as compared to mothers. In other words, fathers try to reduce the intensity of a situation or put the problem of the child or his emotional response out of their mind. For instance, when the child feels angry or sad about a problem, they may say "Never mind, it is not a big deal". Mothers, on the contrary, tend to use expressive encouragement more than fathers. Moreover, mothers are more likely to behave in a problem-focused way when they face with sadness behavior of the their children. Such gender differences in parental responses to child emotions may show itself by interacting with the child's gender as well. In the qualitative study of Root and Rubin (2010), how parent and child gender may interact and affect parental emotional responses to their children's hypothetical emotions were examined. It was evident in the findings that mothers of daughters responded to their daughters' happiness with more happiness when compared to mothers of sons, fathers of sons, and fathers of daughters. Overall, it seems that mothers and fathers are different in reacting to and coping with the emotions of their children, with mothers being better.

Another intriguing difference as a function of a parent's gender is related to the degree of volume and emotional intensity provided by the parents during a conversation with the child. A bunch of studies claimed that when they are observed during a emotion talk (i.e., storytelling or reminiscing) with their preschool-aged children, mothers are better at elaborating on emotions; for instance, they tend to use a wider range of emotions when talking to their children. Mothers also tend to use more words and take more conversational turns in a triadic reminiscing conversation in which mother-father-child triads are included. Therefore, the conclusion can be drawn here that mothers are known to provide a more voluminous and emotionally richer

content in memory conversations than fathers do. When the gender differences in emotional expressiveness in parent-child relationship is considered, it is not surprising that not only the gender of the parents but also the child's gender has an impact on the number of emotion words used during a emotion talk. Consistent with other studies, mothers or fathers are likely to use more words, more emotion-related words with a wider emotional spectrum, and take more turns while talking to their daughters. These findings are in line with the other research showing that parents relate emotions by gender while communicating with their children (Aznar & Tenenbaum, 2015; Bürümlü-Kısa & Sahin-Acar, 2020; Cervantes, 1998; Fivush et al., 2000; Fivush et al., 2009; Leaper et al., 1998; Lund et al., 2021; van der Pol et al., 2015).

One might wonder why the gender differences in emotional expressiveness mentioned so far is that much important. Even for the children who are very young such as 18 months of age, parental socialization of emotions is so crucial that it can determine how frequent the child is going to show prosocial behaviors such as sharing and helping others, (Brownell et al., 2013; Denham et al., 2000; Roberts, 1999) and future aggressive behavior (Lunkenheimer et al., 2020). Moreover, since the parents tend to reinforce traditional gender roles, diminishing the maintenance of such biased gender roles depends on whether parents' attitudes and behaviors toward their children while communicating with them is independent of child's and parent's gender (Bulanda, 2004; Halpern & Perry-Jenkins, 2016). Unfortunately, it seems that children comply with parents' gender-related expectations in terms of emotional expressiveness. For instance, girls tend to express positive emotions to higher degree as compared to boys. They are also more likely to express internalizing emotions such as sadness and fear. Boys, on the other hand, are more likely to express externalizing emotions such as anger (Chaplin & Aldao, 2013; Veijalainen et al., 2021). Parental socialization of emotions, irrespective of the child's gender, becomes very important in the sense that the child can express all kinds of emotions freely without any fear of being judged because of nonadherence to gender norms regarding emotional expression. Hence, even when the child feels an emotion that is not appropriate for his gender based on gender norms, he can still be open about his feelings, and parents would be aware of the child's emotional state and act accordingly. It is an obligation for both mothers and fathers to respond supportively to their child's both negative and positive feelings, independent of the gender of the child (Sanders et al., 2015). Parental emotional socialization is necessary for every child since the existing literature showed its associations with child's emotion understanding and emotional regulation skills (Bjørk et al., 2020; England-Mason & Gonzalez, 2020). What's more, even the children's future life satisfaction and psychological distress levels when they become young adults may be dependent on childhood experiences about whether their parents succeeded in socializing them regarding emotions and emotional expression (Ramakrishnan et al., 2019).

### **Gender Differences in Language among Adolescents**

Studies have been shown that gender differences in language use are also present during adolescence and that some of these differences are consistent with the differences found among adults. Especially, differences seem to be mostly related to emotional dimension of language. This is not surprising after considering the parental role in the emotional socialization process by gender during childhood. Although it would be too early to see gendered differences in emotional expressiveness in childhood (e.g., Bost et al., 2010; Pavlova et al., 2022), it seems that parents interact with their children in a gendered way to invest in the future, when their children become adolescents (Chaplin & Aldao, 2013).

As an example study of gender differences in emotional expressiveness among adolescents, O'Kearney and Dadds (2004) investigated linguistic references to emotions with a sample of 303 adolescents whose ages ranged from 12 to 18. In general, girls were found to be more fluent in generating emotion referents than boys and the reason of this gender gap was that girls'

verbal expressiveness were better than boys. Moreover, girls used more sad referents and they were less straight when talking about situations that trigger anger. Boys, on the other hand, used more expressive/behavioral referents when describing their feelings. Gender differences when describing autobiographical memory was found among adolescents, as well (Bohanek & Fivush, 2010; Fivush et al., 2012; Merrill et al., 2016; Zaman & Fivush, 2011). Bohanek and Fivush (2010) investigated the gender differences in personal narratives among 66 adolescents who were at the ages between 13 and 16. During home visits, participants were asked to describe a positive and a negative event they had experienced. Results were in expected direction; girls showed higher tendency to express both positive and negative experiences in a more sentimental manner. Their personal narratives were longer than males' narratives and contained more specific emotion words and expressions of general affect. Moreover, girls used more words regarding cognitive processes, which is a demonstration of self-reflection. Gender differences in terms of content of the narratives were evident, too. More positive stories were present in girls' narratives than in boys' narratives. Topics in negative narratives of girls were more likely to be related to death or illness whereas topics in negative narratives of boys were more about a fight or argument. Another example study conducted by Fivush et al. (2012) found that the narratives of female adolescents (ages between 13 and 16) were more elaborative, congruent, and reflective, and their narratives included more internal state related expressions when compared to their male counterparts. Similar results were shown in other studies (e.g., Andrews et al., 2015; Merrill et al., 2016; Zaman & Fivush, 2011). One exceptional study was conducted by Graneist and Habermas (2020) with a sample of German adolescents; they found no significant gender differences in adolescents' narratives regarding the use of emotion-related words. The results showed that female adolescents were more expressive for sadness and anger in their personal narratives, but the authors argued that when the length of narratives are controlled, the significant gender difference in emotional expression in narratives diminish. However, they stated that previous research indicating significant gender differences failed to do so. Therefore, all these findings can be summarized as that girls are in advantage in terms of creating a richer narrative in terms of emotions and content. However, when the narrative length is controlled, the significant gender differences may be lost. Moreover, Graneist and Habermas (2020) also called attention to potential individual differences in attitudes of adolescents toward gender roles. Future studies should be directed and consider this issue when conducting similar research.

Apart from emotional part of the language, some linguistic gender differences can also be observed among adolescents. To illustrate, Cornett (2014) found that adolescent female high school students outperformed their male counterparts regarding mean length of T-unit (MLT) (which means the number of words used within one independent clause and dependent clauses) and clausal density (which means the rate of number of independent clauses used in a speech versus the number of dependent clauses used). Thus, female adolescents can be said to have more complicated and voluminous speech as compared to male adolescents. Yet, the sample size in that study was too small to reach a precise conclusion, and thus, the generalizability of the findings was questionable. A counter study belonged to Beers and Nagy (2009), who examined gender differences among high school students' essays with a sample of 40 participants. On the syntactic level, no significant gender differences were evident between girls and boys. However, the authors still claimed that girls' essays were better in quality as compared to boys' essays when assessed with a standard measure. However, they concluded that differences in writing skills cannot be explained by syntax use. Sukanob-Nicolau and Sukanto (2016) investigated gender differences in writing skills of 38 Indonesian high school students. As expected, female students could write down more complex sentences, but male students were found to have an advantage, too; their writings included more diverse lexical structures as compared to females. In the meta-analytic review study by Marjanovič-Umek and

Fekonja-Peklaj (2017), ten Slovenian studies published in 2004 and 2016, including samples of toddlers, children, and adolescents, were summarized statistically to examine gender differences in language skills. Effect sizes of significant gender differences were observed to increase from childhood to adolescence. Among adolescents, the most attention-grabbing gender difference was related to writing skills in favor of girls. Overall, females seem to have an advantage in creating complex sentence structures on a linguistic level in both oral and written language, but males can perform better in lexical variety, too.

### **Differences in Oral Communication of Women and Men**

After the socialization process of the children is completed and when they become adults, gender differences in spoken language including both structural (lexical, type of words such as adverbs or adjectives, or syntactic differences) and content level (e.g., , topic of conversation, emotional expression, talkativeness, etc.) can become observable (Araz & Akman Direkçi, 2019; Haas, 1979; Leaper & Ayres, 2007; Mondorf, 2002; Orfan, 2023; Simpson, 2009; Singh, 2001). Such differences were mainly captured by transcribing the speech of individuals and then analyzing these texts. Most of these studies focused on the gender differences in the content of speeches rather than the structure of language. These differences may result from both the anatomical differences in females and males and the effect of social environments that direct individuals to varying speech patterns on linguistic level based on gender (Simpson, 2009).

Regarding the structural gender differences in spoken language, the use of clause types may differ across genders. In the study of Mondorf (2002), gender differences in spoken British English were examined with a sample of over six hundred native-speaker participants. Semantically, adverbial clauses including causal, conditional, and purpose were found to be used more frequently by women. Concessive clauses, on the other hand, was used more frequently by male participants. Moreover, there were significant gender differences regarding the preference for the position of clauses in a sentence; women were more likely to prefer postposed clauses, whereas men were more likely to choose preposed clauses. Since the author associated the use of the preposed clause with a stronger commitment to the truth than the postposed clause, this can mean that men are more likely to assert their opinions more confidently. This finding can be linked with the traditional societal perception that men are more powerful and superior in status than women (Lips, 1991).

Another structural gender difference in speech might be related to linguistic richness. Singh (2001) delved into potential gender differences in lexical richness, operationally defined as the rates of nouns, pronouns, adjectives, and verbs. Results indicated that men's speech was rich in lexical terms, and their phrases were greater in length. In contrast, women's speech included shorter expressions and was more repetitive lexically, nouns and pronouns changed places a lot, and the use of verbs was more common in their speeches, making their expressions more active. Yet, it should be noted that the sample of this study was composed of only thirty individuals, resulting in less generalizable findings.

Haas (1979) stated that women's speech is known to include more polite expressions, apology, laughs, crying, and incomplete sentence whereas men's speech is known to include more slang, swearing, and nasty words. As congruent with traditional gender roles, women are expected to talk more about topic related to home and family, and to be more sentimental and favorably evaluative whereas men are expected to speak of mostly sports, money, and business. In their mixed method study, including content analysis, Eckhaus and Ben-Hador (2019) examined specific themes of gossip in men's and women's conversations by giving participants a standard measure with a Likert-type scale. The findings revealed that women prefer to gossip about social affairs and how people look more than men. Unexpectedly, women were found to gossip with a positive attitude in the same study. The authors justified this finding by explaining that

this may be due to women's need to meet society's expectations of stereotypical female characteristics as caring and nurturing. However, inconsistent with stereotypical masculinity, men were not found to gossip about success and accomplishment of others. To sum up, gender may be a critical determinant of the topic of conversation with the aim of complying with the expected traditional gender roles imposed by the social environment.

Apart from the content of speech, the duration of speech can be dependent on gender, too. To illustrate, according to stereotypical gender norms, women are expected to talk more than men in general. Studies seem to be consistent with some of these stereotypes. In the meta-analysis of Leaper and Ayres (2007), 63 studies for amount of talking, 47 studies for affiliative speech, and 39 studies for assertive speech were examined. Researchers preferred to compare studies with both young samples including undergraduate students and older samples. Women's speech was found to be more affiliative (i.e., active understanding and verbal support) whereas men's speech was found to be more assertive (i.e., directive expressions, giving information, and criticizing). Besides, although it was found that men were more talkative than women in terms of mean length of utterance, total statements, and duration but women were found to take more turns during the conversation as compared to men. This finding supports the idea that women take prior role in a conversation as compared to men. Al-Harashseh (2014) found a similar result showing that women have a more emotionally expressive and supportive style than men. Still, it should be noted that there were some significant moderators that may affect the magnitude of these gender differences such as operational definition of the language construct, diverse features of interactive context, and other methodological considerations (Leaper & Ayres, 2007).

Regarding emotional expression in speech, traditional gender norms would still dominate this field. Araz and Akman Direkçi (2019) examined gender differences in emotional expressiveness with a sample of 841 participants aged between 18 and 50 by giving them a standard measure of emotional expressiveness. As expected, women were found to be more facially and verbally expressive when they felt happy, sad, and angry than men were. The most salient gender difference was about the hostile expression of sadness and anger; men had higher scores in these expressions, but men also outperformed women in expressing anger calmly. This might be due to the fact that there is a stereotypical mindset in society regarding the perception of disharmonious emotions (i.e., anger) as masculine but not feminine (Chaplin et al., 2005; Chaplin, 2015; Fischer et al., 2004). Therefore, men may feel free to express their anger as they wish compared to women, who feel obliged to suppress it (Brody, 1985). It is not surprising to see such gender differences since, as explained before, from the beginning of childhood, individuals are mostly exposed to emotional socialization processes by their parents, considering their gender (Aznar & Tenenbaum, 2015; Bürümlü-Kısa & Sahin-Acar, 2020; Cervantes, 1998; Fivush et al., 2000; Fivush et al., 2009; Leaper et al., 1998; Lund et al., 2021; van der Pol et al., 2015).

### **Differences in Written Language of Women and Men**

Gender differences in language have not been only observed in spoken language but also in written language. This discrepancy between men and women in written language may be evident even among the preschool aged children. The study conducted by Adams and Simmons (2019) compared preschoolers in terms of vocabulary, phonological awareness, writing assessment about spelling, and text writing skills regarding productivity and quality to investigate whether there are any statistically meaningful gender differences. What they found was that although vocabulary and phonological awareness did not change based on child gender, girls still had higher levels of correct spelling, writing productivity and quality. Female children may have an advantage over male children regarding written language skills. A similar study found girls' advantage over boys in writing skills (spelling & written expression), even

after controlling for the effect of cognitive ability (Reynolds et al., 2015). Still, gender differences in written language among adults should be further investigated to reach more precise conclusions. Indeed, similar to gender differences in speech regarding lexical richness favoring men (Singh, 2001), a similar pattern was observed in written language, too. Piersoul and Van de Velde (2023) inquired about gender differences in written Dutch by examining periodicals over 120 years. Although they stated that gender differences have decreased over the years, they still proposed that indisputable gender differences exist; syntactically and morphologically, men used longer, more complicated, and intangible words as compared to women. Even though men showed sophisticated lexical structure, women showed paradigmatic sophistication, too. Such differences were again explained by traditional gender norms in the society. Additionally, evolutionary psychology was used as an alternative explanation; since males tend to use language as a medium for fascinating women who are potential mates, they have to be more skilled in language use. However, this view can be challenged because other research findings in the current literature did not consistently favor men over women (Ishikawa, 2015; Newman et al., 2008; Wang & Hsieh, 2007). Indeed, in the study conducted by Newman et al. (2008), over 14.000 text samples of women and men (they were mostly college students) from the archives of 70 studies were analyzed to examine gender differences in language. Women used more pronouns, social words, various psychological references (e.g., emotions, senses, and thoughts), and verbs than men whereas men outran women in terms of word length, numbers, articles, and prepositions. Negations (e.g., no, never, and not) and references related to home were present in women's writings. Moreover, men mentioned current concerns more, used more swearword, preferred more words about object properties and impersonal topics. Unexpectedly, no significant gender differences were evident regarding references to sexuality, rage, time, use of first-person plural, the number of words and question marks, and adding qualifiers in the form of exclusion words such as although, but, etc. Another study found out some morphological gender differences when participants were asked to list emotions and how they had been feeling recently (Wang & Hsieh, 2007). Women were found to use more adjectives and adverbs whereas men were found to use more nouns. However, such morphological gender differences in Turkish may not be that salient. Önem (2017) conducted a study with 182 undergraduate Turkish students and assigned them a photo description task. Results indicated that males and females were indifferent about the use of intensive verbs in Turkish. Still, there was a major limitation of the study that may have affected the results; participants were asked to choose the statement that describes the photo best, so they were not asked to express their opinions about the description of the photo. If they were, results would be different. In another study, Ishikawa (2015) analyzed 200 essays belonged to university students to examine gender differences. Male students were more likely to stand on recent subjects and give more place to nouns, while female students were more likely to mention social relationships and give more place to pronouns. In summary, one can conclude that gender differences in written language are not straightforward; Rather, they are complicated, and it does not make much sense to conclude that one gender is always superior.

One exception to that conclusion and a notable gender difference may be concerning emotional expressiveness; females were found to be more expressive in instant messaging in terms of emphasis, laughing, emoticons, adjectives, and topics (Fox et al., 2007). Similar results were evident in other studies indicating higher emotional expressiveness among females as compared to males in written language (Ahmadi-Azad, 2015; Brebner, 2003; Polce-Lynch et al., 1998). Apart from the socialization process of emotions by social factors including parents, peers, and other people, females' greater emotional expressiveness in both speech and writing can also be explained by gender differences in emotion regulation skills; women are known to utilize more various strategies of emotion regulation, and they are more flexible in using such strategies as compared to men (Goubet & Chrysikou, 2019).

Overall, it can be concluded that these results suggest that there are specific characteristics of written language skills of men and women, but we cannot assume that men or women are superior in these skills over one another; it seems that they are balancing out. The only subject that favors one gender (females) might be emotional expressiveness again, similar to findings of gender differences in speech (Araz & Akman Direkçi, 2019; Brody, 1985; Chaplin et al., 2005; Chaplin, 2015; Fischer et al., 2004).

### **What about Gender Differences on Social Media?**

With the increasing use of internet, communication has been placed in a new ground and become online, which is so-called social media. Internet and social media usage have been preferred much more than other means of media among youth. To illustrate, Turkish adolescents have higher rate of use for the internet and social media as compared to rates of other media usage including radio, newspaper, or magazine (İnce & Can Koçak, 2017). In fact, social media usage can be a daily activity for many young individuals; the frequency of use of social media among 500 Turkish university students was examined in a study and it was found that 69 % of the participants use social media daily (Solmaz et al., 2013). In addition, the same study revealed that participants use social media mainly to contact with their friends. Hence, gender differences in communication and language on social media platforms among adolescent and adult users have become an exciting topic recently.

As expected, gender differences are clearly visible in use of social media. Firstly, purpose of use is likely to differ across gender among university students; it was found that females had more inclination towards activities that promote relationship maintenance whereas males used social networking sites for new friendships and potential dates (Kimbrough et al., 2013; Krasnova et al., 2017; Mazman & Usluel, 2011; Muscanell & Guadagno, 2012; Thelwall & Vis, 2017). Similarly, it was reported that teen boys have higher inclination than girls to use social media for emotional and logistic bond with their significant other (Lenhart et al., 2015). To males, social media can function as a tool to discuss political views, whereas female users tend to discuss topics related to family and home on social media (Hu & Kearney, 2021). Moreover, how females and males express themselves on social media might be different. It was demonstrated that males' profile photos in Facebook emphasize status (by using objects and official dress) and risk-taking (outdoor environment) whereas females' photos focus on familial relations and emotional expression (more facial cues, eye contact, and smiles) (Tifferet & Vilnai-Yavetz, 2014).

In terms of emotional expression, studies mostly confirmed that on social media (i.e., WhatsApp, Facebook, Twitter, Instagram), females tend to express more emotions (Bamman et al., 2014) in general and specifically more positive emotions at a higher rate than males (Hilte et al., 2022; Park et al., 2016; Rungta, 2017; Schwartz et al., 2013; Thelwall et al., 2010; Ye et al., 2018). To illustrate, the study conducted by Thelwall et al. (2010) revealed that female users of Myspace are more likely to send and take messages with positive emotions when compared to male users. It was explained that males especially avoid expressing positive emotions in their interaction with other men (Joiner et al., 2015; Thelwall et al., 2010). According to Thelwall et al. (2010), the reason might be related to the fact that males perceive male-to-male emotional support as a kind of weakness. Consistent with these findings, females generally show their emotional support for friends or family publicly whereas males prefer expressing their emotional support privately (Joiner et al., 2015; Lenhart et al., 2015). To conclude, it seems that women and men differ on social media use regarding purpose of use and emotional expressiveness. It can be concluded that overall, gender differences in emotional component of language on social media context reflect the differences in real communication.

Gender differences in emotional expression on social media can be explained by societal norms regarding the perception of certain emotions being associated with a certain gender. To illustrate, Waterloo et al. (2018) asked the opinions of Dutch social media users (ages between 15 and 25) of Facebook, Twitter, WhatsApp, and Instagram about how they perceive emotions regarding the appropriateness of a specific gender. Compared to male users, female users believed that positive emotional expressiveness (i.e., joy & pride) is more appropriate for females on Facebook, Twitter, and Instagram social platforms. Negative emotional expression (i.e., sadness, anger, & disappointment) on these platforms, on the other hand, was perceived as similarly appropriate for both gender by both male and female users. There was one exception here; expressing worry on Facebook was perceived as more appropriate for females. Female users also thought that female emotional expression for all kinds of emotions is more appropriate for WhatsApp. In a nutshell, such views related to gender norms in emotional expression can be responsible for the gender differences in emotional expressiveness on social media.

About the other gender differences in linguistic markers, the study of Bamman and his associates (2014) can be presented here as an example. They examined 14,000 Twitter users to identify linguistic indicators of gender. They recognized that pronouns, emotion terms, emoticons, abbreviations (i.e., omg, lol, etc.), assent terms (i.e., okay, ok, etc.), and hesitation-related words (i.e., umm, etc.) were primarily observed in female authors' posts. In contrast, numbers, technology words, and swear words were associated with being a male author. In another similar study, it was indicated that males use more swear words, object references whereas females use more first-person singulars (Schwartz et al., 2013). Female users' communication style on social media is also more likely to be direct and polite whereas male users' communication style can be more indirect including sarcastic comments and firm (Susilo, 2018).

Sometimes, gender differences in online communication can be so apparently observed that even lexical information from social media users' comments can be used to predict a user's gender. Hosseini and Tammimy (2016) expected that if verbs, pronouns, positive adverbs, and negative adjectives are used more in a comment on social networking site, the owner of that comment would be female. In contrast, they proposed that if the articles, prepositions, and numbers are more prevalent in a comment on the same social networking site, the user would be male. What they found was that especially verbs, nouns, and pronouns were more correct hints to predict the gender of a user. All these results supported the notion that there might be a specific gender-specific discourse on online communication similar to real-life communication.

## CONCLUSION AND SUGGESTIONS

The aim of this review study was to investigate what kind of gender differences were indicated in spoken and written language, how these differences develop in the early childhood period because of parental socialization process, and how they maintain in adolescence period. This study also tried to figure out how social media context reveals such gender differences in language. Most of the studies presented in the current study used a mixed-method design, in which they included both qualitative and quantitative parts. Parent-child conversations, narratives of adolescents, speeches and text samples of women and men were examined (see, e.g., Bohanek & Fivush et al. 2010; Fivush et al. 2000; Newman et al., 2008) and analyzed to see whether there are any significant gender differences.

The previous research revealed that the gender differences in question relate both linguistic effectiveness in general and emotional component of the language. The overall conclusion that can be drawn about gender differences in language is that biological factors are not enough, and social aspects, including mainly parental attitudes and behaviors, are also necessary to explain

why there are such gender differences. In congruent with traditional gender roles and thus, in favor of females, gender differences tend to be enhanced when it comes to the emotional expressiveness of individuals. According to previous research, this kind of a gender difference seems to be valid for both spoken, written language including online language (Hilte et al., 2020; Mondorf, 2002; Orfan, 2023; Park et al., 2016; Piersoul & Van de Velde, 2023; Reynolds et al., 2015; Rungta, 2017; Simpson, 2009). This can put males from ranging ages beginning from childhood to adulthood at a disadvantaged position. Especially, social, and emotional development of male children and adolescents may be affected negatively (Brody, 2000; Eisler & Blalock, 1991). This is because when they try to express themselves emotionally when interacting with other people, parents, other adults, and society in general may dampen their motivation to show their emotions, which is more appropriate to be more “masculine”. Further investigation including replication studies should be conducted to make sure that whether such differences are present or not. Similar studies should be conducted with different samples in different contexts. Future studies may develop intervention programs aimed at decreasing such gender differences. Parents and other adults in the school context of the child including school management and teachers should be educated.

A final remark would be about the sociocultural differences that may affect gender differences in language and communication (Bonvillain, 2019; Jiang, 2000; Öztürk Dağabakan, 2012). Therefore, it is crucial to conduct studies with the sample characteristics varying in sociocultural factors. Mainly, relatively more conservative, collectivist, and sexist cultures such as Turkey (Güney et al., 2006; Koca et al., 2011; Sakallı et al., 2018) should be further investigated since gender differences in language will likely be more salient in such cultures. To understand the underlying mechanisms of gender differences in language and to develop appropriate intervention programs to diminish such gender differences and generalize gender equality in every aspect of life, similar future research should be directed at these cultural backgrounds.

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