A SYSTEMATIC REVIEW ON TEXT-BASED COMMUNICATION OF WOMEN'S LANGUAGE

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Abstract

Text messaging is one of the most sought topics in exploring the impact of gender-based language in non-verbal communication. Some elements in text messaging include symbols (emoticons and emojis), word expansion, curse words, capitalization, and other linguistic alterations that are reviewed as the top discriminators of the two genders. This study exposes on several previous studies on how women utilize and create new meanings of text-based communication features to compensate for the absence of non-verbal communication. This current study uses a qualitative method, adopting a literature review approach to select previous research papers and books, including journal articles and books. The present review highlights the finding that women's language incorporates lexical and non-lexical linguistic features as tools to convey emotional nuances effectively. Future research on how men and women perceive expressive features is suggested.

Keywords: Gender effect, Non-verbal communication, Text-based communication, Women's language

I INTRODUCTION

In today's digital era, communicating through text (texting) has become one's way to communicate due to its efficiency, reaching across distances. Texting, while often seen as a convenient solution for remote communication, can lead to significant miscommunication due to the absence of nonverbal cues. This lack of nonverbal communication makes it difficult to convey tone, emotion, and intent, which can lead to misunderstandings. This issue is particularly notable among women, who have developed strategies such as using emoticons, punctuation, and letter repetition to convey intonation and emotion. Despite research suggesting that texting is free from gender effects (Hancock et al., 2007), the substantiality of these strategies indicates a gendered dimension in text-based communication that warrants further investigation. Therefore, this study aims to explore some emerging topics on linguistic features of women's language, especially when translating nonverbal cues in verbal communication into text-based communication. Moreover, discovering the meanings of using those features is another step the present study is pursuing. This is relevant for studying gendered communication as it shows how women adapt their texting to compensate for nonverbal cues, revealing gender-specific features and challenging the idea that texting is free from gender effects.

Texting has been a tool to fulfil human needs for staying connected (Harrison & Gilmore, 2012; Holtgraves, 2011; Thurlow & Brown, 2003). Nowadays, texting tools have drawn sociolinguistic attention to studying this phenomenon. Thurlow and Brown (2003) mention that "in their text-messages, young people 'write it as if saying it' to establish a more informal register which helps to do the kind of small-talk and solidary bonding they desire." Their research, participants show persistence in the English language, adapt message length according to their needs, and employ affective strategies to replace nonverbal communication. That means one would mimic real-life conversation in texting; in other words, they bring their real-life communication style. On the contrary, Lee (2014) disagrees with this statement. Based on the study, users still tweak their "personalized" texting style to accommodate the receivers' perception of themselves. It contradicts the previous take because one person can have different roles from their occupations. They cannot even "be themselves" in an online dimension (Lee, 2014). With this in mind, sociolinguistics looked at how people use texting applications and features to reach their goals, both at an informational level and a relational level.

Over the years, innovations in texting—such as new abbreviations and features—have continually emerged. Some of these linguistic inventions have remained relevant for years, evolving into "social norms" in online communication (Sebastian & Nugraha, 2019). Despite these changes, one consistent pattern endures: gender-based communication styles remain broadly similar. This consistency may be attributed to cultural transmission, passed down from parents to children or shared among peers (Coates, 2017). On the other hand, relational-level communication requires features that help express emotions, ideas, and abstract feelings that are indescribable (Hancock et al., 2007). To ensure the need is well acquired, technologies are developed to create better versions of text-messaging tools, applications, and even features such as emoticons (emotion icons displayed as :)), emojis (upgraded versions of emoticons

Users found that they could creatively define different situations or emotions by exploring and combining different orthographic emotive expressions. These are orthographic emotive expressions that let users utilize different combinations of letters and numbers, misspellings, capitalizations, and punctuation marks to convey a certain meaning (Albritton, 2019). For instance, in his paper, a full capitalized sentence (e.g. "WHAT WERE YOU THINKING??") refers to how one would yell in real life, which means not always a positive emotion. While exclamation marks may also refer to similar "yelling" but in an excited tone. Some combinations of punctuation are also used for creating human facial expressions, though limited. This became the emoji that active users of text messaging apps know today. Ali, Hasnain, and Beg (2021) and Holtgraves (2011) added and supported some of Albritton's findings, such as the overuse of sounds (which others refer to as word expansion). Some examples for this can look like "okkkkkk" and "ughhh". It is used when one wants to emphasize some words and to indicate surprise. As mentioned earlier, this shared knowledge of linguistic features that have a particular meaning stems from a person's need to connect virtually. They come up with having emoticons, emojis, and then using certain symbols that represent or mimic how one would use them in real-life conversation.

Based on Verbiest (1987) study, although women do say what they mean, they participate mostly in a shared presupposition system, which means both speaker and hearer know the meanings or contexts that play into their conversation without explicitly putting them into speech. Society expects women, based on surveys and studies, to talk too much but also to give too little information, or some would say women communicate more implicitly. They also associate women with speaking and behaving emotionally (Brouwer & de Haan, 1987, p. 192). Some studies even presented proof of inequality between men and women, which was brought from face-to-face interaction into online communication (Herring, 2003). More studies agree and might have proved the association between women and stereotypes that have happened for a long time. There is always something nurturing about women and girls that makes them act and speak the way they do (Eckert, 2003; Holtgraves, 2011; Lakoff, 1973; Newman et al., 2008).

Essentially, women, even in online communication, are still tied to certain ideal perceptions which burden their way of interacting. Thus, non-verbal cues play a huge role in supporting their conversation, including but not limited to showing interest, making assertions, agreeing and disagreeing, and showing discomfort. Those cues were claimed to be created by women and their creativity in using what is existing (Kasesniemi, 2003). Some of their strategies are also found to be breaking those stereotypes. Some researchers have done studies about women's efforts to express the unsaid cues in text, which can be seen in the following section. Therefore, the present study narrowed down some specific features to be discussed, which represent women's language based on past experimental studies that compare women's and men's language in texting. Furthermore, this paper connects insights from various studies to identify the linguistic features most commonly used by women in text-based communication and to explore their meanings. The goal is not to reinforce stereotypes about women but to celebrate their distinctiveness.

II MATERIALS AND METHODS

This study used a qualitative method, adopting a literature review approach to analyze the existing studies on the effect of gender on text-based communication, especially women's language. To conduct the literature survey, studies of different authors investigating gender-based linguistic patterns in texting or text-based communication were gathered from platforms such as Google Scholar, Research Gate, ProQuest, SAGE, and Taylor & Francis. These search engines were sufficient to provide research from varying journals and publishers. They are also widely used and are known for their credibility in finding studies for references. The findings were filtered using keywords such as (a) "gender-based," (b) "texting," or (c) "text-based communication," (d) "women and language," and (e) "linguistic features." In some attempts, the keywords were combined differently [such as (a) - (e), (d) - (b)] to present different outcomes, however, not all combination was successful [e.g. (c) - (e) might produce research that used emails as platform when this study is focusing on texting]. The search results, about more than 25 literature pieces, included published research articles, literature reviews, books, and conference proceedings. Based on these results, additional filters were applied by limiting the search to the field of

study on the following two keywords: "communication" and "language", resulting in 20 studies, including published research papers and books. The topics are organized based on the broader theme of women and language, which ultimately boils down to the use of language in texting. This focus leads to examining linguistic features commonly used by women and their meanings, based on previous research and theory.

Table 1 shows twenty previous studies from research articles and books; some studies discussing more than one sub-category are placed repeatedly in the table. There will be a repetition of the same author(s) and studies with different sub-categories, for example, Lakoff's work may be found in the Emotive and Swear Words subcategories.

Table 1	. 1	wenty	Featured	Studies

Categories	Subcategories	Studies	
Lexical	Emotive words	Eckert(2003); Hancock et al., (2007); Holtgraves (2011); Kasesniemi (2003); Lakoff (1973); Leaper & Robnett (2010); Newman et al. (2008); Tannen (2007)	
	Swear words and strong words	Eckert (2003); Lakoff (1973); Morahan-Martin (2000); Newman et al. (2008)	
	Word Count and Details	Baron (2004); Holtgraves (2022); Leaper & Robnett (2010); Newman et al. (2008)	
Non-lexical	Unconventional Spelling	Albritton (2019); Ali et al. (2021)	
	Punctuation Marks	Baron & Ling (2011); Shortis (2016); Waseleski (2006)	
	Emoticons and Emojis	Butterworth et al. (2019); Dresner & Herring (2010); Holtgraves & Robinson (2020); Kasesniemi (2003); Novak et al. (2015)	

III RESULTS AND DISCUSSION

For ease of understanding the form and meaning, those features are categorized as lexical and non-lexical. This is done in accordance with Albritton's (2017) essay, which also categorized the features according to the format. It is worth noting that this paper does not cover all features existing in lexical and non-lexical feature categories. In that light, it is necessary to draw the line to indicate what features are considered lexical and non-lexical. Lexical features are those in which users incorporate literal words to mean what they say (directly or straightforward), for instance, emotive words (*mad, amazed*), swear words, and adverbs, and word counts or length. On the other hand, non-lexical features describe non-straightforward features such as spelling, expansion, capitalization, punctuation marks, emoticons, and emojis.

3.1 EMOTIVE WORDS

Women are considered to be more expressive than men. Thus, the use of emotive words, which communicate their meanings as they are, is expected to exist in women's language even in texting. This tendency might be caused by the idea that women are more likely to have more discussions that cover home and personal matters (Leaper & Robnett, 2010). However, expressiveness was seen differently for women. The study of women and their emotive words has been done for years and the result has always been similar. It is that women are perceived as more nurturing and loving (Eckert, 2003; Lakoff, 1973; Tannen, 2007) – hey are soft-spoken and always use emotive words linked to polite forms of speech. For example, "please", "thank you", and even "Could you...". It is supported by studies about implicit messages that women use (Holtgraves, 2011; Leaper & Robnett, 2010). This might have happened with social status and standards pinned on women (Kasesniemi, 2003).

Today's studies proved that women find it easier to "say what they feel" using their various emotive words (Hancock et al., 2007; Newman et al., 2008). Even compared to men, women's glossary

of emotive words ranges wider from positive to negative emotions. There is almost no hesitance in using psychological process words from positive (e.g., happy, excited, glad) to negative (e.g., sad, mad). In some studies, some even found that women also express their anxiety in texting in the form of emotive words. These are mostly done concerning the closeness of the sender and receiver. The closer they are, the more bluntly they can be in terms of expressing their emotions.

3.2 SWEAR WORDS AND OTHER STRONG WORDS

Some text messaging users might also use word association mechanisms to express non-stated emotions differently. Swear words can reflect someone's feelings when context is taken into account. According to Holtgraves (2011) and Newman, et al. (2008), women use swear words occasionally, but not as often as men. It is assumed that women's tendency to be polite in language, even in informal communication, still closely affects their word choice. They often avoid strong words, such as swear words, that hold not only a firm tone but also a negative message (Eckert, 2003; Lakoff, 1973)A similar case might also have caused women to use hedges and tag questions. In Leaper and Robert's (2011) study, they discovered how women used these features of tentative language more than men to strengthen the intensity of the conversation or foster collaboration.

In contrast, Ali et al. (2021), Herring (2003), and Thurlow & Brown (2003) show that women do the opposite. Women are found to utilize strong, intense adverbs in texting (Newman et al., 2008), ones which were believed to be rare in women's language features. Although such a finding exists, most studies support the former idea. Leaper and Robert (2010) concluded this as a very contextual case, meaning women may respond differently according to their context. Women, or people in general, fall into the expected gender-based behaviour when encountering different events. Meanwhile, seeing this tendency as a negative and derogative way of thinking is also incorrect. Women use such techniques with no other means than to have positive socioemotional relationships in online communication (Morahan-Martin, 2000).

3.3 WORD COUNT AND DETAILS

Another interesting finding surrounding the stereotypes that tied women's tongues in text-based communication language is the word count. Studies have found that women tend to talk a lot more than men in face-to-face communication (Baron, 2004). The case happened the other way around in text messaging. Females do not produce more word count than males. This might have happened due to males' use of longer words which contain long nouns (two or more syllables), articles, and prepositions (Leaper & Robnett, 2010; Newman et al., 2008). Not to mention, Newman et al (2008) also found that the discussion topics are different among men and women. Men are most likely to talk about current concerns that are more informative, surrounding the areas of occupation, money, and sports. Women's discussions are more involved in the topics of other people, emotions, details, and homes. Notice that even though women discuss details (for example, instead of "blue", they go with "turquoise"), it doesn't help with the message length they produce.

However, based on Baron's study, women send more texts than men, meaning women get more turns to "talk" in text than men. Therefore, the frequency of texting also plays an important role. When a woman texts, there is a greater chance of receiving responses than men. Therefore, a woman might send three short messages when a man sends one long message. Despite producing fewer words than men, women still communicate better than men in text messaging. In their implicitness, they connect with the receivers and understand the intention of the senders (Holtgraves, 2022). So, word count might not play a role in the ability to communicate in text messages.

3.4 UNCONVENTIONAL SPELLING: WORD EXPANSION AND CAPITALIZATION

Spellings hold an important aspect in text-based communication. With the absence of facial expressions and intonations, users rely on text and their spellings. Users took this as an opportunity to be innovative while also being convenient. Replacements of words with letters or numbers are often found in text messaging (such as "how r u?"). Both men and women use these features as reported in Ali et al. (2021), Sebastian and Nugraha (2019), and Thurlow & Brown (2003). Women are more likely to use unconventional spellings in the form of word expansion. This might look like "yeaaaahhhh", "okkkkkk", and "suurreeee", which Ali et al. (2021), Albritton (2019), and Baron and Ling (2011) describe as the result of phonological influence in favour of writing words as pronounced. It creates an effect of length in pronouncing the word to show playfulness. Sometimes it is also associated with loud pronunciation. In the same studies, such usage might implicitly state surprise and emphasis.

Another case of unconventional spellings in capitalization (Ali et al., 2021), women commonly use capitalization to show different emotions and intentions, namely surprise, anger, and emphasis. Capitalization is found in different forms, such as capitalized letters in words and sentences. Some cases have scattered capitalized letters in what is supposed to be one word. In other words, these unconventional spellings help the receivers hear the words acted out in a dramatic manner.

3.5 PUNCTUATION MARKS

Studies show that women use punctuation marks in texting (Hancock, Landrigan, & Silver, 2007; Ali et al., 2021). This mixture of letters and punctuation does not follow conventional or formal writing. Therefore, it is specified in texting style. Punctuations discussed vary from full stops after a word or in between letters to a random mix of all existing punctuation in one message (Baron & Ling, 2011). Each is used differently and has a different meaning. For instance, Dresner and Herring (2010) show below how different uses of punctuation mean different things.

"Consider "Oh, great!" vs. "Oh, great." '—the former conven-tionally expresses enthusiasm, while the latter may imply just the opposite [if not sarcasm]."

Even the women interviewed in Baron and Ling (2011) see the latter type of text as boring (in their words "lifeless") or (intentionally) sarcastic. There is also "I know it's sad..." that indicates speech trailing off, or when it's put in the middle of a sentence as "and the worst part is... he doesn't know" to separate sentences, or create a dramatic effect. Sometimes, women also use "omg!!!!!" to indicate excitement or surprise or even just a friendly gesture (Waseleski, 2006). Lastly, there is "asdfghjkl; 'p3p302#\$%^&" or similar to that to convey excitement or confusion.

Although this is commonly found among women, only young women or girls pay attention to such details. Following Baron and Ling (2011), the older the users are, the fewer these variants are in their text messages. The same finding exists in adolescents' texts in Shortis' research (2016), which shows how younger female users would text. This indicates that even if gender has been used as a variable, other factors like age would still exclude some tendency of a gender.

3.6 EMOTICONS AND EMOJIS

Women and their expressiveness cannot be separated, even through mediated communication. It is reflected in the active use of emoticons and emojis now and then in women's text messages. By definition and usage, emoticons, or emotion icons, and emojis are similar. They are used to replace facial expressions in a faceless environment. The difference between them lies in their format. One emoticon is a combination of symbols (e.g. :-) and >:-D) while one emoji is one small shape counted as one character on keyboards (e.g. and 1). Emojis are the developed version as it gives broader options from facial expressions to concrete items and ideas. Sometimes, emojis alone are enough to speak one's mind through texts. Holtgraves and Robinson (2020) supported this finding from their research. Women text using only emojis and both senders and receivers seem to not have any problem understanding the message (Holtgraves & Robinson, 2020). Kasesniemi (2003) also mentioned this in the use of emoticons. In her findings, women make use of the symbols to make unique "pictures", in other words, to portray something. Due to the limitations of symbols, this "picture" takes more space than emojis and requires creativity to combine them.

Other than mentioned, previous studies have only observed the use of emoticons and emojis to replace facial expressions or to communicate emotions. A study found that women use emoticons to indicate positive emotions, but that does not mean women do not share negative emotions through emoticons, either (Dresner & Herring, 2010). On the other hand, another study proved that society disagrees with this movement. In regards to using "less positive" emoticons and emojis, women are thought of as having a negative attitude toward the relationship between them and the receiver (Butterworth et al., 2019). Furthermore, the use of emoticons or emojis sometimes does not align with the literal facial expression the emoji is conveying. From Novak and the team's research in 2015 on creating a sentiment scale for emojis, there is difficulty in indicating an emoji's positivity. It is assumed that users do not always 'follow the rules' of using a smiley face icon to indicate happiness or a smiling act (Novak et al., 2015). This is supported by Dresner & Herring (2010), who concluded that everything is contextual at the end of the day.

IV CONCLUSION

This study discovers the linguistic features emerging in women's language in translating nonverbal cues into text-based communication. In texting, women tend to use emotive words to be polite yet still

able to 'speak' their feelings, thus allowing them to use swear words and strong words, though not as frequently. Women's expressiveness allows them to creatively utilize punctuation, capitalization, and emojis or emoticons to type words as they pronounce them and show their emotions in small illustrations on the screen. It is also common to find women discussing things in detail and closer to home, which gives women more opportunity to join the conversation, not necessarily produce more words

Regardless, the findings of these previous studies were also limited to some extent. Although applicable for knowledge of the features women use in their texting language throughout decades, the scope of the research may have excluded some findings that exist in the timespan due to limited keywords and accessible journals. Moreover, though this review highlights a synthesized perspective on this matter, some factors are unintentionally taken out of the discussion, namely, geographical factors and cultural bias, which was not represented. Some of those factors might have affected how the researcher interpreted the findings. Any findings should always be taken into context to understand the meaning or message of gender-based language in text messaging. Nevertheless, the insights summarized in this review may support future research in gender-based language use and digital communication within linguistics studies. Thus, this review opens the possibility of further research as language constantly evolves and many other unmentioned dimensions come into play.

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