

Emojis as Tools for Learning: Understanding Their Pragmatic Functions in EFL Students' Tweets

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Abstract—The rise of emojis has piqued the interest of many scholars over the past few decades, as is evident by a growing body of emoji literature within various fields. This study adopted a qualitative ethnographic approach to explore the pragmatic functions of emojis in the tweets of 15 female undergraduate and graduate EFL students. The focus was on the roles emojis occupied relative to speech acts, identity representation, and language change. Semi-structured interviews and non-participant observations were used as data collection methods while reflexive thematic analysis followed for the analysis. There were six pragmatic functions of emojis, namely expressing emotions, making meaning, mirroring personal beliefs, signaling familiarity, decorating the tweet, and substituting nonverbal cues. Additionally, emojis mitigated speech acts: They were chiefly used to emphasize expressives, but also to soften directives and accompany representatives and commissives. Such emojis represented the participants' identity, yet the participants' personalities and societal roles were rarely represented by these emojis due to personal preferences. The evolution of emojis from emoticons to graphicons, however, was identifiable.

Index Terms—student, writing, emojis, pragmatics, tweets

I. INTRODUCTION

Emojis (e.g., the 😊 “Face with Tears of Joy”) have emerged as powerful tools of communication, as is shown by a growing body of emoji literature within various fields (for a review, see Bai et al., 2019). In both international and local contexts, the lion's share of research, however, seems to be taken by fields of computer science and information technology. Less research has thus relied on theories of language, as emojis do not seem to get their rightful recognition from linguists. Theories of pragmatics are particularly applicable to studying emoji functions within online communities and thus merit further investigation. Therefore, this research endeavor was motivated by an informed assumption: The nature of emoji use lends itself to a framework that takes advantage of internet pragmatics.

There seems to be a lack of pragmatically-oriented literature that investigates the use of emojis in non-English speaking online communities (Herring et al., 2013). Additionally, there is a paucity of research studying the pragmatic functions of emojis in Saudi Arabia. This research gap is further illuminated when considering the particular role that emojis play in performing speech acts, representing Saudis' identities, or championing language change.

This study thus aimed to fill such a research gap by exploring the pragmatic functions of emojis in the tweets of a sample of Saudi female EFL students. The focus was on how emojis function to illocute the students' utterances, represent their identities, or foment their linguistic revolution. The research problem is thus as follows:

In the Saudi context, emojis are seen as a peripheral feature of written online communication; they do not seem to elicit a research enterprise on their own. Despite their prevalence in online communities, there is a rarity in research dedicated to how Saudi EFL students use the emojis at their disposal. This study thus sought to fill such a gap by exploring the pragmatic functions of emojis in the tweets of Saudi female EFL students. The study focused on the general pragmatic functions of these emojis and three particular roles: Their roles as illocutionary enactors, identity representatives, and language change ambassadors.

The study thus explored the following questions:

1. What are the pragmatic functions of the emojis used in the English and Arabic tweets of the participants?
2. How do these emojis particularly function as an illocutionary force in the tweets of the participants?
3. How do these emojis function to represent the online identities of the participants?
4. How do the participants use these emojis to bring about language change?

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II. LITERATURE REVIEW

A. *Emojis as Visual Expressions of One's Self: Visual Identity*

In his wide-ranging seminal work, Goffman (1959) presented an often-cited metaphor of a theatrical performance, in which life events represent the stage on which individuals portray themselves as characters performing to an audience. Goffman's (1959) framework has been utilized in the literature on social media which further highlights its visual and textual affordance in online identity representation. Lee and Pedersen (2018), for example, used Goffman's (1959) framework to analyze the Twitter profile photos of 871 professional athletes (215 female and 656 male). They found that while men athletes were more likely to use logos or action shots, women athletes were more likely than men to use casual shots. On Facebook, Maximova and Lukyanova (2020) have studied the gendered self-representation of 390 Facebook posts (143 by females and 247 by males) about a viral political flash mob in Russia. They have reported a certain asymmetry in the genders' visual self-presentation: Women self-identified more as having a familial role whereas men preferred portraying an occupational one.

In addition, emoji variation has also been associated with certain political agendas and personal values. In the study of Li et al. (2020), for example, it has been pointed out that users who have the rainbow flag emoji in their Twitter bios discuss issues of gender, entertainment, and society whereas those with the American flag emoji discuss more heavy-hitting subjects, such as the police or the USA president.

B. *Emojis as Ambassadors for Language Change*

In describing the relationship between emojis and language, linguists are in three camps. One of the earliest and most classical groups considered emoticons to be a paralinguistic device. Crystal (2001) further explained that emoticons make up for the lack of prosodic and kinesic features in online texts. This function of emoticons was extended to include emojis, as recent studies have documented how emojis are winning the nonverbal paralinguistic war (e.g., Herring & Dainas, 2017).

The second group considered emojis not as a full-fledged language but as a symbolic form of communication or an emoji code (Evans, 2017). Described in Chomskyan terms, this group has postulated that emojis are more about performance (i.e., their actual use) than competence (i.e., the abstract grammatical structure governing their use) but that they still require a certain "emoji competence" (Danesi, 2017, p. 33). Danesi (2017) has stated that unlike language, emojis do not require phonemic, graphic, grammatical, or lexical knowledge.

A third and contemporary group argued that emojis are akin to gestures. This is led by McCulloch and Gawne (2018) who consider emojis to be digital gestures. More specifically, McCulloch (2019) has argued that emojis are "emblem gestures" (p. 170) evident in the similarities between the two: Both have specific and arbitrary meanings, both are nameable and culturally sensitive, and both tend to follow a rhythmic beat.

C. *Taxonomies of the Pragmatic Functions of Emojis*

Danesi (2017) stated that the two main pragmatic functions of emojis in his corpus of 323 texts were adding an emotive (mostly positive) tone, and emphasizing phatic aspects of communications. He further explained the second function in light of Jakobson's (1960) theory. Jakobson (1960) classified the communicative functions of language into six categories: (a) "Referential" which is "[oriented] toward the context"; (b) "Emotive" which is "focused on the addresser"; (c) "Conative" which is "[oriented] toward the addressee"; (d) "Phatic" which "[serves] to establish, to prolong, or to discontinue communication"; (e) "Metalingual" which is "focused on the code"; and (f) "Poetic" which is "focus[ed] on the message for its own sake" (pp. 353-356, italics added).

Several computer-mediated discourse analysis studies have supported Danesi's (2017) claims. In a mixed design, Escoufflaire (2020) has analyzed a corpus of French and English Facebook and Twitter posts with 1200 emojis. Using a bottom-up approach, the author has constructed a 'new typology' of emoji functions, three of which were primary: expressive, interpretive, and referential; and five were secondary: relational, politeness, emphatic, structural, and aesthetic.

Other typologies include that of Herring and Dainas (2017) who identified a taxonomy of graphicons (i.e., emoticons, emojis, stickers, GIFs, images, and videos) with six pragmatic functions: (a) "mentions" that "refer to the graphicon itself"; (b) "reaction...that depict an emotional response to the content"; (c) "riffing" that is "a humorous elaboration on, play on, or parody of a previous graphicon or text comment"; (d) "tone modification...that directly modifies the text it accompanies"; (e) "action" that is "used to portray a (typically) physical action"; and (f) "narrative sequence" that is "a series of consecutive graphicons that tells a story" (pp. 2187-2189).

Considering the culturally-sensitive nature of emojis, it is important to survey the literature studying the pragmatic functions of emojis that are based in Arabic-speaking countries. One example is that by Al Rashdi (2015) who analyzed a WhatsApp corpus compiled of one female group and one male group in Oman. She found that emojis serve nine main functions:

Expressing emotions...indicat[ing] approval and disapproval, respon[ding] to expressions of thanks and compliments, conversational opening and closings, creating a sense of celebration, indicat[ing] the fulfillment of a requested task, contextualization cues, substituting for lexical items and indexical signs. (p. 168)

Moreover, Algharabali and Taqi (2018) surveyed 81 females and 82 males Arabic-speaking Kuwaiti students. The respondents indicated that they use emojis because they clarify the meaning of the message, are fun, make the message more powerful, are faster than text, and are common. They then interviewed 10 female students which resulted in more emoji functions as they were used to contradict the meaning of the text (e.g., the 🏵️ “Dancer” emoji used in the context of failing a midterm), to express emotions (e.g., the 😭 “Crying Face” emoji in the same context of failing a midterm), and to avoid undesirable conversations or make the desirable ones more relaxed.

D. *Emojis in the Linguistic Scene*

Emojis and Semiotics. As socio-semiotic resources, emojis offer a number of multimodal functions, as we could substitute: (a) face emojis for words (e.g., the 😬 “Face Without a Mouth” emoji for speechlessness), (b) gesture emojis for words or phrases (e.g., the 👍 “Thumbs Up” emoji for ‘yes’), and (c) container emojis for content (e.g., the 🍺 “Beer Mug” emoji for bars) (Sadia, 2018).

Emojis and Semantics. Danesi (2017) stated that much like any other code, emojis have an “intrinsic semantic structure” as they “refer directly to concepts, emotions, and so on either adjunctively, substitutively, or in a mixed fashion” (pp. 60-61). Semantic processing, or simply how meaning comes to mind, has particularly been of broad interest to emoji literature. Cohn et al. (2018), for instance, compared the processing of words, emojis, and logos through a self-paced reading task in which emojis substituted verbs and nouns. In one of their experiments, sentences had three conditions: (a) “no-emoji,” (b) “normal substitutions” in which an emoji substituted a noun/verb (e.g., John loves eating 🍷 every Friday), and (c) “switched substitutions” in which the normally substituted emojis were reversed (e.g., John loves eating ❤️ every Friday) (p. 1525). They found that emojis were generally processed slower than words, but also that sentences were processed more easily in ‘normal’ substitutions than in ‘switched’ substitutions.

Emojis and Psycholinguistics. Danesi (2017) suggested that emojis are fundamentally “metaphorical pictures” and thus could be analyzed based on the conceptual metaphor theory (p. 66). Developed by Lakoff (2008), the conceptual metaphor theory proposes that metaphors are more than just rhetorical devices; they are essential to “understanding and experiencing one kind of thing in terms of another” (Lakoff & Johnson, 1999, p. 5). For instance, the meaning of the sentence: “I’m a little rusty today” is understood by visualizing the incompetent mind as a rusty machine (p. 28). This comparison creates a conceptual mapping from the “source domain” (i.e., MACHINE) to the “target domain” (i.e., MIND); this mapping is realized in the conceptual metaphor: THE MIND IS A MACHINE (p. 253).

In a Lakoffian fashion, Danesi (2017) maintained that the meaning of emojis is derived from conceptual blends. For example, the sentence: “That linguist is a snake” represents the conceptual metaphor: HUMAN IS AN ANIMAL, but it also maps the source domain of ANIMAL to a specific target domain of PERSONALITY (p. 66). The untrustworthiness of the linguist in question could just as easily be understood with a single emoji, namely the 🐍 “Snake” emoji.

Emojis and Sociolinguistics. Most of the work done in emoji sociolinguistics was conducted within an interactionist as opposed to a variationist framework. In other words, studies have focused on the social meaning of emoji use. The role of emojis as “contextualization cues” (Gumperz, 1976, p. 279) was thus established by researchers such as Al Rashdi (2015), who stated that the participants in her study used emojis to modulate text interpretation (e.g., the 😜 “Face with Tongue” emoji was used to frame a joke). Central to Brown and Levinson’s (1987) theory of Politeness, this mitigation of Face-Threatening Acts (FTAs) function was also enacted by emojis in the study of Beißwenger and Pappert (2019). Emojis were thus used as a politeness marker to soften FTAs in social exchanges (e.g., the 🤔 “Thinking Face” emoji was used after a criticizing remark) (Beißwenger & Pappert, 2019). Additionally, many have hypothesized that the use of emojis is also influenced by sociolinguistic variables, such as gender (e.g., Prada et al., 2018) or age (e.g., Escoufflaire, 2020).

In light of what has been mentioned so far, this study is worthwhile for two main reasons. The first is fulfilling a certain niche identified in the literature on the pragmatic functions of emojis in Saudi EFL students’ online communication. Even within the field of internet pragmatics, emojis remain an understudied area of research, especially when considering the study context (Xie et al., 2021). This research thus adds to the effort made to diversify the pragmatic research on social media that used to be English-dominated and US-based (Herring et al., 2013). The second reason lies in the study’s original contribution to the field. The study sheds light on the functions emojis serve in one of the most popular social media platforms in Saudi Arabia, namely Twitter. Furthermore, the study contributes to a growing area of research exploring speech acts within various online contexts and through varying online resources. It also provides an intriguing opportunity to advance our understanding of the role of emojis as identity representatives, on the one hand, and as language change ambassadors, on the other.

III. METHODOLOGY

A. *Qualitative Ethnography: A Rationale*

A qualitative ethnographic design was used because the purpose of the study was to describe, explore, and interpret these students’ emoji beliefs and behaviors. This research sought to make sense of the pragmatic functions of emojis by

studying how they are naturally used, rather than by creating a controlled environment in which such functions are manifested. Furthermore, it focused on “the perspective of the research participants” (Bloomberg & Volpe, 2018, p. 98).

B. Participants

The population in this study was ‘Twitter-using’ Saudi female undergraduate and graduate students majoring in English at a Saudi university. The rationale behind limiting the study to those majoring in English was to ensure that those students have familiarized themselves with the target language (and culture). Moreover, the sample only included senior undergraduates (those enrolled in levels 7 and 8) to ensure that their levels of English proficiency are comparable to those of graduate students. Further, the population was limited to female students given the prolific use of emojis among females reported in the literature (e.g., Prada et al., 2018), the importance placed on the representation of online identities for Saudi women (e.g., Altoaimy, 2018), and the segregated nature of Saudi universities. Lastly, restricting the population to Twitter-using students was motivated by the advantageous nature of Twitter as a platform for analysis, but it was also encouraged by Saudi students’ favoritism of Twitter (Alshalawi, 2022).

A convenience sampling technique was used in recruiting the study participants. An obvious advantage of this method is that it frees the researcher from any limitation posed on the number or the nature of the sample (Kumar, 2011). Recruiting those 15 participants (aged between 22-26 years old) was based on certain criteria, including that she had to be an English major, with an active Twitter account tweeting in English and Arabic, and for that account to be public and/or accessible throughout the study.

C. Data Collection

Two qualitative methods were used: semi-structured interviews and non-participant observations. Including both tools allowed for comparing the participants’ perception of emoji use to their actual uses. As Dirksen et al. (2010) emphasized that the triangulation of data collection methods is meant to “distinguish between ‘what people say they do’ and ‘what people actually do’” (p. 1049).

Interviews. Bloomberg and Volpe (2018) stated that in qualitative studies, interviews are “often selected as the primary method for data collection” (p. 317, italics added). The 11 interview questions were made to answer the research questions of the current study. The interviews were conducted online. Further, the interviews were conducted in colloquial Arabic, the participants’ mother tongue, which often evoked colorful local expressions. Moreover, these interviews were then transcribed using MAXQDA Transcription Mode, which allowed us to type out and organize the interview data with ease.

Observations. Observations are used when “you are more interested in the behavior than in the perceptions of individuals” (Kumar, 2011, p. 134). Mozdeh was used to import a large number of the participants’ tweets. After excluding retweets, the software imported 14,844 tweets across the participants’ accounts. However, when we narrowed the selection to the year 2021, the number went down to 2,819 tweets. Then, we decided on following a conservative ‘10-100 tweet per participant’ rule which meant including no less than ten tweets and no more than a hundred for each participant. This meant extending the analysis period for some participants and narrowing it for others.

Reflexive Thematic Analysis. Thematic analysis is an approach “for identifying, analysing, and reporting patterns (themes) within data” (Braun & Clarke, 2006, p. 6). Such reflexivity involves “locating yourself” by recognizing how your personal experience and social position shape your research (Braun & Clarke, 2021, p. 14). More specifically, Braun and Clarke (2006, 2021) have described four variations within reflexive thematic analysis that need to be acknowledged. These are easily understood when they are framed as questions that guide your analysis.

The first question is whether you are approaching the analysis more inductively (i.e., starting with the data) or deductively (i.e., starting with theory). This study leaned towards inductivity and yet, as in the case of the second and third research questions, it did have some deductive orientation. The second question asks if the meaning you are after is more semantic (i.e., explicit and surface-level) or latent (i.e., implicit and underground). The current study thus was more descriptive than inferential, but it essentially surveyed the functional meaning expressed. Still, the third question is related to whether the theoretical framework regards meaning as inherent (i.e., realist) or constructed (i.e., relativist). This research took a more constructionist view of the dataset as the meaning-makingness of the emojis was scrutinized. Lastly, the fourth question relates to whether the focus of the study is more on the participants’ perspectives (i.e., experiential) or the topic at hand (i.e., critical). Since the experiences of the participants were prioritized, this research project was more experiential than not.

IV. FINDINGS

A. The Pragmatic Functions of Emojis

The themes emerging from the participants’ interviews suggested that Saudi female EFL students use emojis for functions related to the content of their online writing or its form. The content-related pragmatic functions were divided into four major themes, as emojis were used to: (a) express emotions, (b) make meaning, (c) mirror personal beliefs, or (d) indicate familiarity. On the other hand, there appeared to be only two main form-related themes, which were: (a) emojis as decorative tools and (b) emojis as nonverbal cues.

When applied to the participants' tweets, these functions followed a slightly different pattern. Emojis were thus mostly used to express emotions (negative or positive) (N=103), then as decorative tools (N=55), as nonverbal cues (N=27), and to make meaning (N=25), or to mirror personal beliefs (N=13). Therefore, while the function of expressing emotions, for example, was equally high in both perceived and actual use; a function such as emojis as decorative tools appeared much more frequently in the actual use.

(a). *Emojis Express Emotions*

The most dominant theme was the use of emojis to express emotions. Almost all of those who were interviewed (93%) reported using emojis to express their emotions. When asked about reasons for using emojis, Mariah stated:

Excerpt (1)

"Because it is easier to express emotion...they make it easier for a person to express their emotions" (Mariah, Interview Transcript, p. 4).

These emotions ranged from joy and love to sadness and irritation. When asked for their most frequent emojis, some participants linked their uses to positive emotions. Contrarily, some participants mentioned negative emotions.

Along the same vein, expressing emotions was the most common function found in the participants' tweets (N=103). Emojis were used to express basic emotions, such as happiness (N=79), sadness (N=22), and anger (N=2). Emotions were mostly conveyed using faces (N=89), for example:

Excerpt (2)

"Me hiding my files before sharing my screen 🤪 [attached picture]" (Shahad, Tweet Excel Sheet, row 21).

But such emotions were also expressed through hearts, for instance:

Excerpt (3)

"@[mention] No, still ❤️" (Dania, Tweet Excel Sheet, row 11).

(b). *Emojis Make Meaning*

Next in prevalence was the theme of using emojis as meaning-making tools. Such tools can work to either emphasize the meaning of the message. Although only 25 tweets included emojis with a clear meaning-making function, these functions paralleled the participants' interviews. Participants thus used emojis to reiterate the meaning of the tweet, usually by repeating a lexical item already mentioned, such as:

Excerpt (4)

"Cleaning the house is a workout, no one can convince me otherwise. 🧹🧑" (Entesar, Tweet Excel Sheet, row 13, italics added).

Excerpt (5)

"The vibe for this morning is the happy elephant set 🐘🎉 [attached image]" (Amal, Tweet Excel Sheet, row 43).

Or to contradict the meaning of the tweet to create an ironic effect, such as:

Excerpt (6)

"God bless the section group, [they're] the pinnacle of cooperation 🤝🤝🤝" (Rand, Tweet Excel Sheet, row 10).

(c). *Emojis Signal (Un)Familiarity*

Some participants expressed that they use different emojis with different people based on their closeness. Both Narin and Entesar agreed on the status of colored hearts:

Excerpt (7)

"For those who are very close to me I use, for example, the white heart [❤️]...those whom I have a formal relationship with, the red [❤️]...I feel like the red one is formal" (Narin, Interview Transcript, p. 4).

Unfortunately, this theme was impossible to code in the participants' tweets as it required not only knowing what emojis each participant perceived to be 'intimate,' but it also necessitated knowing the participants' close circles on Twitter which we had no way of accessing.

(d). *Emojis Mirror Personal Values*

The fourth theme was the use of emojis to reflect personal beliefs, as Dania explained when asked about why people use emojis:

Excerpt (8)

"I guess [people] often express their opinion[s], especially on Twitter I noticed they express opinions...especially in a hashtag or something like that, usually it's about their opinions" (Dania, Interview Transcript, p. 4).

(e). *Emojis Decorate Text*

A few participants alluded to their emoji use as being aesthetical, as Hana mentioned:

Excerpt (9)

"I feel like [emojis] decorate the text sometimes" (Hana, Interview Transcript, p. 4).

Yet surprisingly, this theme was much more common in the participants' tweets, as there are 55 instances analyzed where emojis primarily functioned to embellish the tweet, usually following a quote.

(f). *Emojis Substitute Nonverbal Cues*

This theme was also barely present in the participants' interviews but much more common in the participants' tweets. Amal answered when asked about the common functions of emojis in online writing:

Excerpt (10)

"Sometimes to clarify the meaning...because in real life, for example, the tone of voice clarifies the meaning better...facial expressions whereas in writing, emojis complete the meaning" (Amal, Interview Transcript, p. 5).

Interestingly enough, the 27 instances of nonverbal emojis in the participants' tweets covered facial expressions (N=14), kinetic gestures (N=9), and prosodic features (N=4). Examples of each are provided in the excerpts below:

Excerpt (11)

"@[mention] he could do it 😊" (Amal, Tweet Excel Sheet, row 46).

Excerpt (12)

"how my thesis is going 📎 [attached image]" (Entesar, Tweet Excel Sheet, row 74).

Excerpt (13)

"Love can touch us one time and last for a lifetime, and never let go till we're gone. Love was when I loved you, one true time I hold to, in my life we'll always go on. 🎵❤️" (Rana, Tweet Excel Sheet, row 53).

(g). *Emojis Express Special Meanings*

In addition to the previously mentioned emoji uses, the participants were asked 'Do you have specific uses or meanings for certain emojis?' to which several overlapping answers emerged. The most agreed-upon 'special' emoji uses were the versatile use of the 🌙 "New Moon Face" emoji (27% of the participants), and the use of the 😭 "Loudly Crying Face" emoji for laughter (20% of the participants).

B. Emojis as Illocutionary Enactors

The second research question focused on the function of emojis as an illocutionary force in the tweets of the participants. Turning to the participants' responses to whether they use emojis to express speech acts, all participants agreed that they do, but only two-thirds (66.6%) suggested that they use emojis 'alone.' Moreover, participants who did agree to using emojis alone revealed two main themes: (a) directive emojis (e.g., to ask, request, or order), and (b) expressive emojis (e.g., to agree, apologize, or welcome). These two themes were borrowed from Searle's (1975) taxonomy of illocutionary acts, as these were the only two emerging in the interview transcripts, out of the five categories he suggested (i.e., representatives, directives, commissives, expressives, and declarations).

(a). *Directive Emojis*

In terms of directives, participants listed a number of emojis they use for asking. Hana gave an example:

Excerpt (14)

"Like the eyes [emoji] [👁️👁️] they ask where are you? Are you there?" (Hana, Interview Transcript, p. 4).

As for requesting, the use of the pleading face emoji [🙏] took the lion's share, as one-third of the participants (33.3%) admitted to using it for requests.

(b). *Expressive Emojis*

As for expressives, the majority of the participants agreed on using hearts, in particular, to express their gratitude, remorse, greeting, or congratulations. Rand explained:

Excerpt (15)

"I use hearts a lot, and they express many speech acts...like gratitude or apology, and even if I want to congratulate someone who isn't close, I might just reply to their snapshot with hearts" (Rand, Interview Transcript, p. 2).

(c). *Classification of Speech Act Emojis in the Participants' Tweets*

Moving now to the participants' tweets, which seemed to fall into a slightly more complicated pattern. First of all, almost all (90%) emojis with a clear speech act function were used in conjunction with the text of the tweet (as opposed to being stand-alone elements expressing the function themselves). In these 141 instances, the overwhelming majority were used as expressives (N=122), then a few were used as representatives (N=7), commissives (N=7), directives (N=5), and no declarative emojis were found. Expressive emojis in the tweets were the most diverse, as participants used them for praising:

Excerpt (16)

"@[mention]@[mention] Wow you're perfect 😍" (Narin, Tweet Excel Sheet, row 21).

And many other functions (i.e., greeting, welcoming, thanking, apologizing, congratulating, etc.). On the other hand, directive emojis performed a few functions, such as suggesting:

Excerpt (17)

"@[mention] What about perfectly done? 👍" (Ghaida, Tweet Excel Sheet, row 2).

And so did representatives (all enacted agreeing) and commissives (all enacted promising). An example of the use of the same emoji to represent two different functions is the 👍 "Thumbs Up" emoji, as the next excerpt demonstrate:

Excerpt (18)

“@[mention] [I didn’t watch it and I will watch it inshAllah] 🙏” (Zenah, Tweet Excel Sheet, row 101).

C. *Emojis as Identity Representatives*

The third research question focused on how these emojis function to represent the online identities of the participants. In this regard, a range of responses was elicited, as the participants were asked ‘Do you use emojis to express yourself or your personality, or to reflect your personal values?’ Since the question was threefold, the answers also varied across three themes (i.e., self, personality, and personal values).

(a). *Emojis Express Self*

For the first and second themes, only a small number of participants indicated that they use emojis to represent themselves or their personality. Ghaida, for example, said:

Excerpt (19)

“On Twitter, I put the coffee cup ☕ as a metaphor for barista[s], even though I wrote barista but maybe to explain it, maybe some people don’t know what a barista is” (Ghaida, Interview Transcript, p. 5).

Although some of the participants’ answers to this question were in line with Goffman’s (1959) concept of expressing a personal front, the analysis of the participants’ Twitter bios was much less promising. Not only did five out of the fifteen participants included no emojis in their bios, but also, three of them had no bios at all. The analysis of the remaining seven bios is still worth mentioning as the emojis majorly presented either a social role (i.e., the student role represented by the 📖 “Books” emoji) (N=3) or an aesthetical role (i.e., Emojis used as a decorative tool to frame a text) (N=3). There is also one instance where the ✂ “Crossed Swords” emoji was used to represent a student’s Saudi identity.

(b). *Emojis Express Personality*

In terms of personality, Narin agreed on using animal emojis for expressing herself:

Excerpt (20)

“For me, I’m a cat person...I love cats, and I have many, so I always use the cat faces because like, they represent me” (Narin, Interview Transcript, p. 8).

However, the majority of the participants denied using emojis as a form of self-expression. Some simply did not prefer to; others provided a couple of reasons, including maturity, privacy, or a general lack of emoji use.

(c). *Emojis Express Personal Values*

In contrast to the first two themes, however, the majority of the participants agreed that their emoji use (or non-use) reflected their values. Perhaps influenced by how the question was phrased (i.e., ‘Do you refrain from using emojis that conflict with your personal values?’), this theme branches into two subthemes. The first is negative, indicating non-use, whereas the second is affirmative, indicating use. That is to say, 80% of the participants expressed that they refrain from using emojis with connotations that are not in line with their values. Hana stated:

Excerpt (21)

“Honestly, there are emojis I feel like I shouldn’t use...our morals don’t allow [using them] our religion doesn’t allow” (Hana, Interview Transcript, p. 5).

On the other hand, only 10% referenced certain emojis that did reflect their personal values, such as their patriotism or religion. Rand gave an example:

Excerpt (22)

“For example, expressing my patriotism using the Saudi flag emoji” (Rand, Interview Transcript, p. 4).

In the participants’ tweets, the negative theme was much more prevalent (or perhaps more readily available) than the affirmative theme. In the 381 tweets included, not a single emoji was found to be conflicted with the participants’ “religious referentiality.” A few instances (N=13) were found where emojis performed an affirmative function, either in the use of ‘Islamic’ emojis (e.g., the 🌙 “Crescent Moon,” the 🕌 “Kabba,” or the ☪️ [Peace Be Upon Him] symbol) (N=6) or in the use of the Saudi flag emoji (N=7):

Excerpt (23)

“[May you get well soon #Mohammed_bin_Salman] 🇸🇦 [attached image]” (Ghaida, Tweet Excel Sheet, row 4).

D. *Emojis as Language Change Ambassadors*

The fourth research question asked: “How do the participants use these emojis to bring about language change?” Given the underlying assumption that emojis bring about language change, the findings related to this question were less straightforward. That being said, three main themes were identified in relation to this question. These themes include the importance of emoji use, the identifiability of emoji evolution, and the abundance of emoji use.

(a). *Importance of Emoji Use*

Since a certain level of gravitas is expected for emojis to compete against language, the degree of emoji significance was surveyed. Thus, in response to the question: ‘Would you say that emojis are an integral or a peripheral part of

writing online?’ the participants diverged into three groups. The first group (40%) believed that emojis are absolutely integral to online communication, as Inas stated:

Excerpt (24)

“I think [emojis] are an integral part, because the main purpose of these platforms is interaction and communication between people, so I feel like these emoji[s] sometimes express feelings regular speech can’t express” (Inas, Interview Transcript, p. 6).

Another group (27%) expressed that emojis are integral in informal settings, and peripheral (and even unacceptable) in formal settings. One example comes from Wijdan, who stated:

Excerpt (25)

“An integral part with family or friends...but for example...if I were famous and my account was academic, I feel like, no, I won’t use emoji[s]” (Wijdan, Interview Transcript, p. 4).

Lastly, a third group (27%) believed that there is no substitute for language, and thus perceived emojis to be peripheral to them. As Shahad argued that age plays a role in the importance of emojis:

Excerpt (26)

“Young people can’t get their idea across without emojis...emojis influenced their writing styles...[emoji use] is peripheral to me, honestly, I can get my idea across without emojis” (Shahad, Interview Transcript, p. 5).

In contrast, Fajir argued that it is a matter of personal preference:

Excerpt (27)

“I don’t see [emoji use] as an integral part, honestly, sometimes in a discussion, I don’t even use [emojis] like I don’t feel like it, or if the discussion is serious” (Fajir, Interview Transcript, p. 5).

(b). Identifiability of Emoji Evolution

The second theme concerns the participants’ ability to identify the evolution of emojis. For the most part, the participants were able to easily pinpoint emoticons as the ‘grandparents’ of emojis. Shahad, for example, mentioned:

Excerpt (28)

“If you remember, earlier [people] used to use smiles, they make them with parentheses” (Shahad, Interview Transcript, p. 5).

Similarly, almost all the participants collectively agreed that the next stage of evolution for emojis includes: stickers, GIFs, and memes. Rana, for example stated:

Excerpt (29)

“Maybe, memes, I feel like they are used a lot, so memes, memes and stickers also, there’s no difference...especially since emojis don’t have facial expressions” (Rana, Interview Transcript, p. 6).

(c). Abundance of Emoji Use

The third and final theme relates to the abundance of emoji use in the tweets of the participants. Table 1 shows the distribution of both the number and percentage of emojis in the tweets collected from each participant.

TABLE 1
NUMBER AND PERCENTAGES OF THE PARTICIPANTS’ TWEETS WITHOUT EMOJIS, WITH EMOJIS, AND WITH ONLY EMOJIS

Participant Pseudonym	Collected Tweets	Tweets Without Emojis	%	Tweets With Emojis	%	Tweets With Only Emojis	%
Zenah	139	117	84.2%	22	15.8%	4	2.9%
Amal	97	31	32%	66	68%	2	2.1%
Entesar	92	43	46.7%	49	53.3%	1	1.1%
Rana	83	43	51.8%	40	48.2%	2	2.4%
Fajir	78	28	35.9%	50	64.1%	2	2.6%
Layal	76	38	50%	38	50%	11	14.5%
Inas	67	47	70.1%	20	29.9%	1	1.5%
Ghaida	55	14	25.5%	41	74.5%	3	5.5%
Shahad	36	34	94.4%	2	5.6%	0	0%
Narin	20	5	25%	15	75%	0	0%
Wijdan	17	5	29.4%	12	70.6%	0	0%
Mariah	16	12	75%	4	25%	1	6.3%
Rand	16	9	56.3%	7	43.8%	0	0%
Dania	11	1	9.1%	10	91%	0	0%
Hana	10	5	50%	5	50%	0	0%
Total	813	432	53.1	381	46.9%	27	3.3%

As Table 1 demonstrates, less than half of the participants’ tweets (46.9%) included emojis, and only 3.3% consisted of emojis only. However, as is easily noticeable in the tabulated data, the quantity of emojis in the participants’ tweets was not distributed equally across the participants, as some skewed the average by under- or over-using emojis ($M=28.8$,

SD=29.3). Nevertheless, the three themes combined could give us a clearer picture of how Saudi female EFL students use emojis in relation to language change.

V. DISCUSSION

A. *The Pragmatic Functions of Emojis*

The first research question explored the general pragmatic functions that emojis fulfill in the tweets of Saudi female EFL students. The current study found that emojis were used for six main functions. Four of which were content-related, namely expressing emotions, making meaning, mirroring personal beliefs, and indicating familiarity; two were form-related, namely decorating the tweet and filling in for nonverbal cues.

(a). *Emojis Express Emotions*

Expressing emotions (both negative and positive) was the most dominant theme both in the participants' perceptions and their actual use. The three most basic emotions expressed were happiness (e.g., the 😊 "Face with Tears of Joy" emoji), sadness (e.g., the 💔 "Broken Heart" emoji), and anger (e.g., the 👞 "Man's Shoe" emoji). This function also ranked high in previous emoji taxonomies, either referred to by the same name (e.g., Al Rashdi, 2015; Algharabali & Taqi, 2018) or labeled as 'reaction' or 'react' (e.g., Herring & Dainas, 2017). The use of emojis for emotional expression is expected since it is, after all, the primary purpose behind the invention of emoticons as suggested by many scholars (e.g., Drouin & Davis, 2009).

Further, the tendency for the emotions expressed to be positive is also consistent with many emoticon and emoji studies (e.g., Danesi, 2017). However, this is contrary to the study by Lu et al. (2016) who found that collectivist societies used emojis less for positive emotions and more for negative emotions compared to individualistic societies. Nevertheless, one interesting finding is that emotive emojis were not always faces, as objects (such as hearts) also performed an emotional function. This seems to support Dresner and Herring's (2010) theory that emotions (expressed by emoticons) are not always mapped to facial expressions.

(b). *Emojis Make Meaning*

In addition to emphasizing or clarifying the meaning of the message they accompany, emojis could also contradict it. Emojis were thus used to stand in for certain words or phrases to further highlight and reinforce the intended meaning of the text (e.g., the 🌧️ "Sweat Droplets" emoji to refer to rain). This function is in accord with studies which suggested that emojis are used to clarify the meaning of (or to substitute) a textual element (e.g., Al Rashdi, 2015; Algharabali & Taqi, 2018). This particular use of emojis is courtesy of their inherent semantic structure: They intrinsically have certain meanings and could thus substitute or repeat neighboring words (Danesi, 2017).

Conversely, emojis were used to contradict the meaning of the message, typically in sarcastic or ironic contexts (e.g., the 🤪 "Nerd Face" emoji to mean 'stupid' or the 🤣 "Rolling in the Floor Laughing" emoji to mean unfunny). This function supports the literature, as not only was sarcasm the main motivator behind adding emoticons to seemingly serious texts (Fahlman, n.d.), but this sarcastic role is also well-documented in the literature on emoticons (e.g., Skovholt et al., 2014) and emojis (e.g., Algharabali & Taqi, 2018). In fact, the same exact happy emoji that was used creatively by one participant in this study to convey the opposite meaning was found in the study of Algharabali and Taqi (2018), which is the 🕺 "Dancer" emoji. A possible explanation for this might originate in the Arabic idiom 'Eid came early' (meaning the exact opposite of Christmas came early), as it is used when something unfortunate happens, particularly when you are the one who metaphorically 'brought' it upon yourself. The contrast between Eid (a time of celebrations and joy) and the actual meaning of the idiom has a comical effect that any Arabic speaker recognizes, one that is similarly found in the use of the dancer emoji to represent a mishap.

(c). *Emojis Signal (Un)Familiarity*

Emojis were also used to point out familiarity and carry out informality (e.g., different colored emojis or laughter options for different interlocutors). In terms of familiarity, studies have recognized the role of emojis in expressing closeness, intimacy, and familiarity (e.g., Al Rashdi, 2015). Similarly, much like many forms of online writing, emojis also functioned in the literature to ensure that the conversation is informal and 'relaxed' (e.g., Algharabali & Taqi, 2018; Escoufflaire, 2020). This informal role of emojis seems to be slowly changing, as some scholars have explored the usefulness of emojis in formal educational contexts (e.g., Al-Zou'bi & Shamma, 2021).

(d). *Emojis Decorate Text*

One of the least frequent emoji functions was their use to decorate the text they co-occur with. This was rarely reported in the participants' interviews, but more commonly found in their tweets (e.g., the ✨ "Sparkles" emoji to frame an inspirational quote). Similarly, this function was also only present in a few taxonomies, labeled as 'poetic' in Danesi's (2017) adoption of Jakobson's functions, and 'structurally aesthetic' in Escoufflaire's (2020) framework. Although emojis are quite an attractive resource for aesthetical representation, they seem to be rarely used just as an additional decorative element (which is how this function was coded). In many instances, emojis do not just serve one

function, but many overlapping functions (Danesi, 2017); they are also more ‘given’ (Dresner & Herring, 2010) and therefore more intentional and purposefully used which could explain the scarcity of this function both in this study and in the literature.

(e). *Emojis Substitute Nonverbal Cues*

A function of emojis that was ‘given off’ is their use to represent kinetic and prosodic features. Emojis were thus sometimes employed to remedy the lack of facial expressions (e.g., the 😏 “Face with Rolling Eyes” emoji), body gestures (e.g., the 👉 “Backhand Index Pointing Down” emoji), and voice melodic features (e.g., the 🎵 “Musical Score” emoji). This function corroborates the findings of a great deal of the previous work in emoji functions, dating to the early classical framework of emoticons as a paralanguage (e.g., Crystal, 2001) and stretching to recent emoji of emojis as a paralinguistic device (e.g., Herring & Dainas, 2017). This function also made an appearance in many classifications, such as that of Al Rashdi (2015) as ‘contextualization cues’, Escoufflaire (2020) under the ‘interpretive’ function, and in Sadia’s (2018) multimodal framework. Their function as gestures, in particular, was also debated by a group of contemporary scholars (e.g., McCulloch & Gawne, 2018; McCulloch, 2019) as emojis and gestures were found to be of close resemblance to one another. Given the lack of nonverbal cues in online interactions, this function was expected to appear more frequently in the data.

B. *Emojis as Illocutionary Enactors*

The second research question focused on the role of emojis as illocutionary acts, particularly placed in Searle’s (1975) taxonomy of speech acts. For the most part, emojis seemed to mitigate (as opposed to enact) speech acts. That is, emojis worked in conjunction with speech acts already uttered in the message itself (e.g., the 🤝 “Handshake” emoji used to strengthen the expressive act of welcoming, or the 👁️ “Eyes” emoji to soften the directive act of asking). This particular element is consistent with some literature on emoticon and emoji ‘acts’ (e.g., Skovholt et al., 2014). The expressiveness of emojis allows them to support such acts with ease, as they are regarded as a modern hedging device.

In terms of the frequencies of emoji acts, expressives were the most common showcasing a wide range of verbs used with the help of emojis (i.e., thanking, apologizing, greeting, welcoming, and condoling). This is in agreement with many previous studies in which expressives were the most common speech acts found in online communities, in general (e.g., Mohamad et al., 2018) and occurred in conjunction with emojis, in particular (e.g., Al Rashdi, 2015).

Directives were next in prevalence and diversity, as emojis were used for verbs such as asking, suggesting, or requesting. This is followed by representative emojis which functioned solely alongside agreeing, and commissive emojis which neighbored promising. In relation to earlier research, these results are mixed. While commissives were indeed the rarest speech act function found in previous studies (e.g., Kazmi et al., 2019), directives and representatives appeared slightly more frequently in other studies (e.g., Beißwenger & Pappert, 2019). This could be attributed to the study setting, as Twitter is a public platform in which the participants presumably interact with strangers, and thus tend to use more expressives and fewer directives.

C. *Emojis as Identity Representatives*

Emojis were found to represent the participants’ identity (i.e., self, personality, and personal values) but not to the same level. Although earlier studies found that users actively represented their personal front on Twitter (e.g., Lee & Pedersen, 2018), this was not the case in this study. Not only did two-thirds of the participants not perceive emojis to have a ‘personal front’ role, but also, no less than half included any emojis at all in their Twitter bios. Further, out of the seven who did include an emoji, only three performed a role in line with Goffman’s (1959) theory, namely the student role represented by the 📖 “Books” emoji. This singular use also failed to be consistent with the literature, as Maximova and Lukyanova (2020) reported that it is men, rather than women, who preferred identifying with an occupational role. The reasons for these discrepancies are listed shortly, but one interesting finding related to personality was the participants’ reported use of animal emojis to describe their personalities (e.g., 🐱 “Cat” Person or Peace 🕊️ “Dove”). This further supports Danesi’s (2017) theory of metaphorical emojis, particularly with the conceptual metaphor: HUMAN IS AN ANIMAL.

There are many possible explanations for the participants’ lack of self-representing emoji use on Twitter. Such reasons were provided by the participants themselves and could be summarized as: issues of privacy, appropriateness, and personal preference. To begin with, privacy for Saudi women is a delicate subject given the cultural expectations of Saudi women (Alshalawi, 2022). Emoji use is, after all, culturally-sensitive. The second reason relates to whether it is appropriate for the participants to use emojis for this function since they are not teenagers and are ‘perfectly capable’ of expressing their thoughts using words. This perception of emojis as being a property for teens is consistent with the views of Escoufflaire’s (2020) participants while the perception of emojis as working in opposition (not in addition) to language is also voiced by the ‘aged’ users in Kazmi et al.’s (2019) study. However, this does not mean that age is the main influencing factor in the participants’ non-use as a third reason was simply preference, a reason that reflects the uniqueness and individuality of emoji use.

This uniqueness, however, becomes less relevant when considering the third theme: emojis reflecting personal values. It was found that both the participants’ interviews and tweets reflected a negative use of refraining from picking emojis

that are not in line with their Muslim referentiality (e.g., the Middle Finger emoji), and a positive use of employing emojis that did reflect their Saudi (e.g., the ✂ “Crossed Sword” emoji) and Muslim (e.g., the 🕌 “Kabba” emoji) identities alike. The particular use of the national flag supports earlier studies in which American (conservative) citizens proudly used the US flag emoji in their tweets and Twitter bios (e.g., Li et al., 2020). Similarly, the use of certain ‘Islamic’ emojis also mirrored Stanton’s (2018) study, in which halal emoticons were used to represent Muslims’ identities.

D. Emojis as Language Change Ambassadors

Emojis played an active role in language change. Three main themes were identified: the importance, frequency, and identifiability of emoji use. Consistent with the literature, some participants perceived emojis to be essential in online interactions (e.g., Herring & Dainas, 2017); others perceived them to be disposable (Kazmi et al., 2019); and a third group argued that their necessity is contextual (Escoufflaire, 2020). The different levels of importance attributed to emojis are also reflected in the frequency of emoji use, as such use was not equally distributed across the participants’ tweets (i.e., the highest percentage of emoji-per-tweet ratio was 94.4% while the lowest was 9.1%).

What the participants did have in common was the identifiability of the evolution of emojis. When asked about the pre-emoji era, even the younger participants were able to describe emoticons in a way similar to their classical definition (Drouin & Davis, 2009). Some even mentioned pictographic and ideographic writing recognized by Danesi (2017) as an early stage of language evolution. Similarly, in the post-emoji era, participants agreed on various ‘graphicons’ (Herring & Dainas, 2017): stickers, GIFs, and memes. This could point out to a new multimodal stage of emoji evolution in which language plays a larger role as it is often overrepresented within these graphicons.

VI. CONCLUSION

The participants' emoji use performed six main functions: (a) expressing positive and negative emotions, (b) making meaning by emphasizing, repeating, or contradicting the content of the message, (c) mirroring personal beliefs, (d) signaling (un)familiarity with the interlocutors, (e) decorating the message, and (f) substituting nonverbal cues of facial expressions, body gestures, and voice tonality. Moreover, emojis hedged different illocutionary acts. Emojis were used to emphasize the meaning of expressives (e.g., apologizing), to soften the meaning of directives (e.g., requesting), and to communicate the meaning of representatives (e.g., agreeing) and commissives (e.g., as promising). Emojis were also used to represent the identity of the students, mostly acting in alignment with their personal values. This alignment represented the students’ religious Muslim beliefs and national Saudi values. Lastly, the function of emojis as language change ambassadors was less straightforward as it was measured by emoji importance, frequency, and recognizability.

The outcomes of this study have important implications for teaching and learning, particularly in EFL education. Emojis have an important part in communication among Saudi female EFL students, thus educators should realize their potential as more than merely supplemental tools in the language acquisition process. By introducing emojis into curriculum design, educators may help students express emotions and transmit meaning more effectively, resulting in a more engaging and relevant learning environment. Furthermore, knowing the pragmatic purposes of emojis may help educators meet students' requirements for identity representation and emotional expression, which is especially crucial in countries where such emotions might be complex. Furthermore, the study emphasizes the need of addressing cultural sensitivities related to emoji use, encouraging teachers to incorporate conversations about digital communication and its influence on linguistic change into their teaching techniques. This technique not only helps students learn languages, but it also prepares them to efficiently traverse current communication environments.

ACKNOWLEDGEMENTS

The Researchers would like to thank the Deanship of Graduate Studies and Scientific Research at Qassim University for financial support (QU-APC-2024-9/1).

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