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Digital Linguistic Markers of Emotions As of the September 2024 Hostilities in Lebanon: A Case Study in Communication Arts Course at a University Level in Southern Lebanon

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Abstract

Language and emotions are intricate systems that have several interactions. Amid the expeditious spread of digitalization and the upswing of various international issues, this case study seeks to explore how students at the Lebanese University in the South utilize language on social media to convey their emotions as of the 2024 clashes and airstrikes in Lebanon. Further, it aims to identify digital linguistic markers that reflect key emotional states and social identity. Drawing on discourse analysis which acknowledges language as a dynamic system that is influenced by shared experiences, values, and beliefs, and importantly, by Conceptual Act Theory which explores how meaning is constructed from experiences and perceptions and on sentiment analysis, a mixed-methods approach is employed. A convenient sampling of (191) university EFL students taking the Communication Arts module during the fall semester of 2024-2025 complete an online survey of 15 multiple choice and Likert scale items. Twelve students joined a focus group discussion and 155 out of 191 participants interacted on the web-based application, Padlet. The findings show that utilizing language in the context of social media platforms through words, emojis, hashtags, slogans, or posting articles, images, or videos, plays a vital role not only in channelling positive and negative sentiments in a

constructive way, but also in signaling to belong to a collective identity during times of crisis in Lebanon. The overall analysis indicated that using various linguistic practices on social media platforms communicates positive and negative emotions, and upholds social norms and ideologies.

Keywords: Discourse Analysis, Sentiment Analysis, Digital Linguistic Markers, Lebanon, War

Introduction

Language is constantly used from a perspective and always exists within a specific context. It communicates emotion via almost every aspect (Majid, 2012). The choice of linguistic expressions and specific words can reveal social class, cultural background and personal experiences. It serves as a mechanism that asserts dominance, negotiates power, creates social hierarchies, and upholds or challenges social norms and ideologies (Edward, 2024).

Contextualizing how we use language offers insights into its underlying dynamics and real-life consequences; that is where discourse analysis (DA) comes in. It looks for what is said in a given text, and how it is used in social settings and cultural contexts. It explores how language presents different perspectives and understandings of the world and creates social reality (Gee, 2011).

The relationship between the text, the author, and the reader has changed because of the opportunities of social media (Oprea, 2019). Social media refers to applications and digital platforms premeditated for people to create, share, and be involved with content, as well as to communicate and connect with each other. Blogging on social media often impacts communication, social interactions, and discourse by making it more instantaneous, interactive, and widespread (Joudi, 2024). According to Khan (2024), social media has become a common public place of the global village for activism in which people can share targeted messages and emotionally charged content that shapes perceptions and beliefs.

Chalise (2024) stated that since October 7, 2024, social media followers or social media users have become active bystanders of the war bound to see, think, like, repost, internalize, respond, and comment about the unprecedented violence. Kharroub (2023) asserted that oppressed populations rely on social media platforms to share their grievances especially when social media exclude voices, emasculate their suffering, or intend to report practices that dehumanize them. According to Joudi and Ayoub (2024), the platforms have turned to serve as spaces for conveying emotions. Social media users have started to echo their voices, and embellish their engagement by following, commenting, reposting, replying to comments, and liking. In Lebanon, in the context of the September 2024 escalation of hostilities that have led to massive casualties, injuries, destruction, and displacements, followers have started to exhibit various feelings through empathizing, dreading in disbelief, and, in some instances, expressing contempt for the suffering of the Lebanese people.

Consequently, the exchange of sentiments in the context of social media platforms represents collective consciousness, and societal values which often depend on culturally framed interpretations (Parkinson et al., 2005). This aligns with Smith and Mackie (2008) who noted that emotions pertain to identity as they depend on each other. They stressed that emotion makes identity consequential, and identity makes group-level emotion possible. As psychologist Smith (1993) stated: Emotion goes with identity. For example, expressing pride in one's group or hate of one's enemy presupposes identities that one cares about. The analysis features of the prominent Palestinian figures on Instagram, Plestia Alaqad, Motaz Khoudarv Azaiza. Bisan Owda. and Hind indicate that sympathy and frustration are the most expressed social emotions as these categories score high in both the number of likes and comment responses (Chailse, 2024). However, no studies have explored how digital communication can deeply reflect social and emotional dynamics in the Middle East, with an emphasis on Lebanon and its youth's social media language, emotions, and social identity which are closely intertwined.

According to the psychological constructionist Conceptual Act Theory (CAT), emotion occurs when information from one's body is made meaningful in light of the present situation using conceptual knowledge about emotion. The Tajfel and Turner (1986) Social Identity Theory (SIT) suggests defining identities with regard to social groups, and the Sentiment Analysis (SA) discipline suggests mining people's perceptions, opinions, sentiments, emotions, and attitudes in textual data, such as social networks (Pang & Lee, 2008).

Amidst the digital discourses that question the fluidization and the circulation of information in the public space that has not been encountered before (Opreas, 2019), the purpose of this study is to explore how university students in Southern Lebanon, during the ongoing war that began in Lebanon on October 7, 2023, use language on social media to express emotions and social identity. This study also aims to identify linguistic markers that reflect emotional states, such as anger, fear, sadness, hope, and pride, as well as aspects of social identity and community affiliation. Thus, the current study has the following questions to answer:

• How do university students in Southern Lebanon use language on social media to convey their emotions as of September 2024 clashes and airstrikes?

- What emotional expressions and linguistic markers do university students in Southern Lebanon use on social media as of the September 2024 clashes and airstrikes?
- How does the language used by university students in Southern Lebanon on social media convey social identity as of the September 2024 clashes and airstrikes?

Literature Review

In general, experiencing situations is the key to learning abstract concepts like anger, love, fear, or pride. According to Lindquist et al. (2015), language is the tool that enables humans to learn and apply concept knowledge to make sense of their experiences, perceptions, and emotions, such as happiness, sadness, anger, or fear. Negri et al. (2020) indicated that online expressive writing has helped respondents to get more in touch with the intense emotions that were experienced following the upheavals they witnessed. When someone writes, "I am sad," for instance, it is understood that they are experiencing sadness. The idea of what it means to be "sad" can encompass past physical experiences (such as feeling worn out, exhausted, or unpleasant), past exteroceptive experiences, and external sensations (such as sights, smells, tastes, and sounds connected to various physical contexts in which one was sad), and simulations of representative situations in which loss occurred (such as simulations of the context occurred at the death of a loved one (Lindquist et al., 2015). Discrete emotion emerges and changes with culture and context (Lindquist 2013).

Consistent with the constructionist Conceptual Act Theory (CAT), which posits that emotions arise from internal bodily sensations, external sensory representations, and conceptual knowledge to make meaning of ongoing sensory perceptions i.e., to give these sensations contextual meaning (Barrett, 2009; Lindquist et al., 2012; Lindquist, 2013), and informed by the field of Sentiment Analysis, which attempts to explore people's perceptions, opinions, sentiments, emotions, and attitudes through the analysis of textual data from social networks based on sentiment polarity (Pang & Lee, 2008), researchers have conducted various studies and presented various findings. Initially, they relied on manually built sentiment lexicons to categorize sentiment as positive, negative, or neutral and later evolved to incorporate multiple shallow machine-learning techniques (Stoy, 2021).

Taboada et al. (2011) utilized a positive and negative word lexiconbased technique to classify documents centered on their sentiments. Sailunaz and Alhaj (2019) analyzed different emotions and sentiments and asserted that some emotions can be characterized by multiple dimensions, both positive and negative sentiments. Further, to filter six human emotions and synonyms in English words, Nandy and Sridhar (2020) did not rely only on

traditional machine learning-based models, but proposed using both lexiconbased approaches and machine learning approaches. In Ortigosa, Carro, and Quiroga (2014), sentiment analysis in Facebook transmitted messages has been presented to extract information about the users' sentiment polarity and to detect significant emotional changes. They found that the classification method which combines lexical-based and machine-learning techniques is feasible to perform sentiment analysis on Facebook with high accuracy (83.27%). Further, Alsaeedi and Khan (2019) explored various sentiment analysis techniques applied to Twitter data and their outcomes. They demonstrated that lexicon-based techniques were extremely viable at times, requiring little effort in the human-marked archive. Moreover, Nahar et al. (2020) used the Arabic sentiment lexicon-based only to determine the polarity of provided Facebook posts and comments on a public issue concerning the services provided by Jordan's major telecommunications companies. Further, Mehmood et al. (2020) conducted an experimental study on the social issue, of illegal immigration, and found an improved technique for lexicon-based sentiment analysis by incorporating verbs with multi-level grammatical dependencies. These studies are in compliance with Calabrese and Cannataro's (2016) findings that confirmed the integration of sentiment analysis and affective computing to obtain a more accurate and reliable detection of emotions and feelings for applications in the life sciences.

Although Sentiment Analysis (SA) is a means of assessing written or spoken languages to decide whether articulation is positive, negative, or neutral and to what degree, many researchers used it in detecting and monitoring depressive states or mood disorders and anxiety conditions (Medhat, Hassan & Korashy, 2014; Ravi & Ravi, 2015), revealing collective behavior (Zafarani & Liu, 2014) and people's self-monitoring (He, Glas, Kosinski, Stillwell, &Veldkamp, 2014). Others used it to explore social identity i.e., the person's sense of who they are, based on their group membership(s) (Tajfel, 1978; Tajfel & Turner, 1979).

Consequently, language is not simply a tool for communication but also a means for establishing social identity; the language we speak and the way we use group talk when people become members of a social group reflect social representations and constitute important markers of social identity (Eastman 1985; Jaspal, 2009). Thus, drawing upon a wide range of linguistic features within the context of social media posts, especially in times of conflict, and mapping out the structure and expression of language i.e., patterns that reflect both emotional responses and social identities serve the purposes of the current research. Hence, since emotion categories are socially constructed and influence the experiences (Lindquist et al., 2012), the proposed work is categorized into levels: The first level is data collection and preprocessing, the second level is applying lexicon-based analysis i.e., detecting lists of words and phrases linked to different emotions, and the last level is feature classification i.e., detecting the sentiments (e.g. positive, negative, or neutral).

Methods

As cited in Joudi (2019), case studies have become one of the most common ways to do qualitative inquiry that investigates a contemporary phenomenon within a particular context to uncover patterns, determine meanings, and construct rich descriptive conclusions derived from multiple pieces of evidence. This exploratory study used a case study research design that includes a survey, a focus group interview, online reflection logs on Padlet, and a follow-up lexicon-based sentiment analysis of words and phrases that are linked to different positive or negative emotions and social identity.

Participants

The participants in this case study were selected using a convenience sampling technique. A total of 191 students out of 223 enrolled in the Communication Arts course at the Lebanese University (LU), 5th branch during the fall semester of 2024-2025 willingly participated in the study. For ethical considerations, the researchers provided informed consent, ensuring that participants understood the purpose of the study and how their data would be used anonymously.

Data Collection

Initially, a Google Form was used to track the progress of questionnaire data collection and to view the exported responses from 191 participants on the fifteen items (Appendix A). Following this, a virtual focus group was organized with twelve LU students from the Oral Communication class, ensuring representation from different regions in southern Lebanon. The students were invited to provide insights on eight questions covering three main areas: language use on social media in discussions about the September 2024 hostilities, digital emotional expressions and linguistic markers of emotions related to the war in Lebanon, and the expression of social identity and community through language (Appendix B). The session was audio-recorded for transcription. Lastly, students were invited to reflect on their experiences through online reflection logs on the web-based application, Padlet, which serves as a collaborative platform for sharing content.

Data Analysis

To answer the first research question about how university students in Southern Lebanon use language on social media to convey their emotions such as anger, fear, sadness, pride, or hope and their social identity linguistically as of the hostilities in Lebanon, a questionnaire data collection phase followed by statistical analysis has been employed based on the analytical description that appears in the form of charts that Google forms instantaneously create according to the respondents' input on fifteen items. Since data obtained through questionnaires come from the individuals' own accounts and not from a direct measurement of the actual experience of emotion that an actual event can trigger (Baele, 2016), the researchers included two more instruments. To answer the second and the third research questions, the researchers collected qualitative personal data obtained from the focus group discussion on eight questions and the reflection logs which were all recorded, transcribed and analyzed. Further, to cross-validate findings and ensure robustness and credibility from the questionnaire, focus group, and reflection log analysis, the researchers applied lexicon-based approaches and looked for consistency in linguistic markers across different data sources and employed triangulation. They chose a lexicon of words and phrases associated with various emotions and social identities.

Results and Findings Survey Analysis Section One: Demographics

The results show that the participants include (178) females and (13) males from the Communication Arts course at the Lebanese University (LU), 5th branch. The proportions represent 93.2% females and 6.8% males. The majority of the sample, 38.7%, falls within the 19–20 age group, while the minority group, aged 21–22, accounts for only 14.1% of the respondents. 31.9% are between 17–18 years old, while 15.2% are above 22 years. These ranges highlight that the participants are predominantly young university students or recent high school graduates. Figure (1) depicts the results.



Figure 1: Demographics (Gender and Age)

The participants reside in various cities and villages across Lebanon that fall into four out of the eight administrative divisions of Lebanon: South Lebanon governorate (50%), Nabatieh governorate (25%), Mount Lebanon governorate (19.2%), and Beirut governorate (5.8%). Table (1) shows the breakdown of the participants' responses regarding the place of residence before the September 2024 hostilities in Lebanon.

Table	Place of Residence before the September 2024 hostilities in Lebanon Place of Residence before the September 2024 hostilities in Leb						
	There of Resider	Governo					
	South Lebanon	Nabatieh Mount Lebanon		Beirut			
	Abra	Adaisseh	Barja	Beirut			
	Ain el deleb	Blat	Chhim	Jnah			
	Al Abbasieh	Ebba	Haret al-	New Rawda			
	AlBurghliyyeh	Hasbaya	Naameh	Dekweneh			
	Alrashidieh	Chouya	Jadra				
	camp	Houmin el	Ketermaya				
	Al-Shaatey	tahta	Mazboud				
	Borj Rahal	Kawkaba	Wadi el				
	Borj Alchamali	Kosaybi	Zayne				
	camp	Majdal					
	Chehour	Selem					
	Deir Kanoun Al-	Marjeyoun					
	Nahr	Nabatieh					
	Doueir	Nabatieh Al-					
	Ghazieh	Fawkaa					
	Kharayeb	Kfarjouz					
	Majdal Selem	Toul					
	Maarake						
	Sarafand						
	Saida						
	Toura						
	Tyre						

Table (1): Place of Residence before the September 2024 hostilities in Lebanon

Total	19 loc	cations	14	locations	7 locations	31	ocations
			0.1		(0.1.(1.0.1))		(1 - - - - - - - - - -

A large number of the participants, (91/191) representing (47.6%), were displaced, while (64/191) i.e., (33.5%) stayed in their residences but were still affected by the conflict and the clashes. Only a minority of (36/191), accounting for (18.8%), were neither displaced nor affected by the hostilities. Figure (2) depicts the results.



Figure 2: Displacement status as of the September 2024 hostilities in Lebanon

Section Two: Social Media Engagement and Emotional Expression in Response to the hostilities in Lebanon that began in September 2024

Respondents were asked about their social media engagement and emotional expressions in response to the hostilities in Lebanon. The results of question (1) show that (73%) followed online news about the recent hostilities in Lebanon about 1–4 times per day, reflecting a significant level of engagement. Only (7.3%), followed the news 5–10 times per day, indicating a moderate interest. Those who checked the news less frequently, several times a week, weekly, occasionally, or rarely, constitute a much smaller share of the responses. Generally, the responses reflect an average to a high level of news consumption among most young adult participants. Figure (3) depicts the results.



Figure 3: Social media engagement: News consumption

When asked question (2), how often do they post online or interact with digitalized content related to the recent hostilities in Lebanon that began in September 2024, the results show a diverse range, with an average leaning toward minimal to moderate interaction. (26.7%) interacted daily, and (25.1%) interacted several times a week reflecting a consistent level of involvement that exceeds (50%). The minority, (9.9%,) rarely posted or interacted, showcasing sporadic involvement. Regarding question (3), the input shows that the majority (63%) express their emotions of anger, fear, hope, and pride on social media when talking about the hostilities in Lebanon. The responses to the question (3) show that more than (63%) express emotions like anger, fear, sadness, hope, or pride when talking about the attacks on Lebanon on social media daily and several times a week accounted for (44%) and (18.9%) respectively. The minority of 24% rarely do so. Figure (4) below depicts the results.



Figure 4: Frequency of online interaction and emotional expression on social media during the 2024 hostilities in Lebanon

As question (4) shows, the profile of emotional expressions employed by the participants of the Communication Arts course on social media highlighted that the negative emotions prevailed, sadness (75.4%) – followed by anger (34.6%) and fear (24.6%). Alongside these emotions, however, respondents experienced a parallel set of emotions, such as hope (40.8%), and pride (15.2%). Both negative and positive emotions were significantly expressed in their social media posts related to the attacks on Lebanon. Figure (5) depicts the results. 191 responses -66 (34.6%) Ange 47 (24 6%) Fear Sadness 144 (75.4%) 78 (40.8%) Hope Pride 29 (15.2%) 50 100 150

4. Which emotions do you most often express in your social media posts related to the attacks on Lebanon ? (Select a maximum of two)

Figure 5: Emotion expressions during the attacks on Lebanon

Based on the responses to the question (5), the most frequently used platform is Instagram (78 %), followed by WhatsApp (66%). As for question (6), the majority of respondents (82.7%) prefer using Arabic to convey their emotions about the war, while (67.5%) also use English. Figure (6) depicts the results.



Figure 6: Preferred platforms and languages for expressing emotions during the war

Section Three: Language and Expression of Emotions in Social Media Posts

A similar manifold profile emerged from the analysis of linguistic markers of emotions related to five emotional states. When participants were asked question (7) about their preferred method of expressing emotions about the attacks on Lebanon, (60.2%) typically chose sharing posts or articles to convey their anger, (58.2%) opted for posting images or videos that reflect their anger, while (27.7%) preferred using strong harsh words, (13.1%) used emojis (e.g., (12.6%)), and (12.6%) expressed their anger through hashtags. Figure (7) depicts the results.



Figure 7: Preferred digital linguistic practices for expressing anger during the War

Regarding question (8), when asked how they would express fear about the attacks on Lebanon, the participants reported the following: (58.1%) typically shared posts or articles to convey fear, (42.4%) preferred posting images or videos, (35.1%) opted for cautious, worried language reflecting fear. A minority of (18.3%) used emojis (e.g., (3, (2), (2))), and (9.9%) expressed fear through hashtags. Figure (8) depicts the results.



Figure 8: Preferred digital linguistic practices for expressing fear during the war

Almost similar percentages were observed for question (9), which asked about how they express sadness online. The majority chose sharing posts or articles, or posting images or videos to convey their sadness accounting for (52.9%) and (53.9%,) respectively. Figure (9) depicts the results.



Figure 9: Preferred digital linguistic practices for expressing sadness during the war

In line with determining how participants would express positive feelings about the attacks on Lebanon, question (10), the overwhelming response of around (55%) opted for using words, sharing posts or articles and sharing images or videos to convey their hope. Only (12%) chose to use emojis (e.g., (0, 10), (0, 4%)), and (9.4%) chose hashtags to express their hope. Almost similar percentages were observed for question (11), which asked about how they would express their pride online during the September hostilities in Lebanon. Figure (10) depicts the results.



Figure 10: Preferred digital linguistic practices for expressing hope and pride during the war Table (2) summarizes the results of figures (7),(8),(9) and (10).

 Table (2) Preferred Digital Linguistic Practices for Expressing Emotions during the war on Lebanon as of September 2024

Modes of	of Digital Lin	0	Expressing Emotions etember 2024	during the wa	r on Lebanon			
		as of sp						
	Using Sharing posts or Posting images or Using Using							
	words	articles	videos	emojis	hashtags			
Anger	27.7%	60.2%	58.2%	13.1%	12.6%			
Fear	35.1%	58.1%	42.4%	18.3%	9.9%			
Sadness	39.8%	52.9%	53.9%	25.7%	7.9%			
Hope	55%	56%	57.1%	12%	9.4%			
Pride	46.1%	55.5%	55%	14.1%	11%			

Section Four: Social Identity and Community Affiliation in Social Media Posts

The analysis of the three questions reveals a shared theme of social media platforms as a means for expressing their social identity during the September 2024 hostilities and attacks on Lebanon. When asked question (12), whether social media posts reflect their identity as members of their community, the majority (75%) affirmed the statement, and only (21%) showed neutrality, while a significant minority of (4%) only disagreed. Similarly, in response to question (13), whether they use certain words or phrases to show their connection to culture or heritage, a significantly large number more than (76%) agreed, while the minority of (23.6%) only remained neutral, and no significant disagreement was showcased.

Furthermore, when asked question (14), if they incorporate songs, poems, quotes, slogans, popular sayings, or historical events to reflect their social identity, the majority of (75%) affirmed, (20.4%) showed neutrality, while only (4%) disagreed. Overall, these responses indicate that most respondents view social media and the use of language as an integral platform for reinforcing their communal ties and cultural references. Figure (11) depicts the results.



Figure 11: Digital Linguistic practices and identity reflection during the War on Lebanon

Regarding question (15), the participants' responses showcased various ways they use to express their social identity through social media posts related to the September hostilities in Lebanon: (51.3%) preferred posting or re-sharing content that aligns with their community's collective voice; (46.1%) chose sharing content that reflects their religious or spiritual beliefs; (34.6%) opted for using language or dialect specific to their cultural or regional background. A smaller group of (18.8%) employed symbols, flags, or colors associated with their identity, and (15.2%) engaged in discussions or debates reflecting their community's culture or values. The minority of (9.9%) participated in or promoted community-driven initiatives or campaigns online to assert their identity. Figure (12) illustrates the responses.

15. In social media posts related to the war on Lebanon, I express my social identity as a member of the community by (Select a maximum of two)

191 responses



Figure 12: Digital linguistic modes of social identity during the September 2024 hostilities in Lebanon

Focus Group Discussion Analysis

Within the current study, a focus group constitutes the second method that is used for the qualitative data collection to create a complete picture of how a given issue affects a community of people. According to Mack et al. (2005), "focus groups contribute to this broad understanding by providing well-grounded data on social and cultural norms, the pervasiveness of these norms within the community, and people's opinions about their own values" (p. 52) as cited by Chehimi and Joudi (2017). In December 2024, one focus group discussion was conducted to gather information about language use on social media, mainly about the digital emotional expressions and linguistic markers of emotions and social identity in discussing the September hostilities in Lebanon. The participants were both males and females, but the majority of (9/12) or (75%) were females. The responses of the group are combined in the following outcomes and a sample of what was stated is reported.

Outcome 1. To know about language use on social media in discussing the War on Lebanon

uiscussing the war on Lebanon	
Languages Used on Social Media: Arabic,	Language and Expression of Emotions
English	
(Q1) When talking about the war on	(Q2) How does the language you use affect
Lebanon on social media, which language	the way you express your emotions about
do you use: Arabic, English, or a mix of	the war on social media?
languages?	
I use Arabic to be perfectlly understood.	Specific words in Arabic carry emotional
I use English.	weight.
I use both.	Lebanese users might mix Arabic and
	English to reach diverse audiences.
	My choice of English words would convey
	my sadness and anger more. For
	example, I would say this war is really
	devastating.
	My Arabic language conveys my
	emotional engagement more.

One finds here that the participants' language on social media to express their emotions about the war in Lebanon significantly varies based on their perceptions about the tone and the intensity of the choice of words in Arabic versus English.

	Lebanon		
	Digital Emotional	Modes of Expressing	Digital Linguistic Markers
	Expressions when	Emotions when	of Emotions to Discuss the
Di	scussing the Hostilities on	Discussing the Hostilities	Hostilities on Lebanon
	Lebanon	on Lebanon	
(0)	3) What emotions do you	(Q4) How do you express	(Q5) What kinds of linguistic
	st often feel when you	each of the following	markers do you include in
	cuss the war on social	emotions when discussing	your posts to convey your
	dia? Can you describe a	the war online?	feelings about the war? Why
	cific moment when you	a. Anger	do you think you choose
	strongly about it?	b. Fear	them?
		c. Sadness	
		d. Pride	
		e. Hope	
✓	I feel sadness, especially	I post messages that	I use emotionally charged
v	seeing children affected	convey my anger	language.
	by war. I remember one	: I am tired of	I use hashtags.
	post I shared that broke	leaders and	"#JusticeNow"
		politicians doing	I post personal anecdotes.
	my heart " Stop killing inncocent children."	nothing while	I share posts about efforts
		people are dying!	that inspire people to
\checkmark	I feel anxious especially	I post a question that	donate.
	knowing about being at	irritates	I use descriptive words to
	risk every single	emotions: Where	reveal my feelings.
	moment. I remember	is humanity?	I use emojis that show my
	one post I shared: I	-	
	hope not to see a	I encourage people in	anger and hatred.
	familiar name passed	my community	I describe my feelings in
	away or a familiar place	to act: Our voices	sentences.
	being bombed.	need to be louder,	I tell what is happening and
\checkmark	I feel afraid. I posted:	and action needs	how I feel using words .
	I just want to hold my	to happen now.	The words I use are harsh
	little sister close and	I express my anger:	like the situation.
	protect her from this	Enough is	I post pictures and comment
	nightmare. How do I	enough.	on them.
	explain war to her? How	I express my hope and	I can communicate the
	do I calm her when she is	feelings of pride	reality of what we are
	terrified when I myself	by posting on my	experiencing to people
	am terrified?	facebook: Thank	outside Lebanon through
Mv	heart races every time I	you for coming	posts, hashtags, and
	hear news of another	together during	live videos.
	airstrike. We are in the	tough times.	Posting videos helps me
			1

Outcome 2. To know about digital emotional expressions and linguistic markers of emotions in discussing the hostilities on Lebanon

danger zone, and we	I express what is	process my feelings and
feel so powerless.	happening around	spreads awareness about
Please, pray for us.	me whether it is	the hostilities on
I feel afraid. The sounds of	the sound of	Lebanon.
airstrikes keep	airstrikes or the	
replaying in my head	fear of war	
even when it's quiet.	through words.	
Hope to feel safe again.	I process my	
Pray for us and for	emotions of	
everyone affected.	displacement	
I feel angry and frustrated:	using angry	
I demand justice and	words that	
call for action.	convey my fear	
	and anxiety.	

This depicts that the participants' posts tried to highlight the use of emotionally charged language, hashtags, and personal anecdotes to communicate their emotions. They tend to use emotional words, affective adjectives, harsh words, emojis, visual elements, hashtags, or phrases to channel their emotions in constructive ways.

Lebanon		
Digitalization and Social Identity when Discussing the Hostilities on Lebanon	Digital Linguistic Markers that Signal Social Identity when Discussing the Hostilities on Lebanon	Modes of Expressing Social Identity when Discussing the Hostilities on Lebanon Online
(Q6) Smith and Mackie (2008) noted that emotions pertain to an identity as	(Q7) Provide examples of how your social identity is reflected in the language you use when	(Q8) Emotion goes with identity (Smith, 1993). For example, expressing pride
they depend on each other. How do social media help	discussing the hostilities in Lebanon on social media.	in one's group or hate of one's enemy presupposes
you communicate your emotions during the war on Lebanon ?	Think about linguistic markers like the use of specific terms, hashtags, slogans, emojis that	identities that one cares about. Are there any cultural references (e.g.,
	signal your affiliation with certain groups or perspectives.	songs, poems, quotes, slogans, popular sayings, historical events) that you use on social media to express your emotions and convey your identity during the war on Lebanon?
It allows me convey my deep emotional connection to Lebanon	In the middle of despair, sharing posts of solidarity on social	✓ Lebanese flag for national pride and identity.
into words, pictures, or videos. Facebook and whatsup	media gives hope صامدون Sharing a post like hand in hand halps me forms on	✓ We refuse to die. A direct appeal to
application help me openly express my	hand helps me focus on the positive amidst the chaos.	unity and collective identity.
feelings of anger, fear, and sadness without feeling judged.	Words like شهداء (martyrs) or (tragedy) highlight shared suffering.	لبنان لن ينكسر سلام لأرض السلام √
Instagram helps me convey my emotions and connect with people	Phrases like Stay strong, لبنان signal my affiliation and perspective.	على هذه الأرض ما √ يستحق الحياة. سنبقى صامدين
who are going through the same thing.	لبنان_بنزف# Hashtag لبنان_بنزف# (#LebanonIsBleeding)	بحبك يا لبنان رغم الجراح √ Julia Boutros:
Receiving and posting comments, likes, and messages let me feel	expressing shared pain and grief. لن_نرکع# Hashtag	وين الملايين expressing
that I am not alone experiencing bad feelings.	(#WeWillNotBow) Hashtag: #StopTheWar. Hashtag:#PrayForLebanon	frustration and a call for solidarity among Arab
The platforms help me feel the sense of solidarity and hope to overcome	Hashtag:#WithYouInGrief Hashtag #StayStrong Symbolic emojis:	nations ✓ Julia Boutros: أحبائي a tribute to
the bad times.	a Lebanese bleeding; raised	the resilience of

Outcome 3. To know about digital emotional expressions and linguistic markers of social identity in discussing the hostilities on Lebanon

fist for resistance and solidarity ; dove for peace.	those suffering and fighting
-----------------------------------------------------------------------	------------------------------

All participants are well aware that social media platforms play a vital role in communicating their emotions during the war in Lebanon. They are spaces for self-expression, connection, and advocacy. The linguistic markers not only express emotions but also signal belonging to a collective identity during times of crisis. Further, the researchers extracted from the preprocessed focus group documented the lexicons of words associated with various negative and positive emotions, created two tables, and placed each feeling into a single row, and included the expressed words.

A Lexicon of Words As	sociated with Various Negative Emotions		
Feeling	Words		
Anger	Outraged		
-	Furious		
Fear	Scared		
	Desperate		
	Terrified		
	Helpless		
Sadness	Overwhelmed		
	Broken		
	Heartbroken		
	Devastated		
	Mournful		
Others	Frustrated		
	Helpless		
	Anxious		
	Nervous		
	Worried		
	uncertain		

A Lexicon of Words Associated	l with Various Positive Emotions and Social Identity
Feeling	Words
Норе	Optimistic
	Hopeful
	Resilient
Pride	Strong
	Determined
	Proud of my community
Social Identity	Strong
	Together
	United
	We
	Strength
	Resilience

Reflection Logs Analys

To gather qualitative data on how university students in Southern Lebanon use language on social media to convey emotions and social identity during the war on Lebanon, two reflection logs were assigned by November 2024. The 191 participants were required to respond to two questions shared via Padlet (Appendix C). This microblogging platform fosters collaborative communication, engages students in noticing linguistic features (Joudi & Ayoub, 2024), and allows them to share examples of their own language choices, such as words, hashtags, or emojis used to convey emotions and reveal aspects of their identity during the war. Figures (13) and (14) depict the records which show that (49) students conveyed their emotions and reflected, while (155) viewed their peers' posts. The researchers extracted words and phrases that convey their positive emotional engagement and identity from the preprocessed documents: proud, resistance, dignity, beloved country, hope, confident, patience, unity, empathy, strengthen, prayer, better, victory, broken but strong, together for Lebanon, long live resistance, gorgeous country, stand

straight again, determination, persistence, لو هالدنيا سألت انت مين قلهن انك لبناني هالدنيا سألت انت مين قلهن انك لجنوبك بحبك

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Figure 13: Examples of digital language choices that express emotions during the war on Lebanon

burning the war on Lebaron		intity or connect you with	specific communities or	viewpoints.	
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Figure 14: Examples of digital language markers that reveal identity during the war on Lebanon

Discussion

The findings are consistent with those of Negri et al. (2020) who found that following online expressive language can be useful in situations of emergency to get more in touch with the intense emotions. Among the predominantly young university student participants who were displaced and affected by the hostilities in Lebanon that began in September 2024, (73%) reported checking the news more than four times daily; more than (51%) leaned towards online interaction several times per week, and (63%) expressed their emotions about the attacks on Lebanon on social media. (78%) preferred using Instagram, while (66%) chose WhatsApp. (82.7%) selected Arabic as their primary medium of communication, while (67.5%) opted for using English.

Other findings correspond with Fattah and Fierke (2009) who affirmed that emotion finds expression in a language and culture and Ye et al. (2023) who considered the relationship between university students' emotional expression and self-presentation on online communication and their well-being. Positive and negative emotional expressions revealed through social media depend on the respective patterns of social media. As Table (2) shows, the patterns vary from using words, emojis, and hashtags, and posting articles, images, or videos.

According to Halperin et al. (2011), in the pro-Palestinian emotional configuration, anger, sadness, and anxiety are evident emotions in conflict. These results correspond to the findings of the study. Negative emotions such as sadness, anger, and fear prevailed, accounting for (75.4%), (34.6%), and (24.6%) respectively. Regarding expressions of positive emotions during the war, (40.8%) chose to convey their hope, while (15.2%) opted to express their pride.

Further, as the participants' interaction on padlets shows, the university students in Southern Lebanon used emojis and symbols to convey their emotions. This finding aligns with Bleiker and Hutchison (2008) who argued that one of the most promising locations to examine emotions is in the way in which they are represented and communicated symbolically. They added that religious elements are also constitutive of the emotional states.

In addition, the results of the focus group discussion and the transcription of the reflection logs on the padlet align with Absattar et al. (2022) who affirmed that the lexical and syntactic patterns serve in exploring cognitive perception and building public relations. The participants use adjectives, melancholic expressions, harsh words, and cautious or worried language to convey their emotions. According to Tausczik and Pennebaker (2010), language reflects the saliency of positive emotion or negative

emotion in the text and allows the analyst, for example, to get scores for anxiety, anger, and sadness. The language used in the reflection logs and the focus group discussion reflects the emotional state of the participants amid the war on Lebanon and conveys their social processes. The use of nouns and adjectives in the microblogging and the focus group transcripts reveal the positive and negative emotional tones and convey what they are thinking about and how they are feeling. Also, the use of the pronouns I and we reveal the magnitude of intergroup tensions. This aligns with Nerbonne (2014) who proved that the pronouns are robust indicators of the general emotional tone of discourses in the sense that they reveal the distinctions between the in groups and those who are different.

The majority of the participants agreed that when discussing the war on social media, they noticed shared linguistic references such as popular sayings, common slogans, and songs that reveal their culture and community affiliation. The findings align with Kuntsman (2010) who illustrated that digital circulation fosters ingroup cohesion across territorial boundaries, and with Cammaerts and Van Audenhove (2005) who proved that it strengthens transnational citizenships. Identities exist at individual, group, and state levels of analyses because emotion exists at these different levels. Monroe's (1996) research on altruism shows some people identify with humanity even at great risk to themselves and their families (McFarland et al., 2012).

Limitations

This study has some limitations. Even though 191 EFL university students participated in the survey, our participants were not a casual representative sample; thus, the results may differ from those of the general population. Additionally, among the final 155 responses on microblogging, the collected reflection logs from the respondents were insufficient to generalize. To better understand how social media usage patterns convey emotions and social identities, it would be necessary to recruit more respondents of different ages to analyze in more detail.

Conclusions

Language appeared to significantly facilitate the processing of emotions as evidenced by multiple linguistic markers. To detect emotions in discourses, a language-based emotion analysis could be employed (Baele, 2016). This paper presents valuable information on how digital linguistic markers during the hostilities in Lebanon among Lebanese University students in southern Lebanon reveal their emotions and social identities. Through the results, we found that utilizing language in the context of social media platforms through words, emojis, hashtags, slogans, or posting articles, images, or videos, plays a vital role not only in channeling positive and negative sentiments in a constructive way but also in signaling to belong to a collective identity during times of crisis in Lebanon. Using various linguistic practices on social media platforms communicates positive and negative emotions and upholds social norms and ideologies. Emotion goes with identity.

As the use of words and the choice of terminology carry meanings that have the power to downplay the extent of what is happening (Osman, 2023), linguists have to conduct further studies on social media posts as they can be enough to catalyse action and mobilize activism (O'Brien, 2024).

Let us contribute something to the push for peace which is a worthwhile pursuit.

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Appendix A

Questionnaire

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Lebanon that bega	u post online or interact with digitalized content related to the recent hostilities in * n in September 2024?
Mark only one oval.	
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Several times a	week
Weekly	
Rarely	
Never	
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English French A mix of languages

ESI Preprints

Section 3: Language and Expression of Emotions in Social Media Posts If you were to express anger about the attacks on Lebanon, how would you typically do so online? (Select a * maximum of two) Check all that apply: Using words (stong/ harsh language) Sharing posts or articles that reflect your emotion (anger) Posting images or videos Using emoje (e.g., §, §) Using stathage pie.com/forms/d/1_7Kn8T5/H6L-aB78tyGX4M@ak4amghiPt7F62t_KG30edt Questioners: DipletLogatib Makes of Divideo as of the Septence: SEX Hostimes in Latence. A Case Story is Commutation Arts Course at a University Laver in Suditor
 8. If you were to express fear about the attacks on Lebanon , how would you typically do to online? (Befect a *
 maximum of two) Lange au mar kappy □ Juang voorda (cautious/ worried language) □ Sharing posts or articles hat reflect your emotion (danger or uncertainty) □ Posting images or videos □ Juang Hongles (c.g., , , , , , , , ,) If you were to express sadness about the attacks on Lebanon, how would you typically do so online? (Select a maximum of two) Using words (aad or melansholic language)) Sharing posts or articles that reflect your emotion (loss or tragedy) Sharing images or videos Using enoise (e.g., (b), (c)) Using bashtags mformald/1 7Kc075/R0G-s0797y0x4MEakdampNP17Pi021 K01bests 77.11 Constantiant (light) against Maxim of Environ as after Explored 2014 Hadman is Unlaver. A Case Rively in Correctable Are Course as Sciences 10. If you were to express hope about the war on Lebanon, how would you typically do so online? (Belect a maximum of two) ity Loveri in Southers Inter all har appy. Using words (positive language) Sharing posts or articles that reflect your emotion (positive news or stories about resilience) Bharing mages or videos that oorway hope Using having and page or pideos and page. 11. If you were to express pride about the war on Lebanon, how would you typically do so online? (Belect a * maximum of two) Net # 81 ftn4 spot/ Using words (positive language) Sharing posts or articles (positive news or staries about bravery and resilience) Using enois: Using enois: Using sharing of hope and peece Section 4: Secial Identity and Community Affiliation in Social Media Posta mad/1_7Hol3T098L-497FyCix MdFaktangNP17F62L KCivear een t Guestionare: Data Linguists Makers of Emotors as of the Besterier 2024 Hostines in Lebinon. A Case Staty in Communication Arts Course at a University Lavet in Southern. 12. My social media posts during the war on Lebinon reflect my identity as a member of my community, * Mark only one oval. Strongly Agree Agree Neutral Disagree Strongly Disagree 1. 13. I use certain words or phrases to show my connection to my culture or heritage.* Mark only one oval Strongly Agree Agree Neutral Disagree Strongly Disagree pie.com/formald/1_2KesT60003-a529EyG3KMJEakdamghPf7E02LKG00edr Overficiente Data Charakii Meker el Declare ai ella Sadarez 350 Holisten h Lalana: A Cae Stavis Comolisato As Cone et a University Lave in Sadare. 14. In expressing my emotions about the war on Labaron, i une cultural references (e.g., songs, poems, * quotes, slogans, popular supring, historical evenisti hat conver my social identity. Mark only one oval. Mark only one oval.
Strongly Agree
Agree
Neutral
Disagree
Strongly Disagree

lues. Ig in or promoting community-driven initiatives or campaigns onlin

Appendix B

Semi-structured Interview Questions

Section One: Language Use on Social Media in Discussing the War

- 1. When talking about the war on social media, which language do you use: Arabic, English, or a mix of languages?
- 2. How does the language you use affect the way you express your emotions about the war on social media?
- Section Two: Digital Emotional Expressions and Linguistic Markers of Emotions in Discussing the War
 - What emotions do you most often feel when you discuss the war on social media? Can you describe a specific moment when you felt strongly about it?
 - 4. How do you express each of the following emotions when discussing the war online?
 - a. Anger
 - b. Fear
 - c. Sadness
 - d. Pride
 - e. Hope
 - 5. What kinds of linguistic markers (emotion words, affective adjectives, metaphors, strong harsh words, symbols, emojis, repetitions, visual elements, hashtags or phrases) do you include in your posts to convey your feelings about the War? Why do you think you choose them?

Section Three: Digital Emotional Expressions and Linguistic Markers of Social Identity and Community Affiliation in Discussing the War

- Social identity refers to a person's sense of who they are based on the groups they belong to. These groups can include things like nationality, ethnicity, religion, political affiliation (Taifel and Turner, 1986).
- 6. Smith and Mackie (2008) noted that emotions pertain to an identity as they depend on each other. How do social media help you communicate your emotions during the war on Lebanon ?
- Provide examples of how your social identity is reflected in the language you use when discussing the hostilities in Lebanon on social media. Think about linguistic markers like the use of specific terms, hashtags, slogans, emojis that signal your affiliation with certain groups or perspectives.

Appendix C

Reflection LOGS

 To express emotions like anger, fear, sadness, hope, or pride when posting on social media during the war on Lebanon, you have used your own language choices, such as words, hashtags, or emojis. Provide examples of your specific language choices.

https://padlet.com/nadinejoudi1/to-express-emotions-like-anger-fearsadness-hope-or-pride-wh-dcjad25whv5geue3

 Reflect on how the linguistic markers you have used to express emotions like anger, fear, sadness, hope, or pride when posting on social media during the war on Lebanon reveal aspects of your identity or connect you with specific communities or viewpoints.

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