Analyzing verbal and pictorial Arab's Facebook posts During the Israeli attack on Gaza Strip in 2021

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ABSTRACT

Arab users of social media could express their political views regarding the Palestinian-Israeli conflict between March and June 2021 amid the repressive policies adopted by social networking sites during that period (see e.g., Rayhan-uddin, 2021; Al-Grtly, 2021). In order to evade such policies, Arab users have used some tricks that are worth analysis from a linguistic perspective. The current study analyzes verbal and pictorial Arab's posts circulated on Facebook during the Israeli attack on Gaza Strip in 2021, and it investigates the attitudes of Facebook Arab users regarding the Palestinian case. The data of the current study consisted of (55) written posts and (47) visual posts collected from the accounts of selected Arab caricaturists and activists. The model of analysis, which was adopted from Kress and van Leeuwen's social semiotic approach, clarifies different messages in visual posts that are categorized according to Kress and van Leeuwen's representational process types. This study asserts that visual encoding can carry implicit messages that require analysis to uncover the hidden symbolic meanings as well as the interactions between the various signs in caricatures and their ideological and social impacts. The study highlights an ignored part of visual communication in the Arab world and presents novel implications for the domains of semiotics and discourse analysis. Furthermore, this study pursued to provide the field of semiotics with new insights through examining how signs, (e.g., in verbo-pictorial images), can participate in denoting meaning pertinent to the social and political standards of a specific community.

Keywords: socio-semiotic approach; representational processes; social media; algorithmic censorship; visual posts

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INTRODUCTION

Social media refers to services and sites that are internet-based; these services and sites are utilized to enhance social interaction among users (cf. Page et al., 2014). Social media platforms have become ubiquitous these days. People all over the world use them everywhere, while at home, at work, waiting for public transportation, etc. People also started to share almost everything. For example, when surfing the timeline of our Facebook accounts, we can see photos, videos, texts, and even surveys. In modern life, social media is a basic tool that people use to express their views and feelings toward many issues.

The Arab World is not an exception in this regard. Different social media platforms in the Arab World, with a huge number of users and accounts, have changed the conventional manner of communication. They have uncovered many issues such as legal and societal inequality, political mishandling, and corruption, which led up to major changes in the legislative systems in many countries (Soliman, 2021).

Social media have an important role in changing our habits and daily life. It also affects the way we communicate and use language. Social media platforms offer their users the chance to express themselves and make meaningful messages in many novel ways. Undoubtedly, this influence on language is worldwide (see e.g., Seargeant and Tagg, 2014).

Communications on social media utilize different ways to express feelings, some of which are verbal (i.e., written), and others are non-verbal, (e.g., emojis, cartoons, photos, memes, and caricatures). Nonverbal communications are considered as a visual language that is used to convey ideas, thoughts, and feelings (Arafah and Hasyim, 2019; Hussein and Aljamili, 2020).

Visual language has an important role in the communications of social media. Several studies report that visual language is used to convey something (i.e., emotions and thoughts). According to Danesi's research (2017), emojis are used as a form of non-verbal sign language (see also Arafah and Hasyim, 2019). Thus, it can be said that the users of social media still use language (i.e., verbal and visual language) to express themselves, but there are many influences of social media networks on language. Some of these influences are due to the policies these platforms apply (i.e., censoring the contents of their users to filter them).

Nowadays, people resort to social media to express their feelings, thoughts, and views. Thus, when a social or political event arises, people are more driven towards such platforms especially with the absence of freedom of expression through the official and government media platforms. However, social media platforms have surprised their users with some suppression policies. The giant tech companies, such as Facebook, Twitter, Instagram, Tik Tok, etc., started to censor their users and deny their right in expressing their views or showing solidarity through algorithmic censorship. This is what happened to the Arab users during the conflict between Palestinians and Israelis between March and June 2021 as some Arab activists stated (Al-Grtly, 2021).

Social media companies use algorithmic censorship as a management and control tool amid the continuous increase of the users. **"**Social media algorithms are a way of sorting posts in a users' feed based on relevancy instead of publish time**"** (Barnhart, what are social media algorithms, 2021, Para. 1). A recent survey proves that 3 billion out of 4 billion internet users are on social media which is a tremendous commitment to manage. This may explain why algorithms are crucial in specifying the authenticity of the contents and accounts of the platforms ("How Do Social Media Algorithms Work?," 2019). Algorithmic censorship expands the wide control of the internet users via different entities encouraged originally by profit. Through such control, social media platforms

can specify which content should be allowed and which should be repressed, depending on their standards (Cobbe, 2020). Social media Algorithms work through a mathematical series of rules and equations determining how a set of data behave ("How Do Social Media Algorithms Work?," 2019).

Arab people will remember May of 2021 as the period of the missiles war between Israel and Hamas (*Ḥarakat al-Muqāwamah al-ʾIslāmiyyah)*, "Islamic Resistance Movement". According to Rayhan-uddin (2021), different social media platforms have not been objective in terms of treating their users as was attested during the recent acts of violence in the occupied Palestinian territories. For example, during this time of conflict, the digital sphere was considered as a means for broadcasting different forms of information and exhibiting varying messages of solidarity; the different tech companies were accused of being manipulated and used as instruments of propaganda (Rayhan-uddin, 2021). Put differently, tech companies found themselves indicted of intense censorship on the Arab content versus weak censorship on the Israeli content.

Arab users of social media platforms have been finding effective solutions to avoid algorithmic censorship. Following some techniques, they could exhibit solidarity with Palestinians especially with the families from Jerusalem's Sheikh Jarrah locality amidst the Israeli desires to displace them and the Israeli attack on the civilians in Gaza strip without being controlled by the algorithmic censorship. Such solutions include using the old Arabic script in their posts (a script without dots and diacritics) instead of the modern one which can be detected and suppressed by the Algorithmic censorship of social media. Other tricks have been followed by the Arab activists to evade these algorithms, such as using symbols and caricatures (Al-Grtly, 2021). (See section 3 for further details).

By reviewing the literature and previous studies that have been done so far, we can find that some of them have dealt with the applications and role of social semiotics in the improvement of teaching such as Bezemer and Cowan (2021); Ferguson (2022); and Unsworth et al. (2022). Other studies, such as Jabeen and Cheong (2022), have examined the social meaning and the social attitudes in given cultural contexts by adopting social semiotic approaches. A study by Al-Ghamdi and Albawardi (2020) analyzes various COVID-19 thematic discourses on social media. There exist also some studies that discussed the political sarcasm by investigating the political cartoons, in different political events, by using visual and semio-linguistic rhetorical tools (e.g., Mazid (2008); Al-Momani et al. (2016); and Lee and Goguen, (2003)). Jaashan (2019) attempts to examine how Peirce's terms of the sign such as symbol, index, and icon can be incorporated in caricatures to convey the intended messages of the caricaturist. (More details about the above studies are provided in the following section). However, no study to the best of the researchers' knowledge has dealt with the different semiotic aspects that Arab users employed to evade algorithmic censorship of social media platforms, which forms a gap in the literature of social semiotics. This study is an attempt to bridge in this gap in the literature and to highlight the importance and the role of social semiotics in such a novel context. More particularly, the current study claims to be an important attempt to demonstrate and analyze the verbal (written) and visual posts that were deployed by selected Arab cartoonists to evade social media algorithmic censorship. The present study seeks to characterize and investigate verbal and nonverbal patterns by adopting the social semiotic approach that was developed by Kress and Leeuwen. This study addresses these strategies from a linguistic perspective considering them as social semiotic objects.

LITERATURE REVIEW

SEMIOTICS

According to Chandler (2002, p. 1), semiotics is defined as "the study of signs". It is a scope that focuses on the study of signs and their importance within the community. Signs may refer to any entity that can convey meaning, namely, words, symbols, images, etc. Charles Peirce coined the term "Semiotics" (1839–1914), while the word "sign" was first introduced by Ferdinand de Saussure in (1915).

Later, semiotics turned to be a common term that deals with different forms and versions such as symbols, words, gestures, images, or even objects (Chandler, 2002, p. 2). Peirce (1931-58) declared that "nothing is a sign unless it is interpreted as a sign" (p. 172). Then, a model for analyzing signs was suggested by Saussure (1959) proposing that a sign requires "a concept" and "a sound image" (pp. 66–67). See Graph 1. After that, he produced novel terms such as the "signifier" and the "signified" which must be taken together when talking about meaning building. As a step forward, social semiotics was introduced by Michael Halliday exhibiting language as social semiotics. By involving his Interpretation, as an opposite to the conventional view, the semiotic perspective expanded the confined focus on the written form of language in linguistics to include other forms of language (e.g., visual language) (1978).
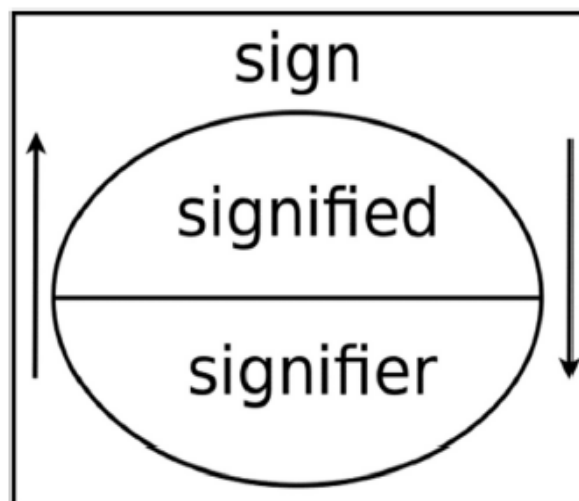
GRAPH 1. The concept of the linguistic sign

Many studies have dealt with the different types of nonverbal communication such as caricatures, emojis, and memes that are found on different social media platforms. Memes take different forms such as images, cartoons, or even comic videos (Díaz, 2013). The term was introduced by Richard Dawkins (1976) as an attempt to demonstrate how cultural information spread using memes. Memes that are used on the internet these days are considered as a type of this thorough concept. Kariko (2013) in "Analysis of Internet Memes using semiotics" suggests that visual forms like memes might enable users of internet to build meanings that depend on a picture's topic.

The focus of the present study will be mainly on just one type of nonverbal communication forms, namely, caricatures, which are defined as social products that are created as a reaction to a political or social issue and are influenced by social or political stimuli. The choice of this type of nonverbal communication is attributed to the fact that it was extensively employed by Arab users during this particular time as a major strategy to evade algorithmic censorship.

Habib and Wittek (2007) suggests that social objects can be any product that is employed in order to exhibit a given social attitude. Kress and van Leeuwen (2006) define Cartoons as natural iconic images that contain visual codes (see also Kress et al., 1997). Caricatures are usually used in newspapers to flout policies and politicians as they reflect the view of people in a given community or country. Al-Momani et al. (2016) discussed political sarcasm through caricatures in Jordan. The study analyzed caricatures published in Jordan during the Arab Spring to reflect the point of view of the Jordanian society. The study debates that the signs in cartoons can imply strong meanings related to social and political issues. A similar study by Mazid (2008) used visual as well as semio-linguistic rhetorical tools to investigate the political cartoon construction of Osama bin Laden and George W. Bush who were major "players" on the modern political stage. Lee and Goguen (2003) analyze political cartoons by applying semiotic morphisms and classical semiotics frameworks. Their study discusses the distinct flavor of political cartoons as well as the literary aspects that distinguish them from other cartoons. Al-Ghamdi and Albawardi (2020) analyze various COVID-19 thematic discourses on social media (i.e., Twitter and WhatsApp). The data was analyzed following the social semiotic approach of Kress & Van Leeuwen (1996) that was used to understand the dynamic COVID-19 discourse in Saudi Arabia. Jaashan (2019) attempts to examine how Peirce's terms of the sign such as symbol, index, and icon can be incorporated in caricatures to convey the intended messages of the caricaturist. The sample of Jaashan's study was collected from different newspapers, and it contains social and political caricatures. Other studies have reviewed the role of social semiotics in different domains.

A study by Mohamed, Talib, Md Tab et al. (2021) analyzed online job interviews using multimodal social semiotic discourse analysis to specify the applicants' intention plus using some other dimensions to examine their social intelligence. Bezemer and Cowan (2021) have reviewed the role of social semiotics in developing the study of reading while Aiello (2006) studied how social semiotics contributes to enhancing the area of critical visual analysis. Unsworth et al. (2022) sheds the light on the way social semiotics can contribute to the improvement of practical pedagogies through associating the images and gestures. Unsworth et al.'s work aims to promote teaching process as a whole and to upgrade the pupils' interest in science via the use of the multimodality and socio-semiotic approach. A similar study by Ferguson (2022) concentrates on the use of multimodal representations to enhance students' meaning making in science, suggesting that pupils' interaction with the multimodal (i.e., visuals) can improve their creative reasoning and meaning making via Peircean social semiotics.

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SOCIAL SEMIOTICS

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Hodge and Kress (1988) state that social semiotics examines the social views of meaning. It discusses the human habits and attempts to interpret the meaning-making system of the verbal, visual, and auditory kinds of social action (Thibault, 1990). Hodge and Kress (1988) and Kress and van Leeuwen (1996) were the pioneers of shifting the concentration on language to other semiotic aspects. Their books "Social Semiotics" (Hodge and Kress,1988) and "Reading Images:

The Grammar of Visual Design" (Kress and van Leeuwen, 1996) were important contributions to the field.

Social semiotics attempts to extend the paradigm beyond linguistics as a step to shed light on visual and sound images. It focuses on how different forms of communication (i.e., traditional and digital media) can be integrated (Kress and van Leeuwen, 1996) through investigating these various forms of communication from different linguistic perspectives such as pragmatics, semantics, semiotics, and social semiotics. The present study adopts a social semiotic approach.

The semiotic model was first introduced by Charles William Morris (1938) and is referred to as the three interrelated triadic relations of semiosis. These three relations are based on three links that he considers as a semiotic basis, namely, an *interpretant* (I), a *sign vehicle* (S), and *designatum* (D), as shown in Graph 2 below. To demonstrate, whereas the sign itself refers to an object, namely, the designatum, the function of the sign vehicle is to deliver something into a sign.
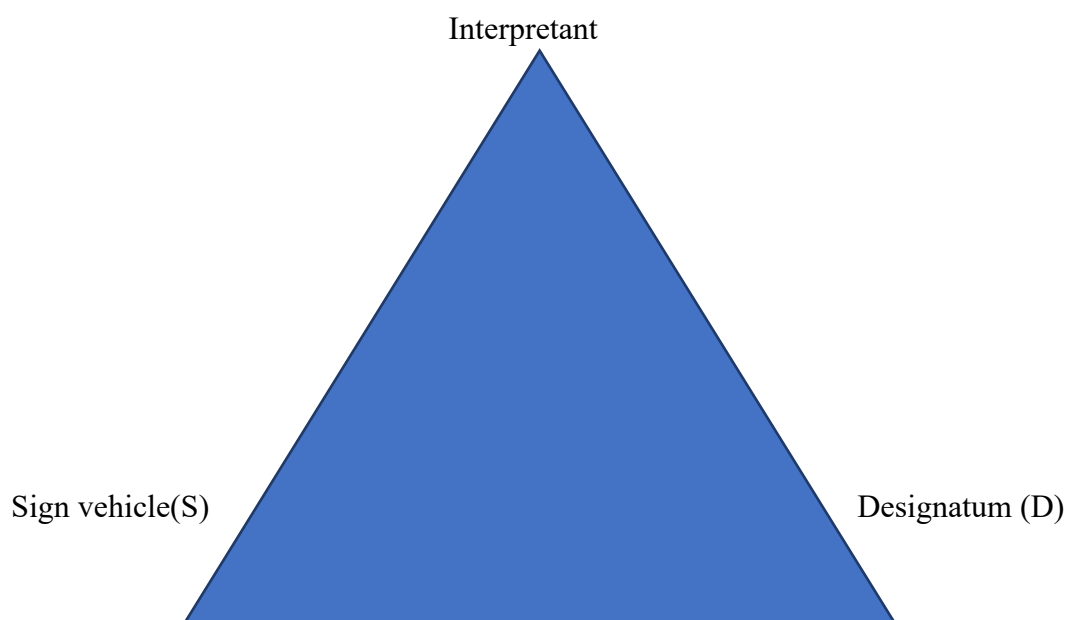
GRAPH 2. Morris'Triadic relation of semiosis (Morris, 1938)

In his work "Semiotics for Beginners: Signs", Chandler (2014) lists three modes with concise definitions and demonstrative examples to explain the relationships between signifiers and their signifieds, namely, symbol/symbolic, icon/iconic, and index/indexical. These three modes are demonstrated below:

> **Symbol/symbolic** is a mode in which the signifier and the signified are not cognate. Thus, the link between the signifier and the signified must be learned because it is fundamentally arbitrary. Examples are words, phrases, sentences, alphabetical letters, punctuation marks, morse code, numbers, national flags, and traffic lights.
> **Icon/iconic** is a mode in which the signifier is seen as a kind of imitation of the signified. A signifier is similar in having some of the signified's features or qualities. Examples are onomatopoeia, sound effects, cartoons, imitative gestures, etc.
> **Index/indexical** is a mode in which the signifier is directly linked to the signified (i.e., casually or physically) where this connection can be deduced or noticed. Thus, it is not

arbitrary. Examples of this mode can be "natural signs" such as echoes, thunder, smoke, etc., "recordings" such as videos, photographs, or TV. shot, "signals" like a phone ringing, etc.

By listing these three forms, the conventionality is decreased. For example, language as a symbolic sign is highly conventional while iconic ones are somewhat conventional. On the other hand, indexical signs "direct the attention to their objects by blind compulsion" (Peirce, 1931-58; in Chandler, 2014, pp.15-28).

Jewitt and Oyama (2001) demonstrate that social semiotics concentrates on the view that the semiotic components offered in a given text can be taken to obtain meaning as they clarify implicit meaning in a particular social situation. Moreover, two semiotic codes are used to interpret meaning in this approach (verbal and visual) as well as the three kinds of meta functions (compositional, interactive, and representational) that concentrate on the visual resources (Kress and Leeuwen, 1996, 2006).

Several recent studies represent the applications of multimodality and socio-semiotics theory. A study by Jabeen and Cheong (2022) adopts the multimodal narrative processes by Kress & van Leeuwen. It analyzes TV advertisements on a Pakistani TV channel. Their social semiotic analysis uncovers the psychological and physical attitudes of the participants in the visuals that exhibit the social relationships via the characterization of a Pakistani family. Their study attempts to scout the social meanings via the multimodal socio-semiotic approach and attempts to extend the knowledge on the application of the multimodal narrative theory. Another study conducted by Martinec (2022) employs socio-semiotic and multimodality theory to examine the early evolution of language. Martinec's study discusses the development of the spoken form of language and suggests that it was multimodal. It also suggests that the evolution of its experimental meanings was aided by earlier gestures and similar units of meaning.

The present study follows Halliday's (1978) representational meaning that attempts to exhibit the link between entities in the world and these within people's minds. Both the narrative and the conceptual structures were identified following Kress and van Leeuwen (1996, 2006).

Narrative representation demands an agent (e.g., an actor), and it involves five processes: (i) actional process, (ii) reactional process, (iii) mental process, (iv) verbal process, and (v) conversion process. Actional process is so-called because it exhibits the actions done by the agent(s). Reactional process is commonly achieved by presenting the positioning of the agent, while mental and verbal processes can be achieved using bubbles and dialogue balloons. Conversion process is considered as a "non-agentive process"; according to Feng and Espindola, it involves "a change of a state of affairs of the represented participant in the order of things within the image" (2013, p.99). By contrast, the target of the conceptual structure is related to other elements via akin and relational processes. It takes the following forms: a classification process (i.e., taxonomic relations), an analytical process (i.e., part-whole relations), or a symbolic process (i.e., identifying relations) (Feng and Espindola, 2013). See Graph 3.

This approach suits the present research. The analysis of visual codes involves defining the represented action, the participants, the participants' features, and the circumstances where the action took place (Kress and Van Leeuwen, 2003, 2006). This fits the goals of the current study as we attempt to shed light on the semiotic aspects of the Arab users' posts on social media platforms. These users shared and posted written and visual posts in order to express their solidarity with Palestinians without being detected by the algorithmic censorship. Precisely, the present study focuses on the visual posts (i.e., caricatures).
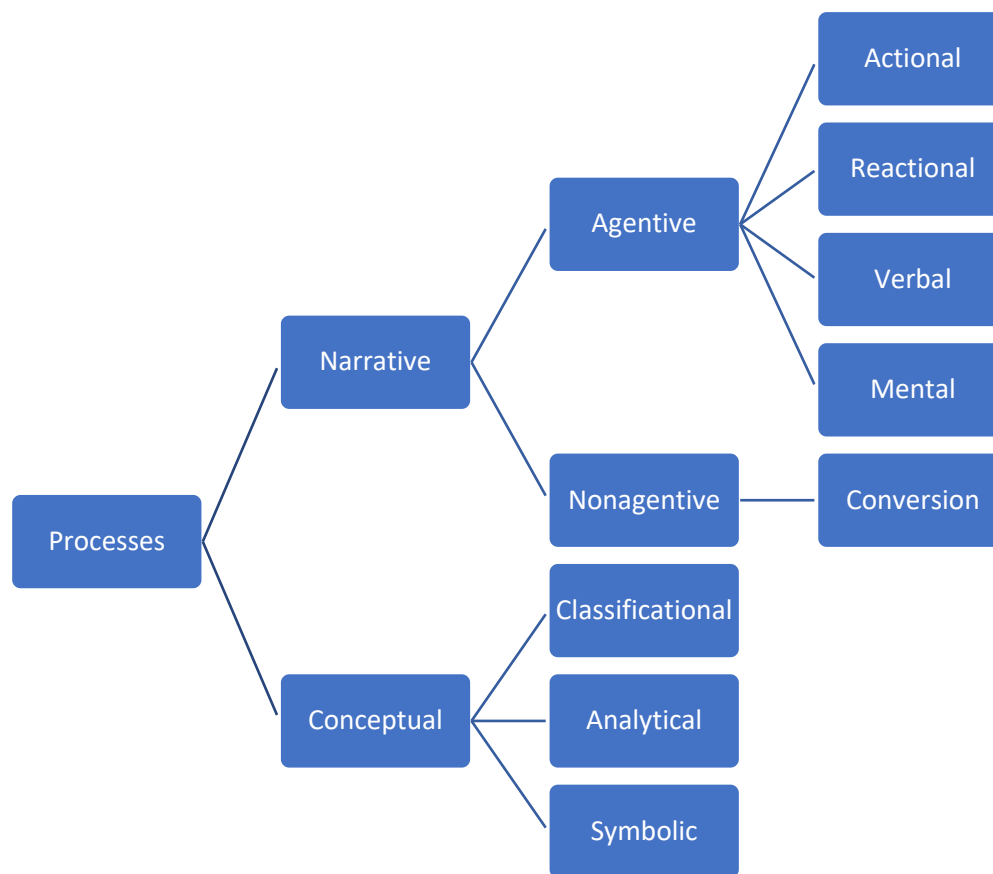
GRAPH 3. Kress and van Leeuwen's classification of the representational processes.

SOCIAL MEANING MAKING

According to Fingarette (1963), there are two broad senses of *meaning*. The first is related to the way a word or symbol refers to, stands for, represents entities or other symbols or words. The second sense has to do with the people's relationships, values, and commitments. Drath and Palus (1994) state that the sense of meaning which represents how symbols as well as words can stand for (i.e., refer to) a particular phenomenon is considered when individuals interact with each other. Among the ways of using language are precisely interpreting and naming. Interpretation is seen as a natural result of naming and categorizing things. It can be said that it is a way to explain "what things are, why they have happened or are about to happen, and what can and should be done as a result" (Drath and Palus, 1994, p. 11).

Accordingly, the process of generating names, categories, and interpretations is referred to as *meaning-making*. This process of constructing a sense can be achieved by individuals for themselves or with others. It leads to having a socially oriented sense. Thus, meaning making is not merely an individual action, but it is certainly collective and social. We are all as individuals are embedded in communities and cultures. So, we derive our construals of the world around us from the culture and community (Goodman, 1981). Based on this perspective, the most common tool for meaning making in a community is culture (Schein, 1992).

METHOD

DATA COLLECTION

The present study provides a descriptive social semiotic analysis of (55) written posts and (47) visual posts shared on Facebook during the time of the Israeli attack on Gaza strip between March and June in 2021. A selection of Arab activists' pages on Facebook formed the major source of the data necessary for the purposes of this study. Internet was used to reach the targeted pages and accounts to collect the written and visual posts related to the case under investigation.

The written instances used in the study are retrieved from three public Facebook accounts; thus, ethical approval may not be needed. These public accounts are NAHW-W-SARF (n.d.), AHL-IL-HEMMEH (n.d.), and TULLAB JAMI'AT L-BALQA (n.d.). The collected visual posts (i.e., caricatures) were retrieved from four Arab cartoonists' Facebook accounts, namely, Emad Hajjaj (19 caricatures), Jalal Al-Rifai (11 caricatures), Amjad Rasmi (5 caricatures), and Osama Hajjaj (12 caricatures). Permissions were taken from the four cartoonists to use their caricatures in the present study.

DATA ANALYSIS

The data analysis was carried out by the four authors in two different stages. The target of the first stage was to identify and deduce the strategies employed by the Arab users in their written posts to evade algorithmic censorship. Each author was provided with 55 written posts and was asked to identify such strategies in each written post. The four authors unanimously agreed on the strategy/strategies employed in each post. These strategies include using old Arabic script, spacing, or separating the Arabic letters inside each certain words using emojis, foreign letters, and symbols. The percentages of these strategies are shown in table 1 below. However, the focus of this study will be on visuals rather than the written posts, so only two examples of written posts (figures 1 and 3) will be discussed in this paper for the sake of clarifying these strategies and to avoid repetition of such strategies.

The second stage of the data analysis targeted visuals which are the main focus of the present study. Each author analyzed the 47 visuals building on Kress and van Leeuwen's classification. More specifically, each author divided the visuals into the different narrative and conceptual subtypes depending on their semiotic content. The classifications of the four authors were then compared. A variation was however found in the classification of four visuals. More specifically, four of the visuals were classified by three authors under the category of mental and verbal processes and under the category of symbolic processes by one author. It is worth indicating here that these four cartoons involved dialogue balloons and bubble thoughts and at the same time involved symbols and signs. This has led this author to categorize them under symbolic processes. Several discussions among the four authors took care of resolving this disagreement, and agreement was reached at the end. It was explained to this author that the bulk of the message/meaning in these visuals was actually conveyed by the bubbles and balloons rather than the symbols or signs. The linguistic message in the dialogue balloons or thought bubbles is what actually defines the symbols or signs. Accordingly, these cartoons where subsumed under the mental-verbal processes.

Although the four caricaturists published many caricatures related to the Palestinian issue on Facebook during the dates from March to June 2021, only (10) instances will be analyzed in

this study due to space constraints and to avoid the similarity among them. They are numbered figures (4, 5, 6, 7, 8, 9, 10, 11, 12, 13).

The instances that will be discussed in this paper were chosen depending on their circularity, i.e., the numbers of their likes and shares. However, the number of likes and shares was disregarded as a criterion for choosing the instances of two subtypes of the representational processes, namely, conversion and classification; this is due to the limited number of the available instances whereby only two examples of each were identified in the collected data. Moreover, the authors considered the representativeness of the analyzed visuals in the sense that they avoided analyzing visuals that carry the same semiotic aspects.

Although the study analyzes both visual and written posts, the focus will be on the visual ones as they can be better analyzed and categorized from a socio-political semiotic perspective. For this end, the authors adopted a qualitative and exploratory approach since the present study's main objective is to investigate a relatively new linguistic sight. Thus, the study might not attempt to prove any particular hypothesis. In other words, the study is descriptive in the sense that the data is mainly analyzed following a descriptive social semiotic approach (i.e., Kress and van Leeuwen's approach (2006)) in order to investigate certain semiotic patterns. The semiotic aspects of signs deployed by Arab users to evade algorithmic censorship of social media platforms will also be highlighted as shown in the following section. It remains to be said that the selected framework is suitable for the purpose of analysis as it helps to decode the hidden messages in the investigated visuals as well as in categorizing them according to the socio-semiotic process that was followed by the caricaturists.

As far as bypassing algorithmic censorship is concerned, it can be claimed that all the collected written and visual posts have bypassed the algorithmic censorship as appears in their circularity. More specifically, the number of likes and shares of such posts asserts that they have gone viral without being blocked, which means they have evaded censorship. It is worth indicating that there is no published list of censorship criteria, and this should not be surprising. According to Jerry Silfwer, a senior adviser specializing in digital strategy, "Social networks don't want us talking and asking questions about their algorithms despite being at the core of their businesses because they need to keep them secret, their complexity is manifested primarily by artificial filters, and they don't want to direct our attention at just how much gatekeeping power they yield" (The First Rule of Social Media Algorithms, n.d., Para. 1). However, it seems that the Arab users have learned through experience that employing certain strategies in their written posts and resorting to visual posts are successful techniques to evade censorship.

RESULTS AND DISCUSSION

This section analyzes the written and visual posts deployed by Arab users to bypass social media algorithmic censorship. The analysis is divided into several sections and subsections. The first subsection deals with some instances of written posts and analyzes them building on the strategies employed in them to evade censorship. The second subsection takes up visual posts and analyzes them by adopting Kress and van Leeuwen's (2006) approach. The visual posts are mainly classified into narrative and conceptual. Then, narrative processes are further classified into the actional, reactional, verbal (i.e., speech) and mental, and conversion, while the conceptual processes are classified into the following: classificational, analytical, and symbolic.

WRITTEN ENCODING

In this subsection, written posts are analyzed with the goal of highlighting the different strategies employed by Arab users to evade social media algorithms, which block any text (i.e., written post) containing words related to the conflict. Arab users seem to have identified such banned words by experience as appears in the employment of some tricks to post them without being detected by the algorithms. Put differently, when Arab users of social media platforms found themselves controlled and censored by the algorithms, they discovered some tricks to evade Facebook's algorithmic censorship especially that many of them reported that their personal accounts were suspended, and they were prevented from posting for a specific time (Al-Grtly, 2021).

The analysis of the written posts has revealed that such tricks took various forms: using old Arabic script and separating Arabic letters within the single word by foreign letters, symbols, emojis, and/or periods. Table 1 displays the number and frequency of the strategies identified in the written posts, followed by two illustrative examples (figures 1 and 3).

TABLE 1. The distribution of the strategies identified in the written posts

	Strategy	Number	Percentages (%)
1.	Using old Arabic script	16	29%
2.	Separating letters using symbols, foreign letters, emojis, or periods.	39	71%
	Total	**55**	**100%**

Figure 1 shows one of the tricks deployed by Arab users which is writing their posts in old Arabic script. The translation of the post in figure 1 is (writing without dots and diacritics is the old Arabic way of writing and it can be used today if you do not want the computer and internet algorithms to detect what you write).

الكتابه بلا نقاط ولا همزات هى الطريقه العربيه القديمه فى الكتابه، ويمكن استعمالها اليوم ان اردت ان لا يدرك انظمه وحواسيب الكمبيوتر والانترنت ادراك ما تكتبه.

😂❤️👍 9.5K   1.3K Comments • 3.4K Shares

👍 Like   💬 Comment   ➤ Share

FIGURE 1. Old Arabic script, www.facebook.com/nahw.w.sarf/posts/2938985256348567

According to Amro Atifi, professor of Arabic language and literature at Cairo University, "In the early Arabic alphabet and script, words were used without diacritic marks or dots and understood based on context. Dots were placed on the letters during the rule of Al-Hajjaj Ibn Yusuf over Iraq. The move aimed to distinguish the letters of the Noble Quran while many people were converting to Islam during that period" (As quoted in Al-Grtly (2021)). See figure 2.
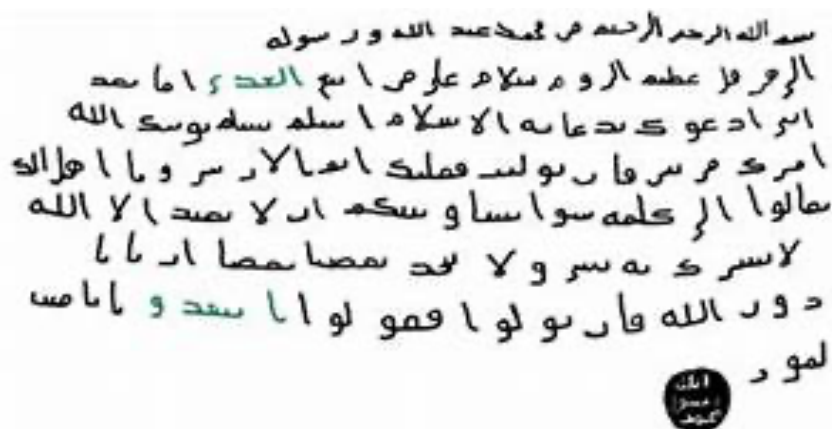

FIGURE 2. An example of an old Arabic manuscript (Abulhab, 2007)

Another strategy that was followed by Arab users is to separate letters within single word using foreign letters, symbols, slashes/periods, and replacing the Arabic letters with Roman letters and numbers. See Figure 3.

FIGURE 3. www.facebook.com/HemmehJU/posts/4364074566956795.

It is clear that the analysis of written posts is built mainly on the strategies employed by Arab users. The adoption of such strategies seems to have protected their posts from being detected by the algorithms and consequently banned, which may refer to the way these algorithms work as they can merely detect the expressions that are previously listed by the programmers. It can be claimed that when the shape of such words is modified using the aforementioned strategies, the algorithms will not be able to identify them.

Finally, it remains to be said that, although written posts were not discussed under Kress and van Leeuwen's framework, they can still be looked at from a semiotic perspective. For example, according to Chandler (2014), language, in general, is considered as a semiotic symbolic mode in which the signifier (i.e., language) does not resemble the signified and the relationship must be learned because it is fundamentally arbitrary or purely conventional. It is to say that the new forms of language (i.e., Arabic in this case) made by Arab users can be considered as signifiers that do not resemble their signifieds and that the relationship is arbitrary. Involving symbols also plays an important role here in Figure 3, where the red love heart is used after the word (فلسطين /Palestine) to symbolize solidarity with the Palestinian issue. However, the ultimate goal of identifying such strategies in the written posts of Arab users was to assert that Arabs insist to evade censorship, which will set the stage for investigating other forms of communication (i.e., visuals) which have proven to be successful in evading censorship. This issue is further taken up in the following subsection.

VISUAL ENCODING

Since now, the study zooms in on the analysis of visual posts. This subsection is intended to analyze the visual posts that were deployed by Arab users on social media during the conflict under investigation from a semiotic perspective. These visual posts are caricatures that were posted and shared by Arab users as an attempt to express their views and solidarity with Palestinians. Caricatures were found as an effective and expressive tool that cannot be detected and banned through algorithmic censorship as they have gone viral on Facebook without being blocked even if they violate Facebook policies.

Generally, non-verbal signs are the major focus of semiotics. One of these non-verbal signs is caricatures that convey messages with exaggeration and in an untypical way. Caricaturists employ different special strategies and styles to convey usual messages in an unusual way to boost the audience's perception of a given event or context. The word 'caricature' itself has an Italian origin that means to exaggerate (Lynch, 1926). According to the caricaturist Richard Duszczak (n.d.) caricatures and cartoons are effective communication medium as they are grasped easier than the written content of a given sign, their intended meaning also can be understood by non-native speakers or illiterate people. More specifically, the messages that caricatures contain can be transferred in seconds without verbose clarifications. On the other hand, if there is a need to convey a message in the written form, caricatures can help to emphasize it.

In this subsection, the analysis focuses on the representational process of each caricature by demonstrating the way the participants appear, and the silent semiotic and generic features they contain. The analysis of the caricatures highlights their visual and textual dimensions and their semiotic features to show the hidden meanings in each.

As mentioned in section 2.2, the instances are analyzed and classified according to Kress and van Leeuwen's classification of the representational processes. Table 2 below shows the numbers and frequencies of the representational processes identified in the collected data.

TABLE 2. The distribution of the representational processes

Process	Type	Frequency	Percentages (%)
Narrative	Actional	9	19%
	Reactional	7	15%
	Verbal and Mental	7	15%
	Conversion	2	4%
Total		**25**	**53%**
Conceptual	Classificational	2	4%
	Analytical	5	11%
	Symbolic	15	32%
Total		**22**	**47%**

THE NARRATIVE PROCESSES

Narrative structures formed 53% (#25 instances) of the collected caricatures. They exhibited uncovered events and actions, locative arrangements, and processes of change and alteration. They constantly involve a pictorial element that constitutes a line indicating directionality. It is termed as vector (Kress and van Leeuwen, 2006, p. 59). A breakdown of these narrative processes is shown in table 3 below.

TABLE 3. The distribution of the narrative processes

	Type	Frequency	Percentages (%)
Narrative processes	Actional	9	36%
	Reactional	7	28%
	Verbal and Mental	7	28%
	Conversion	2	8%
Total		**25**	**100%**

ACTIONAL PROCESS

Caricatures categorized under this process formed 19% (#9 instances) of the (47) representational processes (i.e., Narrative and Conceptual), and 36% of the (25) narrative caricatures. An actional process is categorized as an agentive process that represents the action of an agent (i.e., participant or actor). Kress and van Leeuwen (2006) suggest that a group of all elements in a visual code can be used to obtain an implied meaning. These elements include the indicated participant(s), the depicted event, and the circumstances in which the action was being. Figure 4 is a caricature that was published by Emad Hajjaj, a Jordanian cartoonist. It shows a fat man wearing a gun blowing a trumpet made of a cow horn (as a religious sign of Jews) and the horn is still attached to the cow. The caption says (Settlement and normalization) with the word (settlement) being written in Arabic script on the man and the word (normalization) being written on the cow. Here the image of the fat man blowing a horn trumpet and holding a gun represents the Zionist policies of settlement and normalization. In other words, the man here represents the agent that stands for Israel while the cow horn denotes the tools and policies deployed by Israel; the dairy cow represented in the caricature symbolizes the benefits of normalization with some Arab countries for Israel. It also shows how Israel massively expands settlement following the normalization with some Arab countries, which might be one of the reasons for the conflict in 2021.

FIGURE 4. www.facebook.com/AbuMahjoobNews/photos/a.499011796804397/4290427624329443/?type=3.
(Copyright consent is obtained)

The same focus on the agent's action is clear in using the participants shown in Figure 5 which was also published by Emad Hajjaj. It mocks the idea of reviving the two-state solution. The caption says (an attempt to revive the two-state solution). This caricature shows the current U.S president Joe Biden and the Prime Minister of Israel Benjamin Netanyahu with Biden opening his hand offering some seeds and an olive branch to the frightened white dove (representing peace) while coming out of the mouth of Netanyahu. The phrase (the two-state solution) is written on Biden's facemask. In addition, Netanyahu's sweaty face shows how confused he is by this solution. The type of action here is transactional where there is an actor (Biden in this case) and a goal which is the participant towards which the vector is directed (Netanyahu in this case) (see Kress and Leeuwen, 2006, pp. 63-66). However, the image of the participants reflects the sense of irony regarding the idea of reviving the two-state solution by showing the embarrassed situation of Netanyahu after Biden's offer, which indicates the change in the American policy towards the two-state solution after the arrival of Biden to power as Trump's successor.

FIGURE 5. www.facebook.com/AbuMahjoobNews/photos/a.499011796804397/4260122764026596/?type=3. (
Copyright consent is obtained)

REACTIONAL PROCESS

Caricatures classified under this category formed 15% (7 instances) of the (47) representational processes in general and 28% of the (25) narrative caricatures. According to Feng and Espindola (2013), reactional process is normally framed by the direction of the depicted participant's (i.e., reacter) glance (see also Stoian, 2015). Kress and van Leeuwen (2006) state that "The reacter, the participant who does the looking, must necessarily be human, or a human-like animal – a creature with visible eyes that have distinct pupils, and capable of facial expression" (p. 67). The participant herein (Figure 6), also known as (reacter), represents a well manufactured Israeli military drone with a human face wearing a military helmet. It also holds missiles with human hands. It represents the Israeli's high military capabilities. The caricature shows that the drone was targeted by a locally made missile constructed by the Palestinian resistance factions in Gaza Strip which is the reason for its reaction. The Palestinian missile represented in the caricature is made of bones which reflects Palestinians suffering in Gaza Strip due to the siege. It also indicates the modest capabilities of the Palestinian resistance compared with the Israeli army and its equipment. Furthermore, the message in this caricature shows that the resistance was able to deter the Israeli airstrikes on the residents of the Gaza Strip despite the lack of capabilities. The human eyes of the drone look outside the caricature frame. Thus, the process here is non-transactional (Kress and van Leeuwen, 2006, pp. 67-68).

FIGURE 6. www.facebook.com/AbuMahjoobNews/photos/a.499011796804397/4222258401146366/?type=3.
(Copyright consent is obtained)

Similarly, the man in the thief's wear, carrying in one hand a crowbar on which the Israeli flag is tied and a bag with the inscription "Sheikh Jarrah neighborhood" in the other, as shown in Figure 7, is the reacter. He represents the Israeli occupation which tries to occupy Sheikh Jarrah neighborhood silently. The bag on his shoulder represents the neighborhood of Sheikh Jarrah, which did not remain silent in the face of the policies of the Israeli occupation. This is reflected through the depicted human mouth on the bag as if it is shouting out. It symbolizes the success of Sheikh Jarrah neighborhood residents in drawing the world's attention to the practices of the Israeli occupation. Again, the process here is non-transactional because the glance of the man is directed towards something outside the caricature frame. Shaikh Jarrah neighborhood is a predominantly Arab area located in East Jerusalem 1.2 miles north of the old city. It is disputed because of the

Israeli allegations that the neighborhood was bought by the early Jews immigrants from its Arab owners in 1875. The importance of this small piece of land comes from its religious significance for both Arabs and Jews. Arabs claim that the neighborhood name is derived from (Shaikh Jarrah), the physician of the Islamic military leader Saladin who is believed to be buried there. On the other hand, Jews claim that the tomb of a Jewish High Priest is located there. However, the complex and long legal proceedings had started since 1972. The case was recently raised after the Israeli authorities had attempted to deport some Palestinian families from their homes in Sheikh Jarrah neighborhood, according to the existing allegations. This was the spark that started the recent confrontations between Israel and the Palestinians (Ostrovsky, 2021; "Shaikh Jarrah," n.d.).

FIGURE 7.   www.facebook.com/AbuMahjoobNews/photos/a.499011796804397/4212936338745239/.
(Copyright consent is obtained)

MENTAL AND VERBAL PROCESS

Mental and verbal processes, which formed 15% (#7 instances) of the (47) representational processes and 28% of the (25) narrative caricatures, are presented by thought bubbles and dialogue balloons, as mentioned in *1.1.2*. According to Kress and van Leeuwen (2006, pp. 68-70), in the verbal process, dialogue balloons are used to link Sayers to their utterances. Similarly, thought bubbles are used in the mental process to link thinkers (i.e., sensers) to their thoughts (i.e., phenomena). The cartoon in Figure 8 was drawn by the Palestinian cartoonist Jalal Al-Rifai. He passed away in 2012 but his works have been reused and published recently by his followers on a Facebook account called (Cartoonist Jalal Al Rifai). It represents two participants, an Arab man and an Israeli man with their conventional customs. They are negotiating over the occupied Palestinian territories. The Israeli man, who represents Israel, appears devouring the remains of Palestinian lands as if they were leftovers. The balloon says: (take ... and demand). The Arab man appears angry while delivering a speech and holding the negotiations files in his hand where the phrase (demand… then demand) is written. This symbolizes the ineffective Arab attempts to regain some Palestinian lands occupied by Israel, or even to dissuade Israel from expanding the settlements, as if the cartoonist wanted to say that the efforts of the Arab negotiators were no more than resonant speeches. In the verbal process (i.e., speech process), the balloon is used to connect the speaker (i.e., Sayer) with his speech (i.e., utterance).

Figure 9 represents a cartoon of two participants, a man dressed in a suit holding a cash case with a dollar sign on it and a boy wearing the Palestinian scarf around his neck with a book in his hand where the word (Palestine) appears above a photo of Al-Aqsa Mosque. Here the boy, who represents Palestinians, tries to get the attention of the man in the suit, who looks an Arab businessman, by showing him the book which symbolizes the Palestinian issue. The thought bubble that appears in the caricature says: "I don't remember when this investment project was offered to me". the bubble, as stated earlier, is used to link the thinker (i.e., senser), who is the man in the suit, to his thoughts. In general, this cartoon reflects the Arab disengagement from the Palestinian issue. The linguistic message (e.g., dialogue balloons or thought bubbles) plays an important role in fixing and defining the uncertain signs. According to Barthes (1978), "in every society, various techniques developed are intended to fix the floating chain of signifieds in such a way as to counter the terror of uncertain signs; the linguistic message is one of these techniques" (p. 39).

FIGURE 8. www.facebook.com/jalal.alrifai/posts/4071578769591915.
(Copyright consent is obtained)

FIGURE 9. www.facebook.com/jalal.alrifai/posts/4059609370788855.
(Copyright consent is obtained)

CONVERSION PROCESS

This process was involved in 4% (#2 instances) of the (47) representational processes and 8% of the (25) narrative caricatures. According to Kress and van Leeuwen (2006, pp. 68-70), conversion is a non-agentive process that exhibits a chain of changes in the situation of the depicted participant within the image. The caricature in Figure 10 was published by Amjad Rasmi, a Jordanian cartoonist, on March 29, 2018, on the eve of the Palestinian Land Day, then it was shared and republished on the same occasion in 2021. However, the concept of conversion is clarified through the following figure. It represents a Palestinian man wearing a Palestinian scarf around his neck while sitting on a rock. He is sitting opposite the border that separates him from the occupied Palestinian territories where his umbilical cord is still rooted in his native land despite all the attempts to separate him since the beginning of the conflict in 1948. This is symbolized through the broken scissors and axes depicted in the caricature. This shows the change in the situation of the Palestinians from being the owners of the land to being displaced in refugee camps. It also shows their attachment to their land and their adherence to the right of return.

FIGURE 10. https://www.facebook.com/amjad.rasmi.1/posts/10215267237690162
(Copyright consent is obtained)

THE CONCEPTUAL PROCESSES

Conceptual processes formed 47% (#22 instances) of the collected caricatures. Kress and van Leeuwen (2006) defined them as the processes that depict participants according to their class, structure, or meaning (p. 59). They are classified, as explained in Graph *3*, into classificational, analytical, and symbolic. A summary of the conceptual processes is given in table 4 below.

TABLE 4. The distribution of the conceptual processes

	Type	Frequency	Percentages (%)
	Classificational	2	9%
Conceptual processes	Analytical	5	23%
	Symbolic	15	68%
Total		**22**	**100%**

CLASSIFICATIONAL PROCESS

The caricatures categorized under the classificational process formed 4% (#2 instances) of the (47) representational processes and 9% of the (22) conceptual processes. In this process, the participants are related to each other in terms of taxonomy where there is a subordinate participant for a superordinate participant. These taxonomies can be further divided into overt and covert. This can be decided depending on the existence of the superordinate participant in the image (i.e., whether depicted or not) (Kress and van Leeuwen, 2006, pp. 79-87). Figure 11 depicts the Prime Minister of Israel Benjamin Netanyahu brutally holding the neck of a white dove with an olive branch falling from its beak. The white dove with the olive branch symbolizes peace. The figure also depicts a huge hand coming out of a prison window and the hand holds Netanyahu himself. The huge hand represents the besieged Palestinian resistance in Gaza strip and the prison window symbolizes the siege itself. In this caricature, the white dove is a subordinate participant for Netanyahu who is the superordinate participant, Netanyahu himself is also seen as a subordinate for the huge hand. It is worth mentioning that the exaggeration in the size of the participants plays an important role in reflecting the idea of the caricature. Generally, the implied message reflects Netanyahu's anti-peace policies. It also shows the ability of the Palestinian resistance in Gaza Strip to subject Netanyahu to their conditions despite the siege. This had a negative impact on Netanyahu's popularity in the elections that accompanied the war period.

FIGURE 11. www.facebook.com/jalal.alrifai/posts/4056857827730676.
(Copyright consent is obtained)

ANALYTICAL PROCESS

The caricatures categorized under the analytical process formed 11% (#5 instances) of the (47) representational processes and 23% of the (22) conceptual processes. Analytical process relates the participant depending on a part-whole structure. The participant in the analytical process can be either a Carrier which is the whole or possessive attribute (i.e., the part that stands for the whole). In addition, this process can be further divided into distinct types which are: inclusive (with multiple Carriers); temporal (represented by timelines); topographical (locative or physical relations); exhaustive (Possessive Attributes offered exhaustively); Spatio-temporal (applied to charts); and unstructured analytical process (no Carrier) (Kress and van Leeuwen, 2006, pp. 105-107). The following caricature in Figure 12 illustrates the analytical process. It represents injured and bloody hands that appear piercing a border fence to reach each other with a caption that says:

(boarders). Some hands appear on the left side of the cartoon wrapped in a red and white Jordanian scarf (called Shemagh) while the hands on the right side are wrapped in a black and white Palestinian scarf. The left-side hands represent the Jordanian people who rose to support their Palestinian brothers on the other side of the Jordan River, which separates the two states, while the hands on the opposite side represent the Palestinian people. It is important to mention that a large number of Jordanian people have organized a protest on the border to support their Palestinian neighbors during the recent events. The depicted hands on the two sides of the border are considered as parts (i.e., possessive attributes) of the whole (i.e., Carriers) that are omitted or not represented here, indicating an unstructured analytical process.

SYMBOLIC PROCESS

The caricatures categorized under this process formed 32% (#15 instances) of the (47) representational processes and 68% of the (22) conceptual processes. This process denotes the identity or meaning of the depicted participant(s). It can be symbolic and attributive at the same time. As for Symbolic Attributive Processes, two participants are involved in an image: the (Carrier). The Carrier's meaning or identity is shaped through the relation with the Symbolic Attribute which plays a major role in reflecting the meaning or identity. Symbolic Attributes are primarily used to achieve symbolization in images, which are commonly salient or have conventional symbolic values. According to Kress and van Leeuwen (2006), the identity and meaning of the Carrier are not conferred, instead, they are derived from its qualities (pp.105-107). The caricature in Figure 13 with the caption (we and them) uses a symbolic attributive process to depict a Palestinian martyr covered in blood, lying on the ground and masked with a Palestinian scarf. Another participant is a boy sitting next to him and sobbing sadly, indicating the violence practiced against the Palestinian people. Finally, the emojis (i.e., crying faces) that fall on the two participants from above symbolize Arabs' reactions. Specifically, these emojis are used as symbols to implicitly criticize Arabs' positions toward the Palestinian case. Such positions are usually emotional ones as appears in the use of the crying faces, while Palestinians are indeed waiting for real help, rather than sympathy, from their brothers.

FIGURE 12. www.facebook.com/ohajjaj.official/posts/325379025618089.
(Copyright consent is obtained)

FIGURE 13. www.facebook.com/ohajjaj.official/posts/322344175921574.
(Copyright consent is obtained)

CONCLUSION

This study is the first to the semiotic aspects of signs deployed by Arab users on social media during the Palestinian-Israeli conflict in 2021 where Arab users attempted to evade social media algorithmic censorship. This study sought to investigate the semiotic aspects of Arab users shares and posts on Facebook. Kress and van Leeuwen's social semiotic approach was adopted in order to analyze selected visual posts that were published on Facebook from the 1st of March to the 30th of June 2021. Only ten caricatures out of forty seven and two written posts out of fifty five were chosen for the sake of analysis. The two written instances uncover the strategies that were used by Arab users to evade social media censorship, namely, using old Arabic script and separating letters using foreign letters, symbols, emojis, or periods. The ten visual posts (i.e., caricatures) were analyzed according to the narrative and conceptual processes they represent. Narrative processes were discussed based on their categorization as actional process, reactional process, mental and verbal process, and conversion process. On the other hand, conceptual processes were studied by illustrating the three processes which are: classificational, analytical, and symbolic.

The distribution of the fifty five written posts shows that 29% (#16) of them have evaded social media algorithms following the first strategy, namely, using old Arabic script while 71% (#39) of them followed the second strategy which is separating letters using foreign letters, symbols, emojis, or periods, (as shown in table 1). On the other hand, the distribution of the forty seven visual posts shows that the highest percentage among all the representational processes, (53%), was for the narrative processes (as shown in table 2). Among the narrative processes, the highest percentage (36%) was for the actional process (as shown in table 3), while the highest percentage (68%) among the conceptual processes was for the symbolic process (as shown in table 4).

The analysis highlighted the semiotic aspects of verbal and non-verbal encoding as being effective overcoming strategies especially when meeting circumstances like social media algorithmic censorship. The findings support the idea that people can innovate novel linguistic strategies to cope with any crisis or phenomenon (e.g., algorithmic censorship) through using various semiotic processes that may be used consciously or even spontaneously.

The present research is significant to existing studies in different domains such as semiotics, multimodality, and discourse analysis and contributes to providing novel insights into

social semiotic research by exhibiting how semiotic codes and processes have been used by Arab users on social media platforms with the goal of evading algorithmic censorship. Furthermore, this study pursued to provide the field of semiotics with new insights through examining how signs, (e.g., in verbo-pictorial images), can participate in denoting meaning pertinent to the social and political standards of a specific community. This paper might help readers to grasp the covert practices and discourses encoded in caricatures and thus might enrich cross-cultural understanding. The findings of this study may also be beneficial for educators, particularly in the teaching of relevant advanced courses, and scholars in the fields of semiotics and discourse analysis.

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