Metaphorical Representation in Egyptian and American Multimodal Coronavirus Memes: A Cyberpragmatic Analysis

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Abstract: This study investigates the potential socio-political commentaries entailed by the multimodal metaphorical conceptualizations in Egyptian and American coronavirus memes. A contrastive qualitative and quantitative analysis is carried out on 80 multimodal memes, retrieved from Facebook, in which Coronavirus is the target domain. The sample is composed of 40 Egyptian and 40 American Coronavirus Memes. The data are analyzed within the framework of Cyberpragmatics (Yus, 2019), the methodological tools of analysis of multimodal metaphorical approach (Forceville, 2008), and the tools of the compositional meaning of the visual and verbal semiotics (Kress & van Leeuwen, 2006). Five multimodal conceptual metaphors are identified, introducing different thematic representations which carry socio-political commentaries. The commentaries reflect varied universal and cultural-specific ideologies.

Keywords: compositional meaning, computer-mediated communication, cyberpragmatics, memes, multimodal conceptual metaphor, socio-political commentary

1. Introduction

Internet memes, one form of computer mediated communication, have recently been trending as tools of self-expression of specific ideas on a wide array of social media platforms causing a change in the public discourse in the same way conventional media, such as TV, radio and newspapers, do (Anurudu and Obi 2017; Norstrom and Sarna, 2021).

Memes have been addressed as digital artifacts which transfer, duplicate and propagate through various cyber spaces carrying features relevant to specific culture or community (Ostanina-Olszewska and Majdzińska-Koczorowicz 2019; Procházka 2014). Memes can be considered as "a funhouse mirror" which reflects and refracts collective anxieties and worries of different social groups towards a variety of national events (Miltner, 2018:413).

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Although internet users might create memes and pass them around to evoke laughter, yet these digital artifacts can be spoken of as devices through which serious criticisms of particular societal or political phenomena are addressed (Gumilang and Juanda 2018). Hence, even though internet memes might appear as superficial humorous artifacts which do not encourage any critical thinking about the issues they ridicule, it is through memes that basic characteristics of digital culture are revealed and identified (Nissenbaum and Shifman, 2017; Lou 2017).

Furthermore, memes, as multimodal digital units that may combine various modes of expressions such as a picture and a text, have the potential to metaphorically articulate meaning of abstract concepts by relating them to concrete referents, and to interpret metaphors realized in everyday life through the use of language as well as actions and thoughts (Lakoff and Johnson 2003:44). Memes also provide a "fertile ground" for cognitive scholars who are interested in the diversified metaphorical conceptualizations the meme discourse represents through verbal and visual cues (Ostanina-Olszewska and Majdzińska-Koczorowicz 2019).

Resorting to memes in case of crises can be a mechanism applied unconsciously by internet users to adapt to new realities imposed by a challenging situation and to vent out their doubts (Flecha Ortiz *et al.* 2021; Myrick, *et al.*2021). Since the declaration made by the World Health Organization (WHO) of the outbreak of the Coronavirus pandemic on 11th February, 2020, memes have been profusely propagated by internet users to escape the heavy consequences of COVID-19 situation such as traumatic experience and physiological stress (Akram *et al.* 2021; Pulos 2020). Humorous memes were found by some internet users to be the best therapy to distract attention from the constant stressing data of death cases or critically infected cases. Consequently, the ambient community has been showered with intense upload and dispersion of humorous memes, which can be regarded as narratives ridiculing and criticizing a multitude of universal social and political events, such as lockdown decisions, quarantine, self-isolation, social distancing, etc... (Aslan 2021; Dynel 2021; de Saint Laurent *et al.* 2021).

Throughout the reviewed studies of COVID-19, it is observed that Coronavirus memes are mainly investigated for their humorous projections (Aslan 2021; Bischetti, *et al.* 2021; Dynel 2021; El-Masry 2021; Nicholls 2020; Oduor and Kodak 2020). Most of the research highlights humor projected by Coronavirus memes giving little or almost no attention to memes as socio-political commentaries, a gap which the current research aims to fill.

The current study conducts a multimodal contrastive analysis to explore the varied and common cultural conceptualizations in memes related to Coronavirus pandemic as it sheds light on the latent encoded universal and culture-specific social and political themes in ECVM and ACVM. The analysis aims to identify the conceptual metaphors construed by multiple modes of representations, specifically the visual and verbal modes. Hence, the metaphorical conceptualizations are mapped based on the compositional meaning and cyberpragmatic inferential strategies. To clarify, the inferential strategies are applied in view of the contextual information provided by the event which the meme celebrates and by the verbal and visual cues projected by the compositional meaning of main participants

(Coronavirus and the social or political actor). Accordingly, the underlying textual and verbal explicatures and implicatures are identified and conceptual metaphors are mapped. Entailed metaphors are investigated for the varied thematic representations encoded in data and for the potential social and political commentaries projected by the thematic representations.

The following research questions guide the analysis of the study:

- 1. What are the manifestations encoded by salience, framing and information value of participants in ECVM and ACVM?
- 2. What are the inferential implications realized by contextual information, visual and verbal explicatures and implicatures in ECVM and ACVM?
- 3. Based on compositional metafunction and inferential implications, what are the conceptual metaphors encoded in ECVM and ACVM and the relevant mapping connotations transferred from source domain to target domain?
- 4. In view of the mapping connotations transferred from source to target domain, what are the underlying thematic representations and social and political commentaries in ECVM and ACVM?

2. Theoretical background

This research deploys an integrative analytical framework to identify the potential messages conveyed via metaphorical conceptualizations by addressing the verbal and visual modes of representations in ECVM and ACVM. The metaphorical representations of the Coronavirus in ECVM and ACVM are analyzed within the framework of Cyberpragmatics (Yus 2019), the methodological tools of analysis of multimodal metaphorical approach (Forceville 2008), and the tools of the compositional meaning of the visual and verbal semiotics (Kress and van Leeuwen 2006).

2.1 Cyberpragmatics of memes

Cyberpragmatics was introduced by Francisco Yus in 2001 to study the cognitive pragmatics of internet- mediated communication. The framework investigates the technique internet users apply to find relevance between what is virtually presented and what is intended to be communicated. In other words, Yus' approach considers the way netizens process, understand and reach a correct interpretation of a digitally communicated message (Sukmayadi *et al.* 2019; Yus 2011).

Yus (2019) provides an explicit explanation of how multimodal metaphorical memes can be decoded to ensure valid interpretations. To obtain a complete analysis of multimodal metaphorical memes, Yus argues that the verbal and visual components of memes are processed separately and then collectively. Processing one mode first might give information which, in most cases, is reinterpreted when the other mode of expression is processed. In other words, processing verbal mode first gives potential explicatures and implicatures that might undergo "inferential backtracking" when the visual mode is processed. That is, the verbal explicatures and implicatures have to be concurrent with the visual explicatures and implicatures recognized during the analysis of multimodal memes. Furthermore, Yus (2019) contends that the salience of memes elements assigns the reading path of the

multimodal digital artifact. In this manner, the recipients might be urged to process the most salient element first, followed by the less salient element.

Yus (2019) proposes a cyberpragmatic framework to interpret a multimodal text-picture meme through the implementation of six inferential strategies. These strategies consider text processing, picture processing and identify the potential meanings connoted by the picture, the text and the picture-text combination. Yus contends that the contextual information associated with an individual multimodal artifact is regarded as key factor in construing the messages encoded. Hence, the inferential strategies of Cyberpragmatics can be summarized as follows:

- Strategy 1. Decoding and inferentially enhancing the text of the meme to identify explicatures
- Strategy 2. Obtaining implicatures from the text if needed to attain interpretation of the verbal content of the meme
- Strategy 3. Decoding and inferentially enhancing the picture of the meme to obtain visual explicatures
- Strategy 4. Obtaining implicatures by addressing the visual content of the meme
- Strategy 5. Making potential inferences which can be triggered only by the combinations of text and image to reach complete and correct interpretations of the meme
- Strategy 6. Retrieving all possible contextual information essential to attain interpretations out of strategies 1-5

2.2 Conceptual metaphor in memes

Forceville (2008) addresses the under researched area of the multimodality of conceptual metaphor and introduces some modifications to the Conceptual Metaphor Theory (CMT). The author argues that multimodal conceptual metaphor is distinguished from verbal metaphor in that it is recognized directly through the visual features of specific multimodal artifacts. According to Forceville (2008), for a metaphor to qualify as multimodal metaphor three main criteria have to be met:

- 1. The two phenomena occur in a context where each belongs to a different category;
- 2. The two phenomena can be specified as target and source and depicted in an "A IS B" format which evokes mappable features, affordances or connotations from source domain to target domain;
- 3. Different sign systems, sensory modes or both are used to cue the two phenomena: the target and the source.

Furthermore, Forceville (2008) proposes a framework through which the conceptual metaphors in a multimodal artifact are realized. He argues that a potential multimodal conceptual metaphor (MCM) in a picture-text unit is construed and realized by giving prime attention to the salience of different semiotic signs and the context to which such unit belongs. He contends that the position, the integration and the combination of different verbal and visual modes are designed by the producer, in most cases intentionally, to guide the viewer to the conceptual metaphor intended by the producer. The salience cues in multimodal artifacts assign the source domain and the target domain, then mappings, connotations and features

relevant to the context are triggered from the source to target domain embodying new conceptualization of target domain. A multimodal conceptual metaphor is eventually construed and presented as "A IS B", where "A" is the target domain and "B" is the source domain.

2.3 Compositional metafunction in memes

The first systematic framework for multimodal discourse has been put by Kress and van Leeuwen (1996) in which they identify three metafunctions of visual social semiotics: the representational, the interactive, and the compositional. The current research deploys only the compositional metafunction to analyze the data. The compositional metafunction interconnects the representational and interactive meanings of multimodal artifacts. The compositional systems of salience, framing and information value provide sufficient tools of analysis of verbal and visual semiotics as they allow the authors to attain to meaning of individual multimodal meme by approaching multiple modes of representations as a whole integrated text.

According to Kress and Van Leeuwen (2006:177), the compositional meaning of a multimodal artifact is realized when both verbal and visual elements constituting this artifact are addressed as an "integrated text." The authors introduce the spatial composition mode, one type of integration code through which the logic behind the arrangement of elements in a multimodal image is stipulated. The spatial composition mode finds the relation between the location of elements, the attention given to specific elements, and the connection or disconnection of elements in a "composite visual." Hence, according to Kress and van Leeuwen (2006), the compositional meaning of an image finds common integrative relations between representational and interactive meanings of an image through three interrelated systems: information value, salience, and framing.

Kress and van Leeuwen (2006:187,196) contend that the elements in an image are located in different sections or zones and, accordingly, these elements acquire their information value. The information value zones are known as Left (Given, already known information), Right (New, novel situations or information), Top (Ideal, what might satisfy the emotional need of the viewer), Bottom (Real, the more factual or rather practical information), Centre (represents the main focal information) and Margin (the "subservient" component placed at any point around the central element, yet supports the Central element in conveying the intended message). However, the idea of Given and New is culture-specific as the Given of some cultures is the Right zone while the new is the Left, as is the case in the Arabic-speaking communities.

Some participants receive certain visual cues to be more salient and more visually attractive than other elements. "[R]egardless of where they are placed, salience can create a hierarchy of importance among the elements, selecting some as more important, more worthy of attention than others" (Kress and van Leeuwen 2006:201). For example, in relation to information value, elements representing Given, Ideal or Margin could be more salient than those representing New, Real or Centre and vice versa; it all depends on how the participants are visually cued to capture more attention of the viewer than the rest of the elements. The visual cues

may foreground a participant to stress its significance or background it to make it receive less attention. Meanwhile, size, color and the amount of light received by an element makes it more visually salient.

The third spatial composition aspect of a multimodal text or image, framing, indicates how elements are connected or disconnected by vectors, frames, lines, empty spaces between participants or differences in colors or shapes. Framing creates a sense of "individuality and differentiation" in a composite. Well-connected and well-framed elements are regarded as "a single unit of information" while the detached participants are considered a separate unit of information (Kress and van Leeuwen, 2006:203).

To this end, it is obvious that a multimodal meme or artifact can be successfully interpreted if the interplay between spatial composition features is addressed. The compositional meaning of different modes of multimodal Coronavirus memes is here understood by tracing and decoding the salience of participants in relation to their information value and framing.

3. Methodology

This study attempts to identify the conceptual metaphors construed by multimodes of representations in memes, based on which thematic representations can be specified. Hence, a contrastive qualitative and quantitative analysis is carried out on 80 multimodal memes (text-picture memes) within the framework of Cyberpragmatics (Yus 2019), the multimodal metaphorical approach (Forceville 2008), and the compositional meaning of the visual-verbal semiotics (Kress and van Leeuwen, 2006). Such integrative analytical framework is designed to provide an ample interpretation of the multimodal metaphorical instantiations in ECVM and ACVM and to identify underlying thematic representations.

3.1 Data collection and analytical framework

The memes under investigation are carefully selected, from a pool of 230 memes (108 American and 122 Egyptian) initially downloaded and manually saved from Facebook from February 2020 to January, 2022. The novelty of the COVID-19 situation along with the restrictions imposed by governments, which required individuals to stay at home and keep socially distant from probable gatherings, encouraged the dependence on online communication. Accordingly, memes are created and propagated by netizens to digitally communicate their feelings and thoughts about the pandemic situation (Glăveanu *et al.*2021; Younes and Altakhaineh 2022). Priyadarshini *et al.* (2021) report that the intensity of internet COVID-19 memes propagation is observed to be at its highest during the period of COVID-19 lockdown. However, the easing of Coronavirus restrictions and the acceptance by the societies of the new imposed realities lead to a decline in the intensity of Coronavirus memes propagation. Thus, data collection started at the peak proliferation of Coronavirus memes and ended when the pandemic situation lost its traumatizing effect and ceased to be a central theme of internet memes.

The memes related to Coronavirus have been searched for in different Egyptian and American Facebook pages using the key words "Coronavirus

memes". However, to guarantee relevancy of data to the objectives and research questions of the current study, memes are selected according to the following criteria: (a) selecting multimodal memes (text-picture memes) propagated through Egyptian and American Facebook pages. The memes apply Coronavirus as the target domain; (b) The Coronavirus is depicted as a non-animated person to facilitate comprehension and interpretation of collective conceptualizations, attitudes and beliefs towards the coronavirus situation and to highlight projections that generate social and political commentaries; and (c) The memes include a verbal or nonverbal interaction between Coronavirus and either the political or social actors who are depicted as non-animated person/s or referenced verbally. Applying the inclusion criteria to the initially selected 230 memes yielded 83 memes as matching those criteria: 43 Egyptian and 40 American memes. However, for a balanced analysis, three Egyptian memes are excluded, being of a repeated theme [lockdown easing decision made by the Egyptian government]. Hence, the final data is 40 Egyptian and 40 American Coronavirus memes.

It is noteworthy here that the coronavirus can be depicted using other source domains in cartoons (see Zibin 2022). However, the data applies personification (an ontological metaphor) of Coronavirus as a non-animated person to identify abstract ideas about the pandemic and highlight how these abstract ideas are metaphorically addressed. As stated by Lakoff (2006), metaphors exist when the physical experience is not considered or referred to, but rather the emotional relation or abstract connotations are talked about. Furthermore, the use of personification allows rigorous processing and understanding of non-human abstractions to take place (Nordquist 2020). Human beings find it more convenient to use personification to understand specific concepts. The use of personification creates "idiosyncratic features" and "implicative complexes" which invite a more comprehensive understanding of novel concepts (Forceville and Urios-Aparisi 2009:13). Thus, the direct verbal or nonverbal interaction between social or political actors and the personified Coronavirus pandemic serves to reveal how the meme reflects on specific social or political issues and how these issues are processed and internalized by different ambient communities.

In this manner, the integrated analytical procedures deployed in the current research are carried out within the following analytical framework:

- a. The compositional meaning of the two main represented participants, Coronavirus and the social or political actor, is recognized in relevance to participants' information value, salience and framing.
- b. Cyberpragmatics inferential strategies are applied (text and image are processed in relevance to contextual information to infer decoded values, connotations, implicatures, explicatures and attitudes). The contextual information is provided by two main sources: (1) The event which celebrates the production of the meme; and (2) The implications entailed by the verbal and visual interconnections between the meme frames and the original scene from which the frames are extracted.
- c. Multimodal conceptual metaphors based on "A IS B" model are construed applying Forceville's (2008) approach.

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- d. Mapped features triggered from the source domain to target domain are identified with regard to the semiotic signs that recruit both domains.
- e. Finally, universal or culture-specific themes of social and political commentary entailed by the memes under investigation are identified.

4. Analysis and discussion

4.1 Construal of conceptual metaphors: CORONAVIRUS IS ADJECTIVE +PERSON

Having applied the analytical procedures to the final data (80 memes) under investigation, at least one conceptual metaphor is recognized in each ECVM and ACVM. It is found that across the 80 ECVMs and ACVMs, the construed conceptual metaphor followed a pattern where Coronavirus is initially recruited as target domain while the source domain is mapped to be ADJECTIVE + PERSON. In this manner, Coronavirus is given specific descriptions, entailed by the diverse characteristics the source domain triggers. Accordingly, the data are categorized into clusters in view of the mapped conceptual metaphor in each meme, forming five conceptual metaphor clusters of memes shown in Table 1.

Table 1. The recognized conceptual metaphors in ECVM and ACVM

Conceptual metaphor recognized	ECVM	%	ACVM	%
across ECVM and ACVM	20 / 1/1	, ,	110 (111	, ,
CORONAVIRUS IS A SARCASTIC	13	32.5 %	10	25 %
PERSON				
CORONAVIRUS IS AN	12	30 %	2	5 %
UNTHREATENING PERSON				
CORONAVIRUS IS A NEGLECTED	10	25 %	6	15 %
PERSON				
CORONAVIRUS IS A DEFEATABLE	3	7.5 %	10	25 %
PERSON				
CORONAVIRUS IS AN ANNOYING	2	5 %	12	30 %
PERSON				

As observed in Table 1, the frequency of specific conceptual metaphor is sometimes higher across ECVMs than ACVMs or vice versa; this could be due to the difference in memes used in both societies through which each ambient community conceptualizes the pandemic via varied cultural and ideological scopes. Meanwhile, in view of the conceptual metaphors realized across data, and as implicated by the mapping connotations transferred from source to target domain, negative attributes are given to Coronavirus in four out of five of the construed metaphors. For example, coronavirus is given the attributes of being ironic, trivial, weak and bothersome. However, the only multimodal conceptual metaphor which represents Coronavirus as a person with a positive attribute being AN UNTHREATENING PERSON paradoxically reveals the negative, insidious nature of the virus which is not addressed as a major issue by either participant, leading to irrational and irresponsible attitude of social and political actors.

To realize the mapped metaphors across ECVMs and ACVMs, the information value, salience and framing of main participants are identified in alignment with the contextual information associated to each meme. Meanwhile, the inferential implications of the visual and verbal explicatures and implicatures are realized in view of the compositional meaning of the represented participants. The same analytical procedures are carried out on data to interpret the metaphorical implications projected by the mapped conceptual metaphors. Out of the 80 memes, 10 are selected as sample analysis to illustrate the analytical procedures.

In the ECVM shown in Figure 1, the meme celebrates the event of the marches which took place in Alexandria (an Egyptian coastal governorate) where the crowds were praying: God is the greatest (الله اکبر) asking God to end the pandemic.



Figure 1. Metaphorical representation of Coronavirus as a SARCASTIC PERSON in ECVM

The meme is an image of two vertically attached frames in which a conversation between the social actor, tagged as "an Alexandrian," and the Coronavirus is taking place as follows:

- كورونا: يعني ما يمشيش معاك اني فيروس خطير و ممكن اتنقل بسهولة وسط التجمعات؟ - Corona: so, you don't see that I am a dangerous virus and I can transfer easily in gatherings?

السكندر اني: لا انت شيطان حتتحرق دلوقتي الله أكبر

-An Alexandrian: No, you are a devil and you will be burnt now, God is the greatest.

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-كورونا: الله أكبر؟

- Corona: God is the greatest?

۔اسکندر انے: الله اکبر

- An Alexandrian: God is the greatest.

The original scene is from the Egyptian Arabic-language movie ظرف طارق (A Contingent Circumstance). The two characters are presented as Fady (acted by Khaled EL-Sawy) who represents Corona Virus and who comes looking for Tareq to threaten him. The second character Nagwa, a minor character acted by Moutaza Abdel Sabour, represents the Alexandrians who manage to deceive Fady and convince him that Tareq is not at work. In the original scene, Nagwa, in her answer to Fady's question, defied him, repeatedly insisting on the same answer "في أجازة" ('on a leave). Likewise, Nagwa, representing the Alexandrians in the meme, faces the Coronavirus by defiantly uttering the expression 'God is great!' implicitly denoting that God will protect her from the pandemic. Moreover, the choice of these two characters has its own implications. Nagwa, or Moutaza Abdel Sabour, is the weak, fragile character with her childlike voice who is facing Fady (Khaled El-Sawy) who is characterized by his compelling presence. The meme aims at showing that though weak and defenseless, the Alexandrians manage to defy the virus.

In this vein, the meme explicitly and implicitly represents the Alexandrians as people who ironically believe in the power of prayers in eliminating the pandemic. To further clarify, in the frames of both memes, which represent the Ideal and Real, Coronavirus is located in the Center zone with a relatively bigger size than that of the social actor, thus capturing most of the viewers' attention. The Coronavirus addresses the Alexandrian with a sarcastic smile from a higher position, which visually implicates power and authority over the social actor. The virus ridicules the marches as indicated by its sarcastic smile and by the questions directed to the Alexandrian represented in "so, you don't see" (بين ما يون ما

On the other hand, the social actor is located in the New-Margin zone in the Ideal and Real frames, looking up at the Coronavirus in a challenging manner, confirming the notion that Coronavirus is a devil and it will be burnt by repeating the Islamic prayer "God is the greatest." The two main participants are connected by the vector formed by stairs handrail. The attachment implies the social actor's awareness of the existence of the pandemic as a given reality which might affect the actor's life. Furthermore, the Alexandrian's information value, being located in the New-Margin zone, implies a new and rather unexpected attitude in dealing with health-threatening situation. Hence, the conceptual metaphor CORNONAVIRUS IS A SARCASTIC PERSON is construed to implicitly criticize the insensible reliance of social actor on religious practice, ignoring all scientifically based precautionary measures of social distancing to avoid COVID-19 infection.

By the same token, the memes related to American context are found to reflect on the social irrationality towards the pandemic. To illustrate, in ACVM Figure 2, the original scene is taken from the movie 'Thor Ragnarock'. In the original scene, Thor tries to convince Banner to be the hulk one more time to save Asgad. Banner insists that he, as Banner, is useful in fighting and Thor exclaims: "Is he though?" – an expression which is mirrored in the meme. Meanwhile, the meme depicts Coronavirus, tagged as COVID-19, as a person who ridicules the social actor's irrational demand of going to the gym to keep fit.



Figure 2. Metaphorical representation of Coronavirus as a SARCASTIC PERSON in ACVM

The conversation between Coronavirus and the social actor develops as follows:

- Social actor: I need the gym for gains
- COVID-19: Do you though?

The meme explicitly and implicitly introduces the social actor being ridiculed by Coronavirus for asking to go to the gym. To elaborate, in the upper frame, the social actor (located in the Given-Ideal zone) asks to go to the gym with a dissatisfied tone confirmed by a disappointing facial expression. This implies the social actor's discontent to be deprived from his ideal physical routine due to the new pandemic outbreak. Furthermore, in the upper image, the vector formed by the engraved right-angled shape at the back of the two main participants, connects Coronavirus and the social actor and confirms the existences of the pandemic and its effect on the social actor. Meanwhile, in the lower meme frame, the Coronavirus (located in the Centre Real zone) is represented as a central factual issue that needs

attention. The Coronavirus is replying to the social actor's request by a sarcastic facial expression which shows intimidation and rejection of the demand. Such derision is confirmed by the Coronavirus' words "do you though?" which is a sarcastic verbal expression that implies rejection and criticism of the social participant's insensible request and which cues Coronavirus (target domain) as sarcastic person. Hence, the meme implicitly criticizes the insensible attitude of individuals towards the pandemic by the construal of the conceptual metaphor CORONAVIRUS IS A SARCSTIC PERSON. Although the meme highlights the positive habit of doing regular physical activity, yet Coronavirus mocks people's insensible insistence on social interaction regardless to the potential severe consequences of the pandemic.

In the Egyptian context, the metaphor CORONAVIRUS IS AN UNTHREATENING PERSON is mapped to carry specific conceptualizations. To clarify, the ECVM, represented in Figure 3, uses a picture of Basem Samrah, the Egyptian actor who is known for playing roles of violent aggressive nature which implies the hard-hitting nature of the Virus. Meanwhile, the meme depicts Coronavirus as a person who, in spite of having the ability to destroy humankind, shows kindness, understanding and appreciation of Egyptians' social norms.

- هنفطر اول يوم رمضان مع بعض دى عادة فى العيلة عندنا من ايام جدى = الكورونا : خلصانة هسامحك اول يوم بس عشان جدك الله يرحمه



Figure 3. Metaphorical representation of Coronavirus as an UNTHREATENING PERSON in ECVM

The ECVM explicitly reflects the Egyptians' wish to enjoy the usual family gatherings on the first day of the holy month Ramadan without risking their health as indicated by the conversation between Coronavirus and the social actor:

- هنفطر اول يوم رمضان مع بعض عادة في العيلة عندنا من أيام جدي

- Social actor: We will break the fast together on the first day of Ramadan this is a custom in our family since my grandfather's days.

- خلصانة هسامحك اول يوم رمضان بس عشان جدك الله يرحمه

- Coronavirus: Done. I will forgive you the first day only for the sake of your grandfather. May God have mercy on him.

The full conversation between Coronavirus and the social actor is located in the Ideal zone which implicitly emphasizes that the Egyptians' wish to enjoy the usual family gatherings on the first day of Ramadan is the optimal situation for their emotional relief. Meanwhile, the social actors' words are meant to appeal to Coronavirus' feel of pity as they use words like "Custom, family, grandfather's days عيلة ، أيام جدى). The words Coronavirus uses in its reply to the social actor خلصانة، هسامحك، جدك الله Done, forgive, grandfather may God have mercy on him خلصانة،) indicate that Coronavirus is emotionally moved. Meanwhile, the Virus' words imply that it is developing a friendly nature cuing the Virus as an unthreatening person who sympathizes with the Egyptians and understands their customs. Although Coronavirus is giving a friendly smile, its posture (standing with one leg put on a step and resting its arm on this leg) implicates the Virus' power and authority. The vectors formed by the Coronavirus' arms confirm its promise that the social gathering on the first day of Ramadan will be free from infection; the Coronavirus' arms forms overlapping vectors signifying the confinement of the virus' effect. Hence, CORONAVIRUS IS AN UNTHREATENING PERSON metaphor is mapped according to which Coronavirus is personified as a friendly person to convey the insensibility of the society members; people insist on social gatherings regardless to all warnings of potential COVID-19 infection.



Figure 4. Metaphorical representation of Coronavirus as an UNTHREATENING PERSON in ACVM

In the same vein, the metaphorical representation of Coronavirus as an UNTHREATENING PERSON is found in the American context. The ACVM in Figure 4 is originally a scene taken from 'Parks and Recreation' series season 6. In the scene the former First Lady Michelle Obama who stands for Coronavirus in the

meme (an implication of power and authority) appears unexpectedly, and is received with different reactions by Leslie and Grant (the social actors in the meme). Meanwhile, ACVM figure 4 is associated with the phenomenon of intensive meme production and propagation due to the extended periods of lockdown and social distancing. The meme, in a one-frame image, represents Coronavirus as a person who enters the scene, received with a smile by "Reddit making memes" and with a surprised facial expression by "everyone else." The "Reddit making meme", which forms the biggest sector of the society as indicated by salience of size and location (being relatively bigger than "everyone else" and placed as a focal participant), does not find the pandemic a threatening situation, but rather an opportunity for meme making and propagation. On the other hand, "everyone else," who represents the smallest sector of society, and who is placed in the New-Margin zone (implying that the information value given by "everyone" is not as important and not as focal as that given by "Reddit"), is surprised by the existence of the Coronavirus. Thus, CORONAVIRUS IS AN UNTHREATENING PERSON conceptual metaphor is formed to criticize the phenomenon of social media trending during critical situations.

The ECVM Figure 5 is an example of the metaphorical portrayal of Coronavirus as a NEGLECTED PERSON. The Virus is depicted as a person who shows dissatisfaction with the Authorities' nonchalance vis-à-vis the pandemic.



Figure 5. Metaphorical representation of Coronavirus as a NEGLECTED PERSON in ECVM

The original scene is from the Egyptian movie "Hareem Kareem". The two characters are Hala (actress Ola Ghanem) who represents Coronavirus in the meme and Maged (actor Talaat Zakaria) who represents the Egypt government. In the original scene, Maged, while sniffing, says ألله (oh God!). Hala thinks that this is because of her perfume, and asks him: "أليه عجبك البرفيوم بناعي؟". To Hala's

annoyance, Maged clears the misreading of his remark by saying "ريحه الخروف اللي ""(يحه الخروف اللي The smell of the lamb being grilled made me mad!). The meme mirrors this misreading when the Egyptian government declares that the reason for the holiday is the weather, not the Coronavirus, and the meme uses the same phrase 'مجننه أمی'.

The ECVM here is related to the outbreak of Coronavirus pandemic which coincided with bad weather in Egypt. Consequently, a governmental decision was issued to suspend schools and universities due to adverse weather conditions. The meme is a two vertically attached frame image representing a conversation between the political actor, the government, tagged by the Egyptian flag, and the Coronavirus:

- انا هديهم اجازة رسمية يوم الخميس

- Political actor: I will give them an official day off on Thursday

- أيه؟ خوفت منے؟

- Coronavirus: What? Have I frightened you?

- في رياح وزعابيب مجنن أمي

- Political actor: There are winds and gales which made me mad.

The criticism of political incompetence is explicitly and implicitly introduced in ACVM in Figure 6 which is related to the case known as "Tiger King pardon."



Figure 6. Metaphorical representation of Coronavirus as a NEGLECTED PERSON in ACVM

to 22 years in federal prison for breaking the laws of federal wildlife and for taking part in a failed murder-for-hire plot (Henderson, 2022). The Tiger King star requested a presidential pardon from the former USA President Donald Trump. The meme explicitly represents the former president as a political authority whose attention is captured by the beauty of a girl who is actually representing the convicted TV show presenter while ignoring the current Covid-19 pandemic. Meanwhile, the visual and verbal implicatures entailed in view of compositional meaning of represented participants further support the explicit meaning of the meme. The former president is depicted as a Central participant whose interest in issues other than that of the pandemic is the main topic implicitly offered for contemplation. The president is turning head as a show of admiration to the pardon case, neglecting the impactful pandemic situation which is closely attached to the political actor by hold of hands. In fact, the hold of hands between Trump and the Virus implies comradeship and confirms that political actor gets along with the critical situation. Hence, the CORONAVIRUS IS A NEGLECTED PERSON is created to reflect on the governmental inefficiency in dealing with the pandemic crisis.

The conceptual metaphor CORONAVIRUS IS AN ANNOYING PERSON can be found in the ECVM in Figure 7 reflecting on a specific common social perception.

بقى أنا اللي مفيش عربية كبده في مصر ماوقفتش عليها ومفيش مطعم تلوث مجربتهوش تيجى انت تخليني امسك منديل وانا بقفل حنفية المايه



Figure 7. Metaphorical representation of Coronavirus as an ANNOYING PERSON in ECVM

The original scene of this meme is from the Egyptian comic movie 'سور الصين العظيم' 'Great Wall of China'. The two characters are Gaber El-Sharqawy (actor Samy Sarhan) representing Egyptians and his grandson Mohiy (actor Mohamed Heneidy) representing Covid 19. In the original scene, the grandfather declares his frustration that his grandson does not follow in his footsteps as a gangster. Likewise, in the meme Gaber (The Egyptians) expresses his frustration stating:

- Social actor: How on earth that I who have never skipped standing at any of the street liver vending cars and who have tried all restaurants which sell contaminated food, now you make me hold a handkerchief while closing a water faucet!

The meme explicitly and implicitly shows that Egyptians are deeply annoyed by the precautionary measures required to minimize Coronavirus infection which is further confirmed by the social actor' words. The depiction of the social actor as an old man who brags that his norm is to eat contaminated food without being harmed alludes to the common belief that Egyptians' inconsideration of hygienic measures immunizes them against potential infections. Framing the worried facial reaction of the Virus (presented as a given reality) while listening to social actor's words further confirms the idea that the virus is a source of annoyance. Thus,

CORONAVIRUS IS AN ANNOYING PERSON is formed in this meme to criticize Egyptians' insensible health behaviour and their irrational common belief in this respect.

The ACVM in Figure 8 gives a good example of the metaphorical representations of Coronavirus as an ANNOYING PERSON.



Figure 8. Metaphorical representation of Coronavirus as an ANNOYING PERSON in ACVM

The meme depicts Coronavirus and the social actors tagged as "Boomers" and "Millennials with no will to live" as the main participants. The two social actors introduce two different generations: The Boomers, who are generally viewed as optimists, and the Millennials, who have pessimistic views concerning their future and always reveal their will to die. Coronavirus is centrally depicted to be interested in Boomers (whistling and turning head showing admiration) and shun the Millennials. The meme explicitly shows that Boomers are mainly targeted by COVID-19 while misanthropic Millennials are neglected although their presences is recognized by the virus as implied by the hold of hand showing close attachment. Coronavirus is implied to be an annoyance to both the Boomers who want to live, and for the millennials who want to die. Accordingly, CORONAVIRUS IS AN ANNOYING PERSON conceptual metaphor is mapped to bring up the social phenomenon of generational pessimism for contemplation.

The metaphorical representation of the Coronavirus as a DEFEATABLE PERSON is found in the Egyptian data as well to criticize collective behavior of reliance on remedies which are not supported by science. The original scene of the ECVM in Figure 9 is from the movie 'وَشُ إِجِر اُمْ ' (potential criminal). In this scene, Taha (actor Mohamed Heneidy), representing the Egyptians, rehearses an interrogation as he prepares to apply for the job of a security officer and his mother Libleba (actress Libleba), who stands for Coronavirus, pretends to be the accused.



Figure 9. Metaphorical representation of Coronavirus as an DEFEATABLE PERSON in ECVM

Likewise, the meme represents Coronavirus as a person who is threatened to be eliminated by the social actor:

- عارف ده أيه ده ريفو ...بيتباع عندنا في مصر بالمتر هننسف بيه أمك

- Social actor: Do you know what this is This is Rivo it is sold here in Egypt in meter.

We shall blow the hell out of you with it.

The social actor is threatening Coronavirus that Egyptians can utterly eliminate it by using a cheap, widely available remedy such as Rivo tablets. The representation of Coronavirus as a person who receives the social actor's threats silently further confirms the intended meaning of the meme that COVID-19 is viewed by the Egyptians as a weak virus that can be easily defeated by common remedies. Meanwhile, the Central position of the social actor and his hand gesture of determination accompanied by the hostile word (blow the hell out of you ... while addressing the New – Margin imposed reality (the pandemic) وهننسف بيه أمك implicate the power shown upon Coronavirus. Thereupon, this meme bears a stridently critical note of the social unawareness of the seriousness of Covid-19 pandemic which is highlighted via the mapped conceptual metaphor Α PERSON. CORONAVIRUS IS DEFEATABLE The metaphorical representation of the Coronavirus as a DEFEATABLE PERSON is found here to criticize collective behavior of reliance on remedies which are not supported by science.

As for Figure 10, Coronavirus is depicted as a person who is engaged in a hand fight with the social actor. The original scene is from the American TV series "The Office" in which Dwight, who is obsessed with martial arts, holds a seminar

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to his colleagues on the latest development of self-defense. Dwight demonstrates with Phyll how to defend oneself, while screaming: "Got you! Broken arm, broken arm! ... bo bo." The meme mimics this, declaring that the flintstones vitamin (Dwight) can conquer Coronavirus (Phyll).

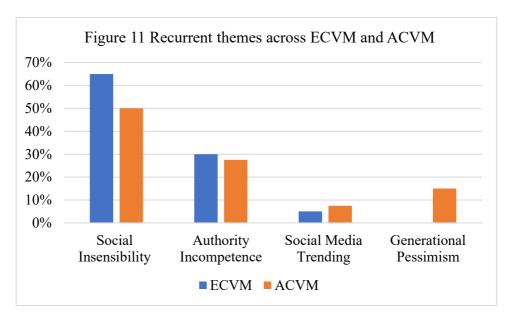


Figure 10: Metaphorical representation of Coronavirus as an DEFEATABLE PERSON in ACVM

The social actor is tagged as "My flintstone Vitamins" which indicates that the individuals' good health due to the intake of flintstones vitamin is capable of defeating COVID-19. As implicitly indicated by the hand fight between the virus and the social actor, whereas Coronavirus is depicted as using stretched hand, leaning and striving to muster its force, the social actor is standing upright, using two hands as double shield against it. The engagement in hand fight implicates close attachment and highlights that social actor confirms the pandemic as given reality which he should face and overcome. Hence, the CORONAVIRUS IS A DEFEATBLE PERSON conceptual metaphor is mapped to highlight the insensible social reaction toward the pandemic. It criticizes the common social belief that individuals who have taken the well-known flintstones vitamin are not potential targets of COVID-19 infection.

4.2 Thematic representations and socio-political commentaries

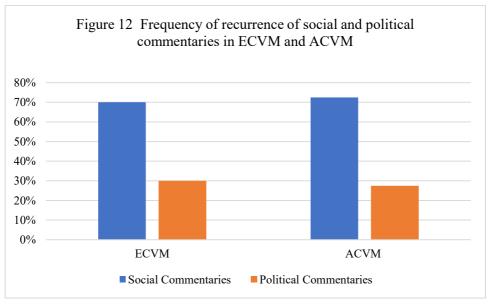
In view of entailed conceptual metaphor, specific themes which deal with either political or social practices are identified. These themes can be classified into four main topics; Social Insensibility, Social Media Trending, Generational Pessimism, and Authority Incompetence. The themes represented across the Egyptian and American memes are shown in Figure 11.



In view of Figure 11, each of the recognized themes carries underlying ideological traits which are mostly culture specific. For example, the Social insensibility, the most frequent theme, reflects on the Egyptian social belief that any critical health issue can be cured by basic remedies and that people develop immunity against any potential infection by being exposed to contaminated food. On the other hand, in the American context, keeping fit and being on healthy diet of vitamin intake are believed to protect against COVID-19 infection. Moreover, the absences of Generational pessimism in the Egyptian memes implicates the optimistic nature of Egyptians and their innate rejection of suicidal ideation.

Such thematic representations can be further classified into social and political commentaries. Social Insensibility, Generational Pessimism and Social Media Trending can be categorized as social commentaries as they address prevailing social practices in the Egyptian and American contexts. On the other hand, the Authority Incompetence can be categorized as political commentary which reflects on different flawed political practices. The recurrence of the social commentaries exceeds that of political commentaries across the ECVM and ACVM as shown in Figure 12:

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As indicated by the high frequency of social commentaries, it is observed that the Egyptian and American ambient communities show more interest in reflecting on the social practices than the political. Meanwhile, it is observed that the social and political commentaries are found to address specific social and political imperfections. These imperfections highlight some universal or culture-specific characteristics of the Egyptian and American community. Table (2) represents common and different social and political commentaries across ECVM and ACVM. As implied by the list of social commentaries, there are culturally specific commentaries that reveal the nature of the Egyptian and American character. In the Egyptian memes, the emotional nature of Egyptians is commented on by criticizing the appeal to pity attitudes of individuals as shown in the ECVM in which the social actors ask the Coronavirus to give them permission to attend family gatherings in Ramadan. The reliance on religious practices such as prayers whenever a problem crops up is another Egyptian culture-specific commentary discussed in the ECVM in which the social actors are criticized for marching and praying against Coronavirus. On the other hand, the culture-specific social commentary identified in the ACVMs is found in the labelling of generation as shown in memes reflecting on Millennials' pessimism.

Table 2. Common and different social and political commentaries across ECVM and ACVM

Type of Commentary	ECVM	ACVM
Social Commentaries	 Appeal to pity requesting a favor Reliance on religious practices to encounter problems Skepticism about novel critical situation Reliance on remedies not supported by science Intensive activity on social media in case of crisis 	 Label of generation Skepticism about novel critical situation Reliance on remedies not supported by science Intensive activity on social media in case of crisis
Political Commentaries	- Disapproval of Authority Performance	- Disapproval of Authority Performance

Traced in both ECVM and ACVM, the social commentary of skepticism about novel critical situation is represented through different social practices. In the Egyptian context, the social actors' nonchalance toward the pandemic and their insistence on carrying on with their social norms of family gatherings indicate their inherent disbelief in its existence. In the American memes, the skeptical attitude toward the pandemic is shown by the individuals' desire to enjoy their social norms and daily activities such as going to the gym.

The reliance on remedies not backed by science, and the intensive activity on social media commentaries are expressed by social actors in ECVM and ACVM almost in the same manner. The social actors in the ECVMs are found to believe that they have a strong immune system, which is boosted by being exposed to contaminated food, and that a simple basic medication as basic as Rivo can definitely protect them against COVID-19 infection. Similarly, individuals in the ACVM are found to believe that their well-developed health by Flintstone vitamin intake protects them against any potential infection.

The intensive use of social media in case of a crisis is expressed in the same way in both ECVM and ACVM. The social actors in both categories of memes are shown to be more interested in making and propagating memes related to Coronavirus situation than being interested in the updates of the pandemic.

The political commentary found across Egyptian and American memes enunciating the social actors' disapproval of authority performance reveals frustration with the authority performance. In the ECVM, the social actors are found to express their dissatisfaction with the government's incompetence in managing the pandemic situation, whereas in the ACVM, the main figure of authority who receives the most instances of criticism for his incompetence in managing the Coronavirus crisis is former president, Donald Trump.

5. Conclusion

This study addresses internet memes as a form of computer-mediated communication which yields a discourse that functions as a socio-political commentary. It is argued that multimodal digital memes carry metaphorical representations which are entailed in view of the compositional construals of main participants and their inferential implications. Furthermore, the study holds that the metaphorical representations in multimodal memes related to Coronavirus pandemic reveal concepts relevant to universal or cultural-specific socio-political realities.

It is found that the participants in each meme receive visual and verbal cues which assign their saliency in relation to their location and information value. The varied arrangement of the main participants (the Coronavirus and the social and political actors) allows interpretations of the multimodal discourse provided in ECVM and ACVM. These interpretations consider the interplay and the coordination of the participants which urge the viewer to move away from the literal perceptions projected by the visual and verbal cues in multimodal artifacts (Liu 2013). The Coronavirus or the social and political actors are sometimes represented as the focal or the most salient participants whose reaction and behavior need the viewer's critical thinking. However, in other instances, one of the main actors receives less attention and acts as a secondary participant whose presence is still crucial in conveying the meaning intended by the meme producer.

The inferential implications, which are based on the visual and verbal explicatures and implicatures and the contextual information associated with each meme, are observed to be essential tools in meaning making of ECVM and ACVM. The context associated with the production of each meme guides the interpretation of visual and verbal cues and helps in realizing the explicit and implicit meanings. The main participants' attitude, interaction and saliency yield pragmatic implications which identify their varied social and political stances. Hence, valid inferential implications are reached across data by considering the manner in which the elements of an image are arranged and the way they relate to each other in view of the context in which this interaction takes place.

Furthermore, it is observed that the compositional meaning of the main participants (Coronavirus, and the social and political actors), supported by the inferential implications projected by contextual information as well as verbal and visual explicatures and implicatures in memes, help in decoding the underlying metaphorical conceptualizations of different social and political experiences. The analysis of the compositional meaning of the main participants along with the

inferential implications of the visual and verbal cues in each meme result in the construal of five conceptual metaphors across ECVM and ACVM. These five conceptual metaphors are: CORONAVIRUS IS A SARCASTIC PERSON, CORONAVIRUS IS AN UNTHREATENING PERSON, CORONAVIRUS IS A NEGLECTED PERSON, CORONAVIRUS IS A DEFEATABLE PERSON, and CORONAVIRUS IS AN ANNOYING PERSON. The construed conceptual metaphors are observed to reveal negative social and political attitudes and practices by the negative projections and attributes transmitted from the source domain (ADJECTIVE +PERSON) to target domain (CORONAVIRUS).

The ability of multimodal conceptual metaphor to project negative attributes which document participants' flaws is validated by Martynyuk and Meleshchenko (2019). They confirm that the features triggered from source to target domain of a construed multimodal conceptual metaphor carry implied criticism and disapprobation of political practices. Anurudu and Obi (2017) concede that internet memes function as metaphorical representations of tailored emotive in-group messages. They argue that the multimodal metaphorical memes carry culture specific-features which can be understood in view of the multiple modes of representations. Hence, the construal of multimodal conceptual metaphor across the ECVM and ACVM confirms the ability of multimodal memes to form metaphors which reflect varied conceptualizations of certain political or social events and comment indirectly on common socio-political practices.

However, it is observed that shared conceptual metaphors in ECVM and ACVM carry different metaphorical conceptualizations of the same event. For example, in the conceptual metaphor meme CORONAVIRUS IS AN UNTHREATENING PERSON, the prevailing conceptualization of the pandemic in the Egyptian meme is that the virus is a friend who shows care and kindness. However, in the American meme, the virus is not conceptualized as a friend but rather as an opportunity for social media trending by meme making or as a current situation which is not yet clear enough to fear. The different conceptualizations projected by the construed conceptual metaphors across data show how social and culturally specific views can be realized in multimodal memes.

It is evident that in view of the mapped features triggered from source domain to target domain, four underlying thematic representations are realized to reflect on shared and culture-specific social and political practices. The four thematic representations are: Social Insensibility, Authority Incompetence, Social Media Trending and Generational Pessimism. These representations are found to represent commentaries of varied flawed social or political practices.

Comparing the Egyptian and American memes, it is observed that each of the themes provides readings and documentation of some social and political behaviors which uncover the nature and ideologies of each community. For example, the Social Insensibility theme in ECVM exhibits three main social phenomena in the Egyptian community; namely, the emotional aspects of the Egyptians as they appeal to pity when requesting a favor, the reliance on religious rituals whenever a problem is encountered and the suspicion usually enshrouding any novel critical situation. However, in the ACVM, no signs of emotional aspects are revealed through the

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Social Insensibility theme, yet the memes introduce other social flaws of the Americans such as relying on remedies which are not backed by science, or suspecting the effectiveness of protective measures imposed by the governments. Furthermore, it can be observed that the theme of Generational Pessimism is found exclusively in the ACVM to reflect on and criticize the millennials' insecurities and pessimistic views.

The thematic representations are found to convey underlying messages of different social and political commentaries. Each theme is further categorized into a social or political commentary. Instances of social commentaries are found to be more than those of political commentaries, which indicates that memes are used more frequently to reflect on social practices than on political aspects. Still, memes are said to provide chances for protest and revolt against political measures, as they are considered channels through which internet users can express their opinions and even influence people's stances (Norstrom and Sarna 2021). Hence, memes with multimodal metaphorical representations can stand as socio-political commentaries through which internet users voice their impressions and reveal their perceptions about varied life realities.

One limitation is observed in the current study, is the selected data being confined to the Egyptian and American contexts, which limits the generalizability of results. Therefore, future research can include memes related to other English and Arabic speaking internet communities to be able to reach a comprehensive understanding of how multimodal metaphorical memes can document reflections on different socio-political practices recognized in internet memes during COVID-19 pandemic.

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