A Multimodal Approach to the Investigation of COVID-19 Related Memes on Social Media

Shereen Youssef [1], Abeer M. Refky M. Seddeek [2], and Nevine Mohamed Sarwat [3]

[1, 2] College of Language and Communication (CLC)
Arab Academy for Science, Technology and Maritime Transport (AASTMT)

[3] Institute of Applied Linguistics and Translation, Faculty of Arts, Alexandria University

E-Mails: shereenyoussef98@gmail.com, dr.abeer.refky@aast.edu, nevine.sarwat@alexu.edu.eg

ABSTRACT

Multimodality is the communication of verbal and visual elements in various discourse modes. Internet memes are forms of communication that enable internet users to communicate with one another on specific occasions, crises, pandemics, political concerns, and even wars by sharing funny images. This study aims to present how multimodality can be used in the visual and verbal analysis of COVID-19 memes in social media and how the visual and verbal elements serve to create a message or to make a comprehensible meaning that can be communicated to the viewer. Therefore, it examines a corpus of fifteen memes extracted from social media websites like Facebook, Instagram, and search websites like Google Images from 2019 to 2021. The study applies Kress and van Leeuwen's (2006) theoretical framework of visual grammar. It aims at analyzing the narrative representations and interactive metafunction elements that exist in the selected memes and demonstrating how the elements combined together in COVID-19 memes in social media to deliver the intended meanings. In fact, the findings of the study have revealed that Kress and van Leeuwen's (2006) emphasizes the importance of multimodal analysis in understanding memes. Moreover, multimodality can interpret, decipher, and evaluate the visual and verbal resources of COVID-19 memes, enabling integration across multiple modes in a single meme within the selected data. The researcher's analysis of memes in this study focuses on representational and interactive metafunctions, identifying actions and reactions through verbal text and visual elements. Hence, the collaboration between title, content, and visual representation gives memes deep significance. Moreover, memes function similarly as any other literary story that aims to be dynamic through the processes of narrative representation. To conclude, the creator's gazes and gestures, the memes' angles, and social distance all help to establish a connection with the viewer.

Keywords: Internet memes, Multimodality, Narrative representation, Visual grammar.

1. INTRODUCTION

As a general rule, multimodality has affected the communication process between people. Man's life is full of several forms of non-signs that become crucial aspects of communication and meaning-making. Texts that have clarified visual representations with design elements tend to grab people's interest more (Kress 2003, p. 7). When interpreting a text with multiple modalities of expression, there is a number of non-linguistic factors that need to be considered. In these types of texts, meaning is created not only through language but also through the application of diverse semiotic tools. Therefore, the purpose of this study is

to analyze the verbal and visual elements of internet memes, which are thought to be one of the major ways that indicate how language has evolved into a communication tool to increase global engagement.

In fact, internet memes are widely available on many social media platforms and come in various types. Internet memes proliferate to convey a message, mock a situation, and ease the anxiety around unpleasant occurrences such as the COVID-19 pandemic. Although the Internet is a virtual environment where many activities occur, online comedy, particularly internet memes, is represented in literature, aesthetically, in writing, orally, and in other materials. Due to the greater flexibility offered by the Internet, users can express themselves in a variety of ways. This is because, in recent times, people have been using the internet as an extremely efficient language, resulting in various patterns of communication.

Evidently, during the COVID-19 outbreak, some people started making comics about the virus utilizing online social media platforms, such as Facebook, Twitter, Instagram, advertisements, and so on to reduce the amount of tension that broke out throughout society. Basically, humor is essential to mankind because it makes stressful events appear a bit funny and magnifies positive feelings while reducing negative ones.

This research contributes to shedding light on how visual and verbal elements collaborated together through COVID-19 memes in social media to deliver the meanings.

In light of this background, the main questions that the study addresses are:

1. What are the representational and interactive metafunctions that exist in COVID-19 memes?

2. What is the role of multimodality in analyzing verbal and visual elements in COVID-19 memes?

3. In what way does this interaction of visual and verbal elements contribute to the creation of the desired meaning?

2. LITERATURE REVIEW

2.1 Multimodality

The term "multimodality" describes the use of all communication modalities to convey meaning. In addition to the spoken language, multimodality may be applied to other non-verbal means of communication, such as gesture, color, audio, and visual (Kress and van Leeuwen 1996, p.73). According to Jewitt (2014, p. 37), "one of the key ideas that makes communication and representation understandable greater than words is the focus on multimodality". Correspondingly, van Leeuwen (2005, p. 30) defines multimodality as the "combination of diverse semiotic moods in a communicative process or event".

In addition, Stöckl (2004, p. 9) describes multimodality as "Communicative items and procedures which include several systems of signs, and its production and reception demand upon the transmitters to conceptually and functionally connect all sign repertoires present". He mentions that language and image have different semiotic structures and features which make them support one another. Furthermore, multimodality refers to a range of tools for creating meaning that are readily adjusted to the current cultural environment, rather than being limited to a single text or entity, as noted by Baldry and Thibault (2006, p. 21). As a matter of fact, it is believed that a multimodal analysis is a social semiotic method of visual communication.

It is noteworthy to mention that the investigation of the tools employed by image developers reveals that the placement of the elements was deliberate. Viewers can gain knowledge of the potential meaning behind the setting, framing, prominence, color, size, gaze, and other aspects of various elements through this analysis. Accordingly, with the use of iconographic symbolism, people are capable of understanding what symbols represented by objects, gestures, or other components of visual composition may mean for particular individuals, concepts, or ideals (Machin 2007, p. 21).

Multimodality, multimodal analysis, social and semiotic analysis take many forms recently in examining political speeches, cartoons, brochures, memes, ads, portraits, and other online content. Correspondingly, the application of Kress and van Leeuwen's (2006) theoretical framework of visual grammar sheds light on how to analyze verbal and visual element.

2.2 Internet Memes

According to Díaz (2013), a meme can be any kind of content, such as a funny video file, caricature, or image. Dawkins initially used the word "meme" in his 1976 book as the selfish gene. He proposed the idea

of a meme as a potential cultural replacement for the gene and described memes as cultural components like music, slogans, or even religions that spread like DNA. In other words, Dawkins wanted to explain how information related to culture traveled by equating it to evolution and viral transmission. According to Dawkins, a meme needs three conditions in order to spread: 1) how long a meme lasts, 2) how far a meme spreads, and 3) how true a meme remains to its beginnings (Milner 2016, p. 64). Internet memes are distributed throughout online platforms through user-to-user(s) interaction (Yus 2016; Dancygier and Vandelanotte 2017). Another distinction is that the internet meme's unit is obvious and solid, like popular YouTube videos or picture macros.

Wiggins (2019) argues that memes are visual arguments that replicate specific ideological behaviors as well as content transmitters or culture replicators. A meme, according to Shifman (2013, p. 7-8), is a grouping of content components that incorporate the three elements of content, attitude, and form. In addition, Shifman highlights the importance of memes. She indicates that internet memes are, (a) a group of digital objects sharing similar features in content, form, or posture; (b) generated while being aware of one another; and (c) shared, copied, and/or enhanced by other people through the Internet.

Memes are categorized as virus-like classifications (Shifman 2013) made available online or via specialized carriers to draw attention to them and market their authors (Denisova 2019), and instill specific ideas in the receiver's mind. Kariko (2013) explains that internet memes allow people to infer or make claims about a picture's meaning and provide a linguistic equation. Likewise, Brown (2013) states that "Memes aren't just funny cat portraits; they're how people express themselves and think about their culture" (p. 190).

Memes come in a variety of forms. Some examples are image macro memes, which display a caption text overlaying the image; sarcastic comments made by prominent figures or celebrities; and exploitable memes, which use a single image manipulation to create humor. Other examples include character memes, which depict individuals who are unable to communicate personally; and social components, which are utilized to describe social behavior. However, the goal and content of these memes vary; they might be anything from cruel comments to funny character and object alterations (Habib and Wittek 2007).

In order to make a visual explicature easy to understand, dealing with a visual implicature requires internet users to simply recognize the visual information in the image and link it with the most appropriate mental reference right away. Conversely, visual implicatures are entirely inferential and need to be derived from context. Therefore, interpreting a meme requires a "division of tasks" between processing the image, processing the text, and figuring out possible connotative readings for the text, image, and text-picture pairings.

2.3   Previous Studies

Findeisen et al. (2020) examine the representations and interactive meanings in a Korean webtoon series named The Remarried Empress. The study analyzes characters, settings, and panel compositions to understand their contribution to the narrative. The study identifies themes like gender roles and power dynamics in the visual representations. The interactive elements, like dialogue bubbles and sound effects, enhance the immersive experience. The paper emphasizes the importance of visual analysis in understanding complex meanings and narratives in visual media, such as webtoon, and the role of interactive elements in creating immersive experiences.

Hussein and Aljamili (2020) explore COVID-19 humor on Jordanian social media using a socio-semiotic approach, identifies themes like self-mockery, societal critique, and political commentary. The authors argue that humor serves as a coping mechanism for stress and anxiety during the pandemic. The study emphasizes the importance of understanding the cultural context in which humor is produced and shared.

Ortiz et al. (2020) research paper where they investigate the use of memes as a collective coping mechanism during the Covid-19 pandemic in Puerto Rico. The study uses a qualitative content analysis approach to analyze the memes shared on social media platforms, such as Facebook and Twitter, between March and June 2020. The study identifies several themes in the Covid-19 memes, including humour, community building, and social commentary. The use of humour is particularly prevalent in the memes, with many memes using satire, irony, and parody to comment on the pandemic and associated lockdown measures. Therefore, it highlights how memes emphasize the importance of social solidarity and mutual support during the pandemic.

Literat) 2021) explores the role of internet memes during the COVID-19 pandemic, using an auto-ethnographic approach. The author discusses how memes provide emotional support, connection, and a way to process the rapidly changing situation. The paper highlights the resonant memes and their ability

to enhance community and shared experiences during isolation and uncertainty. Moreover, it explores the potential of memes as political commentary, with some criticizing government responses and supporting social justice causes.

Norstrom and Sarna) 2021) conducted a study that revealed four main themes: humor, coping mechanisms, information sharing, and social commentary. The memes reflected challenges faced by individuals, such as boredom, anxiety, and frustration, and the impact of COVID-19 on society. In addition, they served as a form of social commentary and political critique, with some memes targeting the government's handling of the pandemic.

Hassan's (2022) research paper examines internet memes created during the COVID-19 pandemic, focusing on virtual meetings and working from home. The study uses Cognitive Linguistics to analyze 40 memes collected through Google search, with 14 chosen for detailed analysis. The analysis uses Mental Model Theory (van Dijk 2014) and Discourse Viewpoint Space (Dancygier & Vandelanotte 2016) to examine how text and image in memes create humor and reflect societal ideologies. The study reveals that the combination of text and image in memes often conveys humor and serves as a platform for expressing satirical commentary on contemporary issues. Memes not only entertain but also reflect and critique societal experiences and ideologies, especially those shaped by the pandemic.

Since multimodal analysis has developed and has been widely used in several data, the adopted theoretical framework of visual grammar in addition to multimodality were used in several studies. Seddeek and Elyamany (2016) explore Cummings' visual poetry, focusing on foregrounding and the various semiotics in his texts, which aims to understand the poetic effects of these devices and explore the potential of Systemic-Functional Multimodal Discourse Analysis (SF-MDA) in the love poem "all in green went my love riding." The researchers argue that both verbal and visual semiotics in Cummings' poems carry meaning potentials, despite their less deviant nature.

Hathout et al. (2023) analyze anti-harassment posters designed by women in two campaigns by using a multimodal approach to understand the verbal and visual manifestations of women's empowerment discourse. Sexual harassment is a significant obstacle to women's empowerment, as it restricts their freedom to move, study, and work. Using Visual Grammar tools, the study deconstructs the posters' empowering

messages, revealing the representational identity of the female figure and her interaction with viewers and other visual elements. The study demonstrates that the multimodal construction of the posters effectively conveys the empowerment discourse through the representation of women as brave figures.

Taymour, Sarwat, and Seddeek) 2023) examine the eccentric mind style of Arthur Fleck, an anti-hero in an American feature film, using Kress and van Leeuwen's (2021) visual design grammar. The study uses camera techniques like oblique angle, demand and offer gaze, and framing elements to alienate Arthur from both the represented and interactive participants, heightening his odd behavior and alienating him from both the represented and interactive participants.

3. METHODOLOGY

This paper examines COVID-19 memes in social media using a qualitative approach. According to Denzin and Lincoln (1994), qualitative research has its own unique data collecting, analysis, and interpretation processes in applied linguistics because it takes many methodologies into consideration and takes a naturalistic, interpretive approach to its subject. However, qualitative studies in applied linguistics have started to capture the attention of the applied linguists later than other social sciences (Benson 2013).

The data in this paper are image macro memes that include a verbal text that consists of words, phrases, and clauses, and a visual text consists of the images' components of memes. By applying Kress and van Leeuwen's (2006) theoretical framework of visual grammar, the researcher investigates fifteen internet memes that spread during COVID-19 pandemic from 2019 to 2021 on social media such as Facebook pages, Instagram, and Google images in order to analyze the objectives targeted.

The selected memes were examined using the two dimensions of the visual grammar framework developed by Kress and van Leeuwen (2006). In order to determine whether the selected data are dynamic and imply actions or reactions, the first dimension would emphasize the representational meanings of the represented participants with a focus on the narrative representation. The interactive dimension would then be used to determine the relationships that the author or creator implies between the represented participants and their viewers through various gazes, framing with varying sizes, angles, and points of view (Kress and van Leeuwen 2006).

3.1 Kress and van Leeuwen's (2006) theoretical framework of visual grammar

Social Semiotics was first found in Functional Linguistics, precisely in the work of Halliday (1978), and has been later developed as a theory of multimodal sign-making in the works of Robert Hodge, Gunther Kress and Theo van Leeuwen (Hodge and Kress 1988; Kress and van Leeuwen 2001; van Leeuwen 2005). The framework of visual grammar developed by Kress and van Leeuwen (1996) aids in the comprehension of visual pictures; i.e. this model was a development of Fernand de Saussure's earlier work. De Saussure (1985, p.10), in describing semiotics, said that semiotics is a science that studies the life of signs inside a society. Semiotics is "the study of signs". It is the field that investigates indicators and their social importance in this field. Several things can be indicated by a sign and this implies that a sign represents anything that conveys meaning, including words, pictures, symbols, etc. (Chandler 2002, p.1).

Kress and van Leeuwen's (2006) social semiotics approach is a multimodal approach that highlights the belief that meaning is produced by integrating all of the semiotic elements provided in a text because they have the potential to have meaning in certain social contexts (Jewitt and Oyama, 2001). Furthermore, the method employs the two semiotic codes (written and visual) for defining meaning as well as the representational and interactive metafunctions for Kress and van Leeuwen (1996; 2006), which concentrate on the visual social semiotic resources that are realized in semiotic signs or multimodal texts.

Additionally, two categories of participants are mentioned in Kress and van Leeuwen's (2006) framework. The first category includes the identified subjects, actors, places, and topics that are depicted in written or visual media. The second group, known as "interactive participants," consists of those who create the words and pictures (such as illustrators, photographers, or painters) as well as those who read and watch them. The rationale behind choosing this approach for this paper is that, as Kress and van Leeuwen's (2006) framework points out, the representational analysis of images involves identifying the denoted participants, the action shown, the characteristics of the participants, and the settings in which the action was produced (Kress 2003) and this fits the goal of the study.

3.1.1 The Representational metafunction

This dimension depends on the ideational metafunction of language, which is concerned with the representation of things and their relationships with one another in one's environment (Halliday 1978). Kress and van Leeuwen (1996; 2006) present what is referred to as visual "grammar" in accordance with multimodal text analysis strategies particularly those that combine verbal and visual elements, considering Halliday's (1994; 2004) viewpoint, who did not view grammar as a standard but as a means of conveying messages. They developed the "representation" analysis, which is based on Halliday's ideational function.

Participants are things or components in visual pictures. Participants in these processes can be objects, places, people, or even circumstances. In the sense of the realization of the process that identifies participants' doings and happenings, the representation analysis is divided into two categories; namely, narrative and conceptual. Kress and van Leeuwen stated that the difference between the narrative and conceptual representation is the presence or absence of vectors. In contrast to the conceptual thought, which lacks a vector but includes structures, a narrative employs vectors to link participants and actions. The Representational meaning can also be achieved through the visual construction of the nature of events, objects, and participants involved as well as the circumstances in which they occur (Seddeek and Elyamany 2016).

The Narrative Representation "portrays actors in terms of their unchanging or timeless essence, displays unfolding acts and occurrences, impermanent particular configurations, and processes of change" (Kress and van Leeuwen 2006, p. 46). Participants are shown in the narrative representations as being connected to one another by vectors. According to Kress and Leeuwen, "when individuals are connected by a vector, they are portrayed as doing something to or for each other" (p. 59). Narrative representation has four processes which are: Actional, Reactional, Verbal and Mental, and conversion processes. They need a marked agent (such as actor, sayer, etc.) and are considered agentive processes. Actor and Goal are the only two participants in this analysis. Actor refers to the component of the image that is interpreted as the active participant. An item must interact or produce with a vector to transmit activity in order to qualify as an actor. The passive action-playing objects are the intended target. The actor's vector is tied to the objective. Multiple types of the narrative representation can be distinguished based on the forms of participants and vectors found in the visual imagery.

3.1.1.1   Actional process

The actor is the represented participant from which the vector is produced. The most prominent participants in the visual portrayal are typically actors. They are grouped according to their dimensions, location, background contrast, colour saturation, emphasis, etc. As there is only one participant, some visual representations lack a purpose; i.e. this kind of structure is known as a non-transactional action because there is no objective. No one is the target of the activity. The audience is left to use his or her own imagination to speculate as to who or what the represented participant may be conversing with in non-transactional behavior (Kress and van Leeuwen 2006, p. 63).

3.1.1.2   Reactional process.

In contrast to action processes, a vector that passes through an eye line initiates a response process. It is "the direction of the glance of one or more represented individuals," says Kress and van Leeuwen (2006, p. 67). Actors are referred to as reactors in this process, and objectives are referred to as phenomena. A reactor is the represented participant who, by viewing, generates the vector. It must be a human or human-like animal with eyes that show "distinct pupils and capable of facial expression" according to Kress and van Leeuwen (2006, p. 70). The reactor's view of the phenomenon in this procedure or a comprehensive visual proposal might be the phenomenon. Reaction processes, like action processes, can be either transactional or non-transactional. If the phenomenon is present, it is viewed as a transactional reaction. Yet, the reaction process is non-transactional when there is no phenomenon.

3.1.1.3   Verbal and Mental process

"Balloons and thinking bubbles" are used to form the verbal and mental processes. According to Kress and van Leeuwen (2006, p. 68), "These processes link a person (or an animate being) to content". Although it is the content of a perception in transactional reactions, it is the content of an inner mental process (thinking, fear, etc.) in the case of thought bubbles and similar devices, and in the case of speech vectors it is the content of the speech. A mental process focuses on the speakers' ideas about the phenomenon which are being highlighted as vectors. A verbal process focuses on the vector which is formed to connect the sayer with the utterance.

3.1.1.4   Conversion Process

A participant is a target of one participant and the Actor with respect to another, (Kress and van Leeuwen 2006). It also includes a change to the status of the participant who is being represented in the image's title.

3.1.2 The Interactive metafunction

The dimension of interaction is introduced by Kress and van Leeuwen (2006), who concentrate on the relationships between the viewer, the creator of the visual domain, the interactive participants, and the participants represented in the visual designs. As a result, according to Kress and van Leeuwen (2006), this dimension examines three different kinds of relationships among the participants; namely, relationships between represented participants, relationships between interactive and represented participants, and relationships between interactive participants. Kress and van Leeuwen's (2006) framework serves as an illustration of these relations, which are subsumed into the following four categories; i.e. gaze, social distance, angles, and modality.

Kress and van Leeuwen (2006) recognize that the act of gazing establishes a hypothetical bond between the interactive entity, the viewer and the represented participant, and the gazer. This interactive relationship between the two participants becomes the vector, which could also be supported by another vector in the same manner. There are two categories of gazes; i.e. offer and demand. Demand images show how participants interact through their body language and facial expressions with the people portrayed in the picture. Offer images, on the other hand, depict participants who are not making any eye contact or engaging with the recipient. Moreover, social distance is linked to the frame size. This category shows how the viewer and the represented participants relate to each other in terms of the viewer's ability to interact socially with the participants or not. Moreover, Angle is the point of view or perspective that establishes relationships between the viewers and the represented participants. According to Kress and van Leeuwen (2006), two types of angles are used to achieve these interactive relationships between participants. This means that the vertical angle indicates power relations between the represented participants and the viewer, while the horizontal angle relates to relations of involvement or disengagement.

4.   DATA ANALYSIS

4.1   Actional process

Example 1

This meme shows a boy who is making bubbles and spreading them into the air. The caption reads "When you test positive for Covid and hate your neighbors".

- **Representational metafunction**

As seen in this meme, there is a boy representing an actor doing an action which is making bubbles. According to the caption, the boy is already tested positive for COVID-19 and he also hates his neighbors, so he is making bubbles full of his breath and directing them towards his neighbor's house in order to make them catch the virus. It reveals the sad reality of the neighbors' hatred moving ahead throughout the pandemic and this informs viewers that the goal is his neighbors as if he intends to infect them.

This example has an Actional process due to the existence of both an actor and a goal. Moreover, it is considered to be a transactional process.

- **Interactive metafunction**

a)   Gaze: This is an offer image because the participants do not form any type of communication with the viewer. So the viewer is not a part of their world.

b)   Distance: The social distance to the represented participant is a close shot as only the head and shoulders are visible which indicates close personal distance.

c)   Angle: This meme includes an oblique angle. The viewer is not a participant in the same reality as the represented participant.

Example 2

This meme shows the actors Chris Pine (Kirk) and Zachary Quinto (Spock) from the famous movie series Star Trek, the meme represents the two actors' time traveling to 2020 but after that, they discovered that it is a bad idea. In addition, there is a caption "We are time traveling to the year 2020 – 5 minutes later – Nope, Nope, Nope. Bad idea".

- **Representational metafunction**

In this meme, Chris Pine and Zachary Quinto are representing the actors, doing the action of time traveling to 2020 which represents the goal as one understands from the caption. Likewise, the meme mocks the idea that people are in desperate need to get rid of the virus so they tend to time travelling but, in the end, they discovered that 2020 is full of Covid-19 as well; therefore, they changed their minds because it is a bad idea.

This example has an Actional process due to the existence of both the actor and the goal, and it is also considered to be a transactional process.

- **Interactive metafunction**

a) Gaze: The viewer and the subject inside the meme do not share an eye line, so the viewer is not a part of the same world as the subject, so this is an offer image.

b) Distance: It is a medium-long shot where the full subject is shown to show close social distance to the viewer.

c) Angle: This meme has a horizontal frontal angle because the viewer sees the subject directly.

Example 3

https://scontent.fcai19-5.fna.fbcdn.net/v/t1.6435-9/135484575_10221600198388539_4925423577033212243_n.jpg?_nc_cat=104&ccb=1-5&_nc_sid=825194&_nc_ohc=haBSgvdOlQQAX8VVAfb&_nc_ht=scontent.fcai19-5.fna&oh=26ca61e05d-bee0f00724be5719b6c4b3&oe=619653009/135484575_10221600198388539_4925423577033212243_n.jpg?_nc_cat=104&ccb=1-5&_nc_sid=825194&_nc_ohc=haBSgvdOlQQAX8VVAfb&_nc_ht=scontent.fcai19-5.fna&oh=26ca61e05d-bee0f00724be5719b6c4b3&oe=61965300

The meme features two well-known movie characters standing on stairs: The Joker, who is widely recognized in the film industry as a psychopath, is the one wearing the red suit, and The Creature IT, who is portrayed as a clown, is from the film IT. These two characters are well-known for their hatred, aggression, criminal mindset, and destructive attitude toward people. The caption depicted on the meme says "2020 showing 2021 around the workplace".

- **Representational metafunction**

As seen in example 4, there are two represented participants, one of which is The Joker who is pointing to something to attract Creature IT's attention, and on the other hand, there is Creature IT who is attracted and completely focused on what The Joker is pointing to.

According to the caption, the 2020 coronavirus is portrayed as The Joker, a notoriously violent and psychopathic figure, signifying that the year was filled with unfortunate events and numerous individuals suffered, got infected, and lost their lives due to the coronavirus. The Joker also suggests that 2021 will be worse than 2020 or the worst year ever by showing Creature IT, a more dangerous person than himself, the workplace, which is the world of human beings.

Example 3 shows an Actional process with the joker as a represented participant doing an action which is pointing to something to get the other person's attention; additionally, the goal is represented by Creature IT, another represented participant. Because there is an actor and a goal, the meme is regarded as a transactional process.

- **Interactive metafunction**

a) Gaze: The participants do not look at the viewer or engage in any kind of conversation. This is an offer image because it appears like they are having a conversation.

b) Distance: It is a long shot because the two subjects are fully depicted with space around them to indicate a far social distance to the viewer as if they are trying to conquer the world.

c) Angle: The subject in this meme is directly visible to the viewer, or they can see what the subject sees, due to its horizontal frontal angle.

Example 4

Doctor: Protect the ones you love most from Coronavirus
Me:

https://www.northshoremums.com.au/wp-content/uploads/2021/09/Screen-shot-2021-09-01-064002.jpg

The meme depicts a human hand assisting a cat in wearing a face mask, with the cat itself appearing in the other image after the mask has been put on. The caption reads: "Doctor: Protect the ones you love the most. – Me: ......"

• **Representational metafunction**

The COVID-19 pandemic caused significant fear among people, who were terrified of losing their own lives as well as those of their friends, family, and pets. A significant number of people also died from the virus. In order to avoid the virus and protect the people they care about, they began to wear face masks, stay home, and use a lot of hand sanitizers.

The meme mocks the idea of protecting one's loved ones either animal or human from COVID-19. The human hands are the represented participant who is the actor and forcing the cat to wear a face mask in order to protect it. As one understands from the caption, there is the cat which is the goal of protection.

Example 4 includes a narrative representation which is an Actional process. Moreover, it is regarded to be a transactional process because of the existence of both the actor and goal.

• **Interactive metafunction**

a)   Gaze: The subject and viewer are not sharing eye contact, which isolates the viewer from the subject's reality. This makes the image an offer image.

b)   Distance: This meme has a close shot because only the head and the shoulders are visible to reveal a close personal distance to the subject. It can also show his deep love for the cat.

c)   Angle: This meme's horizontal frontal angle allows the viewer to either see the subject directly or what the subject sees.

4.2   Reactional process

Example 5

When you work at a bank and 2 guys with mask come in but they're just robbing the place

https://static.thehoneycombers.com/wp-content/uploads/sites/4/2020/08/funny-coronavirus-meme-2020-masks-768x843.jpeg

This meme shows the actor Robert Downey Jr putting his hand on his chest as if he is thanking God for a bad thing which was about to happen and it did not. This meme has a caption which is (when you work at a bank and two guys with masks come in but they are just robbing the place).

• **Representational metafunctions**

This image has one represented figure Robert Downey Jr (the reactor). The phenomenon is represented through the caption of the image.

As mentioned before in Kress and van Leeuwen (2006), the reaction process occurs when a vector is formed through an eye line. Kress and van Leeuwen (2006) add that it is "the direction of the glance of one or more represented participants" (p. 67). In this process, actors are referred to as reactors, and goals are called phenomena. A reactor is the represented participant who creates the vector through his looking. So, Robert Downey Jr represents the reactor who puts his hand on his chest as if he is thanking God as a reaction towards the phenomenon which is represented that he was terrified of the masked men who entered

the bank because he thought that they were carrying the virus but thanks God they were robbing the bank.

The message received from combining the elements in this figure is that people are afraid of catching the virus so they prefer to be robbed than to catch COVID-19.

Example 5 contains a narrative representation which is the Reaction process due to the existence of both the reactor and the phenomena. In addition, it is considered to be a transactional process.

- **Interactive metafunction**

a) Gaze: This is a demand image because the viewer and the subject in the picture share an eye line, which places the viewer in the same reality as the subject. In addition, there are facial expressions on the represented participant's face and the viewer which indicate thanking.

b) Distance: This meme has a close-shot to indicate close social distance because only shows the head and shoulder are visible.

c) Angle: this meme has a horizontal frontal angle as the viewer sees the subject directly or is able to see what the subject sees.

Example 6

https://propertyonion.com/education/wp-content/uploads/2020/04/coronavirus-memes-42.jpg
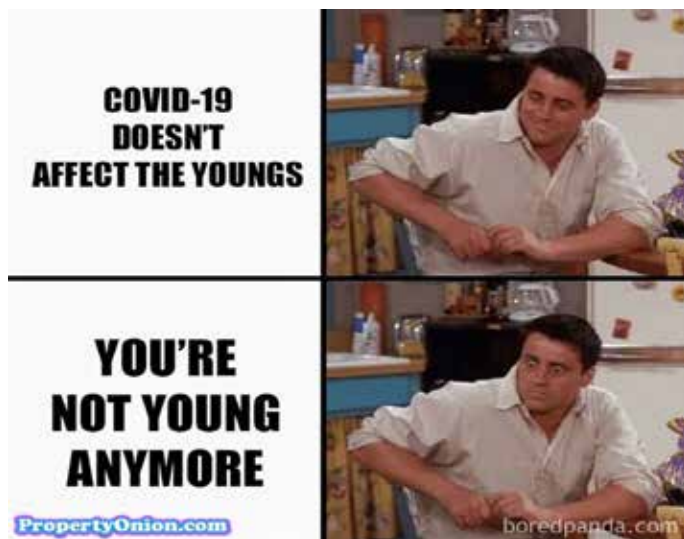
This meme shows the actor Matthew Steven looking with surprise as if he realized something that made him look surprised. There is another caption that states (covid19 does not affect the Youngs) and (you're not young anymore).

- **Representational metafunction**

This meme shows the actor Matthew Steven (the reactor), the reactor here does the act of looking with surprise as a reaction and the phenomenon here is the deep meaning realized from the caption which made him look with surprise, which made him realize that he is no longer young and this will not save him from getting infected with the virus.

This meme mocks the idea of when you are considering yourself a young person feeling happy that COVID-19 will not affect the young and then realized that you are not young anymore. Moreover, it shows how people are afraid of getting infected.

Example 6 contains a narrative representation which is the Reactional process due to the existence of both the reactor and the phenomena. It is also considered to be a transactional process.

- **Interactive metafunction**

a) Gaze: The viewer and the subject in the image share an eye line, placing the viewer in the same reality as the subject, making this a demand image. Moreover, there are facial expressions between the represented participant and the viewer that are made by the represented participant to indicate surprise.

b) Distance: It is a medium close shot because the subject is cut off at the waist to indicate a far personal distance as they are thinking of an important issue.

c) Angle: This meme includes a horizontal frontal angle to indicate the involvement of the viewer in the represented participant's world.

Example 7

Hand sanitiser company CEO's right now

https://www.northshoremums.com.au/wp-content/uploads/2021/09/Hand-sanitiser.jpg

In this meme, a man can be seen hiding behind a tree and smiling with pride as if he had won the lottery, with the caption "Hand Sanitiser Company CEO´s right now".

• **Representational metafunction**

People frequently use a lot of hand sanitizers, alcohol, and spend a lot of money on safety during the COVID-19 pandemic. This meme makes fun of the idea that consumers overpaid for hand sanitizers, making the CEOs of the Hand Sanitizer Company wealthy. This meme depicts a man as the reactor and reacting by looking with pride. The deep meaning of the caption, which makes fun of the idea of making a lot of money by purchasing hand sanitizers, is what represents the phenomenon.

Because the reactor and the phenomenon are present in Example 7, the narrative representation represents a Reactional process. It is regarded as a transactional process as well.

• **Interactive metafunction**

a) Gaze: Due to the subject's and the viewer's shared reality and eye line, this is a demand picture. Additionally, the represented participant is looking straight at the viewer with triumph facial expressions that indicate how happy he is.

b) Distance: this is a close shot; the head and shoulder are visible to demonstrate the close

social distance.

c) Angle: The subject of this meme is directly visible to the viewer, or the viewer can see what the subject sees. The meme has a horizontal frontal angle.

Example 8

Everyone: How things are going to be okay in 2021

Meanwhile corona's new strain:

https://memezila.com/wp-content/Everyone-How-things-are-going-to-be-okay-in-2021-Meanwhile-coronas-new-strain-meme-8849.png

The meme features a doll's face staring with a sneaky smile. In addition, the caption reads: "Everyone: How things are going to be okay in 2021"- Meanwhile Corona's new strain".

• **Representational metafunction**

People believed that Covid-19 had been defeated by the end of 2021 due to the discovery of a cure. Sadly, Covid has been evaluated to new strains, which worsen the situation. The meme makes fun of the idea that the new strains of the virus will react negatively towards humans.

A new strain of COVID-19 is represented by the doll, which represents the reactor. The doll reacts to people by staring at them and smiling slyly. The phenomenon is revealed by the deep meaning of the caption, which represents people in general.

Example 8 highlights a Reactional narrative representation process. Since the phenomenon and reactor exist, it is also regarded as a transactional process.

• **Interactive metafunction**

a)   Gaze: The shared eye line between the viewer and the subject in the image places them in the same reality, so this is a demand image and the viewer is part of the same world as the subject who is slyly smiling.

b)   Distance: This is an extremely close shot, where anything less than the head or face only appears to indicate a very close social distance.

c)   Angle: This meme has a horizontal frontal angle; the viewer sees the subject directly or is able to see what the subject sees.

4.3   Verbal and Mental process

Example 9

Teacher: what are you laughing at
Me: nothing
My brain: Corolla virus

https://scontent.fcai19-5.fna.fbcdn.net/v/t1.6435-9/241568680_2653128434989542_1038094513277401296_n.jpg?_nc_cat=109&ccb=1-5&_nc_sid=825194&_nc_ohc=4RhnDHSs4mUAX975M-y&_nc_ht=scontent.fcai19-5.fna&oh=196ac1e08a-85b42ae196f1b7bdc17f85&oe=619497188

This meme shows a group of Toyota Corolla cars surrounded by red cells as if they are floating through something carried by the red cells. The caption reads:

Teacher: what are you laughing at

Me: nothing

My brain: Corolla virus

Likewise, this meme represents a human brain and indicates that someone is thinking or remembering something made him laugh.

• **Representational metafunction**

As one understands from the caption depicted on the meme, there are three represented participants, which are the red cells, the cars, and the person who is thinking. All of them are connected with a vector indicating a process of thinking that shows the red cells are carrying cars through blood, and this is happening inside someone's mind. In addition, it mocks the idea that the person who is thinking connected the spelling of Coronavirus with Corolla virus in his mind to make a funny image.

Example 9 contains a narrative representation which is a mental process it is considered to be a transactional process because the speakers' ideas about the phenomenon are being highlighted as vectors.
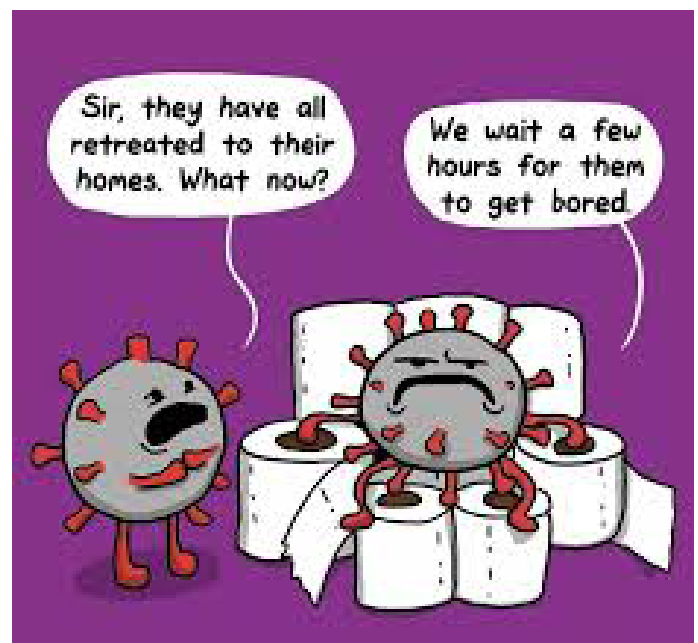
• **Interactive metafunction**

a)   Gaze: This is an offer image because there is no eye contact between the viewer and the subject, separating the viewer from the subject's reality.

b)   Distance: This is a medium long shot because the full subject is shown to indicate far social distance.

c)   Angle: This meme has a horizontal frontal angle; the viewer may directly see the subject.

Example 10

Sir, they have all retreated to their homes. What now?

We wait a few hours for them to get bored

https://encrypted-tbn0.gstatic.com/images?q=tbn:ANd9GcTwFXb-6lOiOgan--yZd1moj_dO7sWbE24cTQ&usqp=CAU

This meme shows two Coronavirus cells, one of which is sitting on hand tissues with two captions "Sir, they have all retreated to their homes. What now?" and "We wait a few hours for them to get bored".

- **Representational metafunctions**

There are two represented figures which are the Coronavirus cells discussing and trying to find a solution to infect people. After the spread of Coronavirus, people tend to stay at their homes for more protection. The outcome of reading all the elements in this figure reflects mocking the fact that the Coronavirus cells have nothing to do to make people go out, so they decided to wait until people got bored.

Example 10 contains a narrative representation which is a verbal process. Likewise, it is considered to be a transactional process because the vector links the sayer and the utterance together.

- **Interactive metafunction**

a) Gaze: This is a demand image because the viewer and the object in the picture have the same eye line, which separates them from the same reality as the subject. The participant portrayed shares a grim face.

b) Distance: This is a medium long shot because the full subject is shown to indicate far social distance.

c) Angle: This meme has a horizontal frontal angle and the viewer may directly see the subject.

Example 11

https://www.northshoremums.com.au/wp-content/uploads/2021/09/d5wrxx9avir41.jpg

This meme shows two men sitting in an office, in which the young man is having a job interview and the old man is testing him. Moreover, the meme has two captions one of them is (There is a gap in your resume. What were you doing in 2020?) and (I was washing

my hands…).

- **Representational metafunctions**

Two represented participants are depicted as the two men. During the quarantine, people tend to stay at home and do nothing except eat, sleep, watch TV, and wash their hands all the time for more safety. The outcome of reading all the elements in this figure and relating the captions to the represented participants reflects mocking the idea that Coronavirus has a very bad impact on one's life and destroys all their plans as if the young man spent all the quarantine washing his hands and did not prepare himself for the interview.

Example 11 contains a narrative representation which is a Verbal process. Similarly, it is considered to be a transactional process because the vector links the sayer and the utterance together.

- **Interactive metafunction**

a) Gaze: This is an offer image because the viewer and the objects in the picture do not have the same eye line, which makes them in the same reality as the subject.

b) Distance: This is a medium long shot because the full subject is shown to indicate far social distance.

c) Angle: This meme has a horizontal frontal angle and the viewer may directly see the subject or part of the participant's reality.

Example 12

https://static.thehoneycombers.com/wp-content/uploads/sites/4/2020/03/Best-funny-Coronavirus-memes-2020-Honeycombers-Bali-1.jpg

This meme depicts a family hiding underground and with them a huge quantity of toilet paper rolls. Moreover, there is a caption said by their father (DID ANYONE BRING ANY FOOD?).

- **Representational metafunction**

COVID-19 was a terrible time for the world. It forced people to do things they had never done before to avoid infection. People used to lock themselves in their homes and collect huge quantities of hand sanitizers, toilet paper rolls, face masks, and tissues to be prepared for anything that could happen to them. This meme has four represented participants who are family members. The outcome of relating the captions to the represented participants indicates that people were rushing to gather and have all the protective tools against COVID-19 to prevent infection.

Example 12 contains a narrative representation which is a Verbal process. In addition, it is considered to be a transactional process because the vector links the sayer and the utterance together.

- **Interactive metafunction**

a) Gaze: This is an offer image because the viewer and the objects in the picture do not have the same eye line, which makes them in the same reality as the subject.

b) Distance: This is a medium long shot because the full subject is shown to indicate far social distance.

c) Angle: This meme has a horizontal frontal angle and the viewer may directly see the subject or part of the participant's reality.

4.4   Conversion Process

Example 13

https://i.pinimg.com/originals/1b/27/92/1b27925f-c22b8ab4abb951cd2abd8c7f.jpg

This meme shows a man driving in three different months with three different appearances and there is a caption "Driving in 2020 be like: February – March – April".

- **Representational metafunction**

This meme is mocking the severity stages of Covid and its effect on people. As one knows Covid spread at the end of February and its peak was in April. The meme shows a man driving in February in a normal way, the same man driving in March wearing a face mask, and again the same man driving with protective clothes in order to protect himself from the virus, and also there is a change of state.

There is one represented participant in the meme who is the man as the actor doing the action of driving. Therefore, the goal is the same man but there is a change in his state.

Figure 13 includes a narrative representation process which is a Conversion process because it represents a change of state. Moreover, the actor and the goal are the same represented participant. Due to the existence of both the actor and the goal; hence, it is considered to be a transactional process.

- **Interactive metafunction**

a) Gaze: This is an offer image because the viewer and the subject do not share eye contact, separating the viewer from the reality of the subject.

b) Distance: This meme is a close shot because only the head and shoulder are visible to show a close social relation.

c) Angle: This meme has a horizontal frontal angle as the viewer sees the subject directly or can see what the subject sees.

Example 14

https://i.imgflip.com/4kbgii.jpg
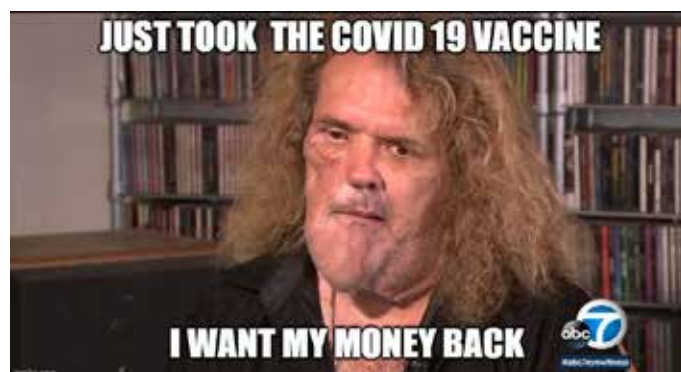
This meme depicts a man with a deformed face, as though something terrible had happened to him. There is a caption "Just took the Covid 19 vaccine – I want my money back".

• **Representational metafunction**

Several countries announced during the Pandemic that they had discovered a vaccine or a treatment for COVID-19 to save their lives; however, they clarified that this would only reduce the severity of symptoms and not stop people from getting the virus. People began to lose faith in the vaccine at this point because they were afraid it would harm them, change their genes, make changes in their bodies, cause them to die, and most of them believed it would turn their genes into zombies. Thus, the meme makes fun of the idea that the vaccination will cause them to get sicker or possibly die.

The man who is the represented participant in the meme is also the actor who actually has taken the Covid vaccine. The man, who wants his money back because the Covid vaccine has damaged and distorted his face, also represents the goal here.

Example 14 shows a narrative representation process which is a conversion process as it shows a change of state and both the actor and the goal are the same represented participant. Due to the existence of both the actor and the goal, it is also considered to be a transactional process.

• **Interactive metafunction**

a) Gaze: The image is a demand image because it places the viewer in the same reality as the subject by sharing an eye line. Additionally, the represented participant is staring directly at the viewer with regret.

a) Distance: This meme includes a very close shot, where the head or face only appears indicating a close social distance.

a) Angle: The subject in this meme is directly visible to the viewer or is visible to them through a horizontal frontal angle, and they are a part of his world.

Example 15
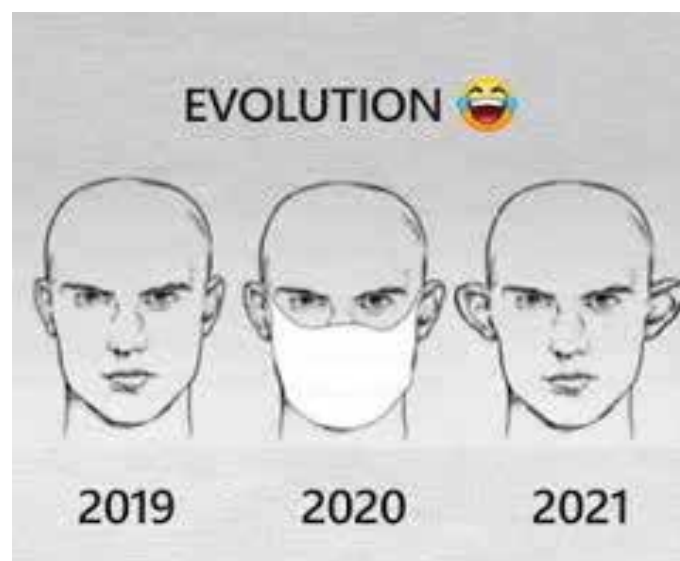
In this meme, a bald man is shown staring straight at the viewer in three different poses; i.e. the first is normal, the second displays the man wearing a face mask with slightly different ear shape, and the third shows the man without a face mask but with a significantly different ear shape. Furthermore, there is a caption "Evolution 2019 – 2020 – 2022".

• **Representational metafunction**

This meme mocks the idea of the changing in the ear shape from 2019 to 2021. In order to protect themselves, people were required to wear facemasks at the end of 2019 and the beginning of 2020. The majority of people assert that the longer one wears facemasks, the worse their ears are affected with their shape changing in the long term, which is also a change of state that happened to the same person.

This meme has one represented participant who is the man; the man represents both the actor and the goal because the action affects the man itself.

Example 15 has a narrative representation process which is a conversion process because it depicts a change in state and the actor and the goal are the same represented participant. Moreover, it is considered to be a transactional process as both the actor and goal exist.

- **Interactive metafunction**

a) Gaze: This is a demand image because the subject and the observer share the same eye line and also share the same world.

a) Distance: This meme includes a very close shot, where the head or face only appears to indicate a close social distance.

a) Angle: The subject in this meme is directly visible to the viewer, or they can see what the subject is seeing, due to its horizontal frontal angle.

5.   FINDINGS AND DISCUSSION

Studying language has evolved from focusing only on spoken and written words to including other modes like gestures, pictures, sounds, etc. Kress and van Leeuwen (2006) state that visual and verbal communication processes have rules in order to be understood. Visual images have ideas and symbols that represent various forms of social interaction, and these ideas and social interactions combine to achieve the process of meaning-making (Halliday 1978, p.112).

As Kress and van Leeuwen (2006) highlight that "no sign is innocent" (p. 5), the sign can shape the comprehension of visual signs. The analyses of memes focus on representational and interactive metafunctions. In the representational metafunction, the actions and reactions of the narrative patterns are identified through the selected memes as the memes have harmony between verbal text and visual elements as they work together and complete each other.

According to the investigation and research questions of the study, the findings are discussed as follows:

First, regarding the representational metafunction, a goal or purpose for representing an action is indicated by positioning the represented participants on the right side or the left, as in examples 1, 2, 3, 13 and 14. As seen in examples 4, 5, 6, 7, 8, 9, 10, 11, 12, and 15, the viewer is drawn to the center of the visual representation and may respond or react to specific actions and attract the viewer's attention when the represented participants are positioned there. Likewise, relating the represented participants to the captions depicted on each meme through vectors helps in conveying the meaning.

Regarding the interactive metafunction, using gazes such as demand images, the memes show the interaction between the viewer and the depicted participants as in examples 5, 6, 7, 8, 10, 14, and 15. Apparently, the images show the viewer and the represented participant share no eye line and do not interact with each other as in examples 1, 2, 3, 4, 9, 11, 12, and 13. Moreover, using social distance shows how the viewer and the represented participants relate to each other in terms of the viewer's ability to interact socially with the participants or not. The angle is also used to show involvement or disengagement. Correspondingly, the collaboration between the title, which identifies the thesis topic, the content included in each meme, and the visual representation gives the memes their deep significance.

Second, multimodality can interpret, decipher, and evaluate COVID-19 memes' visual and verbal resources. Additionally, it enables integration across the many modes in a single meme. Moreover, multimodality has the capacity to decipher meme symbols using text, images, individuals who are represented, phenomena like the COVID-19 epidemic.

The analyses support the presence of the visual grammatical structure that can be analyzed to obtain the meaning. However, external sources emerge such as COVID-19 pandemic, the state of anxiety, and stress that spread around the world, fear, and even the sense of humor that affected people during this pandemic and then reflected on the memes that people share and spread on social media platforms. All of these circumstances are essential to be known. Without them, one cannot understand the meaning or convey the desired message. Moreover, images alone cannot convey the required meaning; rather, images need to rely on some external source, such as a phenomenon or textual information, in order to give them the appropriate meaning (Barthes 1977, p. 53). So, the process of creating meaning would be simpler and clearer if verbal resources were combined with non-verbal symbols that were used in the visual representation in memes.

6.   CONCLUSION

To conclude, the verbal and visual content play a crucial role in enriching memes and making them more effective in conveying messages. The verbal content, such as captions or text which exist in images, can help to explain the intended meaning of the meme and make it more accessible to the audience who may not be familiar with the context or cultural references. The Verbal content can also be used to add layers of meaning to memes; i.e. this can make memes more engaging and thought-provoking for the audience.

Furthermore, using memes with well-known characters or celebrities can be very effective in getting the audience to laugh and participate and that is why the humor inside memes can be improved by adding a visual content such as pictures or movies. Additionally, the use of images of animals or objects can be used to convey complex ideas or emotions in a visually engaging way and that is why a visual content may be applied to offer visual metaphors that strengthen the meme's meaning. Overall, the combination of verbal and visual content can make memes strong and improve their capability to share ideas and provoke responses from viewers.

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