

CHAPTER II

LITERATURE REVIEW

A. Multimodal Approach in Discourse Analysis

1. The Concept of Multimodal Critical Discourse Analysis (MCDA)

Multimodal Critical Discourse Analysis (MCDA) is an analytical approach that focuses on how various semiotic elements, such as text, images, colors, and symbols, collaborate in creating meaning. In this context, the communicative choices made by the communicator play an essential role in articulating the message, both in verbal and non-verbal forms. MCDA allows for the analysis of how these modes not only convey information but also shape social views, power, and culture (Kenalemang-Palm & Eriksson, 2023). Therefore, MCDA provides insights into how meaning is constructed multimodally in visual and textual communication.

MCDA introduces the concept of "mode" as a key element in meaning-making. A mode refers to a semiotic system with rules and regularities underlying various communication elements, such as images, movement, and sound. Kress and van Leeuwen (Bernad-Mechó, 2021) describe modes as tools used for communicative purposes, both physiologically and materially. With this approach, MCDA allows for the exploration of how different modes work together in semiotic events to reveal deeper patterns of meaning, as well as the relationship between the generated meanings and the socio-cultural context in which they operate.

A critical concept in MCDA is multimodal affordance, which refers to the potential that different modalities have to interact and generate meaning in the context of communication. Budiastono and Noverino (2024) emphasize the importance of integrating various semiotic resources to build meaning comprehensively in multimodal communication. This approach encourages a more holistic understanding of the different ways in which elements such as text, images, and sound complement and interact with each other in shaping discourse. Therefore, MCDA provides a

strong framework for understanding the complexity of communication in modern society.

MCDA is also highly useful for analyzing the relationship between power and ideology that is formed in communication. Discourse, as one of the main concepts in MCDA, serves to reveal the social values that shape society's views on various topics, including issues such as aging, gender, or consumerism (Budiastono & Noverino, 2024). This analysis allows us to see how discourse not only functions to convey information, but also to shape social perceptions of who holds power in determining what is considered "right" or "normal."

Overall, MCDA is a highly effective approach to understanding how multimodal communication works to construct meaning in various social and cultural contexts. By highlighting the relationship between text, images, and symbols in communication, MCDA allows for uncovering more complex layers of meaning that are hidden behind different forms of communication. This provides valuable insights for discourse analysis in various fields, ranging from marketing to social and cultural studies.

2. Integration of Visual and Linguistic Elements in Cartoons

The integration of visual and linguistic elements in cartoons plays a crucial role in creating a rich and interactive narrative experience. Cartoons often combine images, text, and sound to convey messages that are richer and easier to understand. Visual elements such as character images, backgrounds, and facial expressions work in tandem with text, whether in the form of dialogue or narration, to enrich the meaning of the story and enhance the viewer's experience. In this context, these elements not only serve as entertainment tools but also as means to communicate more complex social and cultural themes (Kogler et al., 2021; Shen et al., 2023).

In cartoons, visuals are often used to convey emotions and actions that cannot be directly expressed with words. Facial expressions, body movements, and character

designs provide visual context that clarifies the nuances of the story. Meanwhile, text in the form of speech bubbles or narration helps clarify the meaning of what is shown visually, providing additional information that is not immediately apparent from the images. This combination creates a more dynamic flow and allows the audience to more easily understand the storyline (Saifudin et al., 2024; Altiner, 2024).

The importance of synchronization between visual and linguistic elements can be seen in cartoons that integrate both aspects to reinforce the message being conveyed. For example, changes in color, visual perspective, or semantic metaphors in images, such as exaggerated expressions on characters, can clarify specific emotions or ideas that the text intends to communicate. This multimodal approach allows the audience to experience and understand the story more holistically and engagingly. It also creates a deeper experience by connecting visual and linguistic elements that support each other (Shen et al., 2023; Zhang, 2025).

Cartoons also use this integration for educational purposes, where visual elements help explain abstract concepts that might be difficult to understand with text alone. For example, in mathematics or science education, cartoons can use concrete illustrations to depict more complex ideas, while the text provides a more detailed explanation. This combination makes it easier for students to understand the material more enjoyably and interactively, enhancing their understanding of the topics being discussed (Altiner, 2024; Zhang, 2025).

Overall, the integration of visual and linguistic elements in cartoons allows for the creation of more complex and multidimensional narratives. By combining images, text, and sound, cartoons not only entertain but also educate, convey social messages, and establish strong emotional connections with the audience. Through the use of these multimodal elements, cartoons can serve as an effective tool for communicating diverse and profound ideas, both in entertainment and educational contexts (Kogler et al., 2021; Saifudin et al., 2024).

3. MCDA in the Context of Palestinian Cartoons

Palestinian cartoons, as a powerful visual medium, combine linguistic and visual elements to convey ideological messages related to the ongoing conflict between Palestine and Israel. Through the Multimodal Critical Discourse Analysis (MCDA) approach, these cartoons analyze various elements such as symbols, colors, and facial expressions to highlight the injustices and suffering experienced by the Palestinian people. The combination of narrative text and visual symbols enriches the audience's understanding of power, dominance, and resistance. Thus, Palestinian cartoons not only serve as entertainment tools but also as a means of critical education, encouraging the audience to reflect and take action.

The visual elements in Palestinian cartoons often involve strong symbolism, such as the use of the Palestinian flag or representations of violence perpetrated by Israel and its allies. Mowafy (2022) shows that these symbols, like the flag or civilian casualties, reinforce the message of ongoing injustice. Cartoons also employ visual metaphors to depict violence or dominance, creating a powerful visual narrative. For example, characters depicted with expressions of suffering or symbols like wolves and puppies are used to represent the political hegemony between the United States, Israel, and Palestine. Such analysis helps understand how cartoons can create narratives that provoke emotional reactions from the audience.

In this context, MCDA becomes the appropriate method to uncover hidden ideologies in Palestinian cartoons. Saheb & Hussein (2022) explain how Palestinian cartoons, such as the works of Naji Al Ali and Emad Hajjaj, depict the polarization between victims and oppressors. Through powerful symbols and metaphors, these cartoons showcase hegemonic relationships and the injustices occurring, while calling for solidarity with the Palestinian struggle. MCDA reveals how the narrative of power is constructed and reinforced through visual representations, which in turn

affects the public's perception of this conflict. Therefore, cartoons become an effective tool in challenging the dominant narrative about Palestine.

Symbolism and metaphors in Palestinian cartoons also serve to influence international public opinion about the conflict. As explained by Saima Yasmin et al. (2024), Palestinian cartoons often use visuals such as the "butcher's block" to depict the oppression in Gaza and words like "genocide" to reinforce this message. The MCDA method highlights how these cartoons respond to global apathy and the inability of international organizations, such as the OIC, to act. By combining linguistic and visual elements, Palestinian cartoons construct a narrative that invites critical reflection on the injustices and power imbalances within the conflict.

Overall, MCDA in the analysis of Palestinian cartoons provides deep insights into how ideological messages are conveyed through visual and linguistic elements. Through strong symbolism, metaphors, and dialogue combined with images, these cartoons not only reflect the suffering of the Palestinian people but also criticize international policies and the powers involved in the conflict. Therefore, Palestinian cartoons serve as an essential medium for advocating justice, raising global awareness, and supporting the Palestinian struggle against ongoing oppression.

B. Linguistic Psychology In Cartoon Analysis

1. Linguistic Psychology Theory and Its Influence on Audience Understanding

Linguistic psychology theory focuses on the relationship between language and human cognitive processes. It includes how language affects perception, understanding, and decision-making. In the context of the audience, this theory provides insights into how individuals process the information received through language. The choice of words, sentence structure, and emotional elements in language can influence how the audience interprets the message being conveyed. Therefore, understanding how the human brain processes language is crucial for

designing more effective and persuasive communication (Mariani, 2022; Nicolai et al., 2024).

It is important to note that linguistic psychology theory also explains the processing of information in the brain and how the audience stores and remembers the message being conveyed. The choice of particular words can reflect unconscious attitudes or biases, thus affecting the audience's understanding of a specific topic. Additionally, social and cultural factors play a crucial role in language interpretation. Audiences from different backgrounds may have other ways of understanding the same terms or concepts. Therefore, understanding this process helps in designing communication that is inclusive and readily accepted by a wider audience (Nicolai et al., 2024 Zyl et al., 2024).

In practice, linguistic psychology theory can be applied to enhance the effectiveness of messages. For example, in marketing or educational communication, using simple terms and relevant analogies can help a heterogeneous audience more easily understand complex concepts. Additionally, word choices that trigger specific emotional responses, such as words touching on humanitarian or justice values, can strengthen the emotional bond between the speaker and the audience. The choice of sentence structure and the way information is delivered should also be tailored to the cognitive abilities of the audience, ensuring that the message is understood more easily and quickly (Mariani, 2022).

For example, in the analysis of criticism against positive psychology, linguistic psychology theory helps explain how language affects the audience's response to the criticism. Terms used, such as "pseudoscience," can trigger strong emotional reactions, which in turn affect how the audience perceives the validity of the criticism. Framing, or the way information is presented, also has a significant impact on how the criticism is received. Criticism delivered in a serious and academic

context is more likely to be accepted than when it is conveyed with a dismissive or sarcastic tone (Zyl et al, 2024).

Overall, understanding linguistic psychology theory is crucial in designing more effective and persuasive communication. Through the analysis of language and the cognitive processes of the audience, communicators can identify thought patterns, biases, and emotions that influence how messages are received. By using this knowledge, communication strategies can be developed to improve understanding, engagement, and information retention by the audience, as well as ensure that the message is well-received by diverse groups of people (Mariani, 2022; Nicolai et al, 2024).

2. Crocodile Brain Theory in Language Processing and Perception

The Crocodile Brain Theory reveals that human language processing and perception are not only dependent on the complex brain structure but also have roots in the ancient brain structures found in reptiles like crocodiles. Although humans have a much more developed nervous system, some cognitive abilities, such as sensory processing and decision-making, share similarities with the processes that occur in the reptilian brain. This theory suggests that language processing and perception in humans are rooted in the primitive neural structures used by crocodiles for survival. It explains how humans can utilize multimodal pathways in the brain to understand spoken language and its context (Osvath & Johansson, 2024; Azzam, 2019).

In the context of language processing, this theory suggests that the cognitive abilities required to understand and respond to language are not solely based on complex thinking skills but also involve simpler, more fundamental components. The brain structures used by crocodiles to process sensory input are very similar to those used by humans to understand various elements of language. Although there are significant differences in brain anatomy, the fundamental mechanisms for language

comprehension in both humans and crocodiles share similarities, highlighting the importance of cognitive evolution in language processing (Osvath & Johansson, 2024).

Additionally, the Crocodile Brain theory provides insights into how the reptilian brain, such as in crocodiles, regulates emotional responses to environmental stimuli. Research has shown that crocodiles can respond to social and emotional stimuli, challenging traditional views of animals that are often considered to have little awareness or feelings. Understanding how the reptilian brain regulates emotions and perceptions, similar to humans, suggests that emotional elements in language processing are also highly relevant. This is important in understanding how language, which often contains emotional elements, can influence audience responses in human communication contexts (Learmonth, 2020).

Overall, the Crocodile Brain theory provides a new perspective on understanding human language processing and perception. By linking the primitive brain structure of crocodiles to human cognitive abilities, this theory suggests that, despite differences in brain complexity, the fundamental mechanisms in information processing remain similar. The influence of emotions, responses to threats, and understanding of context are also part of how we process language and perception in everyday life. This highlights the importance of understanding the evolutionary basis of cognition in human communication (Osvath & Johansson, 2024; Azzam, 2019).

Thus, the Crocodile Brain Theory makes a significant contribution to our understanding of language processing and perception. This theory emphasizes that, although the human brain is much more complex than that of reptiles, the fundamental similarities in brain structure provide valuable insights into how language and perception function. This understanding can help in designing more effective communication strategies that take into account the cognitive and emotional elements

present in the audience. Therefore, an approach based on this theory can enhance understanding and interaction in social and professional contexts (Learmonth, 2020).

a. Crocodile Brain

The Crocodile Brain Theory highlights the evolution of brain processing capacity in crocodiles, which provides essential insights into the relationship between primitive brain structures and language processing and perception. Although crocodiles have a relatively large brain for their body size, they have fewer neurons compared to mammals and birds, particularly in brain areas involved in higher-level cognitive processing such as the telencephalon and cerebellum (Kocourek et al, 2022). This suggests that, while crocodiles have complex survival abilities, their brain structure may limit their cognitive processing compared to other endothermic vertebrates. Understanding these differences is crucial for understanding how the human brain also adapts similar structures in language processing.

It is important to note that, although the brain structure of crocodiles appears more straightforward, they have integrated and complex perceptual abilities. Through brain endocast reconstruction, studies show that modern crocodiles have a relatively large brain but with far fewer neurons, particularly in areas that regulate cognition and emotion (Jr et al., 2022). Despite the clear structural differences between the brains of crocodiles and mammals, many of the crocodiles' abilities in sensory processing and behavior are similar to human capabilities in interacting with the surrounding environment. This leads to the understanding that, despite differences in brain structure, both crocodiles and humans share perceptual mechanisms originating from similar brain structures.

Additionally, digital techniques for reconstructing the crocodile brain endocast open new doors for a deeper understanding of their cognitive processing. Recent research involving CT scan technology has enabled scientists to access

more accurate data on the structure of the crocodile brain (Keirnan et al., 2025). This provides insight into how the neuroanatomy of modern reptiles can be used to better understand the evolutionary pathways of cognitive development and their perceptual abilities, including language processing. By adopting this approach, we can draw more apparent parallels between the mental abilities of crocodiles and human language processing, as well as how both species share fundamental brain structures.

Overall, the Crocodile Brain theory provides a new perspective on the evolution of language processing and perception. Although the crocodile's brain structure is simpler, they shows evidence of complex abilities in perception and social interaction, indicating that the reptilian brain, despite being different from mammals, can underlie higher cognitive skills. Therefore, understanding this theory helps us view language and perception within a broader evolutionary framework, with implications for how we understand the development of the human brain. These findings also pave the way for further research to deepen our understanding of the brain and intelligence in species often regarded as cognitively inferior.

This theory, with its emphasis on evolutionary similarities in primitive brain structures, challenges traditional views on cognitive differences between humans and reptiles. By studying the capacity of the reptilian brain and its evolutionary parallels with humans, we can delve deeper into the roots of language processing and perception. It also provides valuable insights into the ability to adapt behavior within the context of evolution and species adaptation, as well as opening avenues for further research on cognition, language, and more complex perception across various forms of life.

b. Limbic System

The limbic system is a complex network in the brain that plays a crucial role in processing emotions, memory, and human behavior. In neurological terms, this system consists of various structures, including the amygdala, hippocampus, and prefrontal cortex, which interact to process emotional stimuli and underlie physical reactions and behaviors in response to feelings. One of its functions is to help individuals respond to threats or emotional situations appropriately, as seen in research linking the limbic system to gelotophobia, where the amygdala heavily influences emotional responses to ridicule (Chang et al., 2025).

The limbic system also plays a crucial role in regulating autonomic functions and long-term memory. According to Kaushal et al. (2024), the limbic system regulates the body's reactions to emotions, such as increasing heart rate or blood pressure when facing stress. It is involved in the formation and maintenance of emotional memories. This function is vital for human adaptation to changes in the environment or new situations. One of the main components of the limbic system is the hippocampus, which is responsible for processing long-term memories. At the same time, the amygdala regulates how we respond to emotional stimuli, especially those related to fear or anxiety.

In the world of technology, the concept of the limbic system has also been applied in the development of controllers based on emotional learning. Saat et al. (2025) demonstrate how principles from the human limbic system are used to create smart controllers that can adjust their responses to social and emotional cues, similar to how the human brain reacts to emotional stimuli. This approach not only enhances computational efficiency but also provides a more adaptive and precise way of controlling complex systems, such as in data flow regulation or automatic control in various industrial and modern technology applications.

The limbic system also has important clinical implications. Diseases such as epilepsy, dementia, and affective disorders, for example, are often associated with dysfunction in structures within the limbic system. Kaushal et al. (2024) highlight how disorders in the hippocampus or amygdala can disrupt long-term memory abilities, as well as cause emotional imbalances or difficulties in regulating behavior. Therefore, understanding the anatomy and function of the limbic system is crucial in the development of therapies and treatments for neuropsychiatric disorders.

Overall, the limbic system functions as a crucial center for emotional regulation and memory in human daily life. Whether in biological or technological contexts, this system plays an irreplaceable role in processing emotional information and behavioral adaptation. Through further research and a deeper understanding of the structure and function of the limbic system, we can better understand how human emotions and behavior are formed, as well as how disruptions in this system can affect an individual's mental and physical health.

c. Neocortex and Language Processing

The neocortex, located in the outer layer of the brain, plays a central role in language processing. In the context of language processing, the neocortex involves complex interactions between the frontal and temporal areas in the left hemisphere of the brain, which are engaged in syntactic, semantic, and phonological construction. These structures are strongly interconnected and support linguistic computation, allowing access to words and the construction of linguistic messages (Wong et al., 2024). Additionally, research on gene expression in these areas provides new insights into how genetic variation can affect the structural connectivity between the frontal and temporal regions, and its impact on language disorders such as dyslexia and schizophrenia.

The development process of the human neocortex is also highly dynamic and closely related to language abilities. Research shows that the neocortex is not only involved in processing sensory and motor information but also plays a crucial role in the development of language skills. During development, there are complex cellular pathways regulated by specific cell-type gene regulation, which impact neural differentiation in areas such as the prefrontal cortex and primary visual cortex (Cebrián-Silla et al., 2024). These findings provide insight into how the structure and function of the neocortex contribute to higher cognitive development, including language, as well as its impact on neuropsychiatric disorders such as autism.

A critical part of the neocortex is Layer 1 (L1), which serves as a center for gathering and processing information. L1 integrates sensory input with expectations through interactions that direct and connect information from various sources. In the context of language processing, L1 plays a role in organizing signals coming from other cortical layers and neuromodulators to support higher cognitive functions. Research shows that this layer is crucial for flexibility in language processing and its connection to human communication abilities (Huang et al., 2024).

The interaction between neocortical structures and molecular and cellular developmental processes provides the foundation for complex language processing and human cognitive abilities. Recent research shows that a deeper understanding of these molecular dynamics is crucial for exploring how language develops and how disruptions in the neocortex can affect an individual's language abilities (Wang et al., 2025). By mapping these pathways, we can better understand the mechanisms underlying human language abilities and potential therapies for language and cognitive disorders.

Overall, the neocortex plays a crucial role in human language processing, both in development and application. By understanding the structure and function of the neocortex in greater depth, we can improve approaches to address language disorders and enhance human communication abilities. Research on the layers of the neocortex, genetic regulation, and inter-structural connectivity provides new perspectives on how our brain supports the highly complex capacity for language

3. Psycholinguistic Implications in Palestinian Cartoons

The implications of linguistic psychology in Palestinian cartoons highlight the importance of language in conveying profound social and political messages. Semitic languages, particularly Arabic and English, play a key role in creating meaning within Palestinian cartoons. In both Arabic and English, words are constructed from root consonants connected to vocal patterns, which influence the way words are learned and meaning is processed. Research shows that offline memory consolidation plays an essential role in the understanding and use of root words, which further enriches the narrative in cartoons with deep linguistic elements (Omar, Khattab, & Keren-Portnoy, 2025). In this context, cartoons not only serve as entertainment but also as a tool to introduce the richness of culture and social identity through language.

Furthermore, the psycholinguistic analysis of Palestinian cartoons can be seen in how language is used to convey political messages related to the Palestinian-Israeli conflict. During the Israeli attacks on Gaza, Arab users on social media, particularly on Facebook, faced censorship policies that prompted them to use specific linguistic strategies in communication. Research shows that the visual cartoons circulating during this period not only conveyed verbal messages but also served as tools for constructing strong political narratives, expressing attitudes toward the conflict through hidden visual and linguistic symbols (Al-Dala'ien, 2023). This highlights the

interaction between language and visual media in creating more complex and meaningful messages.

Furthermore, Palestinian cartoons also reflect how language and visuals are used to comment on global conflicts, such as in the context of the Russia-Ukraine war. Arab cartoonists like Emad Hajjaj and Osama Hajjaj utilize a combination of verbal signs and imagery to express their perspectives on the situation. Through semiotics, these cartoons not only reveal political positions but also depict the economic impacts, negotiations, and international alliances related to the war. Research shows that the linguistic elements in these cartoons convey messages that serve as expressions of the Arab community's social and political identity, reflecting their perceptions of global conflicts through a medium that is accessible and easily understood by the wider public (Aref & Dala, 2022).

The implications of psycholinguistics in Palestinian cartoons reflect the complexity of language and visual communication in constructing political and social narratives. Cartoons are not merely a form of entertainment, but also a powerful tool for conveying ideological messages through the interaction of linguistic and visual elements, and in this context, understanding how language functions in cartoons helps us better comprehend their impact on political and social perceptions, as well as how cartoons become part of the struggle for identity in Palestine. Therefore, understanding the interaction between language, culture, and political context is key to interpreting these works.

In conclusion, the implications of psycholinguistics in Palestinian cartoons demonstrate that language is not merely a means of communication but also a tool that shapes perception and social identity. Palestinian cartoons use both language and visuals to convey profound ideological messages, not only in the context of the Israeli-Palestinian conflict but also in other global conflicts. By combining linguistic and semiotic analysis, we can understand how these elements work together to create

powerful and meaningful narratives that are not only relevant to Arab audiences but also offer important insights into the socio-political dynamics of the Arab world.

C. Interaction Between Visual and Linguistic Elements In Ideological Construction

1. The Role of Visuals in Meaning-Making

In various fields, the role of visuals is increasingly recognized as a vital element in the construction of meaning. Visual aids such as photographs, diagrams, and visual metaphors serve as catalysts that reveal deeper narratives behind individual experiences and social phenomena (Olmo-Extremera & Montes, 2024). In qualitative research, this approach not only complements interview methods but also organizes data chronologically and contextually, resulting in richer interpretations. With their ability to represent social and cultural complexities, visuals become an effective medium for understanding identity, relationships, and the dynamics within educational institutions. Therefore, the integration of visual elements in research provides a significant contribution to the deeper exploration of meaning.

Technological advancements have increasingly strengthened the role of visuals in meaning-making, particularly through generative artificial intelligence (AI) and large language models (LLMs). These technologies enable more complex visual analysis, extracting deep information from visual content and revealing context, emotions, and details that are not always explicitly visible (Zhou et al., 2024). Visuals are no longer merely aesthetic elements but have become a primary means of generating more personal and relevant meaning. Through the application of AI in video, visual interpretation can be developed dynamically, offering a more responsive experience tailored to individual needs and preferences.

In the medical field, visuals also play a crucial role in conveying complex information, particularly through graphic narratives. Graphic medicine, for instance, presents patients' lived experiences in ways that are easier to understand, especially

for individuals with low health literacy (Duong et al., 2024). In the context of osteoarthritis, visuals help illustrate the physical and social challenges faced by patients, as well as the management strategies they can adopt. Thus, visuals serve not only as communication tools but also as a medium for fostering deeper understanding between patients and healthcare providers, ultimately enhancing the effectiveness of health interventions.

Overall, visuals play a fundamental role in meaning-making across various fields, from education to technology and healthcare. The visual approach in qualitative research enables richer interpretation, while AI enhances understanding of meaning within digital content. On the other hand, graphic medicine demonstrates how visuals can serve as a communication bridge in the medical world. With their ability to encapsulate complex information and enhance comprehension, visuals have become a key element in constructing deeper and more meaningful narratives in today's digital and social era.

2. The Role of Linguistics in Shaping Sociopolitical Ideology

Linguistics plays a central role in shaping socio-political ideologies through the use of language in various social and political contexts. Language functions not only as a tool for communication but also as an instrument of power that can influence how individuals perceive social reality. In mass media, politics, and public discourse, language is often used to frame specific issues to reinforce or oppose dominant ideologies (Zhang et al., 2023; Romano, 2024). Therefore, linguistic analysis of language use in political discourse is crucial for understanding how ideologies are formed and maintained within society.

The use of metaphors in political discourse is one of the linguistic strategies that plays a role in building ideology. Metaphors not only function as rhetorical tools but also as cognitive mechanisms that shape how society thinks about political issues

(Romano, 2024). For example, metaphors like "war on poverty" or "battle for democracy" create a more dramatic understanding of social and political realities. By utilizing conceptual metaphor theory and critical discourse analysis, it becomes clear how metaphors help reinforce the dominance of certain ideologies and influence public opinion about an event or political policy.

In addition to metaphors, neologisms also play a role in shaping socio-political reality. In situations of conflict or social change, the emergence of new terms can reflect or even strengthen certain ideologies (Aliyeva et al., 2024). For instance, new terms used in the context of war or political crisis often carry connotations that direct public opinion toward specific groups. Neologisms not only describe a phenomenon but also serve as tools of propaganda that shape societal understanding and attitudes. Therefore, analyzing the formation and dissemination of neologisms can provide insights into how language is used to shape ideology within society.

Overall, linguistics has a profound influence on the formation of socio-political ideology through various language strategies, such as metaphors and neologisms. Language not only reflects social reality but also actively creates and sustains existing power structures (Zhang et al., 2023; Romano, 2024; Aliyeva et al., 2024). Therefore, linguistic studies in the socio-political context are crucial for uncovering how language can be used as a hegemonic tool or as a means to challenge dominant ideologies within a society.

3. The Symbiotic Relationship Between Visual and Linguistic Elements in palestinian Cartoons

Political cartoons have become an effective medium for communicating social and political messages concisely and profoundly. In the context of Palestine, cartoons play an essential role in representing the suffering of the people, injustices, and their struggle amidst the prolonged conflict (Sidabutar et al., 2025). The relationship between visual and linguistic elements in Palestinian cartoons is

symbiotic, where both work together to reinforce ideological and emotional messages. Visual elements, such as symbols and colors, evoke universal empathy, while text in speech bubbles or captions provides a clearer context for the message being conveyed.

Cartoons are not merely entertainment but also a visual communication tool capable of raising social and political awareness. In the context of the Palestinian conflict, cartoons are often used as expressions of resistance and human rights advocacy (Sector & Economic, 2024). The symbiosis between visual and linguistic elements creates narratives that strengthen specific perspectives on the conflict, human rights, and social injustice. The Multimodal Discourse Analysis approach examines how the interaction between images and text in cartoons shapes public opinion and enhances emotional appeal on the issues presented.

Graphic journalism also plays a crucial role in rekindling public awareness of the Palestinian issue, which is often overlooked in traditional media (Smyth, 2024). Through works like those of Joe Sacco, the symbiotic relationship between visual and linguistic elements is explored to build the emotional engagement of the reader. Visual symbolism in cartoons and graphic journalism strengthens meaning and supports alternative narratives that challenge the dominant discourse. Thus, Palestinian cartoons not only convey the realities of the conflict but also serve as a tool to reclaim a fairer narrative regarding the situation faced by the Palestinian people.

In conclusion, the symbiotic relationship between visual and linguistic elements in Palestinian cartoons creates a multimodal communication that has a far-reaching impact. Visual elements evoke emotions and reinforce symbolism, while linguistic elements provide context and clarity to the message being conveyed. The combination of both forms a powerful narrative that not only advocates for social justice but also influences public opinion about the Palestinian conflict. Therefore,

Palestinian cartoons can be viewed as an important medium in cultural resistance and as an effective communication tool in voicing the rights and aspirations of the Palestinian people.

D. The Contribution of Multimodal Discourse Analysis and Psycholinguistics To Language Teaching

1. Language Teaching in a Multimodal Context

In the digital age, language teaching has transformed from conventional methods to a multimodal approach that integrates various modes of communication, such as text, images, sound, video, and digital interaction (Eka & Rahmanu, 2024; Liu, 2022). This approach enables students to understand and express meaning through diverse media, reflecting how communication occurs in real life. In the context of language education, multimodality can be applied through the use of interactive media, such as video-based learning apps and podcasts, which enhance student engagement. However, the effectiveness of this approach depends on educators' readiness to design teaching strategies that optimize the integration of various semiotic resources.

The implementation of multimodal approaches in language teaching has been shown to improve student understanding in programs like English for Academic Purposes (EAP) and English for Specific Purposes (ESP) (Liu, 2022). The use of technologies such as virtual reality (VR) and interactive simulations creates a more contextual and realistic learning environment. Additionally, nonverbal communication, such as facial expressions and gestures, helps students grasp language nuances in speaking skills. However, challenges in this method include the lack of teacher training and difficulties in assessing multimodal-based learning outcomes, necessitating the development of more systematic evaluation strategies.

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Task-Based Language Teaching (TBLT) also plays a vital role in multimodal language learning by integrating text, images, sound, and interactive media into the learning process (Palanisamy, 2024). With this strategy, technology-based tasks can be made more interactive and collaborative, increasing student motivation to use the target language. The use of digital platforms allows students to learn independently or in groups, making the learning experience more flexible and effective. However, for it to be successful, educators must ensure that task design and the use of technology align with the established learning objectives.

With the advancement of technology, multimodality in language teaching has become increasingly relevant and necessary. This approach not only enhances students' understanding but also helps them develop more authentic and contextual communication skills. However, its success heavily depends on the readiness of teachers, the availability of infrastructure, and appropriate evaluation strategies. Therefore, the integration of multimodality in language teaching must continue to be developed to effectively address the challenges of learning in the digital era (Eka & Rahmanu, 2024; Liu, 2022; Palanisamy, 2024).

2. Audience Understanding in Language Learning

Audience understanding in language learning is a fundamental aspect that determines the effectiveness of communication and students' language skills. This understanding includes the ability to recognize cultural backgrounds, comprehension levels, and communication needs of the audience, ensuring that the message is

conveyed accurately (Chitra et al., 2024). By developing awareness of the audience, students can adjust their speaking and writing styles, making interactions more effective. Additionally, learning strategies such as group discussions and role-playing simulations have been proven to enhance students' communication skills. Audience understanding also contributes to strengthening emotional intelligence, which is essential in building good social and professional relationships.

In the context of task-based learning or Task-Based Language Teaching (TBLT), audience understanding plays a role in ensuring that communicative tasks are tailored to students' needs. The integration of technology in TBLT can enhance learning effectiveness when it is aligned with students' learning styles and communication goals (Schorr et al., 2024). The use of technology such as augmented reality (AR) provides a more interactive and immersive learning experience. However, this approach must be strategically designed so that technology is not merely a form of entertainment, but truly supports language mastery in real-world contexts. Therefore, understanding the audience becomes key in optimizing technology-based TBLT methods.

In addition, the development of artificial intelligence (AI) is increasingly opening opportunities for personalized language learning. AI can tailor materials to individual needs, increase student engagement, and accelerate understanding of linguistic concepts (Moslemi & Arani, 2024). However, the effectiveness of AI heavily depends on a deep understanding of the audience, including students' learning styles and digital literacy. Challenges such as algorithmic bias and access to technology must also be considered to ensure its implementation is inclusive and equitable for all learners. Therefore, a balance between the use of AI and human interaction in language learning should be maintained to ensure that learning remains meaningful and adaptive.

By integrating audience understanding into the language learning curriculum, students can develop more effective communication skills that are responsive to diverse social contexts. This approach not only enhances linguistic competence but also shapes

individuals who are more empathetic and capable of adapting to multicultural environments. Additionally, the use of technology in language learning should be based on audience understanding to optimize the learning experience. Thus, understanding the audience becomes a crucial aspect in designing more inclusive, innovative, and effective language learning strategies in the digital age.

3. The Impact of Psycholinguistics on Students' Language Learning

Linguistic psychology plays a crucial role in student language learning, especially in the context of Second Language Acquisition (SLA). Cognitive and affective factors, such as motivation, anxiety, and social interaction, influence the effectiveness of language learning. Research shows that Foreign Language Enjoyment (FLE) and Foreign Language Classroom Anxiety (FLCA) have a significant impact on students' learning experiences (Fang & Tang, 2021). Students who experience more enjoyment in learning a language tend to have higher success rates, while anxiety can hinder smooth communication. Therefore, understanding linguistic psychology is essential in designing more effective teaching strategies.

In foreign language writing instruction, linguistic psychology also plays a key role in building critical thinking skills and academic expression. Process-based, genre-based, and integrated skills approaches have proven effective in enhancing writing instruction (Practices, 2024). Additionally, the integration of technology in writing instruction allows students to experience a more interactive and authentic learning process. In this context, understanding psychological factors such as motivation and self-perception of writing abilities is vital for students to overcome barriers in expressing more complex language, especially in universities that do not specialize in linguistics.

Linguistic psychology also plays a role in the formation of students' multilingual and multicultural identities. Recent research shows that linguistic identity develops alongside social and emotional experiences in the language learning process

(Fekete, 2023). The concept of Complex Dynamic Systems Theory (CDST) and the language ecology approach highlight how the environment and life experiences influence students' language development and identity. Thus, language learning is not just about mastering linguistic skills but also about shaping self-awareness and individuals' relationships with different cultures, enriching their perspectives and experiences.

By understanding the impact of linguistic psychology on language learning, educators can design more adaptive teaching methods that support students' holistic development. Emotional factors such as motivation and anxiety need to be considered in the learning process so that students feel more confident in using a second language. The integration of identity-based and personal experience approaches can also help students see language as part of their intellectual and social journey. Therefore, teaching strategies that incorporate aspects of linguistic psychology can enhance the effectiveness of language learning while also building broader social skills.

E. Conceptual Framework

This conceptual framework is designed to explain the relationship between the main elements being studied and to guide the analysis in understanding how Palestinian cartoons convey social, political, and emotional messages to the audience.

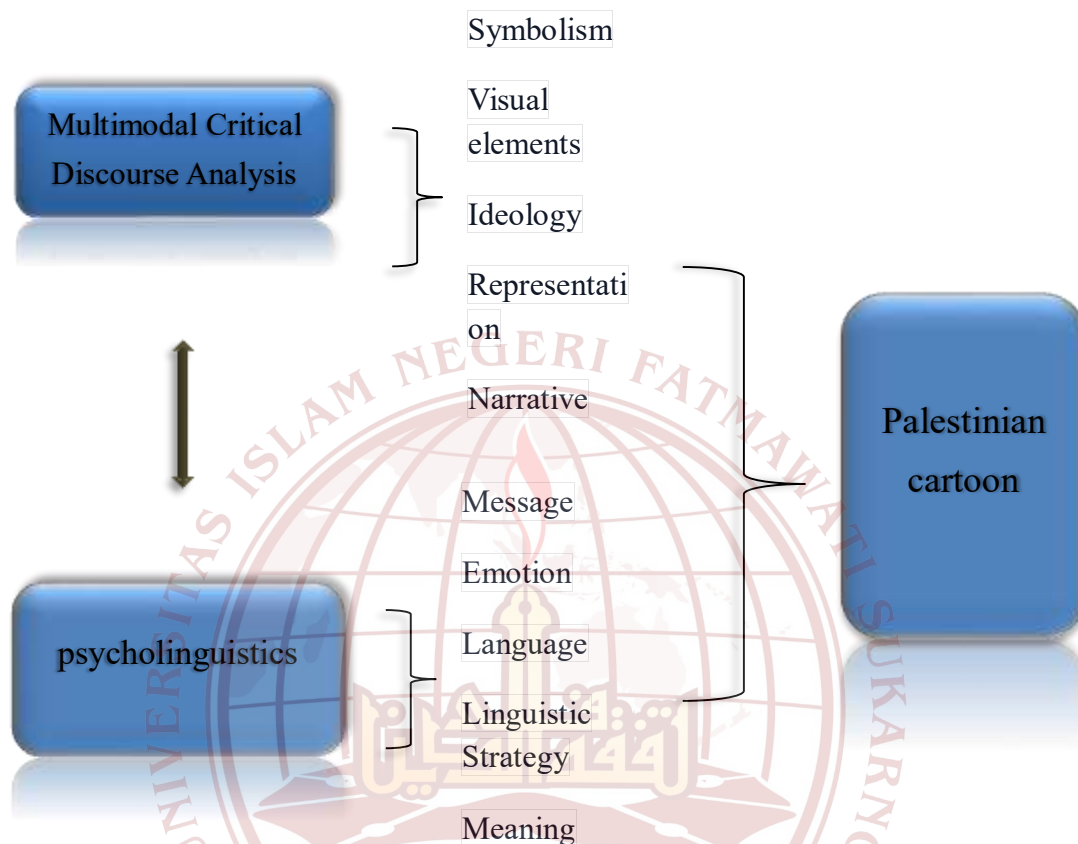


Figure 1. Conceptual framework

F. Some Related Previous Studies

Previous research has shown that this study focuses on multimodal analysis in Palestinian political cartoons, employing various approaches. Abdel-Raheem (2024) examined the influence of context on multimodal metaphors in Arabic cartoons, highlighting that semiotic elements such as metonymy and cultural symbols play a significant role in constructing meaning and social critique. Sa'adah (2024) used Visual Grammar and systemic functional theory to analyzed how the integration of text and images shapes narratives of injustice and resistance in the Israel-Palestine conflict.

Meanwhile, Abouelenine (2024) emphasized the use of irony, hyperbole, and analogy in international caricatures to criticize policies related to Gaza. Overall, these studies affirm that political cartoons serve as practical communication tools, combining visual and linguistic elements to convey deep social and political messages.

Other previous research focused on discourse analysis in political caricatures, exploring various aspects such as the role of cartoons in shaping public opinion, the use of aesthetic elements, and political representation through visual semiotics. Husain (2024) studied how caricatures in Indian and Pakistani newspapers were used as tools for social-political criticism, finding that political cartoons offer a freer alternative perspective compared to mainstream news. Ohaja and Momoh (2024) analyzed aesthetic elements in Nigerian caricatures, showing that the use of metaphors, irony, and symbolism strengthens criticism of social injustice. Adeagbo & Oyindamola (2024) discussed the representation of foreign interventions in regime changes through semiotic analysis, concluding that caricatures can embarrass politicians and shape public opinion. Overall, previous research emphasizes that political caricatures have a significant influence on political and social discourse.

Research on the influence of psycholinguistics in cartoons and caricatures has shown that both visual and linguistic elements play crucial roles in language development and audience understanding. Agusniatih et al. (2024) found that educational cartoons like *Dora the Explorer* accelerate vocabulary acquisition and improve communication skills in young children through phrase repetition and character interactions. Soubki et al. (2024) demonstrated that the use of hedges in the *Roadrunner* cartoon narrative influences language processing and social interaction, while Li & He (2024) highlighted how metaphors in political caricatures shape public opinion through mental associations. In conclusion, both cartoons and caricatures have a significant psycholinguistic impact in shaping language skills, narrative comprehension, and audience social perceptions.

Previous research on caricatures as tools of propaganda and identity formation has been widely conducted in various geopolitical contexts. Radina (2023) studied how political caricatures are used in international media to shape the image of Russia, finding that English-language media tend to criticize Russian foreign policies, while Russian media focus more on domestic issues. Vårenius (2022) analyzed the role of caricatures in shaping American national identity post-independence, highlighting the use of national symbols and criticism of the monarchy. Meanwhile, Mažutaitytė (2023) showed that *Global Times* uses caricatures to strengthen the negative image of the United States and support Chinese foreign policies. Overall, this research demonstrates that political caricatures play a strategic role in propaganda and national identity construction in various countries.

Although previous studies have extensively discussed Palestinian political cartoons from a multimodal perspective (Abdel-Raheem, 2024; Sa'adah, 2024; Abouelenine, 2024) as well as the role of caricatures in shaping public opinion and political identity (Husain, 2024; Ohaja & Momoh, 2024; Abbas & Iqbal, 2024; Radina, 2023; Vårenius, 2022; Mažutaitytė, 2023), research that integrates Multimodal Critical Discourse Analysis (MCDA) and Psycholinguistics in analyzing the use of language in Palestinian cartoons remains limited. This study offers novelty by examining how the visual and linguistic elements in Palestinian cartoons not only reflect political resistance but also influence language processing and audience perception (Agusniatih et al., 2024; Soubki et al., 2024; Li & He, 2024). Thus, this study provides new insights into the relationship between language use in Palestinian cartoons and its cognitive and social impacts.