A DIALECTICAL ECOLINGUISTIC STUDY OF SELECTED CARTOON STRIPS IN PAKISTANI ENGLISH NEWSPAPER

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Candidate of **Master of Philosophy** at the National University of Modern Languages hereby declares that the thesis **A Dialectical Ecolinguistic Study of Selected Cartoon Strips in Pakistani English Newspapers** submitted by me in partial fulfillment of MPhil degree is my original work and has not been submitted or published earlier. I also solemnly declare that it shall not, in the future, be submitted by me for obtaining any other degree from this or any other university or institution.

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ABSTRACT

Title: A Dialectical Ecolinguistic Study of Selected Cartoon Strips in Pakistani English Newspapers

This dialectical ecolinguistic study of selected cartoon strips has attempted to investigate how environmental protection is represented in the Pakistani Dawn newspaper, revealing ecological issues. This research employed the theoretical model of dialectical Eco linguistics to see dialectical relations between language, ecology, and society, which uses social praxis as constitutive of the language environment. It conceptualizes three dimensions: ideological, sociological, and biological, as functionally linked to create meaning collaboratively. The cartoon strips model's visual texture (text structure) analysis is Visual Grammar, proposed by Gunther Kress and Van Leeuwen in 2006. This supportive framework complements the dialectical hierarchy model for creating a systematic link between textual and contextual factors significant for meaning-making. The researcher analyzed 50 cartoon strips from Dawn newspaper from January 2018 to December 2020. The researcher discovered that the ideological contexts of the cartoons are mirrored in the structural analysis of cartoons depicting participants in society's physical surroundings. The sociological contexts of strips are represented in participants' interactions with their surroundings. The symbols encapsulating the issue emphasized by Dawn newspaper's usage of visuals represent the biological context of the cartoons.

TABLE OF CONTENTS

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DEDICATION

I dedicate this work to my parents for their support in this journey. I am grateful for their love, endless support, and encouragement.

CHAPTER 1

INTRODUCTION

This dialectical ecolinguistic study of selected cartoon strips investigates how environmental protection is represented in the Pakistani Dawn newspaper. This research employs the theoretical model of dialectical ecolinguistics, which uses social praxis as a constituent of the language environment. It conceptualizes three dimensions: ideological, sociological, and biological, as functionally linked to create meaning collaboratively. The visual grammar of the cartoon strips for visual texture (text structure) is analyzed using the framework of Kress and Leeuwen's (2006) visual grammar. This framework is supportive to complement the dialectical hierarchy model for creating a systematic link between textual and contextual factors significant for meaning-making. It examines the correlation of social praxis, sociological, biological, and ideological dimensions. The researcher analyzed 50 cartoon strips from Dawn newspaper from January 2018 to December 2020.

1.1. Background

Humanity exists because language allows us to experience self-identification, and language exists because we utilize it daily. Mbete (2009) states ''language is more than a tool for communication; language preserves and transmits collective notions and historical, philosophical, social, and ecological values'' (p. 56). Language is a symbol and a cultural aspect. Language is a natural cultural component that may distinguish one ethnic group from another. Language enables people to communicate, engage in activities, and participate in cultural settings. Ecologically, language and speech are embedded in an environment.

Fairclough (2001) claims that ''language is a type of social activity because language is a component of society and not something extraneous. Language is a social phenomenon and social action'' (p. 63). These definitions prove that language has an internal and dialectical link with a community rather than an external link. Steffensen (2008, p. 3) calls it ''dialectical ecolinguistics''. In addition, Bang & Door (1993) define dialectical ecolinguistics as ''the study of the relationship between language, ideology, sociology, and biology'' (p. 34). They are then used in four types of analysis: the conversation model, dialectical hierarchy model, the triple model of reference, and

social praxis core conflict. The researcher used dialectical ecolinguistic theory, visual grammar, and the dialectical hierarchy model to demonstrate environmental issues. Irfan (2021, p. 488) claims that ''language is a tool to link individuals, their environment, and society. Such connections between humans and their environment are termed relationships, creating discourses, whether they are positive or negative discourses''. Stibbe (2015) argues that ''language ecology analyses everyday stories linked to the environment. Language, environment, and society all influence language users' cognitive ability'' (p. 65). The present research examines the dialectical linkages between the three dimensions of social praxis and the ideology of Pakistani media. This study examines how environmental problems are portrayed to the public and how that portrayal affects the ideological beliefs of consumers of Pakistani media discourse.

1.1.1. Ecolinguistics as a field

Ecolinguistics studies language about the environment. The concept emerged in the 1990s as a new way of thinking about language and the environment. This new pattern in language conceptualization leads etymological models to address many distinct aspects of semantic action. Sapir connects language to climate by focusing on physical and geological variables; his environment is physical and cultural. Sapir (1912) says, ''the topography determines the atmosphere'' (p. 22). Considering all the characteristics that impose a particular way of life in a given network that fits these geological models is essential. A native environment is more than a place to dwell. Since they depend on natural environmental elements, topographical measurements are essential for semantic investigations. Language is a social phenomenon. Thus, social abilities are crucial. However, unlike the physical climate, the social environment includes social forces viewed as ecological.

Furthermore, sociolinguists and linguists have referenced shifting measures as segments or social variables. It was recently brought up as a 'collective trait' in Sapir's terminology. Social factors influence the choice of etymological structures. ''Language is a mental measurement that depends on how people learn it, how they use it, and how they teach it to the next generation'' (Haugen, 1972, p. 54). Language forms fit into regular social circles defined by language and mental principles. Bang and Door proposed a dialectical theory to explain the intrinsic structure of language. This theory of social praxis is three-dimensional in ideological, sociological, and biological terms.

Personal intellectual and mental views are measured in the ideological domain. The sociological dimension includes individuals from the neighborhood, discourse networks, complete social orders, and individuals from the family, which is the foundation of social affiliation. The final dimension is biological, which refers to the physical existence of individuals. ''Ecolinguistics is a method that combines all three factors and is an umbrella term'' (Bundsgaard & Steffens, 2002, p. 105). Recent ecolinguistics studies are complicated and multidimensional, requiring further investigation while reflecting the field's multidisciplinary character. Ecolinguistics is in a state of change, and a dialectical analysis of recent changes would be helpful.

1.1.2 Study of Print Media from an Eco-Perspective

Environmental or green discourse is often seen in print and digital media. People learn different terminology about the environment through media. Media has a role, power, and dominance that directly or indirectly affects social life. Today, media is considered the state's fourth pillar, required to cover all aspects of society. A regulator over numerous organizations determines whether they adequately fulfill their tasks and then highlights those areas in their material, encouraging regulatory bodies to investigate. Climate change is a primary concern worldwide, and Pakistan is no exception. Media in Pakistan cover environmental issues to educate the public about climate change. Ali (1998) states, ''Pakistan's English-language newspapers talk about global warming, smog, air pollution, and unexpected rain'' (p. 33).

Moreover, environmental discourse in Pakistani media is profound. Those who cannot read newspapers may obtain their news from the radio. Media significantly influences and educates both the literate and the illiterate. Pakistani press has recently reported on environmental issues like plastic pollution, flooding, and other environmental threats. This research indicates that a more robust ecological discourse covering all socioeconomic strata would improve their focus and involvement. Ali discussed severe environmental challenges like (floods, climate change, water shortage, and energy shortage) in Pakistan. Media can help politicians, non-governmental organizations, and the public achieve social progression. It may educate, expose, and foster discussion on environmental issues. Thus, ecological images generate environmental observations and conversations among environmental authorities. According to Dustageer (2019), ''climate change is the biggest threat, but in the daily

news, other rapid developments in Pakistan sometimes overshadow the ecological problems'' (p.23).

Sharif Et al. (2018) studied the causes of poor climate change and knowledge in Pakistan. He claims that ''social, cultural, economic, political, technological, and scientific influences shape media coverage of climate change. Media coverage of climate change issues helps to educate the public'' (p. 43). He concluded that media editors should provide clear images of ecological concerns to increase public awareness. 'Global warming' and 'climate change' are essential twenty-first century buzzwords. Concerns about the link between people and the environment have led to systematic investigations in the sciences, commerce, humanities, and business management pedagogies.

This research studies the message conveyed by cartoon strips. A dialectical framework is used to understand and analyze cartoons. This paper seeks to assist those who want to understand cartoons better and answer questions about them. This research also discusses persuasive cartooning strategies and promotes using cartoons as a vital communication tool. This research focuses on cartoon strips from newspapers connected to a particular context to add to the visual analysis of media discourse. It aims to demonstrate how words and cartoons convey meaning to the audience.

1.2.   The Statement of the Problem

Dialectical ecolinguistics views a nexus between sociological, biological, and ideological factors constituting various cultural products, including language. Thus, language is conceived to reflect various constitutive forces within it. Language analysis provides insights into eco-consciousness as the product of ongoing dialectical engagement of the three dimensions of social praxis at work within an ecosystem. These three dimensions need to be analyzed to explore ecological issues from a dialectical ecolinguistic perspective. This study explores dialectical relations between three dimensions of social praxis using visual texts that convey ecological problems.

1.3. Objectives of the Study

1. To explore the structural dimensions of selected cartoon strips as visual texts.
2. To examine the inner and outer relations of the language produced by the selected cartoon strips.
3. To scrutinize the three dimensions of social praxis and engage in dialectical interaction constitutive of eco-consciousness as reflected in the selected cartoon strips.

1.4. Research Questions

1. What are the structural dimensions of selected cartoon strips as visual texts?
2. What are the inner and outer relations of the language produced by the selected cartoon strips?
3. How do the three dimensions of social praxis engage in dialectical interaction constitutive of eco-consciousness as reflected in the selected cartoon strips?

1.5. Research Methodology

This research is qualitative. The use of descriptive research is common in qualitative studies. The researcher chose visual discourse analysis for the descriptive investigation because it looks at the visual and text of selected cartoon strips. Cartoon discourse is examined in this study as a dialectical ecolinguistic discourse. This study used dialectical ecolinguistics, which blends dialectical linguistics and ecolinguistics. The models for analysis are the visual grammar of Kress and Van Leeuwen and the dialectical hierarchy of Lindo and Bundsgaard (2000). The researcher used purposive sampling to collect data for this study. Between January 2018 and December 2020, the researcher examined 50 editorial cartoons from the Dawn newspaper.

1.6. Significance of the Study

The present research examined selected cartoon strips from a Pakistani English newspaper from a dialectical ecolinguistic perspective to demonstrate environmental issues. This research adds to the current literature and model by showing how certain ideologies may be constructed via various media modes and how these ideological constructs can result in divergent opinions. The present research adds to the visual analysis of media discourse, such as newspapers, particularly the portion devoted to

cartoon strips, by examining chosen cartoons published in a particular location. In sum, this work helps illuminate ecological challenges and demonstrates how words in conjunction with pictures can impart meaning and be persuasive and influential. Language, ecology, and society are interconnected and influence language users' cognitive capacities. The outcomes of this research contribute to the academic enrichment of ecolinguistics model analysis.

This study offers an analysis model with an ecolinguistic approach to cartoon strips in Pakistani English newspapers. Analyzing cartoons with the ecolinguistics approach reveals cartoons in three dimensions: sociological, ideological, and biological background. Theoretically, this research benefits by (1) adding to the body of ecolinguistics knowledge, particularly about the types of cartoon discourses found in print media, (2) enriching the analysis model for the types of cartoon strip expression found in newspapers, and (3) presenting a novel ecolinguistic study that combines ideological, sociological, and biological dimensions.

1.7 Delimitation

The scope of the study is confined to the depiction of environmental concerns in cartoons. Consideration is given to the Pakistani English newspaper Dawn for data collection. There are four models of the dialectical ecolinguistic theory, but the current study is delimited to the dialectical hierarchy. This model explores language's inner and outer relations from a dialectical perspective. The dialectical ecolinguistic theory involves using sociological, biological, and ideological dimensions to investigate the interrelation between language, society, and ecology. The data collected for the study is delimited to 50 editorial cartoon strips published in Dawn newspaper from 2018 to 2020. The rationale behind selecting this period is that environmental changes occur rapidly, so the researcher wanted to study recent environmental problems depicted in those cartoons. This research will help scholars look at cartoon discourse from an ecolinguistic and dialectical point of view.

1.7. Study Organization

The first chapter of this study discusses the background, problem, objectives, questions, methodology, significance, delimitation, and organization. The subsequent chapter discusses the relevant and thematic literature of the study. The third chapter of this study explains the study's methodology, models, and theoretical framework. The fourth chapter is based on data analysis. The fifth chapter gives findings, discussion, concluding remarks, suggestions, and study limitations.

CHAPTER 2

LITERATURE REVIEW

This chapter is divided into two sections: conceptual and research literature. The chapter opens with Thematic Literature, which defines key terminology and concepts related to the current research. Explaining key terms and ideas in this research is significant to ensure readers understand the subject.

2.1. Advent of Ecolinguistics in Linguistics

The word 'eco' in ecolinguistics refers to ecology, and 'linguistics' refers to the scientific study of language. It appears that ecolinguistics is interested in the relationship between ecology and language. Since Haeckel (1886) defined ecology as ''the scientific study of the interactions between organisms and their environment, ecology has evolved into a distinct branch of biology'' (p. 67). The branch of biology studies how organisms interact with their surroundings. In cognitive biology, these strategies are considered living (mental) systems due to their organization around the unity of entity interactions within their cognitive niche.

Consequently, it is essential to remember that when discussing the ecology of anything, it should be contextualized within the notion of an organism or population of species as a living system; otherwise, the term ecology loses its original meaning. Cowley (2014) was surprised to discover that ''ecolinguistic makes little use of biology or even biological terms'' (p. 75). Studying how humans interact with their natural and cultural surroundings is known as 'language ecology.' However, in keeping with 20th-century customs, Eco linguists aim to remove nature from language interaction, even though linguistics is a uniquely human quality and does not exist in the natural world, much less as a living entity. In his book *The Ecology of Language*, Einar Haugen created the phrase 'language ecology' to describe the study of language concerning its environment. The widespread application of Haugen's concept of language ecology incorporates ecolinguistics as a scientific discipline. Language ecology studies how a language interacts with its surrounding environment. Language only exists within the brains of its users and primarily serves to connect them to nature, namely their social and natural environments.

In this study, the term 'ecolinguistics' refers to a concept proposed by Alexander and Stibbe in 2011. According to its proponents, Ecolinguistics is the study of language that connects humans, other species, and the physical environment, focusing on preserving connections and the viability of life. According to Halliday (2001, p. 32), ''the relationship between language and the atmosphere is inextricable''. Changes in a person's natural and social (cultural) background are inextricably linked to alterations in a language's vocabulary and grammar. The sign is a central concept in primary language theory of the twentieth century, whether European or Saussurean structuralism is employed. This key term encapsulates all of structuralism's fundamental theoretical concepts. A few examples include the arbitrary sign, the semiological system, the concept of valeur, the distinction between diachronic and synchronic linguistics, and the distinction between langue and parole. These concepts can be traced back to Ferdinand de Saussure, the founder of structuralism. This new way of thinking about language emerged due to a change in the sociology of science at the turn of the twentieth century. This transformation can be characterized as the bureaucratization of the scientific community, similar to how Max Weber describes bureaucracies in the West today. Throughout history, scientists have contradictorily defined their respective fields.

In linguistics, Saussure accomplished this by establishing langue as an object of study that he believed could not be studied in any other way. While Saussure's ideas constitute a theoretical whole, one of them, the arbitrariness of the sign, may be viewed as constitutive of structuralism. The arbitrariness of the gesture is crucial in the structuralist conception of language as a closed system of linguistic signals. In the linguistics of the twenty-first century, there are numerous hyphenated fields, all of which stem from the Saussurean tradition. However, there is one significant exception: ecolinguistics. Ecolinguistics is a 'broad term' that encompasses numerous theoretical perspectives. He believes it is preferable to focus on what the various ecolinguistic techniques have in common instead of their differences. According to Haugen's definition of ecolinguistics as "the study of interactions between any particular language and its environment" (Haugen, 1972, p. 31), the environmental constitution of language is a crucial scientific field of study. It suggests that structural and ecological linguistics are mutually exclusive and contradict the central theoretical premise (or axiom).

In addition, they argue that recognizing and resolving divergent perspectives on language and environmental constitution is essential for sustaining and expanding ecolinguistics as a forum for civil and democratic dialogue. It is undemocratic to exclude language research from public discourse because non-linguists have no concept of what constitutes 'real' language concerns.

According to Danish Dialectical Linguistics, the Odense School of Ecolinguistics views language as a formative and constitutive aspect of social activity. Even though language is a social consequence of human behavior, it modifies or affects human action and social praxis. It creates a dialectic between language and social behavior. In their opinion, social practice is the dominant personality in this dialectical relationship. Because social praxis is logically possible without language, and language is the dominant personality. On the other hand, a language devoid of social practices is historically and logically impossible: whereas the former is idealistic, the latter is primitive. Notably, ecolinguistics, formerly referred to as different approaches to linguistic theory (Bundsgaard and Steffensen, 2000), now has a theoretical framework known as dialectical linguistics or ecolinguistics.

This new theoretical paradigm views the social practice as a three-dimensional, ideological, sociological, and biological language environment. Lindo and Bundsgaard (2000) define ideology as ''a person's mental, cognitive, and psychological processes, which can be observed in how they use language, the words they use and mean, and how they act'' (p. 32). The sociological component is how an individual organizes interactions with others to develop, maintain, and sustain harmonious individual relationships, such as a sense of reciprocal affection, which includes mutual love among family members and mutual respect within a community. Human interaction with nature and its inhabitants, including plants, animals, rocks, and macro organisms, constitutes the biological component. Language and ecolinguistics are indispensable to culture, social formation, and daily life—the fundamental contradictions of how people interact with one another shape them.

2.2. Various Debates in Ecolinguistics

Alwin Fill cites Edward Sapir and Wilhelm von Humboldt as early ecologists. Simultaneously, an American linguist's 1970 debate on ''The Ecology of Language'' opened the door to studying the relationships between every language and its environment (which subsequently became the title of his classic 1972 book). As part of a broader ecosystem, language is seen in ecolinguistics 'Haugenian tradition.' Languages are communicated in the speaker's brain as well as natural systems. A more extensive ecosystem of individual-society-social forces-natural environment interconnections shapes language.

In a 1990 presentation at the World Conference of Applied Linguistics in Thessaloniki, Michael Halliday made the first relationship between biological ecology, ecological and environmental challenges, and language. "Halliday pioneered the study of the connection between language and environmental concerns and language, conflict, and peace" (Fill, 1990, p. 42). Ethnocritical philosophy holds that the linguistic system and its many forms are unecological, hence sharing the blame for environmental destruction. Hallidayan tradition seeks to increase awareness of linguistic anthropocentrism. Although based on Nettle and Romaine's foundational work on language extinction, this strain is less self-reflective and tense than the other two. Their book draws a strong link between language loss and biodiversity loss. Since the non-human world molds these forms and codes, Nettle and Romaine coined the term 'biolinguistic variety.' They also explain how the agricultural, industrial, and capitalist revolutions and hegemonic languages and styles led to the loss of linguistic and cultural variety and biological diversity.

These beliefs, echoed by David Abram (1996), suggest that ''ecolinguistics will confront considerable challenges in addressing human exploitations of the natural environment and minority and indigenous cultures and languages'' (p. 64). A group led by Frans Verhagen used the term meaning most closely associated with the work of several Forum members (and predates by months the Hallidayan tradition) for the first time at the 1990 International Association for Applied Linguistics (AILA) conference. The ecolinguistics mentioned above increases the field's potential to define its methodology and fundamental theoretical principles.

2.3. Emergence of Dialectical Perspective in Ecolinguistics

Researchers offer a dialectical definition of linguistics as the environmentally aware study of language phenomena and the organization of people and related challenges. Linguistics is primarily concerned with describing and prescribing natural, living languages, their phenomena, and their contextual and situational implications, including their genetic and constitutional conditions and consequences. It is described as a collection of biological, natural, and cultural events generated by circumstances on both the synchronic and diachronic scales. Languages are inextricably linked to their environments; without them, they would die. Each linguistic description and prescription and each environmental description consider the issue of ecological consequences. The word 'environment' refers to the dialectical relationships that exist between the intellectual environment (mental organization), the biological environment (physical organization), the sociological environment (social organization), and the physical environment (the physical organization).

The phrase has numerous fascinating implications for linguists. If selected, linguists will be required to do transdisciplinary research and collaborate with intellectuals from other disciplines interested in studying languages. Because established language results - ideas, methods, facts, and judgments – are regarded as neutral or consistent, they cannot be engaged in and of themselves. While not physically present, they are socially and mentally present (almost certainly biologically present). It may be a theoretical and practical endeavor for the institutionalized linguist to revise traditional concepts of linguistic truth via critical disciplinary action. The predicates re-vision, reconsideration, re-formulation, and re-grounding indicate these needed processes. The activity can be carried out solely from the topos of any book, even a speculative one. It contains a plethora of meaning possibilities, and no natural language can be reduced to an entire system since a living, natural language results from dialectics and culture, changing across time, space, and person.

Bundsgaard & Steffensen (2000) state ''language is a social action component, including social praxis'' (p. 24). Social praxis is a comprehensive phrase that encompasses all parts of society, including community and natural environment behaviors, attitudes, and activities. This situation is fundamentally social, with language serving as the object. It describes how shifts in social praxis (human behavior and

attitudes toward society and the natural environment) result in language changes. In other words, social practice changes have the most evident effect on language development at the lexical level. Social praxis is a multifaceted intellectual, social, and biological phenomenon. The three dimensions are included and contribute to creating a mutually interacting language (dialectical).

The dialectical link between language and social praxis indicates that language theory is also a social practice theory. It is valid for all (linguistic) theories, regardless of whether they embrace them. It is a democratic approach since language studies are open to everybody interested, not just the scientific elite. Danish Dialectical Linguistics is described as clarifying the axiological and political consequences of our (and others) language activity and (ii) establishing linguistic theories in the context of an explicit dialectical theory of social practice in historical and transhistorical eras. Two critical components of the analytic theory are the Core Contradictions and the three-dimensionality of social praxis.

According to dialectical theory, no phenomenon is mono-logical or mono-dimensional. Our breathing technique affects our physical, mental, and social well-being. Capitalism is more than a sociological framework for producing, distributing, and consuming goods within and between social classes. Additionally, it is a particular ideological configuration of capitalism ideologies of 'production-based growth, competitiveness, and profit.' It is also a distinct biological configuration characterized by exploitation, pollution, and unsustainable ecological expansion. Like social praxis, language is a three-dimensional component of social praxis. As a result, linguists may define language in these three aspects. Structuralism saw language only as an ideological reality at the individual and societal levels. V.N. Voloinov, a Marxist linguist and founder of the dialectical school (Marxism and the Philosophy of Language, 1930-1973), characterized language as primarily a social phenomenon. Eco linguists' disagreements about the meaning of 'ecology' in this context (e.g., Alexander, 1996, p. 73), i.e., the scope of ecolinguistics, indicate that some scholars focus primarily on portraying environmental issues in texts, while others take a broader approach. Among them are the founders of Danish Dialectical Linguistics (the Odense School of Ecolinguistics), whose mission statement reads, ''we define linguistics dialectically to propose an ecologically reflected structure of persons and concerns concerning language phenomena.''(1998, p.7)

According to the relational research technique, the dialectical theory is also ecological. Furthermore, seeing the environment as ideologically, sociologically, physically constructed, and constitutive suggests that environmental concerns include essential interpersonal relations. Additionally, this view of language and linguistics implies that any written or spoken material may serve as a goal. Thus, Bang and Door's theory of language is both an ecological theory and a kind of philosophical experimentalism - a trait unique to ecolinguistics, as we know. While this theory redefines linguistics' purpose, it also redefines linguistics itself, as the categories compensate for the shortcomings of previous linguistic methods.

2.4. Current Trends in the Dialectical Approach

Dialectical Linguistics is a school of thought holistically investigates all aspects of language and communication, considering the links between language, ecology, and society. We cannot compartmentalize or isolate any of these domains in our everyday lives or academic endeavors, just as we cannot order our educational efforts from the environment in which we live and think. Dialectical Linguistics is an interdisciplinary field that is revolutionary. It is transdisciplinary because its heuristic framework indicates a world in which questions of language and communication are intricately tied to philosophical, social, and practical concerns. It is revolutionary in the Kuhnian sense in that its goals and techniques differ from those of mainstream linguistics, and in the social mind, it promotes alternative models, patterns, and ways of language communication. It makes a case for the essential need to reform and protect social practices.

Dialectical Linguistics is radical in that it contends that conventional linguistics is incapable of recognizing, much alone addressing, the twenty-first century's most critical problems. Additionally, it is revolutionary because it reframes traditional language categories such as deixis, discourse, text, context, syntax, semantics, and pragmatics. It provides a new logical framework for studying linguistics-related problems. Indeed, the concept of language itself. In Dialectical Linguistics, science places a high premium on conventions in scientific linguistics. One might describe the theory's fundamental premises or principles to illustrate why Dialectical Linguistics is a new science of language. However, in Dialectical Linguistics, a single code

encapsulates the spirit of dialectics: Principle of Dialectical Holism: Every part of existence is inextricably linked dialectically!

This notion resembles dialectical theory and various critical, comprehensive systems in Eastern and Western philosophy. This principle tells us that nothing can exist in isolation from the rest of the world and that everything that exists does so in cohabitation. Initially, this concept entered current Western science, particularly physics. Consequently, according to David Bohm and B.J. Hiley's *The Undivided World* (1993), the implicate order's fundamental properties are that ''the whole universe is enfolded in everything and that each object is enfolded in the whole'' (Bohm, 1993, p. 164). Thus, when we talk about science, we are not referring to an 'out there' object or concept but our interactions with our environment.

The dialectical ecolinguistic research tries to make hypotheses about language in its spoken and written forms regarding what has been dubbed intra-, inter-, and extra-relations. Before this, structuralists, who made a significant and indisputable contribution, dealt with the intra-level. The inter-and extra-levels are what they have overlooked in their discussion of a system's components and the rules that govern its functioning without regard for specific content, as long as communication happens within a given context and under specified circumstances. The notion that language faculty has general characteristics with other biological systems was established initially in Lenneberg's 1967 ''Biological Foundations of Language'', which presents an overview of the faculty of language based on practical biological importance. The book addresses some of the most often claimed assumptions concerning the biological origins of human language by examining the foundations of language abilities—an International Journal of Language, Society, and Culture.

Evolution and genetics Lenneberg (1967) asserts that ''three factors contribute to an individual's language development. These include genetic endowment, experience, language-independent data processing principles, structural design, and computing efficiency'' (p. 86). Consequently, he addresses some fundamental problems in biology about language, its nature and use, and even its development. Haugen (1972) makes numerous crucial observations on the link between language and biology, which are essential because they preserve an unbroken view of human language as a whole 'organism.' He claimed that ''languages are born and die'' (p. 120).

They had lifespans, grew and changed in the same manner as humans and animals, and were afflicted with minor maladies that could be cured with appropriate pharmaceuticals prescribed by qualified grammarians.

Haugen (2001) shows language as ''a 'living organism' that lives, grows, and dies through this contrast'' p. 192). Additionally, he protects the most adaptive of all languages from extinction. A language's 'fitness' is determined by its user base and worldwide spread. Minority languages are critically endangered and need concerted efforts to survive. It is achieved by explicit assumptions about the social, economic, political, and religious aspects that considerably shape a society and its needs. The procedure is akin to that of a physician healing a specific illness. A diagnosis is required to ascertain whether part of the organism is damaged. Then, suitable strategies are created, and appropriate modifications are implemented if circumstances change.

Linguistic ecology is concerned with the synthesis of several explanatory levels. Numerous disciplinary perspectives are consulted to comprehend human language on a global scale. The connection between language behavior and the natural environment coincides with the ecolinguistic paradigm. Indeed, language ecology's scope has swiftly grown, and the concept has been extended to various fields affecting human life. The idea of the environment has evolved to include pollution, endangerment, biological diversity, and technology. The links between language and ecology have been established during the last few decades. It allows ecologists to handle orthography design, linguistic and ethnographic analysis, strategic literacy goals, and translation operations via various methodologies and tactics. Indeed, these relationships have facilitated the development of practical techniques for conserving endangered languages and addressing complicated linguistic challenges in multilingual societies.

Thus, the dialectical ecolinguistic method has developed into an integrationist view of language study as a 'life science' since linguistic analysis may concentrate on living humans, not speaking machines or walking animals. Finke compares the paradigm with structural models, which may be used to study the language itself and not its context. It has broadened the scope of language research to include more challenging subjects, bridging the divide between human, social sciences, and 'life sciences, such as biology and medicine. Meanwhile, the ecological context and

consequences of language usage are addressed in light of global issues facing the twenty-first century.

2.5. Studies of Cartoons from an Ecolinguistic Perspective

Natalia Ivchenko performed a study on animated cartoons' function. Her study examines the role of cartoons in revealing and criticizing the underlying ideologies, motives, potential importance, and other phenomena that underpin the animated ecological discourse in the film 'Zootopia.' She believes that the content of the English-language animated film 'Zootopia' investigates verbal and nonverbal means of communication, exposes difficulties and encourages resolution, and supports the formation of sustainable connections between people, humans, and the environment and its phenomena (Ivchenko, 2021, pp. 188-201).

Amel Omar Abd El-Hameed examined Egyptian cartoons from an ecolinguistic perspective. He argues that the Cartoon discourse is an enthralling medium for teaching languages since it addresses social and environmental issues. He claims that cartoon discourse may be utilized to teach translation since analyzing cartoons and comprehending their scripts and messages aids in establishing equivalency in translation. He also elucidates the cultural and ideological meaning of the cartoons' text and illustrations. He says that cartoons may be beneficial in teaching pragmatics since pragmatics deals with speech contexts while cartoon discourse deals with daily happenings. These events may be social, political, economic, or ideological, but they all represent society and culture (Hameed, 2016, pp. 124-128)

Adele Haverty Bealer conducts an ecocritical examination of modern cartoons and graphic novels. He believes vivid tales are a potent tool for situating modern environmental imaginations and demonstrating the theoretical complexity behind their surface. Umar Hayat's research on the animated cartoon Rango, specifically emphasizing hydro politics and hydro hegemony, reaffirms the essential nature of eco-critical viewpoints and strategies for coping with depleting water, energy, and other natural resources. He concludes that in today's technologically advanced world, other than superpowers such as America, Russia, and China, other less powerful yet potentially dangerous countries possessing weapons of mass destruction can prove extremely dangerous for world peace, as depicted in cartoons, and that water resources

are assuming primacy in developing the energy resources of various countries. The next battle will almost certainly be fought over water supplies (Bealer, 2014, pp. 72-79).

Iiris Kettunen, as an environmental cartoon, or 'envirotoon,' in a primarily American setting, examines Steven Universe. He delves into how Steven Universe conveys its environmental message with tropes from various ecological discourses. He demonstrates how the program's narrative and technical aspects contribute to the show's ecological message. He claims the play relies on different environmental ideas but ties with ecofeminism most crucially. The need for more varied environmental opinions is acknowledged inside and outside academia. Therefore, a greater variety of enviro-toons has begun to develop. Steven Universe is just one such animation, but it demonstrates how the issues with classic enviro-toons are partially a result of the environmental ideology behind the plots (Kettunen, 2021, pp. 124-132).

Sarah Warso examines cyborg identities in children's media and their feminist ecocritical connotations in animated cartoons from an ecolinguistic viewpoint. She finds that children's cartoons are capable of handling hybridized identities. Through cyborgs and hybrids, the program 'She-Ra' and the Princesses of Power may assist youngsters in coming to grips with their hybrid identities in a technological society (Warso, 2019, pp. 61-69).

Fahmi examines two enviro-toons from an ecolinguistic perspective: Disney's Bambi (1942) and Dr. Seuss's The Lorax (1972). She finds that the chosen enviro-toons succinctly convey ecological catastrophe — hunting, species extinction, pollution, deforestation, and overproduction. Industrial capitalism's profit motive fuels consumption and the industrialist Once-jobs let us –jobs –jobs speech in The Lorax. On the other side, Bambi, the Prince of the Forest, embodies the ecological sublime — that is, the Wilderness myth is deserving of awe and amazement. Numerous traits characterize animation's language. Because animation is a culturally driven lexicon that various animators perceive and use differently, every animation necessarily bears an authorial signature or/and 'studio style.' She contends that it is not so much what cartoons depict; they describe ecocritical sensibility and how it influences one's manner of seeing and comprehending the human/nonhuman environment (Fehmi, 2018, pp. 98-106).

XU Jun-fang examines the Native Americans' ecological worldview as expressed in the Pocahontas cartoon via the lens of Ecolinguistics. He argues that Native Americans' ecological vision has become a legacy for all Americans, particularly when American society considers the possible causes of current environmental challenges and aspires to create a harmonious ecosystem where all species and living creatures can coexist and thrive (Jun-Fang, 2016, pp. 65-72).

2.6. Studies of Cartoons Involving Dialectical Perspective

Paiva and Batista Junior demonstrate via dialectic-relational analysis of multimodal metaphors that dominant ideological discourses are a question of language and non-verbal thought and behavior. They analyzed the verbal-visual representation of the Bolsonaro Government's relaxation of firearm possession in cartoons distributed and replicated on social media in 2018 and 2019 and made available on specialized websites and journalism blogs, including Humor Politico, Tijolaço, and A Charge Online. They investigate the dialectical relationships between semiosis (including language) and other components of social activity in the discursive materiality of the five cartoons gathered. They examine how semiosis is incorporated into social activities, most notably in the reflecting representations formed by the acts of social actors. Thus, the new power relations, discourses, and practices that emerged and spread in the run-up to and during the 2018 elections benefited us in appreciating the metaphorical processes encoded in language, cognition, and behavior (Paiva & Junior, 2019, pp. 183-189).

Maryanti E. Mokoagouw explores fairy tales through the lens of dialectical ecolinguistics. He addresses the three facets of fairy tales' environment: bio-logics, socio-logics, and ideo-logics. He concludes that the bio-logics dimension refers to the habitats of humans, animals, plants, other beings, nature, and the 'other' environment. The socio-logics dimension relates to relationships between best friends or rivals embedded in social roles as conflict-triggers or peacemakers, advisors, producers, or consumers; the ideo-logics dimension refers to six types of relations, including relations among best friends (Mokoagouw, 2020, pp. 102-109).

Wayan and Arya suggest that the tourist brochure's cartoon graphics marks a watershed point in the Denpasar municipal government's marketing attempts to reach overseas audiences. They imply that cartoons may transmit messages on various topics, including politics, social issues, and tourism. The cartoon illustrations in the tour

brochure have significant implications for art communication, cultural communication, and religious communication. The cartoon visual indicators that serve as Denpasar City's cultural identity have several meanings. Cartoons communicate while keeping to societal values. Dialogue is given a new level when a dialectical approach is paired with a playful visual. Kadek Jango Paramartha anticipates that cartoons will be used to promote tourism in the future (Wayan & Arya, 2021, pp. 109-208).

Kim approached Franks Mouris' autobiographical tale via Walter Benjamin's concept of 'dialectical images.' They believe 'dialectic' may be defined as a contradiction or an opposed idea in the basic principles. However, a dialectical portrait of Benjamin may be formed without an opposing thought while retaining the uniqueness of each new link in the past. Benjamin's dialectical images never stay in the historical past; they constantly interact with the present moment when the past is recognized in the present. Additionally, they propose three alternative ways to analyze this animated film from Benjamin's perspective, including historical-dialectical imaging of private/collective memory, Reconfiguring the present through an analysis of the relationship between image flows and their time/space and old future over the existing fragment and its presence. He adds a new level to the study of animation (Kim, 2019, pp. 189-209).

2.7. Studies on Cartoon in Print Media

''Pakistan is one of the ten most vulnerable countries to climate change'' (Ali, 2020, p. 43). Besides food scarcity, climate-related catastrophes such as floods and erosion cost Pakistan much money. Pakistan's media seems oblivious to global and regional climate change issues. Pakistan's media has mostly overlooked climate change. Climate change is a critical worry for the world, including Pakistan, and all media sources, particularly the official ones, are taking it seriously. Climate Change is not a top issue for editorial cartoonists in Pakistan. Climate change, on the other hand, is altering mindsets. Nowadays, no prior training is necessary. Most cartoonists working on the topic have a limited understanding of environmental processes and ongoing developments. Another shortcoming is the dearth of precise data. The media's attention has been attracted to the issue due to the dramatic shifts brought about by climate change. In Pakistan, environmental cartooning is still in its infancy but will gain prominence. There is insufficient concentration; climate change is little mentioned in Pakistani media unless

there are floods or glacial lakes. Climate change gets little coverage in Pakistani media, and journalists are ill-equipped to cover it. Regrettably, we only hear of these organizations in the news or the aftermath of a calamity.

This study uses dialectical ecolinguistic analysis to uncover a hidden ecological disaster in cartoon artwork and words. Readers prefer cartoons to text or essays. The most effective method of communicating and raising awareness is via cartoons. This media may be funny and caustic, intending to elicit laughter from the audience. Tahreem (2013) examined Pakistani political cartoonists' face-saving and face-stuffing techniques. She asserts that ''political cartoonists utilized newspaper drawings to expose or conceal their identities: nomenclature and relationships'' (p. 38).

Sani and Jar'aduwa persuaded and connected with significant research via Nigerian cartoon graphics. The research examined cartoon designs that effectively express captivating concepts via ingenuity and simplicity. Studies demonstrate that users' brains quickly consolidated their oral images when the visual stimulation was deployed. The research discovered that visual representation might effectively combat social, political, and economic inequity and promote social justice (Sani & Jar'aduwa, 2014, pp. 57-62)

Hussain and Li examined how Pakistani media cartoons promote national interests via content analysis of cartoon themes. Cartoons were analyzed semiotically in a qualitative manner. According to the report, more than 70% of cartoon themes addressed fundamental problems. El-Falaky examined numerous editorial cartoons selected by Al-Ahram during the 2011 and 2013 Egyptian Revolutions. According to the study, official Egyptian media outlets used visual content to promote ideas, beliefs, and identities. Leeuwen's visual synchronic linguistics led the work. The inquiry highlighted Egypt's political, social, and cultural landscapes. The research establishes that government publications used a variety of modes of communication to express political and intellectual ideas to their readers (El-Falaky, 2018, pp. 211-256). Jabeen and Ahmad examined political cartoons in Pakistani Urdu and English in 2018. Newspapers' linguistic and semiotic portrayals of Pakistan-US relations are politically driven and used to generate philosophical beliefs about the post-9/11 era. The study utilizes a multimodal approach to live discourse (Machin, 2007) and draught repetition (Leeuwen, 2008; Fairclough's, 2003) framework for graphical and linguistic analysis

of political cartoons. Political cartoons are explored on an aesthetic and linguistic level to advance the interests and ideas that influence public opinion (Jabeen & Ahmad, 2019, pp. 164-186).

Kurnawati investigated trash signals to understand Indonesian culture deeper. She obtained the information from Sleman, Yogyakarta, and Google. She analyzed the data to determine the Indonesian dialects used on anti-littering signs. Thus, she discovered Indonesian official, consultative, and informal littering signals. She fixed grammatical, spelling, vocabulary, and diction errors. She connected certain defects and language kinds due to social structure (Kurnawati, 2018, pp. 109-123).

Handayani examined environmental concerns in Papua New Guinea's digital media. She discussed the advantages and disadvantages of provocative wording. A well-crafted message or inference may affect readers' thoughts and attitudes toward environmental stewardship. Environmental discourses have many frank, crude, and destructive statements. These assertions persuade the reader to take an anti-environmental stance (Handayani, 2018, pp. 94-100).

Nesi investigated Takanab as an oral culture of the Dawan. She desired to establish Takanab's fundamental identity, delve into indigenous knowledge values, and chart a course for the community's long-term survival. It is a study of symbolic ecolinguistics. According to the Takanab oral tradition, the Dawan community's fundamental identity is agricultural. Second, proverbs, advice, poetry, parallelism, and ideology are all associated with stone and water in Takanab's oral heritage. Takanab may be preserved through natural inheritance, religious organizations, and educational institutions (Nesi, 2018, pp. 54-68).

Yuniawan discussed Eco's linguistically critical green discourse. Their research shed light on environmental discourses and views about people and the environment. UNESA, Suara Merdeka, and Kompas documents were consulted for this research. They discovered that language used in environmental discourse affected participants' sensitivity and reasoning. Green language positively influences people's attitudes and behavior toward the environment (Yuniawan,2017, pp. 172-193).

Kesuma studied the eco-agriculture lexicon in Sayurmatinggi's South Tapanuli sub-district. The data from a verb, noun, and adjective lexicons were analyzed concerning paddy cultivation in Sayurmatinggi. It is divided into 11 sections: rice

fields, paddy fields, crop fields, medicinal plants, and livestock and farm animals. Additionally, she compiled a list of endangered and extinct eco-agriculture nouns and verb lexicons (Kesuma, 2017, pp. 186-198).

Utami revealed the lexicon and mythological speech of Bali's Tukad Badung ecosystem component. She wanted to investigate the lexicons of the river environment in Tukad Badung. Particular lexicons found in river environments are both essential and complex. There are three types of words: nouns, verbs, and adjectives (Utami, 2015, pp. 15-20).

Goguen conducted a semiotic analysis of political cartoons. He connected cartoons to semiotics, the study of signs by reading given drawings. Thus, although there is a wealth of reflection on political cartoons, few relate to semiotics, which allows for a more nuanced understanding of cartoon strips. Many cartoonists may have a passing familiarity with ecological ideas. Thus, instructional 'envirotoons' that are rational, realistic, and goal-specific are essential. In conjunction with other media, the internet will effectively aid in the transmission of 'envirotoons' between individuals. By incorporating 'envirotoons' into classroom instruction can increase student involvement and the efficacy of environmental awareness and management activities (Goguen, 2003, pp. 324-398).

Environmental awareness may be dramatically increased via education. There is a chance for ecological art and environmental education to take place in public. It may assist children in developing a greater awareness of their environment, establishing new mental patterns, and promoting group problem-solving. Environmental and art educators have developed novel strategies for enhancing children's cognitive, psychological, and moral development (Blandy et al., 1998, pp. 154-187).

Recent research has concentrated on environmental cartoons, their characteristics, applications, and the numerous approaches used to analyze this genre. Scholars have identified new strategies for decoding cartoon meanings via semiotic, rhetorical, and narrative studies. Semiotic analysis is the technique that identifies surface and subsurface structure (denotation and connotation). The semiotic analysis emphasizes the hermeneutic context's importance in shaping meaning (Woollacott, 1982, pp. 123-128). It analyzes media texts for repeated signals' usage, intended audience, and reader effect. Ray Morris reportedly used literary tactics such as

metaphors and opposition to express his artworks' message. Morris examined how these cartoons depicted social and political groupings via a structural sociological lens (Morris, 1993, pp. 156-172).

Morris's examination of the pictures' rhetorical tactics uncovered the following: Condensation reduces complicated events to a single image; combination assembles components. Domestication entails concretizing abstract concepts, while opposition entails analyzing the cartoon's fundamental contradictions. Edward and Bostdroff (1993, 1987) examined the narrative aspect of these images/cartoons to highlight the third method of cartoon interpretation.

''Numerous countries are alarmed about climate change'' (Anderson, 2009, p. 56). Pakistan's population is around 22 million, the sixth most vulnerable to climate change. Most research dissertations are Eurocentric, with the UK making a sizable contribution compared to other European countries. Nevertheless, few experts have focused exclusively on Asian environmental challenges (Kamboh &Yousaf, 2019, p. 34). Pakistan's English-language print media has extensively reported the ecological calamity. COVID-19 fear and phobia terminology in Pakistani media-political cartoons because a single image depicts the whole story; these cartoons are an effective visual communication medium. Editorial cartoons are also used to convey subliminal messages. It focuses on the usage of political cartoons by media regarding the coronavirus (Fareeha, 2019, pp. 123-165).

Machin's multimodal analysis claims that images acquire significance due to their social and historical contexts. It demonstrates how political cartoons foster fear and mental illness. Their criticism of the government for failing to act soon enough to curb the outbreak is also a mockery and condemnation of the authorities for the economic crisis. Gulnaz attempts to understand selected national media's semiotic discourses, emphasizing the representation of Covid19. Pakistan Times, Dawn, and The Nation were chosen. The qualitative research paradigm is used to examine selected cartoons. The article employs a hybrid paradigm of critical discourse and semiological analysis. The researchers discovered that many newspapers have unique Covid-19 components. Dawn discusses standard operating procedures and the economy. The Nation portrayed viruses as having a disastrous impact on schooling and dismissed the

public's response to Covid 19 as fake news. Corona's second wave? According to Pakistan Today. (Gulnaz, 2019, pp. 154-174)

Akber believes print media semiotic discourses were crucial in creating and propagating diverse ideologies. His study aims to decode the Pakistani English newspaper DAWN (daily), emphasizing how the Pakistan-US relationship is portrayed. The data were collected between October and December of 2018. One of ten (10) cartoons representing Pakistan attempting to live without America was selected for linguistic and semiotic research. The study is both descriptive and qualitative. The researchers updated Fairlough's (1995), Kress's (2010), and Kruger's (2000) research models to examine linguistic, semiotic, and focus group data. The opinions of focus group participants bolstered the semiotic analysis. The study demonstrates that nothing is absolute in politics regarding Pakistan-US relations as expressed via semiotic discourses. Additionally, the research reveals how print media semiotic discourses use linguistic and meta-linguistic techniques and processes to depict socio-political changes (Akber, 2018, pp. 192-208).

2.8. Gap Analysis

As cartoons have been explored from various perspectives in Ecolinguistics, they have not been investigated from a dialectical ecolinguistic perspective. According to the works cited above, no previous study has examined cartoon strips in a Pakistani newspaper from a dialectical ecolinguistics approach. This study adds to the body of knowledge in dialectical ecolinguistics. Though cartoons have been examined from various angles in linguistics, they have not been examined from a dialectical ecolinguistic approach.

The research will contribute to the body of information and model utilized in the analysis by demonstrating how certain ideologies may be constructed through various media modes and how these ideological constructions can result in divergent opinions. The current research adds to the visual analysis of media discourse, particularly newspaper sections that include cartoons. It features a selection of cartoons connected to a specific setting. This study sheds light on environmental issues and the public's reaction to cartoons.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

Based on dialectical ecolinguistics, the current study examines cartoon strips relevant to environmental issues, particularly in Pakistan. Therefore, the researcher uses the dialectical ecolinguistic theory of language and analyzes the cartoons using visual and textual methods. The notion of ecology has been portrayed in Pakistani English newspapers and is connected to the cartoons chosen for investigation in the current study. The researcher gathered the cartoons for the present research from the online edition of Pakistan's Dawn newspaper in English. Many researchers have used multiple methods to interpret this genre, including visual discourse analysis, critical discourse analysis, content analysis, rhetorical analysis, semiotic analysis, and persuasive analysis. The researcher applies three levels of dialectical ecolinguistics together with visual and dialectical analysis to analyze the whole meaning of the cartoons for the current study. The researcher employs a qualitative data analysis approach without forming any hypotheses and deals with cartoons using the dialectical hierarchy model developed by Lindo and Bundsgaard (2000).

3.2 Theoretical Framework

3.2.1 Dialectical Ecolinguistics Theory

Cartoons are a type of discourse, and as they contain both text and images, they fall under the umbrella of visual discourse. As discussed, the researcher employed the visual dialectical analysis technique to interpret the cartoons. Since ecolinguistics focuses on the interaction between people and the environment, it is the ideal framework for studying environmental cartoons. Given that this study is about dialectical analysis of cartoons, dialectical ecolinguistic theory, out of the many diverse ecolinguistic theories, best fits this study. Three perspectives on discourse are studied via dialectical ecolinguistic analysis (ideology, biology, and sociology). Visual grammar is well known for deciphering an image's underlying meaning (including cartoons). The researcher uses the visual grammar theory of visual discourse as a

guiding framework for examining environmental cartoons that address ecological issues. The three levels of dialectical ecolinguistic theory are:

3.2.2 Ideological

Lindo and Bundsgaard defined ideological background as an individual or community's belief system, paradigm, and mental or cognitive state. This ideological backdrop varies from one civilization to another or from one location to the next. In a society, ideology is established to influence the communal understanding of something. According to Stibbe (2017, p. 34), ''this ideological foundation reveals in myths, norms, laws, values, and regulations''.

3.2.3 Sociological

Fill (2001, p. 45) states ''language and society are inextricably linked''. It concerns the language individuals use to express their identities, seek protection, and enhance different forms of power. It is a means of establishing a link between social and language structure. Language characteristics may vary according to class, gender, social standing, and background.

3.2.4 Biological

The biological ancestors are inextricably linked to the natural environment. The biological climate in living and non-living physical situations is realistically depicted in the discourse. The ecosystem incorporates both living and non-living physical conditions. Following that, these three interrelationships are used in four different analytical models. These include the conversation model, the dialectical hierarchy model, a triple model of reference, and the social praxis's central contradiction. The present researcher solely employs the dialectical hierarchy model in this study due to the study's objective of elucidating environmental difficulties via dialectical ecolinguistic theory. This study aims to determine the influence of cartoons on the comprehension of ecological concerns and examine the beliefs that underpin these issues.

3.3. Visual Grammar

Visual grammar examines the structure of visual language comparable to linguistics. Grammar is a branch of linguistics that organizes words into phrases, sentences, and texts. Similarly, visual grammar describes merging visual components - people, locations, and things - into a sophisticated and extended graphic narrative. Visual structure relates to a specific interpretation of form and social interaction as with linguistic structure. Additionally, Kress and Leeuwen questioned, 'What is the grammar of our visual grammar?' First, it defines a social resource unique to a particular group and is explicit and implicit knowledge about it and its use in that group's behaviors. Second, it is a matter of general grammar since we need a phrase encompassing oil painting, magazine layout, cartoon strips, and scientific diagrams. It includes explicit and implicit knowledge and behaviors about a resource and the features and norms governing a culture-specific visual communication mode (Kress & Leeuwen, 2006, pp. 156-189).

According to Kress and Leeuwen, visual grammar is approached from a social perspective. Its structure is not a straightforward replication of reality's structure. Instead, it creates a realistic picture tied to the social community's interests, distributes and reads it, and becomes ideological. Printmakers, photographers, designers, and painters all contribute to expressing meaning. Additionally, sculptors are mainly concerned with societal connotations. Visual grammar characteristics and norms are used to analyze cartoons: elements and structure, participant position, modality, and composition.

3.3.1 Elements and Structure

Visual grammar knowledge entails understanding the components, structures, and norms that underpin particular cultural forms of visual communication. The participants are the visual aspects. Each viewable text has two participants: drawn participants (all individuals, events, and things shown in the picture) and interactive participants (image-makers and viewers). The image-maker is the individual or group that makes the picture, while the image-viewer is the individual or community that utilizes the image. Whether prospective or actual, each participant becomes a semiotic resource connected to the others, physically or virtually, and formed around its social meaning. Two types of representation structures relate to all participants: narrative and conceptual. These

structures facilitate the formation of numerous linkages, networks, and interaction processes.

The Narrative Representation Structure (NRS) depicts events and actions. Like the structure of a phrase, which consists of subject-verb-object parts, a subject in NRS is referred to as an actor, while objects are referred to as the objective. An actor in a visual text may be a live thing and more prominent than an object than the others in terms of location, size, color sharpness, and contour. A verb is a colloquial term for the action or events experienced or the relationships between actors that lead to a goal and is sometimes referred to as a transaction. The structure of the conceptual representation is a rigid and eternal connection between participants in a particular class. This structure may be considered a categorization or taxonomy process, such as the sequence or chain of participants' interactions; at least one set of participants will subordinate to at least one other participant.

3.3.2 Position of Participants

The location of participants in visual grammar is determined by the connections between the picture's participants and interactive participants. Interactive participants are actual individuals who create and comprehend concepts within a social community framework that limits what the image may say,' how it should be stated, and how it should be perceived, to a degree and in various ways. Some terms are the demand-offer relationship, social distance, horizontal line, and vertical angle.

3.3.3 Modality

The word modality originates in the language realm and refers to the value placed on the validity or believability of assertions based on facts. In verbal language, modalities are articulated in words. Modality-related linguistic resources play a critical function in society. This source enables individuals to co-create required truths and establish organizations around shared beliefs to function cohesively and effectively in one world. Similarly, it allows one to reject the reality of others, with all the attendant implications, ranging from expulsion from the community to religious and ideological conflicts. However, what is deemed accurate in visual grammar is not synonymous with ultimate truth. Modality's fact is restricted in its ability to answer the inquiry, 'how true is anything revealed?' Visual modality may show people, locations, and other objects as genuine as if they exist or as fiction, caricature, or imagination. Modality evaluation is

a social process determined by what is truthful (or authentic, holy) among the social groups addressed by the representation. High modality equates to being closer to reality instead of erasing it. It may be adjusted by adjusting the depth of the sections, the contrast, the color saturation, the intensity, and the sharpening-blurring of the backdrop.

3.3.4 Composition

The composition arranges all components from the 'drawn participants'. Composition is defined as three interconnected systems: information value, salience, and framing. The value information system is the arrangement of items in picture zones that correspond to the importance of certain pieces of information. Based on the habit of writing, the left side is written communication, oriented toward the past, definite things (referred to as provided), and the right side is an area to be inscribed, directed toward the future, uncertain things (called new). The top depicts idealized concepts based on philosophical relationships, but the bottom is more grounded in reality. Concerning the social component of the division of center-edge, the center region indicates a source or mediator of the edges or marginal areas (called margin). A salience system is an arrangement of items in the 'drawn participants' designed to direct viewers' attention, including location in the front or background, relative sizes, contrast tonal value (or color), and sharpness contrast. On a larger scale, salience establishes a hierarchy of actors. By examining the locations of the most significant individuals, it is possible to establish an order in which 'given' takes precedence over 'new' or vice versa. Thus, 'ideal' precedes real and vice versa and the center-margin relationship. The framing system is intrinsically linked to the existence or absence of a boundary line. It is accomplished via items that produce a separating line, either actual or fictitious, or through a solid frame line that divides or unites the image parts. Contextually, the image framing shows joint or private ownership. A frame system identifies elements or groupings of characteristics that are sometimes detached, dissected, or in which one component is related to another and is combined. A difficulty with the framing method is that it is a question of degree: pieces in the composition may be framed strongly or weakly; the more strongly stated a component is, the more it is presented as a distinct unit of information. The more closely connected the spatial composition parts are, the more they seem to be a single data unit.

3.4 Dialectical Hierarchy Model

Among many models of dialectical ecolinguistics, the researcher has chosen the dialectical hierarchy model by Lindo and Bundsgaard (2000) to extract the meaning from the collected cartoons and answer the questions proposed in this study. The model relies on the dialectical ecolinguistics theory, which uses social praxis as a language environment.

The dialectics of the text's external and internal parts result from the fact that people have created texts and languages as medial communication components throughout our social, biological, and ideological lives. Some forms of utterances, texts, and languages have been identified with similar significance for the same individuals in different contexts to indicate portions of the situational meaning. Thus, some parts of texts and languages are identical to previously established communicative utterances, with some similar features frequently utilized by community members and others used infrequently. Every individual and society creates some order of recurrence of comparable signs and their uses, a memory of the typical form and communicative relations that we have experienced to share, more or less, with our social relatives and more or less with other social relatives. Some linguists appear to believe that the most frequent parts of a language should be the smallest unit and that the less frequent parts should be constructed by combining the smaller units; for example, a phoneme or a grapheme should be the minor units, combinable to morphemes, words, sentences, texts, and languages. This paradigm emphasizes that there is no minimum linguistic unit. Every part of language exists because of its relationship to the other parts and the communication context. No part of a text or language is reducible to be a subpart of significant sections if the parties in communication do not construct such a classification, and any part of a text or language may be of the utmost necessity and the maximum redundancy.

Consequently, the model of the dialectical hierarchy of the parts of text and communication attempted to indicate the dialectics of the 'inner' relations of the text's parts and the 'outer' connections of the elements and segmentation—the researcher analyzed cartoons connected with the surroundings using this model. The first step in the analysis process is identifying signs, followed by identifying inner meanings and types of signs and interpreting them. The researcher then interprets the outer meanings

of the cartoons, and these three processes are summarized by a paragraph comprising the image number and the relevant stages of analysis. After the research, a thorough debate is conducted based on the problems presented in cartoons.

3.5 Research Design

The researcher chose a qualitative technique from the two main research methods (quantitative and qualitative) for the current study. In essence, qualitative research is the method that is typically associated with the socially created aspect of reality. This method involves documenting, evaluating, and looking for the deeper meanings of certain acts and experiences. Like other qualitative researchers, the researcher of this study is interested in clearly comprehending Pakistani people's attitudes regarding the environment and its associated notions. Researchers continue to understand how these particular experiences influence other groups' experiences and affect the environment. The inductive technique functions as a bottom-up strategy, moving from the specific to the general. The researcher has developed a theory of dialectical ecolinguistics, and based on the data or cartoons gathered, a pattern of meanings has been formed that will either be accepted or rejected after the discussion. The researcher used purposive sampling for data collection.

3.6 Research Type

The current study is descriptive, and the researcher chose to employ visual analysis for the present study since it is based on examining the gathered cartoon strips. Descriptive research best addresses the research questions of the present study since it relates to describing or explaining a phenomenon and responds to the how and what questions. In this study, meanings from cartoons are interpreted concerning (ideological, biological, and social); this classification is another crucial aspect of descriptive research, which is why the researcher chose this specific kind. The current study is, therefore, descriptive qualitative research since the researcher used qualitative research methodologies to describe cartoons.

3.7 Data Collection Techniques

The researcher used purposive sampling for data collection. Data identification methods are employed in this study conducted. Identification means determining or titling the information collected within the data corpus. In addition to the process, the data categorization activities collectively used classification methods. The classification during this study means the type of information supported similarities and variations in data identity. With this method, the already available data are going to be categorized. Then, the data categorization activity is the research stage that is finished after data collection. During this activity, criteria will be used because of the basis of categorization. The researcher identified 50 cartoons from the dawn newspaper related to the environment and three-dimensional backgrounds in the Ecolinguistic study in this research.

3.8 Method of Data Analysis

The researcher analyses the data through visual analysis using a dialectical ecolinguistics framework. The researcher investigated 50 cartoon strips from January 2018 to December 2020 from dawn newspaper, which centers on the theory of dialectical ecolinguistics and dialectical hierarchy model of bang and Door, supported by visual Grammar. It also looks at the intertextual perspectives to wrap up the message to the reader. This paper presents an ecolinguistic analysis of cartoons in the Pakistani English language newspaper that reveal environmental issues. These cartoons tackle ecological problems that mirror Pakistani society, culture, and ideology. The dialectical ecolinguistic theory is suitable for studying ecological matters. It proposes a model to research discourse showing the ecological tools to reach the message of the target of those cartoons.

CHAPTER 4

DATA ANALYSIS

This chapter presents an analysis of cartoons from dialectical ecolinguistic perspectives. It focuses on the study of three points. The first is the structural dimension of cartoons based on the environment from dawn newspaper. The second is the inner and outer relations of the language of cartoons related to the dialectical hierarchy. The third is the triple dimension and its dialectical relations.

4.1. Data Analysis

4.1.1 Cartoon 1

Taken from the daily 'Dawn' Dated: 10-01-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: A young woman, a water bucket, contaminated water, water tap

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, and the goal is water represented in this strip; the action here is a woman standing by the tap, fetching water from the tap. She seems upset because the water is not clean.

CR: Tap is superordinate, and the woman is subordinate in this depiction.

Position of Participants: The faucet is positioned at a high angle to illustrate its significance. The indirect interaction of the woman reflects her depressing sentiments.

Modality: The phrase 'contaminated water' refers to the tap water drawn in this cartoon strip. It indicates that water is acting as a subject in this strip, and the vector that is

woman refers to the receiver of the action done by the subject, which is depicted in the first part of the sentence, '5300 children die' because of disease (diarrhea) caused by issue (contaminated water). The words 'every year' written on the top of this strip in bold capital letters reveal the truth and reality of the situation and, in a sense, present the fact that people are suffering from severe problems due to contaminated water, which is happening every year.

Composition: The faucet is prominent, demanding more attention than anything else in the backdrop. The framing of the image reflects the problem of contaminated water that people confront.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2018. In this cartoon, the biological aspect (a young woman, a water bucket, contaminated water, and a water tap) reflects the ideological context as a warning to 'humans' not to engage in activities that may damage the environment. The cartoon's ideological underpinnings are included in the term 'contaminated water,' reflecting the notion that if humans poison nature, nature can ruin human life—this ideology influences how nature and humans interact socially. The statement '5300 children die every year from diarrhea caused by contaminated water,' corresponds to the visual environment of the cartoon strip and demonstrates that people die from unclean drinking water. The term 'children die' alludes to a particular theme since the cartoon's character, 'woman,' has the nature of a motherly figure.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon illustrates that human activities such as the inappropriate disposal of municipal and industrial effluents and widespread agrochemicals in agriculture are the primary contributors to water quality degradation. Microbial and chemical pollutants are the primary causes causing a variety of public health concerns, alone or in combination. This review analyses the drinking water quality in Pakistan in-depth, emphasizing the principal contaminants, their sources, and the resulting health consequences.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language '5300 CHILDREN DIE OF DIARRHEA CAUSED BY CONTAMINATED WATER EVERY YEAR' to foster an ideology of environmental degradation, which affects people's social lives and interaction with the environment.

4.1.2 Cartoon 2

Taken from the daily 'Dawn' Dated: 03-04-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: two middle-aged men, two water buckets, a water tap, water droplets, saguaro cactus

Interactive Participants: Image-maker, observer, and readers

NRS: the subject is a human being, and the goal is water, which is portrayed in this cartoon, and the action is as follows: Two male characters dressed in traditional eastern attire sit on water buckets in a desert. They represent Pakistan and India, which are pitted against one another. Between them is a water tap, which is dripping with water drops. The tap faces the Pakistani side, and it seems as if water is a major problem between them, while the backdrop appears to be a desert due to the desert plant saguaro.

CR: Both characters have the same status and attitude in this representation, and neither seems superior.

Position of Participants: Characters encounter and confront one another, emphasizing that none is superior to the other; they are all in the same boat. The artist conveyed the antagonistic scenario by sketching zigzag lines across masculine figures. They face one other and seem in a good mood, yet the other side of the photo depicts India's rivalry with Pakistan.

Modality: The nouns INDO and PAK written on the dresses of vectors drawn in this cartoon strip represent the participants' identities. These words reveal that participants belong to India and Pakistan, two rivals. The cartoonist used the words as antonyms by drawing the vectors in opposite directions. The water tap drawn in this cartoon strip represents the cause of opposition. The water buckets represent the participants' attitudes on which vectors are sitting. The words inscribed in capital letters on the characters' clothes indicate both their identities and the truth of the scenario, in some ways conveying the fact that Pakistan and India have had water disputes since their independence.

Composition: The cartoon is positioned prominently opposite; the image framing shows joint or private ownership. In this perspective, the water desert and cactus are framed as shared or private human ownership. Further, the mutual structure of these pieces demonstrates that they form a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

The biological dimension of this cartoon strip (two middle-aged men, two water buckets, a water tap, water droplets, saguaro cactus) and the visual representation of India and Pakistan around the water tap reflect the ideology of rivalry between them. This ideology is reflected in their social interaction as depicted in the cartoon strip; they oppose each other.

The nouns INDO and PAK correspond to the cartoon strip's visual environment and demonstrate that India and Pakistan oppose each other in every matter because the ideology of rivalry influences their social interaction. These words allude to the subjects presented in cartoon strips and reveal their identity.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip illustrates Pakistan and India's current state of affairs about the water accord. Two male figures dressed in traditional eastern garb sit on water buckets in a desert. They represent Pakistan and India, which are pitted against one another. Between them is a water tap, which is dripping with water drops. The tap faces the Pakistani side, and it seems as if water is a major problem between them, while the backdrop appears to be a desert due to the desert plant saguaro. The cartoonist shows Pakistan and India's responses to the Indus water pact.

This cartoon illustrates that the Indus Waters Treaty (IWT) is a nearly 60-year-old agreement between India and Pakistan. Despite four wars between India and Pakistan, the sharing of the Indus waters has continued unabated and is now garnering more attention as both nations struggle with water scarcity. The IWT established the Permanent Indus Commission (PIC) to facilitate discussion of the treaty's implementation. India and Pakistan should meet at least once yearly under the accord's terms. Pakistan expressed concerns and inquired about hydropower projects in the newly created Union Territory of Ladakh this year. A COVID-19 virus breakout in 2020 delayed negotiations, while India's 2019 visit to Pakistan was postponed due to worsening ties after the Pulwama terrorist attack. Their most recent official meeting took place in Lahore in August 2018. Following a lengthy absence, this year's event was lauded as a return to mundane technical details, paving the way for the potential of more significant diplomatic interaction.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The physical existence of subjects and goals (two middle-aged men, two water buckets, a water tap, water droplets, saguaro cactus) creates ideologies in observers' minds, influencing society and language. This cartoon strip uses language that creates all these three dimensions, affecting language. The biological dimension of this strip creates an ideology of rivalry between India and Pakistan, reflected in their social interaction in this cartoon strip.

4.1.3 Cartoon 3

Taken from the daily 'Dawn' Dated: 04-04-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: planet earth, plastic bottles, two children, two male characters, and a female character

Interactive Participants: Cartoonists, observers, and readers

NRS: The subject is plastic spreading over all areas, and the goal is the earth represented in this strip. In addition, the action here is that plastic is engulfing all parts of the globe and causing human beings to suffer. The human characters seem worried in the image.

CR: Plastic is superordinate, and the earth and human characters are subordinate in this depiction.

Position of Participants: The plastic covering the entire world is superordinate in this picture, while the earth and human beings are subordinate. The young characters in this cartoon make demands, while an older character offers to interpret and, in a way, forecast the new generation's future.

Modality: The phrase 'Plastic pollution' written on the left side, at the bottom of this cartoon strip, refers to the vector plastic bottles drawn in this cartoon strip. The strip's words, PLASTIC POLLUTION, convey the truth of the scenario. While the participants may seem unknown, the backdrop is sufficiently realistic. The color and contrast are indicative of a high degree of modality.

Composition: The larger-than-life depiction of participants emphasizes their significance, while the plastic swallowing the planet depicts devastation. This cartoon strip emphasizes human responsibility and illustrates how plastic consumes the environment because of humans' excessive use of plastic.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

The biological aspect (planet earth, plastic bottles, two children, two male characters, and a female character) reflects the ideological context as a warning to "Humans" not to use plastic materials that may damage the environment. The cartoon's ideological underpinnings are included in the term plastic pollution, reflecting the notion that if humans consume plastic, plastic will ruin the natural habitat of humans, that is, planet earth. This ideology influences how nature and humans interact socially.

The phrase 'plastic pollution' is represented in the visual environment of the cartoon strip and demonstrates that people will suffer if they consume more plastic products because it is also harmful to nature and them. The term 'plastic' alludes to a particular subject since the cartoon represents plastic as a subject acting upon earth and humans.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon illustrates plastic pollution realistically, which is rapidly devouring the world. Plastic's next target is the humans who live in this world. This cartoon demonstrates how plastic pollution has become one of the most critical environmental challenges, as the world's capacity to cope with it has been overwhelmed by the fast-rising manufacturing of throwaway plastic items. Plastic pollution is visible in poor Asian and African nations with weak or non-existent waste management systems. Even still, the industrialized world fails to collect waste plastics properly.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The physical existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. The biological dimension of this cartoon (person, earth, plastic) instills an ideology of plastic contamination in the spectator, which is reflected in the participant's behavior.

4.1.4 Cartoon 4

Taken from the daily 'Dawn' Dated: 09-04-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Garbage, Karachi, ordinary people under the noun garbage, an older man and woman, a crow

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is garbage; the purpose is to depict the inhabitants of Karachi in this strip, and the action here is as follows: an older man, a woman, and a crow predict the future of Karachi and its residents. They are projecting that shortly, garbage will cover the whole of Karachi, burying people. Individuals are seemingly powerless, buried under the bold word garbage in the representation.

CR: Garbage is superordinate, and the citizens of Karachi are subordinate in this depiction.

Position of Participants: In this picture, garbage is in power, while Karachi's residents are subjugated. The cartoonist drew horizontal lines over the word Karachi to demonstrate that it is connected to its horizon representing the planet and that by polluting Karachi, we pollute the earth. The frontal aspect of the scene conveys a clear statement about pollution, while the individuals' gaze in this image represents a powerful message and obvious connotation.

Modality: The word 'Karachi' placed at the top of this strip identifies the region, but the term 'Garbage' in bold letters shows the truth and reality of Karachi's predicament and, in a way, foreshadows the fact that citizens of Karachi would be buried beneath garbage shortly.

Composition: The noun Karachi refers to the identity of the place about which vectors are drawn in this cartoon strip. The noun Garbage written in bold capital letters and filled with black colors, a symbol of danger, refers to the situation in Karachi and the people buried under the letter garbage demand interpretation. The cartoonist used the old generation, the young generation, and the noun phrase 'Karachi garbage' to predict the future of Karachi people drawn in this cartoon strip. The term 'garbage' is prominent and objects larger than life demand more attention than others. It marks the reader's attention to the issue. Additionally, the cartoonist is attempting to highlight Karachi's impoverished position.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2018. In this cartoon, the biological aspect (Garbage, Karachi, people under the word garbage, an old man and woman, and a crow) reflects the ideological context as a warning to "Residents of Karachi" not to engage in activities that may damage the environment. The cartoon's ideological underpinnings are included in the term Garbage, reflecting the notion that if citizens of Karachi harm nature, nature can ruin their life by burying them under trash—this ideology influences how nature and humans interact socially.

The noun "Garbage" corresponds to the visual environment of the cartoon strip and demonstrates that the people of Karachi will suffer from land pollution shortly and may be buried under trash. The term 'Garbage' alludes to a particular theme since the cartoon's location, 'Karachi,' is portrayed as inferior to the garbage, and residents of Karachi are unaware of impending danger.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

The cartoonist featured an older man, a woman, and a crow to forecast Karachi's future. They anticipate that Karachi will be covered in waste shortly. This cartoon strip illustrates that one of the primary issues affecting solid waste management and the

administration of Karachi is the variety of engaged entities. Large portions of the city are owned by 19 commodities ranging from governments to corporations to international capital to military cantonments. No one entity controls the whole town. As presented in the strip, the residents need to realize they are the contributors and thus need to be accountable and decrease their waste at the source.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals (Garbage, Karachi, few people under the word garbage, an older man and woman, a crow) creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses language that creates all these three dimensions, affecting language.

4.1.5 Cartoon 5

Taken from the daily 'Dawn' Dated: 13-05-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: An older man and woman, a crow, a young man and woman, a child, a water tap, water bucket, water droplet, Tharparkar desert, a hut, hanging written Healthcare on it, a cot

Interactive Participants: Image-maker, observer, and readers

NRS: the subject is a child, a man, and a woman; the goal is water represented in this strip, and the action here is a family consisting of a child, a man, and a woman. A pail of water lies under the tap on the right side, and behind them is a cottage with the word Tharparkar written on it and the word Healthcare written upside down. On the other side of the image, an older man, a woman, and a crow foretell the future of the new generation.

CR: The water is superordinate, and the family is subordinate in this depiction.

Position of Participants: The water is superior to the family in this image. The male and female participants' direct contact with the spectator reflects their uncertainty, while the child's indirect connection reflects their confusion.

Modality: The noun 'Tharparkar' written on the hut drawn in this cartoon strip refers to the identity of the place marked in this cartoon strip, a desert in the province of Sindh. The noun 'health care' written at the bottom of the hut upside down corresponds to the situation drawn in this cartoon strip, which indicates the poor healthcare system in Thar. The term health care placed on the hut reveals the truth and reality of Thar's predicament and, in a manner, illustrates that Thar has a flawed healthcare system and would face water scarcity, shortly foretold by the older generation and crow.

Composition: The situation shown on the left gives information that it is a flawed healthcare system, and the information on the right side of the figure indicates that Tharparkar will face water scarcity. The participants' prominent positions elevate them to importance, and the cartoonist frames the flawed healthcare system and water scarcity in viewers' minds.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2018. In this cartoon, the biological aspect (An older man, woman, a crow, a young man, woman, a child, water tap, water bucket, water droplet, Tharparkar desert, a hut, hanging written Healthcare on it, a cot) reflects the ideological context as a future prediction of Thar. A population of 1.6 million lacks health, education, and safe drinking water and lives on polluted, salty, and untreated groundwater. They trek almost 3 km in the sweltering heat-carrying water pitchers filled with rainwater or tiny natural tanks. Using groundwater has caused

fluorosis in humans. Dental fluorosis, joint deformations, thyroid, and renal disorders are symptoms of excessive fluoride ingestion in Thar. The cartoon's ideological underpinnings are included in the term healthcare, reflecting the notion that Inadequate rainfall, droughts, and lack of safe drinking water are only a few of Tharparkar's many problems. However, the provincial government's criminal incompetence is possibly critical; this ideology influences how nature and humans interact socially.

The noun healthcare corresponds to the visual environment of the cartoon strip and demonstrates that people die from unclean drinking water. The participant 'child' alludes to a particular theme or the target participant.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip depicts Tharparkar's inadequate healthcare system and water scarcity, while the crow foretells the area's future. The cartoonist portrayed the suffering of the people of Tharparkar. A population of 1.6 million lacks health, education, and safe drinking water and lives on polluted, salty, and untreated groundwater. They trek almost 3 km in the sweltering heat-carrying water pitchers filled with rainwater or tiny natural tanks. Using groundwater has caused fluorosis in humans. Dental fluorosis, joint deformations, thyroid, and renal disorders are symptoms of excessive fluoride ingestion in Thar. Inadequate rainfall, droughts, and lack of safe drinking water are only a few of Tharparkar's many problems, but the provincial government's criminal incompetence is possibly the most critical. Commissions are formed to draught emergency plans every year, but none is implemented. Meanwhile, the Tharis languish and wonder when their thirst will be filled.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. The physical presence of beaches and foreigners establishes the idea of beach tourism, while litter on the beach indicates land pollution caused by locals. This ideology shapes people's social behavior and interactions, reflecting their language. This cartoon strip uses the language 'HEARTH CARE' to foster an ideology of a flawed healthcare system affecting people's social lives and environmental interactions.

4.1.6 Cartoon 6

Taken from the daily 'Dawn' Dated: 21-05-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: A young man, an older man, and woman, three giant sharks, a crow

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is giant sharks, and the goal is the young man in this strip. The action here is a male character fleeing from sharks, as an older man and a woman watch this unfold, and a crow sits in front of these sharks, predicting that young man's future.

CR: The giants are superordinate, and the young male character is subordinate in this depiction.

Position of Participants: In this picture, the giant sharks are superior to the young man. The artist created curving lines around the sharks and young men to show the issue's intensity. The sharks' position is above the young man, reflecting their' might. Additionally, as spectators, the older man, woman, and crow foretell that the young man's future is fleeing from sharks.

Modality: The nouns with a negative 'no electricity, water, and gas refer to the giant fish vectors drawn in this cartoon strip. It means the participant will face a shortage of these things soon. The words correspond visually and predict the future of the young generation. The words written on the left, NO ELECTRICITY, NO WATER, and NO GAS, represent that our country's young generation will face this crisis.

Composition: The words on the left represent the given information, and the young man facing the situation is new information in this depiction. Moreover, an older man, woman, and crow predict the future at the top right corner because they observe the destruction caused by humans to the environment. Framing in this image indicates the responsibilities of the government and young men and the energy crisis in Pakistan. The mutual framing of these characters shows that they are socially and ideologically connected and related to a single unit called environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

The biological aspect (A young man, an older man, a woman, three giant sharks, and a crow) reflects the ideological context that an energy crisis will be a significant threat to humans and future generations and represents the ideology of dependency. The cartoon's ideological underpinnings are included in the terms no electricity, no water, and no gas, reflecting the notion that the energy crisis we are facing today will worsen in the coming years and cause significant harm to the young generation. Because humans exploit the environment for their interests through deforestation, global warming creates an energy crisis for developing countries like Pakistan. This ideology influences how humans interact with the environment.

The phrase no electricity, water, gas represented in the visual environment of the cartoon strip demonstrates that people will suffer more in the future due to the energy crisis. The terms 'electricity, water, and gas' allude to a particular problem since the cartoon represents an energy crisis as big sharks acting upon the young man.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon depicts the energy crisis as one of Pakistan's significant issues. In addition, the suffering of people with responsibilities to run their households. A significant dearth of power and gas is utilized in automobiles and homes for cooking and heating in the winter. Summer load-shedding and power outages are common since electricity is consumed and needed most. Heatwaves occur throughout the year, and Karachi, the harbor city, is generally warm. In Karachi alone, 1300 people died of heatstroke and dehydration in 2015—around 2500 fatalities in Sindh province. Heatwaves have been

regular since then. The power disruptions in such high temperatures make life much more difficult for residents.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. The physical presence of giants named no electricity, water, or gas creates the ideology of the energy crisis in Pakistan, which leads to a sociological dimension because it is faced by society. In addition, the language used in this strip creates these three dimensions. As this cartoon predicts, humans seem to blame for causing global warming, which causes an energy shortage.

4.1.7 **Cartoon 7**

Taken from the daily 'Dawn' Dated: 29-05-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: An older man and woman, a crow, a water droplet, a water bucket, and a water tap

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character; the goal is nature represented in this strip, action here is a water tap from which water is dripping, and there is a long line of water buckets in front of this tap. An older man, woman, and crow are looking at the water and predicting water scarcity in the future.

CR: The water tap is superordinate, and water buckets are subordinate in this depiction.

Position of Participants: The cartoonist drew a water tap bigger than reality to show its importance, and the humans depicted in this cartoon are shorter than that tap, which means water is a necessity of human life; without water, it is impossible to live.

Modality: The compound noun 'drinking water' refers to clean water. The noun corresponds to this cartoon strip's visual 'tap.' The water droplet from the water tap and a large number of buckets indicates that there will be a shortage of clean drinking water shortly because the old generation and a crow drawn in this strip are symbols of future prediction. The words written in bold capital letters on the tap reflect Pakistan's current state and, in a way, convey the reality that Pakistan suffers from clean water scarcity.

Composition: The water tap is prominent to emphasize its significance. The framing of the drinking water tap, buckets, and people shows government ownership. Additionally, the mutual frame of these three parts demonstrates that they form a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

The biological aspect (An older man and woman, crow, water droplet, water bucket, and water tap) reflects the ideological context as a warning to humans not to engage in activities that may increase the water crisis. The cartoon's ideological underpinnings include the term 'Drinking water,' which is dripping from the tap and reflects the participants' prediction in the cartoon's environment. This ideology influences the minds of the readers and their social behavior regarding water usage.

The phrase "Drinking water" written on the tap corresponds to the visual environment of the cartoon strip and demonstrates that clean water scarcity is a significant issue in Pakistan. People die because of unclean drinking water. The term 'Drinking water' alludes to a particular theme since the cartoon's environment shows the scarcity of drinking water. Water pollution is one of Pakistan's most serious threats to public health, as seen in this cartoon.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip is a clear depiction of Pakistan's situation. The words on the tap, ' DRINKING WATER,' illustrate the ecological problem. In a satirical way, the cartoonist blames humans for this environmental crisis. This cartoon depicts the issue of drinking water scarcity realistically. The International Monetary Fund (IMF) rates Pakistan third among nations experiencing acute water scarcity. The Pakistan Council of Research declared in May 2018 that by 2025, the country would have very little or no clean water.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, influencing society and language. This cartoon strip uses language that creates all these three dimensions, affecting language.

4.1.8 Cartoon 8
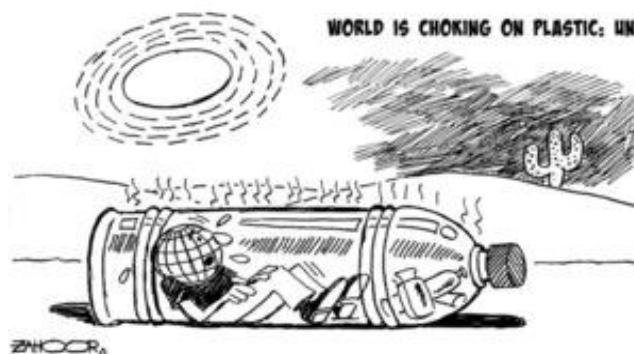
Taken from the daily 'Dawn' Dated: 07-06-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Sun, desert, cactus, plastic bottle, planet earth in the attire of an Interactive human

Interactive Participants: Image-maker, observer, and readers

NRS: the subject is the sun, and the goal is the plastic bottle, earth; this cartoon represents a desert where the sun is shining fiercely, and the plastic bottle containing the planet is heating up because of its heat. There is also a desert plant in the right corner of the strip.

CR: Sun is superordinate, and the earth is subordinate in this depiction.

Position of Participants: The sun is superordinate, and the earth is subordinate in this depiction. The cartoonist utilized dotted curving lines to depict the sun's intensity, zigzag lines on the desert plant to describe imminent danger, and diagonal lines on the plastic bottle to represent the harm caused by plastic. The high angle demonstrates the power-margin relationship between the sun, plastic, and earth. Additionally, the earth's indirect interaction elicits the earth's sorrowful feelings.

Modality: The noun 'world' refers to the planet earth drawn in this cartoon strip. The planet earth is the receiver of action done by plastic, and the verb choking represents the damage caused by plastic to our planet earth. The abbreviation 'UN' refers to the Organization United Nations speaker in this sentence. The sentence in bold capital letters at the top-right of this cartoon, WORLD IS CHOKING ON PLASTIC: UN, discloses the truth of this world and, in a way, demonstrates how plastic is ruining the environment.

Composition: The plastic bottle is more prominent and appears larger than life, illustrating the enormity of the plastic pollution problem. The left-to-proper movement of the image demonstrates the present circumstance evolving into a new one. The framing of this image reflects the extent of plastic pollution.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

The biological dimension (Sun, desert, cactus, plastic bottle, planet earth in the attire of an Interactive human) reflects the ideological context that due to human activities globe is becoming warm, and humans use plastic products to harm nature. Therefore, this cartoon warns humans not to use plastic materials that may damage the environment. The cartoon's ideological underpinnings are included in the sentence 'the world is choking on plastic,' reflecting the notion that if humans consume plastic, then plastic

will destroy the natural habitat of humans, that is, and planet earth. This ideology influences how nature and humans interact socially.

The sentence 'the world is choking on plastic' is represented in the visual environment of the cartoon strip and demonstrates that people will suffer if they consume more plastic products because it harms nature and them. The term 'plastic' and 'world' alludes to a particular subject and goal since the cartoon represents plastic as a subject acting upon earth that is the goal. Furthermore, the globe is heating up due to human activities.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip depicts plastic pollution in today's world. In addition, the punch line written on it, WORLD IS CHOKING ON PLASTIC: UN illustrates the ecological problem. This cartoon strip presents the environmental hazard posed by plastic. The globe is drowning in plastic, with 400 million tonnes manufactured each year, equivalent to the weight of 3,400 CN Towers. Furthermore, as critical as it is, recycling is barely keeping up. According to Environment and Climate Change Canada, just 9% of plastic garbage in Canada is ever recycled. Around 86 percent of plastic ends up in landfills. Chemically engineered molecules found in petrochemicals are often used to make plastic. It is inexpensive, adaptable, durable, and lightweight, and it revolutionized manufacturing when mass production began in the mid-twentieth century. Recycling has been a panacea for the world's plastic addiction.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. The physical presence of plastic, earth, desert, sun, and desert plants instills an ideology of land pollution in mind, and the language employed in this image represents societal behaviors.

4.1.9 Cartoon 9
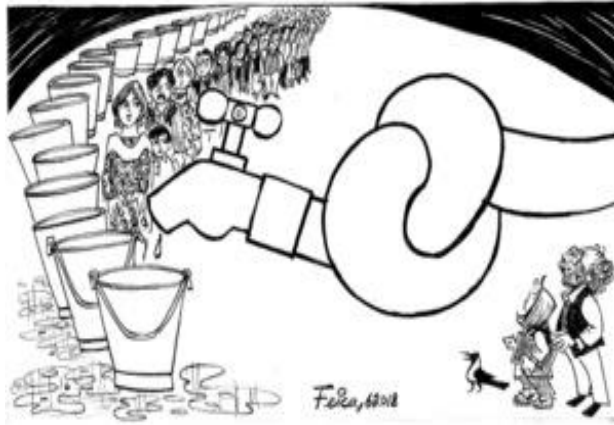
Taken from the daily 'Dawn' Dated: 19-06-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: young generation, old generation, water tap, buckets, water droplets, a crow

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is the future generation, and the goal is water. People wait for the water in front of the tap; water is dripping from the faucet. An older man, a woman, and a crow in the opposite corner of the image are observing the event and foretelling the future of the young generation.

CR: The faucet is superordinate, and the people waiting for water are subordinate in this depiction.

Position of Participants: The faucet is superordinate, and the people waiting for water are subordinate in this depiction. The high angle of the faucet represents the importance of water.

Modality: The visual modes young generation, old generation, water tap, buckets, water droplets, and a crow refer to the situation presented in the poem. Water droplets on the surface represent the carelessness of the young generation in water usage. In

addition, the cartoonist used old age and a crow to predict future water scarcity. The contextualization of water buckets with a water tap reflects the truth. It discusses the subject of water scarcity.

Composition: The faucet is prominent; it attracts more attention than other objects in the background. The framing of this image reflects a stressed group identity and demonstrates the responsibility frame. It shows the critical role water plays in our life.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

The biological aspect (young generation, old generation, water tap, buckets, water droplets, a crow) reflects the ideological context as a warning to "Humans" not to engage in activities that may increase the water crisis. The cartoon's ideological underpinnings are included in the visual, in which People wait for the water in front of the tap; water is dripping from the faucet. An older man, a woman, and a crow in the opposite corner of the image predict their future. This ideology influences the minds of the readers and their social behavior regarding water usage.

The visual environment of the cartoon strip demonstrates that clean water scarcity is a significant issue in Pakistan. People die because of unclean drinking water. This visual representation of water scarcity refers to a particular theme since the cartoon's environment shows the scarcity of drinking water. Water pollution is one of Pakistan's most serious threats to public health, as seen in this cartoon.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip depicts the elderly forecasting the future of the younger generation and highlights the issue of water scarcity in future generations. This cartoon depicts water scarcity accurately. By 2025, the nation will confront significant water scarcity and be the most water-stressed country in South Asia. Nearly 30 million Pakistanis lack access to safe drinking water. One would assume that the most effective approach to stimulating discussion on water shortage would be to center it on fundamental human rights: the right to safe drinking water, food, and hygiene. The United Nations has reaffirmed that water scarcity affects three billion people worldwide, and billions face famine. However, such arguments are ignored in increasingly polarized, populist democracies. Another strategy may underline that Pakistan's water issue results from

poor water management, which manifests in our government and bureaucracies' incapacity to perform essential services.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. The physical presence of a water tap, buckets, and people queuing for water instills an idea of water scarcity in the minds of individuals, affecting their social behaviors.

4.1.10 Cartoon 10

Taken from the daily 'Dawn' Dated: 15-08-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: PM Imran Khan, Sindh package, broken electric poles, mud, litter, unpaved roads

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is Prime Minister Imran Khan, and the goal is the Sindh package shown in this cartoon. A male character designated Pakistan's Prime Minister carries a Sindh package parcel against broken power poles, dirt, rubbish, and unpaved roads.

CR: PM is superordinate, and Sindh is subordinate in this depiction.

Position of Participants: PM is superordinate, and Sindh is subordinate in this depiction. The participant shares indirect contact with the reader; it demonstrates that the cartoonist offers the interpretation.

Modality: The noun SINDH PACKAGE written in bold capital letters on the package depicts the box's identity carried by a vector and refers to the Prime Minister of Pakistan. The situation represented in this cartoon strip opposes the language the cartoonist uses to show the contrast between two different conditions and convey reality. The words written on the box in this strip reveal the speaker's truth and the reality of this world and, in a way, present the fact that Prime Minister Imran Khan announced a development package for Sindh on Saturday, focusing on priority areas such as transportation and water provision.

Composition: The Sindh package is prominently displayed. The box is more prominent in the cartoon strip than in other things. The cartoonist depicts Sindh's plight in front of the audience.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2018. In this cartoon, the biological aspect (PM Imran Khan, Sindh package, broken electric poles, mud, litter, unpaved roads) reflects the ideological context of the government's power. The cartoon's ideological underpinnings are included in the term "Sindh package," reflecting the notion that government can change ordinary people's minds by giving them different packages—this ideology influences how nature and humans interact socially.

The noun 'Sindh Package' corresponds to the visual environment of the cartoon strip and demonstrates that the PM has announced the Sindh package for the development of Sindh. The term 'Sindh package' alludes to a particular theme since the cartoon's participant, 'PM,' has the power to influence the minds of the common masses. This cartoon strip is a clear depiction of the vulnerable situation of Sindh.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

In this cartoon strip, Prime Minister Imran Khan outlines a development plan for Sindh, prioritizing infrastructure projects, including transportation and water supply. He emphasized the vital need for Sindh's water conservation. He expressed dissatisfaction that previous administrations had failed to adopt a plan for water conservation and urged the committee to do so.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses language that creates all these three dimensions, affecting language. There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the term 'Sindh package' to foster an ideology of government that affects people's social lives and interactions with the environment.

4.1.11 Cartoon 11

Taken from the daily 'Dawn' Dated: 20-07-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: three political leaders showing their manifesto, broken electric poles, a dustbin full of litter, muddy water, cracked walls, unpaved roads, a pile of litter

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a political party, the goal is a manifesto as depicted in this strip, and the action takes place in this strip. Three political figures carry a manifesto with a flower painted, while the background shows the area's precarious position.

CR: Political leaders are superordinate, and the manifesto is subordinate in this depiction.

Position of Participants: Political leaders are shown as superior, while the manifesto in their hands is depicted as inferior. The artist created curved lines around gravel roads to demonstrate the danger they pose if the line breaks, and curved lines on electric poles represent danger and devastation. The political leaders' frontal positions show their might, and their lack of eye contact with the readers indicates they are not taking action immediately.

Modality: The noun 'Manifesto' and flowers drawn on cards carried by vectors in this cartoon strip refer to the offers presented by the vectors identified as political readers to their followers. The background was marked by the cartoonist contrasts manifesto offered by political leaders. The term printed in bold capital letters on the paper carried by political leaders informs us of the government's environmental plan, but the floral drawing on their manifesto indicates the truth: they are not actively engaging in it.

Composition: Political leaders are marked in this representation, engaging the audience. The framing of the image shows that political leaders are attempting to sway their followers' opinions by presenting a plan that is solely their responsibility. The mutual frame of all aspects demonstrates that they form a unified entity known as the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

The biological aspect (three political leaders showing their manifesto, broken electric poles, and a dustbin full of litter, muddy water, cracked walls, unpaved roads, and a pile of debris) reflects the ideological context of the political interests of political leaders. They are engaged in activities that only benefit them and do not care about the calamities faced by the people of the area represented in this strip. This ideology influences the minds of the readers and their social behavior regarding political campaigns.

The word 'Manifesto' in this visual environment of the cartoon strip demonstrates that the common masses suffer a lot due to political instability and political parties' interests. Environmental pollution is a significant issue in Pakistan. People face many problems due to a polluted environment—unpaved roads and a pile of litter cause air and land pollution. The terms three political leaders showing their

manifesto, broken electric poles, a dustbin full of litter, muddy water, cracked walls, unpaved roads, and a pile of rubbish' alludes to a particular theme since the cartoon's environment shows the environmental problem faced by people of the drawn area. This cartoon strip illustrates political leaders presenting a flowery manifesto to their supporters to fulfill their interests while the background depicts reality.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon depicts the issue that residents of polluted areas endure. Political leaders exploit the masses by presenting them with a flowery manifesto. This cartoon strip is a call to action for the government since the status of the environment and its correct management are necessary conditions for every country's sustainable growth, and Pakistan is no different.

Thus, the availability of sufficient water and electricity consistently is critical for enhancing the quality of life in Pakistan. It implies that policies developed and actions performed may guarantee that advancements do not jeopardize the country's comprehensive resource and environmental bases, which predicates the development process. Pakistan now faces several major ecological concerns, including salinity development, waterlogging, inefficient water usage in the water sector, and deforestation in the energy sector— particularly in fuelwood supply. Deforestation in the higher reaches of catchment areas also contributes to heavy silt loads in Pakistan's rivers, diminishing reservoir capacity and economic life.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The physical existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. The presence of political leaders carrying manifestos instills an idea of power in our minds, while the damaged backdrop instills an ideology of the government's lack of seriousness toward issues. Ideologies affect the social lives of the people who live in that area.

4.1.12 Cartoon 12

Taken from the daily 'Dawn' Dated: 15-10-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: A water tanker, water tap, water supply pipe, a middle-aged man with a big mustache, a young male and female character, dice, saw, cities of Pakistan

Interactive Participants: Image-maker, observer, and readers

NRS: A subject is a middle-aged man, the goal is water, which is portrayed in this cartoon strip, and the action is a middle-aged man cuts a water supply pipe with a handsaw and fills a water tanker while a male and female characters are waiting for water in front of a water tap with buckets.

CR: The middle-aged man is superordinate, and young male and female characters waiting for water are subordinate in this depiction.

Position of Participants: The middle-aged man is superordinate, and young male and female characters waiting for water are subordinate in this depiction. The participants' indirect gaze and oblique view suggest interpretation from an outside perspective.

Modality: The nouns 'Lahore, Karachi, Multan, Quetta, and Islamabad' represents the identity of places depicted in this cartoon strip. The phrase 'Water Monopoly' written on a water tank describes its identity, and the cartoonist drew a man cutting a water pipeline with a handsaw, representing a water monopolist. The noun WATER MONOPOLY written on the water tanker discloses the truth and reality of Pakistan's water mafia and, in a way, presents that Pakistan is suffering from water scarcity due to the monopoly of water supply companies.

Composition: The water monopoly is placed at the top of the strip, representing authority, while ordinary people queuing for water are positioned at the bottom. The water tanker is prominent and attracts more attention than other objects. The cartoonist portrays water supply firms engaging in unlawful practices to generate more revenue by supplying water tankers.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2018. In this cartoon, the biological aspect (A water tanker, water tap, and water supply pipe, a middle-aged man with a big mustache, a young male and female character, dice, a saw, and cities of Pakistan) reflects the ideological context that water scarcity is due to water companies that control main water supplies of the area. The cartoon's ideological underpinnings are included in the term water, reflecting the notion that humans are producing water scarcity, affecting the lives of the common masses—this ideology influences how nature and humans interact socially.

The statement WATER MONOPOLY corresponds to the visual environment of the cartoon strip and demonstrates that people suffer from water scarcity that the water supply company causes. The physical presence of 'dice' alludes to a particular theme since the cartoon depicts the gameplay by water monopolists in different areas. This cartoon strip illustrates the situation of water monopoly in Pakistan while people suffer from water scarcity.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip depicts Pakistan's water scarcity due to water supply companies. It has reached the critical stage of immediate attention and change—increasing irrigation production while paying greater attention to water management's social and environmental elements.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. The physical presence of a water tanker and the owner of the water tanker creates the

idea of a water monopoly, while an empty bucket of water and people waiting for water indicate water scarcity by water supply companies. This ideology shapes people's social behavior and interactions, reflecting their language.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language WATER MONOPOLY to foster an ideology of water scarcity in Pakistan, which affects people's social lives and interactions with the environment.

4.1.13 Cartoon 13

Taken from the daily 'Dawn' Dated: 07-11-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: four male characters, bus, smoke clouds, fire, tire

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, the purpose is foreign investment, and the action is a male character lying on clouds informing foreign investors to invest in Pakistan and describing it as an attractive place. While three men with weapons in their hands protest by crashing the car and setting fire to various items, resulting in dense clouds on which the male character is lying and offering something.

CR: PM is superordinate, and the people protesting are subordinate in this depiction.

Position of Participants: In this image, the Prime Minister is superior, while the protesters are inferior. Smoke strewn around the area depicts dominance and damage. The frontal view of PM resting on clouds demonstrates a demand-offer relationship. The artist used a dynamic flow of curving lines to convey a sense of danger and disaster in the landscape.

Modality: The cartoonist drew a vector identified as the Prime minister of Pakistan. He says, 'Pakistan is an attractive place for foreign investors; the noun Pakistan shows the identity of the place. The adjective 'attractive' is used in Pakistan to convince foreign investors to invest in Pakistan. There is a contrast between the language used in cartoons and the illustration in this cartoon strip. The sentence PAKISTAN IS AN ATTRACTIVE PLACE FOR FOREIGN INVESTORS in bold capital letters at the top of this strip discloses the contrastive situation. This sentence adequately conveys PM's ignorance of the current situation.

Composition: The speaker is positioned prominently in front of the audience. The smoke is evident, and its dispersion over the surroundings indicates power. In this picture, the Prime Minister is projecting a favorable image of Pakistan onto readers, whereas the reality shown in this cartoon strip reflects Pakistan's actual predicament, and the cartoonist is projecting the seriousness of the crisis onto readers.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2018. In this cartoon, the biological aspect (four male characters, a bus, smoke clouds, fire, and a tire) reflects the ideological context of political leaders that they are offering foreign investors to invest in Pakistan and presenting a positive image of Pakistan. However, in reality, Pakistan's situation is uncertain. In addition, due to uncertain conditions, environmental problems are increasing faster. The cartoon's ideological underpinnings are included in the term smoke and fire, reflecting the notion that if humans poison nature, nature can ruin a human life—this ideology influences how nature and humans interact socially.

The statement PAKISTAN IS AN ATTRACTIVE PLACE FOR FOREIGN INVESTORS does not correspond to the visual environment of the cartoon strip and demonstrates the contrast between the PM's statement and actual happenings in

Pakistan. The symbols ' smoke clouds, fire, tire ' allude to a theme since the cartoon's participants damage the environment by burning things.

This cartoon strip depicts the hazardous scenario of Pakistan, where Protestants are destroying the environment by burning items without regard for the potential risk to their own life. Additionally, on the other side of the strip, the PM is projecting a rosy picture of Pakistan without regard for reality.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon depicts Pakistan's hostile climate and weak law and order situation; Pakistan has failed to attract significant international investment. As a result, a substantial amount of money is transported out of the country each year. Experts fear that if this scenario is not resolved, the already vulnerable economy of the nation will suffer. As a result, the court's decision may consider the country's fiscal circumstances reasonable. Holding owners accountable may infuriate both domestic and international stakeholders. Political demonstrations have a significant negative impact on the environment. Protesters harm the atmosphere by burning objects and are not concerned about environmental issues.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses language that creates all these three dimensions, affecting language.

4.1.14 Cartoon 14

Taken from the daily 'Dawn' Dated: 13-11-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: a pile of plastic bags, a man representing the Sindh government

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, and the goal is a pile of plastic bags represented in this strip and action; here is a middle-aged man representing the Sindh government carrying an axe and standing in front of a mound of plastic bags, unsure where to begin.

CR: Plastic bags are superordinate, and the Sindh Government is subordinate in this depiction.

Position of Participants: Plastic bags are superordinate, and the Sindh Government is subordinate in this depiction. The high perspective and expansive view of the pile of plastic bags demonstrate the strength. Additionally, Sindh's direct contact with plastic reflects the state's prohibition on plastic bags.

Modality: The noun 'Sindh government' is written on the dress of the vector, and the noun 'plastic bags' shows the identities of the vectors. The vector identified as a Sindh government representative holding a spade in hand and looking towards a nearby stack of plastic bags poses the question 'Where do we start?' in bold capital letters, the interrogative statement WHERE DO WE START? Shows the speaker's reality and the reality of Sindh's condition. It demonstrates that the Sindh government is enforcing plastic prohibition, which looks challenging for the government.

Composition: The stack of plastic bags is prominently displayed. The vertical arrangement of the image reflects the situation's contrast. This strip demonstrates the government's initiative, and a pile of plastic bags hovering over the viewer's eye line provides the new information. The framing of the Sindh government and the pile of plastic bags reflects the government's stance on this issue.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2018. In this cartoon, the biological aspect (a pile of plastic bags, a man representing the Sindh government) reflects Pakistan's ideological context of plastic pollution. The cartoon's ideological underpinnings are included in the term 'where do we start and plastic bags' reflecting the notion that humans are polluting the environment by using excessive plastic bags, and now it is difficult for them to ban plastic bags that are not biodegradable. This ideology influences how nature and humans interact socially.

The statement 'Where do we start?' corresponds to the visual environment of the cartoon strip and demonstrates that plastic pollution in Pakistan is at its peak, and it is difficult for the government to eradicate plastic in Pakistan; it is the responsibility of every citizen of Pakistan not to use plastic to avoid further harm. The symbols ' a pile of plastic bags, a man representing the Sindh government ' allude to a theme since the cartoon is about plastic pollution. This cartoon portrays Sindh's plastic bag problem. Additionally, the Sindh government is currently considering how to address this issue.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip illustrates the Sindh government's attempt to address the issue of plastic bags. Plastic garbage is expanding daily, posing a severe danger to our already-polluted oceans. Each year, ocean trash is believed to kill millions of marine species. Plastic can kill and maim wildlife but also enters the food chain. Marine creatures of all sizes, from zooplankton to whales, increasingly consume microplastics, particles less than a fifth of an inch in diameter.

Numerous initiatives have been developed globally in this direction. For instance, banning plastic bags has become a widespread trend to improve the environment and seas. Beaches littered with plastic and dying marine life, frequently

entangled in single-use plastic, have compelled nation-states to act quickly before the situation deteriorates. Different nations have already established a policy regulating plastic bags. Pakistan has joined the club of countries actively combating the scourge of plastic pollution. Pakistan's federal government and some provinces have prohibited plastic bags. It is necessary to light Pakistan's excessive usage of plastic bags, which, according to a 2018 Environment Protection Department survey study, totals up to 55 billion per year. These global efforts to combat plastic pollution try to mitigate plastic's harm to marine ecology and species. Plastic bags are often regarded as one of the world's worst innovations for wreaking havoc on the environment. If Pakistan successfully reduces this massive amount of plastic garbage, it will be able to clean its rivers and contribute to the conservation of biological ecosystems and valuable marine life.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The natural existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. The physical presence of the pile of plastic bags and Sindh government officials frames the scenario before the spectator by instilling the belief that the Sindh government is prepared to address the issue. It also affects people's sociocultural behaviors, so we should avoid using plastic bags.

4.1.15 Cartoon 15

Taken from the daily 'Dawn' Dated: 19-11-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: A middle-aged modern man with a stick in his hand, two male and one female characters representing ordinary people, Smog, Lahore, a banner of environment policy 2019

Interactive Participants: Image-maker, observer, reader

NRS: The subject is a modern man representing the government, the Smog scattered throughout the area is superordinate, and the objective is residents of Lahore. The action here is government personnel holding a stick pointing toward an environment policy banner, but Lahore residents cannot see the flag due to the heavy Smog.

CR: In this image, the government employees and Smog are superior, while the citizens of Lahore are submissive.

Position of Participants: The banner is positioned at an angle to emphasize the critical nature of environmental legislation. The policy presenter's attitude implies no quick action, and the citizens of Lahore are portrayed as inferior in his portrayal. The smog-strewn expanse indicates strength. The artist utilized zigzag lines to convey the extent of the Smog's devastation.

Modality: The nouns 'Lahore and Smog' show the vectors' identities drawn in this cartoon strip. The vector points towards a banner 'Environment policy 2019', covered in smog, identified as government personnel. The vectors, a middle-aged man, a woman, and an older man, represent ordinary people living in Lahore. They utter, 'We cannot see anything in response to government policy 2019, which shows two

contradictory situations. The phrase ENVIRONMENT POLICY 2019 is written in capital letters on the banner, and the response of female Lahore residents is, WE CAN'T SEE ANYTHING! The word SMOG in this strip represents the reality and truth that the government is not taking practical action to address the issue.

Composition: At the top, the banner of environmental policy 2019 reflects the ideal state, while the bottom line indicates Lahore's actual situation. The left side of the cartoon depicts supplied knowledge, such as environmental policies, while the right side represents the public's reaction to new information, such as their inability to see anything due to smog. The framing of this cartoon demonstrates the government's responsibilities.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (A middle-aged modern man with a stick in his hand, two male and one female character representing ordinary people, Smog, Lahore, a banner of environment policy 2019) reflects the ideological context of environmental policy 2019 presented by the government. The cartoon's ideological underpinnings are included in the term 'WE CAN'T SEE ANYTHING,' reflecting the notion that the environmental policy initiated by the government is invisible due to smog, which means the government is not taking action against pollution in the city of Lahore—this ideology influences how nature and humans interact socially.

The statement 'We cannot see anything!' It corresponds to the cartoon strip's visual environment and demonstrates that people cannot see the environmental policy due to smog. The symbols ' smog and Lahore ' allude to a theme since the cartoon is about the severity of smog in Lahore, which causes diseases to residents. This cartoon depicts the scenario in Lahore, which has been hit by severe smog, with the administration preparing to deal with it but failing to move quickly. The issue affects the residents of Lahore.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon portrays severe smog in Lahore because of pollution, with citizens suffering greatly. Lahore's pollution levels are above the dangerous limit of 550 on the Air Quality Index. The Gulberg neighborhood registered 600 AQI, according to several devices put in Lahore. The last 'hazardous' level on the AQI is between 250 and 300, necessitating that persons with heart and lung problems, older folks, and children remain indoors and maintain a modest activity level.

Numerous national and provincial legislation exists to address our egregiously lousy air quality, but their execution is inadequate. We need sufficient monitoring units to continuously monitor air pollution levels. It has increased the number of private, portable monitors deployed by organizations like the Pakistan Air Quality Initiative (PAQI). Additionally, the US Embassy has installed monitors at the Embassy and related Consulates.

Mr. Khalid notes a definite lack of political will to implement the smog commission's recommendations or address the concerns residents highlighted during the climate march. Meanwhile, the health of our most helpless members, such as children, the elderly, and those living in poverty, is directly threatened.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. Government officials, Lahore people, Smog, and environmental policies all contribute to the belief that the government is not taking quick action to address the problem, and the social interactions of Lahore residents reflect this ideology. This cartoon strip employs words to generate all three dimensions, influencing language.

4.1.16 Cartoon 16

Taken from the daily 'Dawn' Dated: 03-12-2018

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: middle-aged man, sun, beach

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, the goal is nature, as shown in this cartoon, and the action is as follows: A male character dressed as a modern man and lounging on a beach chair seems cheerful and peaceful. He also asks, WHO SAID IT IS GETTING WARMER?

CR: Speaker is superordinate in this depiction.

Position of Participants: In this representation, the man asking the question is dominant. The artist indicated the transient nature of the event by drawing dashed circle lines around the sun. The sun may change position in the future.

Modality: The cartoonist drew an unspecified vector lying on a beach chair. The background represents that the vector is present at a beach. Another vector is the 'sun' shining brightly in the sky. The interrogative statement 'who said it is getting warmer?' uttered by the vector is opposite to the situation depicted in this cartoon strip. It conveys the speaker's truth and the reality of this planet and, in a way, presents that the globe is becoming warmer because of human activity.

Composition: The sun is positioned prominently in front of the audience. The image's framing conveys the situation's insecurity. Additionally, framing the sun, beach, and human implies that the individual justifies his acts by providing a misleading context. Further, the mutual framing of these three parts demonstrates that they form a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2018. In this cartoon, the biological aspect (middle-aged man, sun, and beach) reflects the ideological context of global warming. The cartoon's ideological underpinnings include the term "sun," reflecting that the ozone layer is depleting due to deforestation and other climate change activities, and the globe is warming. This ideology influences how nature and humans interact socially.

The question WHO SAID IT IS GETTING WARMER? It does not correspond to the visual environment of the cartoon strip and demonstrates that people are unaware of the intensity of climate issues. The term 'sun' alludes to a theme since the cartoon is about global warming.

The cartoonist drew a male character dressed as a modern man; lounging on a beach chair seems cheerful and peaceful. He also asks, WHO SAID IT IS GETTING WARMER, illustrating the ecological problem. The speaker in this cartoon strip is superordinate. The speaker idealizes it is not getting warmer without being aware of this problem. Everything in the background represents this environmental problem. In a satirical way, the cartoonist blames humans for this ecological crisis.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip illustrates the global warming issue. NASA confirmed that 2018 would tie 2016 as the warmest year on record. The news, made as part of NASA and NOAA's yearly global temperature data release, indicated that our world is warming up. This data is critical in advancing our knowledge of climate change. The artist illustrates the gravity of this situation in this cartoon strip by depicting a figure who is oblivious to global warming and chilling on the beach in the winter on a beautiful day, claiming that it is not getting warmer.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the interrogative statement, 'WHO SAID IT IS GETTING WARMER,' to foster an ideology of environmental degradation, affecting people's social lives and environmental interactions.

4.1.17 Cartoon 17

Taken from the daily 'Dawn' Dated: 08-04-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Two modern men and a woman, garbage, a ship, a coastal area

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, and the goal is tourism represented in this strip and action; three foreign tourists are seen in this cartoon on the beach in Karachi, where trash is strewn around, and there is a boat in the water. According to one of them, the locals got here first.

CR: The speaker is superordinate, and the listener is subordinate in this depiction.

Position of Participants: In this representation, the speaker is superior to the listener. The cartoonist created curving lines around it to demonstrate the sea's might. The foreigners' stance and their indirect glance reflect their perplexity.

Modality: The symbol 'boat, water, and land refers to a particular place called the beach. There are three participants present in this cartoon strip. They are identified as foreigners in their attire. The sentence 'Looks like the locals got here first,' stated by a foreigner, discloses the truth and reality of Karachi's beach and, in a way, presents the fact that Pakistan promotes beach tourism without regard for the beach's dirty state. The foreigner's speech and the phrase 'promoting beach tourism in the upper right corner show two opposing scenarios.

Composition: The bottom line of the illustration depicts reality, while the top line represents an ideal environment that promotes beach tourism. Given is on the right side, and outsiders are viewing the incident. The framing of the photograph conveys the beach's precarious state in Karachi.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (Two modern men and a woman, garbage, a ship, and a coastal area) reflects Pakistan's ideological context of beach tourism. The cartoon's ideological underpinnings are included in the term garbage, reflecting that thousands of tonnes of industrial trash are poured into the sea yearly because of local people living near the beach. Marine pollution harms the economy, health, and wildlife. Industrial waste, untreated sewage, and oil spills threaten marine life. Oil endangers aquatic life in many ways.—this ideology influences how nature and humans interact socially.

The phrase 'Looks like the locals got here first' corresponds to the visual environment of the cartoon strip and demonstrates that foreigners blame locals for pollution scattered on the beach. The term 'locals' alludes to a particular theme since the cartoon's hidden participants, 'locals,' are responsible for the situation. This cartoon strip illustrates the state of the beach in Karachi when the government is encouraging beach tourism and international visitors are observing.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon is sarcastic about the beach and tourists. It depicts the vulnerable condition of beaches in Pakistan. Experts say Karachi creates 6.2 million tonnes of waste yearly, 60% of which is dumped at dumpsites, and 40% is abandoned all around the city.

The rubbish and litter deposited in the water eventually wash up on beaches, destroying beach aesthetics and tourism. Polluted beaches increase illness risk. Officially, 90% of industrial effluent and sewage generated in the country's largest metropolis is discharged straight into the sea or via the Lyari and Malir rivers. High levels of chemicals like nitrogen and phosphorus in the coastal seas encourage algal blooms, which are dangerous to wildlife and people. Algal blooms harm the local fishing and tourist economies. The federal and Sindh governments should develop wastewater treatment facilities and ban rubbish from dumping into sewers, Lyari, and Malir Rivers to keep the sea clean and safeguard fish.

There is a relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. The physical presence of beaches and foreigners establishes the idea of beach tourism, while litter on the beach indicates land pollution caused by locals. This ideology shapes people's social behavior and interactions, reflecting their language. This cartoon strip uses the language 'Looks like the locals got here first' to foster an ideology of environmental degradation, which affects people's social lives and interactions with the environment.

4.1.18 Cartoon 18

Taken from the daily 'Dawn' Dated: 22-04-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Earth, water droplets

Interactive Participants: Image-maker, observer, and readers

NRS: Earth is the subject, nature is the object, and the action takes place on Earth Day, with the planet sobbing. Deforestation occurs faster, with hectares of forest being burned and harvested every second. Furthermore, the ground is melting because of the intense heat.

CR: Here, the weather condition is superordinate, and drawn things are subordinate in this depiction.

Position of Participants: The earth is in a prominent place, but not facing the audience means the planet is in pain that humans cannot feel.

Modality: The noun 'Earth' refers to the planet earth drawn in this cartoon strip. The cartoonist drew two opposite situations by using language and the planet earth. The planet earth's condition represents reality, and the words written on the top mean an ideal situation. On earth day, the world should look happy, but in this depiction, it seems sad and crying due to the intense heat caused by human activities. The words written on the top-right of this strip in bold capital letters reveal the truth of this world's reality. It presents the day when the earth is crying due to intense heat.

Composition: As an image's meaning shifts from left to right or top to bottom, the contrast between similar pictures might be seen as natural and novel. The image depicts what the viewer already knows and is established as accurate when reading first. The new, altered image reflects something the spectator has learned or will conclude because of the shift's underlying meaning. Advertisements frequently employ text as a given and graphics as a novelty. This cartoon strip's image is composed from left to right, indicating contrast or opposite situations. In addition, the mutual framing of these elements shows that they are a single unit called environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (Earth, water droplets) instills a dogma in our minds that the globe is warming up. The cartoon's ideological underpinnings are included in the symbol earth, reflecting the notion that the planet earth is sobbing on Earth Day because of its climate warming. Deforestation occurs faster, with hectares of forest being burned and harvested every second. The trees act as a binding agent in the soil, limiting erosion and providing a home for most plants and animals—this ideology influences how nature and humans interact socially.

The phrase 'EARTH DAY 2019' does not correspond to the visual environment of the cartoon strip and demonstrates that humans are responsible for the critical condition of the earth on earth day. The term 'earth day' alludes to a particular theme since the cartoon's character, 'earth,' is sobbing, and humans are responsible for its condition.

This cartoon strip is a realistic depiction of contemporary reality. It portrays the world sobbing on Earth Day because of its climate warming. Deforestation occurs faster, with hectares of forest being burned and harvested every second. The trees act as a soil-binding agent, limiting erosion and providing a home for most plants and animals.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon illustrates the ecological problem in which the air is poisoned, and Mother Earth weeps. The cattle business emits many greenhouse gases into the atmosphere, causing an unpleasant odor for locals. Deforestation is decreasing oxygen levels in the air and increasing carbon emissions. Melting glaciers and releasing harmful chemicals beneath them is causing global warming.

The biological, ideological, and sociological elements of social praxis are in dialectical interaction, as represented in this strip. The physical presence of subjects and aims imbues observers with ideologies, shaping society and language. The biological nature of the image, represented by planet earth and water droplets, instills a dogma in our minds that the globe is warming up. In contrast, the phrase earth day 2019 reflects a contrastive scenario. This worldview influences our sociocultural surroundings and language.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'EARTH DAY 2019' to foster an ideology of environmental degradation, affecting people's social lives and environmental interactions.

4.1.19 Cartoon 19

Taken from the daily 'Dawn' Dated: 13-07-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: a boat, raindrops, a human character

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is rain, the goal is human, and the action in this strip is a man standing to the left who has covered his head with a boat to avoid the rain.

CR: Rain is superordinate, and the human character is subordinate in this depiction.

Position of Participants: Rain is superior to the human character in this representation. The cartoonist used diagonal raindrops to demonstrate the force of the shower and horizontal lines on the boat to demonstrate the demand-offer relationship. The image's indirect yet frontal perspective emphasizes that the observer is not a participant in this activity.

Modality: The vector covering its head with a boat is identified as 'NDMA (national disaster management association).' The term "PRE-MONSOON STRATEGY," written in bold capital letters on the top-left corner of this strip, indicates the truth and the reality of Pakistan's monsoon scenario. The character representing NDMA is passive in terms of strategy.

Composition: The top section of the image depicts an ideal state, whereas the lower area represents the reality of NDMA's ignorance. The cartoonist presents NDMA's passivity concerning monsoon in the minds of spectators.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. This cartoon's biological aspect (a boat, raindrops, and a human character) reflects Pakistan's ideological context of pre-monsoon strategies. The cartoon's ideological underpinnings are included in the term NDMA, reflecting the notion that NDMA is not fulfilling its duties actively regarding monsoon—this ideology influences how nature and humans interact socially. The phrase 'PRE-MONSOON STRATEGIES' corresponds to the visual environment of the cartoon strip and demonstrates that NDMA, which is responsible for disaster management in the country, is not actively doing its job. The term 'NDMA' alludes to a particular theme since the cartoon's character, a man,' is responsible for the situation. This cartoon strip is a clear depiction of the pre-monsoon strategy by NDMA.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

The cartoonist depicted NDMA's behavior during the monsoon. Monsoon rainfall in Pakistan begins in July and ends in the last week of September when the season transitions to winter in October. The Met Office has also warned about the possibility of severe weather events, resulting in flooding rivers and their tributaries. Pakistan is now facing another brutal monsoon season a decade later. However, the hazards to possibly impacted people have been exacerbated by Covid-19 and locust swarms already ravaging portions of Sindh, Punjab, and Baluchistan. Another hazard is the possibility of northern glacial lake outburst floods driven by increasing average temperatures. With this year's monsoon rains already wreaking havoc in Nepal, India, and Bangladesh, there is increasing worry that Pakistan may suffer a similar fate. A repetition of the 2010 floods, or flooding of comparable magnitude, cannot be ruled out.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses language that creates all these three dimensions, affecting language. This cartoon strip uses the language 'PRE-MONSOON STRATEGIES' to

foster an ideology of environmental degradation, affecting people's social lives and environmental interactions.

4.1.20 Cartoon 20
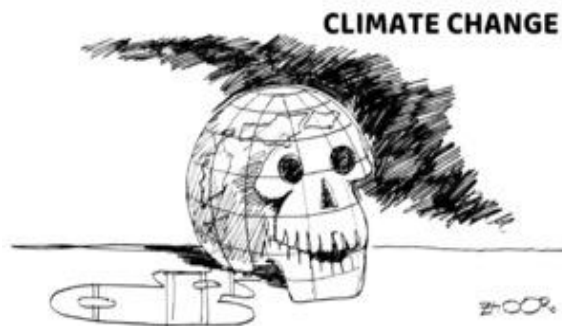
Taken from the daily 'Dawn' Dated: 27-07-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Earth in the form of a skull, water

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is the earth in the shape of a skull, the aim is nature, as shown in this strip, and the action is as follows: The world is shaped like a skull in this cartoon strip, the water pouring from it resembles its blood, and the earth seems to be dead.

CR: Earth is subordinate in this depiction.

Position of Participants: The cartoonist drew zigzag lines on the planet's surface and presented them as a skull in front of the audience. Creating zigzag lines by joining diagonal lines at various points on a graph is possible. These create considerable excitement and a great lot of activity. Their quick and frequent direction shifts develop a sensation of perplexity and anxiety in the viewer because of their swift and regular direction shifts. As they degrade, they might symbolize danger and devastation. The artist drew zigzag lines over the earth to illustrate the extent of the destruction.

Modality: The noun 'climate change' refers to the situation drawn in this cartoon strip. The noun represents the cause of the condition of today's earth. The words written in capital letters at the top of this strip reveal the reality of this planet and, in a way, convey

that the world has become a skull because of climate change and has been devastated by human activity.

Composition: The earth is prominently portrayed in front of the audience. The artist's framing indicates the earth's destruction. In this instance, the mutual framing of the skull, world, and water as blood symbolizes that the planet is dead.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (Earth in the form of a skull, water) reflects the ideological context of climate change. The cartoon's ideological underpinnings are included in the symbol 'skull,' reflecting the notion that the earth is dying due to human activities and climate change—this ideology influences how nature and humans interact socially.

The phrase 'Earth in the form of a skull, water, and climate change' corresponds to the visual environment of the cartoon strip and demonstrates that Climate change has several consequences, including increased temperatures and severe weather events, rising sea levels, changing species populations and habitats, and various other effects. The term 'climate change alludes to a particular theme since the cartoon is about the critical situation of the earth.

This cartoon strip is an accurate portrayal of today's reality. The earth is shaped like a skull; its water resembles its blood, and the world seems dead. The land is submissive in this cartoon strip. In a satirical manner, the cartoonist blames humankind for the ecological problem.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

The world's climate has continuously changed throughout history, with considerable changes in global average temperatures. However, this present warming episode is happening faster than any previous occurrence. It has become evident that humans have been responsible for most of the warming over the past century by generating heat-trapping gases—commonly referred to as greenhouse gases—to power our modern lifestyles. It is accomplished via the combustion of fossil fuels, agriculture, land use, and other activities that contribute to climate change. Greenhouse gases have been at

their most significant point in the previous 800,000 years. This rapid increase is problematic because it alters our climate at a rate that exceeds the capacity of living beings to adapt.

Climate change has several consequences, including increased temperatures and severe weather events, rising sea levels, changing species populations and habitats, and various other effects. As a result, although our work may remain impartial and fair, we are progressively raising our voices, contributing to the apparent message that climate change is real, people are accountable, the consequences are grave, and we should act now. Climate change's results are already being felt, but they will worsen. Global warming has exceeded pre-industrial levels by around every half-degree (or even less) of global warming counts. This cartoon depicts climate change succinctly.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses CLIMATE CHANGE to foster an ideology of environmental degradation, affecting people's social lives and interactions with the environment.

4.1.21 Cartoon 21

Taken from the daily 'Dawn' Dated: 31-07-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: four male characters, water, rain, a building, buffalo, a car

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, the objective is nature, as shown in this cartoon, and the action is as follows: This is the scene during Pakistan's monsoon rains when everything is drowned in water. A man remarks, 'SOME THINGS NEVER CHANGE, HUH.'

CR: All participants are subordinate in this depiction.

Position of Participants: In this image, the characters are subordinate. The cartoonist depicted raindrops in a diagonal pattern, indicating an imbalance. They are brimming with restless, out-of-control energy. They might seem to be rising or sinking, conveying movement and activity. Due to the intensity of the action, the participants seem to be flowing with the flood. In this cartoon, the person asking the question also tells the truth about the situation.

Modality: The interrogative statement in bold capital letters at the top of this strip, 'some things never change, huh?' refers to the situation drawn in this cartoon strip. It conveys the speaker's truth and realism about the situation and, in a way, demonstrates that the government has failed to take the initiative to deal with the flood.

Composition: The image's framing implies that excessive monsoon rainfall is a significant problem the government should solve. Additionally, the mutual structure of these components demonstrates that they form a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (four male characters, water, rain, a building, buffalo, and a car) reflects the ideological context of the monsoon in Pakistan. The cartoon's ideological underpinnings are included in the symbol "rain," reflecting that Pakistan is hit by monsoon rains yearly, resulting in floods and damage. Pakistan is vulnerable to periodic floods during the monsoon season, increased water flows, and rapidly melting glaciers—this ideology influences how nature and humans interact socially. The phrase 'SOME THINGS NEVER CHANGE, HUH?' corresponds to the visual environment of the cartoon strip and demonstrates that Pakistan is hit by monsoon rains every year, resulting in floods and damage. The term 'flood' alludes to a particular theme since the cartoon is about the flood situation in Pakistan.

This cartoon strip is an accurate picture of Pakistan's monsoon season. It is a sight from Pakistan's monsoon rains when water drowns everything. Three individuals are steeped in flood, including a vehicle, and a man asks, 'SOME THINGS NEVER CHANGE, HUH?' It expresses the ecological issue; everything in the backdrop represents a flood and environmental scenario. The cartoonist sarcastically depicted this ecological disaster.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

Pakistan is hit by monsoon rains every year, resulting in floods and damage. Pakistan is vulnerable to periodic floods during the monsoon season, increased water flows, and rapidly melting glaciers. Floods also financially burden the country's frail economy, accounting for up to 4% of the government budget annually. Monsoon rains, which account for 65-70 percent of Pakistan's annual rainfall, are not equally distributed, resulting in rivers overflowing and catastrophic floods. According to the Global Facility for Disaster Reduction and Recovery, devastating floods in 2010 harmed over 20 million people and resulted in a financial loss of around $10 billion for recovery and

restoration. The government should solve this severe problem. This cartoon provides an accurate representation of environmental issues.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the 'SOME THINGS NEVER CHANGE, HUH?' to foster an ideology of environmental degradation, affecting people's social lives and environmental interaction.

4.1.22 Cartoon 22

Taken from the daily 'Dawn' Dated: 09-08-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Two male characters, newspaper, rain, water representing flood, building

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, the goal is water, as shown in the newspaper, and the action is a male character reading the newspaper headlines; the other male character is listening and protecting himself from the rain with the help of a newspaper. Everything in the background is submerged in raindrops, and water droplets fall in a rocket-like motion.

CR: Water is superordinate, and the male characters and buildings are subordinate in this depiction.

Position of Participants: Water is superordinate, and the male characters and buildings are subordinate in this depiction. The cartoonist drew curved lines on the water to show the dynamic energy or power of water, and the diagonal rainfall illustrates destruction in the form of a flood. The indirect gaze of the participants offers an interpretation to the viewer.

Modality: The phrases are written on the top of this strip 'water everywhere' and 'and not a drop to drink, and the sentence ' world's one-fourth population facing water shortage' written on the newspaper in bold capital letters reveals the truth and reality of the situation in Pakistan during monsoon. It presents that we do not have clean drinking water and are not saving rainwater, resulting in floods.

Composition: The language in this newspaper and rainwater attracts the reader's attention and frames the water scarcity in the reader's mind.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2019. In this cartoon, the biological aspect (Two male characters, a newspaper, rain, water representing a flood, building) reflects the ideological context as a warning to humans about water scarcity and the lack of dams resulting in floods. Besides heavy rainfall, Pakistani people are suffering from drinking water scarcity. The cartoon's ideological underpinnings are included in the sentence 'water everywhere and not a drop to drink' reflecting the notion that people do not have clean drinking water, and the sentence, 'World's one-fourth population facing water shortage' indicates that it is a global issue—this ideology influences how nature and humans interact socially.

The phrase 'water everywhere and not a drop to drink' corresponds to the visual environment of the cartoon strip and demonstrates that people are suffering from heavy rainfalls and there is water everywhere, but they cannot drink it because it is unclean, facing drinking water scarcity. The term 'water shortage' alludes to a particular theme since the cartoon's speakers, 'two men,' has the character of common masses suffering from the problem.

This cartoon strip depicts the issue of rainfall and floods in Pakistan, but on the other hand, it also represents drinking water scarcity in the world and presents two opposite situations.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

The cartoonist depicted two opposing scenarios in this cartoon strip: drinking water shortage and excessive rains and flooding. The artist attempts to show Pakistan's drinking water shortage and flooding difficulties due to the country's lack of dams.

According to research author William Young, new dams may enhance water security but will not solve Pakistan's most critical water issues. Irrigation systems demand modernization; hydro-meteorological systems require expansion; urban water infrastructure, particularly wastewater, requires significant investment. While the National Water Policy establishes a good foundation for change, provincial water policies need considerable attention, and the underlying legislative structure is insufficient and needs reinforcement.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses language that creates all these three dimensions, affecting language.

4.1.23 Cartoon 23

Taken from the daily 'Dawn' Dated: 16-08-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Two young male characters, trees, squirrels, mountains, plastic bags

Interactive Participants: image-maker, observer, and readers

NRS: The subject is a human character, the objective is nature as depicted in this cartoon, and the action is as follows: A lively male character dressed as a modern man informs another male character that they have covered nature in plastic. After witnessing this, the other male character, who appears average, is baffled.

CR: Speaker is superordinate, and the listener is subordinate in this depiction.

Position of Participants: In this image, the speaker is superior to the listener. The cartoonist illustrated the demand-supply relationship by drawing horizontal lines on trees and mountains. In this strip, the speaker offers the other person the same thing.

Modality: The nouns nature and plastic are two opposite words. The verb 'wrapped' shows the link between the subjects 'we' and 'we.' The line written in bold capital letters, 'We wrapped nature in plastic to reserve it' at the top of this strip, reflects the speaker's truth and the reality of this planet and, in a way, presents the fact that we wrapped nature in plastic to protect it. This sentence also shows that humans replaced natural things with artificial things.

Composition: In this strip, the framing of mountains, animals, and trees implies human co-or private ownership. Additionally, the mutual frame of these three parts demonstrates that they form a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. This cartoon's biological aspect (Two young male characters, trees, squirrels, mountains, and plastic bags) reflects Pakistan's ideological context of plastic pollution. The cartoon's ideological underpinnings are included in the term "plastic," reflecting the notion that Plastic pollution produces hazardous contamination of people, animals, and plants. Plastic is not biodegradable. Therefore, the environmental impact is permanent —this ideology influences how nature and humans interact socially.

The sentence WE COVERED NATURE IN PLASTIC TO PRESERVE IT corresponds to the visual environment of the cartoon strip and demonstrates that Plastic poses three risks to marine life and people. Animals caught in plastics or eating plastic may suffer physical injury. The hazardous chemical additives used in plastic manufacture may cause chemical injury. Viruses and bacteria may 'hitch-hike' on plastic particles, causing biological damage or speeding up their spread. Plastic alludes to a theme since the cartoon is about plastic pollution.

This cartoon strip is an accurate portrayal of today's reality. Additionally, the problem is satirical. The punch line WE COVERED NATURE IN PLASTIC TO PRESERVE IT! demonstrates the ecological issue. In this cartoon strip, the speaker is superior to the listener. The speaker is helping to perpetuate the notion that people have encased nature in plastic without being aware of the danger. Everything in the backdrop is plastic-wrapped to demonstrate this environmental issue. Sarcastically, the cartoonist blames humankind for the ecological problem.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip depicts plastic pollution. Plastics have transformed daily life; their use is increasing, and their annual output will exceed 300 million tonnes by 2022. Plastics provide many social advantages and the potential for future technical and medical improvements. However, there is a range of usage and disposal issues. They include rubbish accumulation in landfills and natural habitats, physical harm to animals due to ingestion or entanglement in plastic, chemical leakage from plastic goods, and the likelihood of plastics transmitting chemicals to wildlife and people. The fundamental concern is that our present consumption pattern is unsustainable. Plastics are manufactured using around 4% of the world's oil output as feedstock, and a comparable amount of energy is required to complete the process. However, packaging makes up more than a third of current production, and much of it is rapidly thrown away. As a result, with the punch line, WE COVERED NATURE IN PLASTIC TO PRESERVE IT! this graphic depicts the terrible truth of plastic's inability to disintegrate.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language WE COVERED NATURE IN PLASTIC TO PRESERVE IT! to foster an ideology of environmental degradation, which affects people's social lives and interactions with the environment.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which a lively male character dressed as a modern man informs another male character that they have covered nature in plastic. After witnessing this, the other male character, who appears average, is baffled. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that plastic pollution is a severe threat to life, as seen in this cartoon.

4.1.24 Cartoon 24

Taken from the daily 'Dawn' Dated: 21-08-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: A drowning old lady, a pitcher

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, and the goal is water; the action is portrayed in this strip as an older woman carrying a pitcher on her head and attempting to cross a river but drowning due to the strength and pressure of the water.

CR: Water is superordinate, and the older woman is subordinate in this depiction.

Position of Participants: In this picture, the water is superior to the older woman. The artist used zigzag lines at the top to convey the danger and destruction that would result if they broke and circular lines throughout the river to convey the gravity of the situation.

Modality: The phrase 'Indus Water treaty' and the situation represented in the cartoon are opposite. The word 'treaty' refers to the agreement between India and Pakistan on the Indus water, but this depiction shows the violation of the treaty. The phrase written on the pitcher in bold capital letters reveals the truth of the reality of the situation and, in a sense, presents the fact that the Indus water treaty is a crucial issue between India and Pakistan, affecting people's life.

Composition: The older woman is positioned prominently in front of the audience. The image's framing reflects the Indus water dispute between India and Pakistan. Numerous settlements in the Indus Basin are threatened by water shortage due to present water consumption and storage practices. Additionally, the mutual framing of these pieces demonstrates that they form a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (A drowning older woman, a pitcher) reflects the ideological context of the Indus water treaty between India and Pakistan. The cartoon's ideological underpinnings are included in the "Indus water treaty," reflecting the Indus water issue between India and Pakistan—this ideology influences how nature and humans interact socially.

The phrase INDUS WATER TREATY corresponds to the visual environment of the cartoon strip and demonstrates that Water scarcity fears caused by dam development increase diplomatic tensions between India and Pakistan. In both India and Pakistan, divisive political narratives increase war risk. Assaults on civilians by Pakistani-affiliated Islamic terror organizations have led to India abandoning diplomacy and threatening Pakistan's water supply. The symbol old woman' alludes to ordinary people suffering from water scarcity. The water issue between India and Pakistan is shown in this cartoon strip. The drowning older woman represents the poor people besides the Indus River, and the pitcher depicts the India-Pakistan treaty.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip depicts the Indus water issue between India and Pakistan. India-Pakistan water issues worsen. However, new upstream water infrastructure projects have revived disputes. Meanwhile, the Kashmir territorial dispute threatens the deal. The growing effects of climate change on Himalayan glaciers may increase catastrophe risk and undermine community water security. All of these variables affect future interstate and regional collaboration.

Water scarcity fears caused by dam development increase diplomatic tensions between India and Pakistan. In both India and Pakistan, divisive political narratives

increase war risk. Assaults on civilians by Pakistani-affiliated Islamic terror organizations have led to India abandoning diplomacy and threatening Pakistan's water supply (Al Jazeera, 2019; Roy, 2019). Meanwhile, Pakistani nationalist media blamed India's poor water management (Mustafa et al., 2017). Pakistanis fear that India would utilize its upstream dams to restrict the Indus water flow into Pakistan. Anti-Indian sentiment has incited anti-Indian emotion in Pakistan, giving fertile ground for hatred and violence.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the vocabulary INDUS WATER TREATY to foster an ideology of environmental degradation, affecting people's social lives and ecological interactions. The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy are reflected in the structural information of the cartoon, in which an older woman is carrying a pitcher on her head and attempting to cross a river but drowning due to the strength and pressure of the water. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that the Indus water issue is a severe threat to the public, as seen in this cartoon.

4.1.25 Cartoon 25

Taken from the daily 'Dawn' Dated: 24-08-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: a ghost with an axe, industries

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a ghost, and the goal is nature represented in this strip and action here is a spirit emerges from a neighboring structure, wielding an axe in its hand and conquering the entire region; in this image, the area of Karachi is portrayed as the target of this ghost.

CR: Ghost is superordinate, and other things are subordinate in this depiction.

Position of Participants: In this picture, the ghost conquering the entire space is superior, while the invaded objects are inferior. The artist added curving lines around the spirit, indicating the danger and damage when they disintegrate.

Modality: The word written on the ghost in bold capital letters reveals the truth of the current situation of Karachi and the reality of this world and, in a sense, presents the fact that modern industries are polluting the environment of Karachi.

Composition: The ghost is in a prominent position facing the audience. Framing in the image indicates that pollution is scattering all over the area with its uncontrolled energy because thin lines around the pollution ghost are breakable. It is spreading everywhere, making a map of Pakistan and alerting us to incoming danger. Furthermore, here mutual framing of these elements shows that they are a single unit called environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (a ghost with an axe, industries) reflects the ideological context of pollution in Karachi, Pakistan. The cartoon's ideological underpinnings include pollution, reflecting that Karachi suffers from pollution challenges like any highly populated and fast-rising city. Pakistan has cities with much worse pollution levels. However, Karachi does have air pollution challenges that cannot be ignored—this ideology influences how nature and humans interact socially.

The phrase 'pollution' corresponds to the visual environment of the cartoon strip and demonstrates that Karachi is suffering from air pollution. The symbol 'ghost' alludes to a particular theme since the cartoon's theme is pollution.

This cartoon strip illustrates the ecological problem 'of pollution.' A ghost emerges from a neighboring structure, wielding an axe and conquering the entire region; the Karachi area is portrayed as this ghost's target. Spirit is superordinate in the depiction. Everything in the background is polluted to show this environmental problem. The cartoonist blames modern industries for this ecological crisis in a satirical way.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip depicts the environmental pollution of Karachi in a satirical way. Karachi is a metropolis in Pakistan and the 12th biggest city globally, with about 15 million residents. Karachi is vital to Pakistan's economy. Karachi suffers from pollution challenges like any highly populated and fast-rising city. Pakistan has cities with much worse pollution levels. However, Karachi does have air pollution challenges that cannot be ignored.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language "Pollution" to foster an ideology of environmental degradation, which affects people's social lives and interactions with the environment.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which a ghost emerges from a neighboring structure, wielding an axe in its hand and conquering the entire region; in this image, the area of Karachi is portrayed as the target of this ghost. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), indicating that Karachi is suffering from air pollution, a severe threat to the public, as seen in this cartoon.

4.1.26 Cartoon 26

Taken from the daily 'Dawn' Dated: 28-08-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: An older man, a middle-aged man, litter, broom, water bucket

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, and the goal is nature represented in this strip; the action here is; two political leaders dressed as warriors arguing on the issue of garbage. They have brooms and water buckets in their hands, and the floor is filled with trash.

CR: The speakers are superordinate in this depiction.

Position of Participants: The drawn participants are inactive, so both characters are superordinate. The cartoonist drew a diagonal lined broom to show the imbalance situation. In this strip, both characters argue and blame each other for the issue.

Modality: The phrase in bold capital letters at the top of this strip convey the truth about the speakers and the reality of this event and, in a way, portray the fact that people generate pollution, and no one wants to take responsibility for cleaning it up.

Composition: The speakers are positioned prominently in front of one another. The framing of political leaders, rubbish, and buckets demonstrates that they are not addressing the problem seriously and are instead blaming one another. Additionally, the mutual frame of these three parts indicates that they form a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (An older man, a middle-aged man, litter, broom, water bucket) reflects the ideological context of garbage wars between political parties. The cartoon's ideological underpinnings are included in the term 'Garbage,' reflecting the environmental problem—this ideology influences how nature and humans interact socially.

The phrase GARBAGE WARS corresponds to the visual environment of the cartoon strip and demonstrates that political parties blame each other for garbage in Karachi, which is responsible for disaster management in the country, but the government is not actively doing its job. The term 'Garbage' alludes to a particular theme since the cartoon's environment presents the critical garbage situation in Karachi.

This cartoon depicts the situation accurately. Additionally, the problem is in satirical way. Two politicians are costumed as warriors debating over waste; they hold brooms and buckets of water. The floor is littered with garbage, highlighting the ecological crisis. In this cartoon strip, the speakers are in a superior position. Everything in the backdrop is a jumble of debris. The cartoonist presents this ecological problem sarcastically.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip depicts the debates between Karachi's two largest political parties. The populist left-liberal Pakistan People's Party (PPP) currently controls Sindh's provincial government, and the liberal-secular Muttahida Qaumi Movement (MQM), which has a history of returning the city's Members of the National Assembly and Members of Provincial Assembly devolve into animated verbal brawls. Populist Centre-right Pakistan The reek-i-Insaf (PTI), which garnered the city's second-largest vote total in the 2013 election, seems to have little understanding of the relatively complicated social and political dynamics of the city. The renowned real estate mogul and philanthropist Malik Riaz has chosen to give millions of rupees, equipment, and labor to help the city's rubbish collection efforts.

Regrettably, the residents of this city have only exacerbated the situation. Shopkeepers are not afraid to discard rubbish in front of their establishments. However, many Karachi residents claim it is difficult to locate waste that can occur anywhere in the city. This cartoon strip accurately depicts reality.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language GARBAGE WARS to foster an ideology of environmental degradation, which affects people's social lives and interactions with the environment.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which two political leaders dressed as warriors arguing on the issue of garbage. They have brooms and water buckets in their hands, and the floor is filled with trash. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that political parties blame each other for the issue, and no one is taking practical action against it seen in this cartoon.

4.1.27 Cartoon 27

Taken from the daily 'Dawn' Dated: 31-08-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: earth, tree, fire,

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is earth, and nature's goal is represented in this strip. The action here is; the earth asks for help by holding a help banner and is distressed because Amazon is on fire, harming the earth's atmosphere.

CR: Fire is superordinate, and the earth is subordinate in this depiction.

Position of Participants: Fire is superordinate, and the earth is subordinate in this depiction. The cartoonist drew diagonal fire to show its intensity. The earth's position is prominent, facing the audience to picture the event accurately.

Modality: The words written on the banners in bold capital letters reveal the truth of the situation and reality of this event and, in a sense, present that Amazon's continuous destruction from the fire will destroy the earth's environment.

Composition: The earth is in a prominent position facing the audience. Framing in the image indicates the destruction of the forest. The mutual framing of these three elements shows that they are a single unit called environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (earth, tree, fire) reflects the ideological context of the Amazon area's fires of 2019 were exceptional in their devastation. By October of that year, thousands of wildfires had consumed more than 7,600 square kilometers. The degradation of the Amazon rainforest has far-reaching effects on global health and climate change. The cartoon's ideological underpinnings are included in the term Amazon, reflecting that the Amazon area's fires of 2019 were exceptional in their devastation —this ideology influences how nature and humans interact socially.

The phrase HELP corresponds to the visual environment of the cartoon strip and demonstrates that the Amazon forest is on fire and the earth is crying for help to save the forest. The symbol 'earth' alludes to a particular theme since the cartoon is about the fire that burnt the earth's dearest part.

This cartoon depicts the burning Amazon forest. The earth looks in trouble, raising a help banner since Amazon is on fire, threatening the world's atmosphere. It

embodies the environmental issue. Everything in the backdrop represents mother earth's sorrow, pleading for assistance because of human activity. The cartoonist, in a satirical manner, presents this ecological problem.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip depicts the Amazon area's fires of 2019 were exceptional in their devastation. By October of that year, thousands of wildfires had consumed more than 7,600 square kilometers. The degradation of the Amazon rainforest has far-reaching effects on global health and climate change.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language HELP and AMAZON to foster an ideology of environmental degradation, affecting people's social lives and environmental interactions.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which the earth asks for help by holding a help banner and is in distress because Amazon is on fire, which harms the earth's atmosphere. The dialectical hierarchy is represented in the out relations of text (Ideo-, Bio- & Socio-Formation), indicating that the 2019 Amazon rainforest wildfires season witnessed a rise in flames in the Amazon rainforest and Peru during that year's Amazonian tropical dry season. Fires generally occur during the dry season when slash-and-burn tactics are employed to remove the forest to create room for agriculture, cattle, logging, and mining, leading to the destruction of the Amazon rainforest, as shown in this cartoon.

4.1.28 Cartoon 28

Taken from the daily 'Dawn' Dated: 06-09-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Two middle-aged farmers, locusts, crops

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is locust acting onto human characters that are aim described in this strip, and activity here is two farmers escaping from the locust in the form of giants, locusts attacking the land owned by farmers.

CR: Locusts are superordinate, and the farmers are subordinate in this depiction.

Position of Participants: In this depiction, the locusts are more prominent than real life and superior to the farmers. The artist placed zigzag lines on the locusts to demonstrate their strength and the havoc they can wreak on crops. The locusts are ready to attack the crops in this strip, and farmers flee the fields to prevent destruction.

Modality: The line written in bold capital letters at the top of this strip, WE'RE BACK and LOCUST ATTACK written on the boxes held by locusts, conveys the truth and reality of the situation. It demonstrates that farmers cannot cope alone with locust attacks and that locusts are always a lurking risk for farmers.

Composition: The image is composed of right to left to convey the situation's actuality. The locusts are conspicuous, and their larger-than-life size symbolizes their threat to agriculture. The image's framing reflects the economic crisis. The reciprocal frame of these elements demonstrates that they form a unified unit termed the environment, and locusts wreak havoc on farmers' economies.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (Two middle-aged farmers, locusts, crops) reflects the ideological context of the locust swarm attack in Pakistan; Locusts wreak havoc on crops, rangelands, and other plants. The cartoon's ideological underpinnings are included in the term locust attack, and we are back, reflecting the notion that locusts are back to attack and destroy the environment—this ideology influences how nature and humans interact socially.

The phrase WE ARE BACK corresponds to the visual environment of the cartoon strip and demonstrates that Locusts have forced farmers to replant crops in specific locations. Since the cartoon is about a locust attack, the term 'locust' alludes to a particular theme. The outbreak of the locusts is shown in this cartoon. Additionally, the presentation mode demonstrates that farmers cannot battle the economic crisis alone.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

The locust attack is depicted in this cartoon, as is the ecological issue. It illustrates Pakistan's predicament during an attack. In June 2019, the first locust swarm attack occurred. Locust swarms erupted in Baluchistan, then Sindh, Punjab, and Khyber Pakhtunkhwa in 2020. In Khyber Pakhtunkhwa alone, eight Southern districts were classified as locust-damaged.

Due to the COVID-19 epidemic, farmers cannot manage locusts. Pesticides and spraying equipment are in short supply. The country has no crop insurance schemes. Locusts have forced farmers to replant crops in specific locations.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language WE ARE BACK to foster an ideology of environmental degradation, affecting people's social lives and environmental interactions.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which two farmers are escaping from the locust in the form of giants, locusts attacking the land owned by farmers. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that a locust attack threatens food security and the environment, as seen in this cartoon.

4.1.29 Cartoon 29

Taken from the daily 'Dawn' Dated: 31-10-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Two middle-aged farmers, locusts, crops, money

Interactive Participants: Cartoonists, observers, and readers

NRS: The subject is locusts, and the goal is the crop, human, and action; here are two middle-aged male characters dressed like farmers in distress while watching locusts eat up the crop money, which they will earn by selling those crops.

CR: Locusts are superordinate, and the farmers are subordinate in this depiction.

Position of Participants: The locusts eating crops are superordinate, and the farmers are subordinate in this depiction. The image below, or with a high angle, depicts a sense of power, as the locusts are shown larger than life and looming over the viewer's eye line.

Modality: This cartoon strip is taken from the dawn newspaper. Although the participants may be unfamiliar, the setting is realistic enough. The color and contrast are consistent with a high level of modality.

Composition: The locusts are prominent in position. Contextually, the image framing shows joint or private ownership. In this cartoon depiction of crops, farmers and locusts indicate people's contextual co- or private ownership. Additionally, the mutual framing of these three parts demonstrates that they form a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (Two middle-aged farmers, locusts, crops, money) reflects the ideological context of the locust swarm attack in Pakistan; Locusts wreak havoc on crops, rangelands, and other plants. The cartoon's ideological underpinnings are included in the symbol 'money,' reflecting the notion that locusts are back to attack and destroy the environment and eat up all crop money of farmers—this ideology influences how nature and humans interact socially.

The symbols locust, crop, money, and farmers correspond to the cartoon strip's visual environment and demonstrate that Locusts have forced farmers to replant crops in specific locations and eat up all crop money. Since the cartoon is about locust swarm attacks, the term 'locust' alludes to a theme.

Two middle-aged male characters dressed as farmers are distressed while watching locusts eat up the money they will earn by selling those crops. It reveals the ecological problem. The locusts in this cartoon strip are superordinate, and the farmers are subordinate. In a satirical way, the cartoonist blames humans for this environmental crisis.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip vividly depicts locust attacks across Pakistan. This year's locust infestation continued the biggest epidemic in decades across Africa, the Arabian Peninsula, and South Asia in 2019. Farmers have recounted an unprecedented presence of voracious bugs, and the Food and Agriculture Organization (FAO) has warned of a severe infestation that might jeopardize food security. These locusts devour at a breakneck pace. With a body size ranging between 10 and 70 mm, depending on its development cycle, a mature locust may consume its body weight in food daily – almost

two grams of fresh plants. They thrive in abundant rains and green foliage and reproduce swiftly to form havoc-wreaking swarms.

What we saw in 2019 was the first time since 1993. For the first time in decades, the bug established areas of infestation in every province of Pakistan. Previously, the locusts were limited to the summer seasons in the Cholis tan desert in Punjab or the Thar in Sindh. However, they did move last year to other farmed parts of Sindh and Punjab and the northern districts of Khyber Pakhtunkhwa province, which had never heard of this insect before. They established new routes and even crossed into Afghanistan. Natives are now powerless as locusts consume their crops.

In February, Imran Khan, Pakistan's Prime Minister, declared a national emergency in response to the locust invasion. However, groups at the federal and provincial levels have clashed over the issue. The Sindh administration claimed that the federal government abandoned the province to the desert locust, while the national government maintained that the area bears responsibility. Thus, this cartoon strip portrays the plight of powerless farmers.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the symbols "locust, crop, and money" to foster an ideology of environmental degradation, affecting people's social lives and environmental interactions.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which two middle-aged male characters dressed like farmers are in distress while watching locusts eat up the crop money, which they will earn by selling those crops. The dialectical hierarchy is represented in the Inner Relations of Text (Ideo-, Bio- & Socio-Formation), which indicates that a locust attack threatens food security and the environment, as seen in this cartoon.

4.1.30 Cartoon 30

Taken from the daily 'Dawn' Dated: 08-11-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Smog, Lahore

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is Smog, and the goal is Lahore represented in this strip, and the action here is Smog chokes the neck of a man identified here as Lahore. The fog appears to be enraged.

CR: The Smog is superordinate, and the city of Lahore is subordinate in this depiction.

Position of Participants: Smog scattered at the top of the strip and over the city of Lahore demonstrates the domination. Furthermore, the direct view of haze in Lahore is a demand-offer connection. The artist employed diagonal lines to depict Smog's threat and devastation of Lahore.

Modality: The word SMOG printed in bold capital letters at the top of this strip discloses the identification of Smog, while the phrase LAHORE tells the city's identity. These two sentences accurately convey that pollution has engulfed the whole city of Lahore.

Composition: The haze is noticeable, and its dispersal over the surroundings indicates power. The framing in this image demonstrates Smog's dominion over Lahore.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, The biological aspect (Smog, Lahore) reflects the ideological context of Pollution and winter weather conditions covering the city in the haze, interrupting flights, closing key roads, and wreaking havoc on the city's residents' health. Air pollution has rapidly worsened in Lahore and several other towns around Punjab state. The cartoon's ideological underpinnings are included in the term 'smog,' reflecting the notion that government cannot cope with this issue—this ideology influences how nature and humans interact socially.

The phrase smog and Lahore corresponds to the cartoon strip's visual environment and demonstrates that pollution and winter weather conditions cover the city in the haze, interrupting flights, closing key roads, and wreaking havoc on the city's residents' health. The term 'smog' alludes to a particular theme since the cartoon's character, 'smog,' is responsible for the situation. This cartoon illustrates Lahore's pollution problem. It demonstrates how smoggy Lahore is because of pollution.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon depicts the issue of Smog in Lahore. This month, Lahore, Pakistan, has frequently led the daily list of the world's most polluted cities. Pollution and winter weather conditions cover the town in the haze, interrupting flights, closing key roads, and wreaking havoc on the city's residents' health. Air pollution has rapidly worsened in Lahore and several other towns around Punjab state. The physical presence of pollution and Lahore instills a worldview of power in the reader. This ideology affects people's social life.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language SMOG to foster an ideology of environmental degradation, affecting people's social lives and ecological interactions.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which Smog chokes the neck of a man identified here as Lahore. The smog appears to be enraged. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that Pollution and winter weather conditions cover the city in the haze, interrupting flights, closing key roads, and wreaking havoc on the city's residents' health, as seen in this cartoon.

4.1.31 Cartoon 31

Taken from the daily 'Dawn' Dated: 17-12-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: The earth, climate talks, fire

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is fire, the goal is earth, climate talks represented in this strip, action here is the earth, climate talks are burning, and the planet is dying from the heat.

CR: fire is superordinate, and the earth is subordinate in this depiction.

Position of Participants: Fire is superordinate, and the earth is subordinate in this depiction. Using diagonal lines, the cartoonist depicted the earth's vulnerability to fire. In addition, the earth's surface is marked by a series of curving lines. Sadness may be seen in the earth's indirect contact. The high angle of the earth's axis also demonstrates its importance.

Modality: In bold capital letters, CLIMATE TALKS represents the significance of climate and demonstrate that our planet is warming up because of fire and other global warming activities.

Composition: The earth is prominent. The enormous picture of the planet on fire also illustrates how the earth is heating up. The framing of the world demonstrates that global warming and the burning of climate talks are occurring because of human activity.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (The earth, climate talks, fire) reflects the ideological context of global warming. The cartoon's ideological underpinnings are included in the term climate, reflecting the notion that Pakistan's climate has been increasingly variable over the last several decades because of ongoing climate change; this tendency continues. Along with rising heat, drought, and harsh weather in some regions, melting the Himalayan glaciers threatens several of Pakistan's most significant rivers—this ideology influences how nature and humans interact socially.

The phrase 'climate talks' does not correspond to the cartoon strip's visual environment and demonstrates that Pakistan's susceptibility is exacerbated by its lack of technological and financial capabilities to adapt to the severe effects of climate change. Food and water security, as well as widespread population relocation, are extreme dangers to the country. Like many other South Asian countries, Pakistan risks climate change's repercussions. The term 'climate' alludes to a theme since the cartoon is about climate change. This cartoon strip is a clear depiction of today's world. It depicts the ecological issue in a satirical way. The burning of climate talks represents human behavior toward nature. In addition, due to this earth is heating up.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon illustrates climate change and human behavior in response to it. Climate change is projected to have a wide range of repercussions on Pakistan's environment and population. Pakistan's climate has been increasingly variable over the last several decades because of ongoing climate change; this tendency continues. Along with rising heat, drought, and harsh weather in some regions, melting the Himalayan glaciers threatens several of Pakistan's most significant rivers. Like many other South Asian countries, Pakistan risks climate change's repercussions.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. The physical presence of the earth, fire, and climate talk instills an ideology of climate change in readers, raises awareness about climate change, and influences people's social behaviors toward climate. This cartoon strip uses the language "climate talks" to foster an ideology of environmental degradation, affecting people's social lives and ecological interactions.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which the earth and climate talks are burning, and the planet is dying from the heat. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), in which Pakistan's susceptibility is exacerbated by its lack of technological and financial capabilities to adapt to the severe effects of climate change. Food and water security, as well as widespread population relocation, are extreme dangers to the country. Like many other South Asian countries, Pakistan risks climate change's repercussions.

4.1.32 Cartoon 32

Taken from the daily 'Dawn' Dated: 18-12-2019

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: a male character, rifle, Houbara bustard, desert

Interactive Participants: Image-maker, observer, and readers

NRS: A subject is an Arab man, and the aim is the bird Houbara bustard shown in this strip; the action here is An Arab man with a gun slung over his shoulder and two birds hanging from the gun traveling in the desert.

CR: Arab man is superordinate, and the bird is subordinate in this depiction.

Position of Participants: The Arab man is superior to the bird in this representation. Because the man indirectly interacts with the reader, this cartoon offers an interpretation from the outside and does not indulge in the act. The Arab man occupies a significant portion of the frame, demonstrating his power.

Modality: The words LICENSE TO KILL and HOUBARA written in bold capital letters in this strip reveals the truth of the situation and, in a sense, present the reality that the federal government has granted a license to kill Houbara to Bahrain's King and other members of the royal family.

Composition: The Arab man occupies a prominent position in this strip. The vertical angle of the man denotes his power and importance. From the spectator's perspective, the cartoonist frames the government's responsibility.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2019. In this cartoon, the biological aspect (a male character, rifle, Houbara bustard, and desert) reflects the ideological context of the authorization granted by the federal government to the King of Bahrain and five other members of the royal family to kill Houbara, The cartoon's ideological underpinnings are included in the term houbara bustard, reflecting the notion that it is endangered. However, the government has granted permission to kill it—this ideology influences how nature and humans interact socially.

The phrase 'license to kill' corresponds to the cartoon strip's visual environment and demonstrates that the government has given license to kill houbara. The term 'houbara' alludes to a particular theme since the cartoon is about killing the houbara bustard. This cartoon strip depicts the authorization granted by the federal government to the King of Bahrain and five other members of the royal family to kill Houbara.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

The federal government granted the King of Bahrain and five other royal family members permission to slaughter houbara. Prime Minister Imran Khan was honored with the highest honor during his visit to the Gulf nation. Migratory birds seem to link Gulf rulers to Pakistan. Despite the protests of environmental and wildlife advocates, the number of these birds has decreased owing to relentless shooting by Gulf royal families. Thousands of birds move south to Pakistan to winter in its comparatively moderate climate. The endangered bird is protected by international and local wildlife legislation. In 2015, retired Chief Justice Saqib Nisar sought in vain to safeguard the vulnerable bird, but the court subsequently let the government decide on hunting licenses, citing the locals' poverty. However, royal guests frequently break the regulations, and once they start hunting, no one can stop them.

Other royals than Bahraini fly into Pakistan to kill houbara bustards. Due to heavy urbanization, many bird species have been displaced from Islamabad and surrounding areas. Earlier this year, the Punjab government sought to deploy technology to save wildlife and combat poacher groups. It was praised for adopting IT, solar power, and drone cameras to track and capture poacher gangs and promote

wildlife reproduction and protection in the vast desert of Cholistan. It is a pity that local hunters are restricted, whereas foreign hunters are unrestricted

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'license to kill and houbara bustard' to foster an ideology of the authorization granted by the federal government to the King of Bahrain and five other members of the royal family to kill Houbara, which affects people's social lives and interaction with the environment.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which an Arab man with a gun slung over his shoulder and two birds hanging from the gun traveling in the desert depicts environmental degradation. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that despite the protests of the environment and wildlife advocates, the number of these birds has decreased owing to relentless shooting by Gulf royal families. Thousands of birds move south to Pakistan to winter in its comparatively moderate climate. The endangered bird is protected by international and local wildlife legislation. In 2015, retired Chief Justice Saqib Nisar sought in vain to safeguard the vulnerable bird, but the court subsequently let the government decide on hunting licenses, citing the locals' poverty. However, royal guests frequently break the regulations, and once they start hunting, no one can stop them, as seen in this cartoon.

4.1.33 Cartoon 33

Taken from the daily 'Dawn' Dated: 15-01-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: A male, a female, and a child cut down trees, sun, mountain, and water droplets

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is the sun, and the goal is nature. In this strip, a man, a woman, and a child watch nervously at a melting mountain owing to the sun's heat while the sun shines warmly on the other side.

CR: Sun is superordinate, and the rest of the participants are subordinate in this depiction.

Position of Participants: Sun is superior to the other participants in this picture, while the others are inferior. To illustrate the devastation caused by climate change, the cartoonist drew zigzag lines around the mountain. The participants have an indirect relationship with the viewers, implying that the spectator is not a participant in the activity but rather an observer.

Modality: The sentence THIS IS NOT THE CHANGE WE WERE PROMISED, written in bold capital letters at the top of this strip, reveals the reality of the situation and, in a sense, presents the fact that the Pak-China Economic Corridor is harmful to the environment and ecosystem of Gilgit Baltistan. Gilgit-Baltistan is a mountainous area with several glaciers and abundant water supplies. The CPEC will run between the glaciers and carry a high traffic volume; however, the proposal has not considered the

implications. To compound things, Pakistan is recognized as one of the most susceptible nations to the detrimental effects of climate change, owing to its varied topography and demographic characteristics.

Composition: The sun is positioned prominently above the audience. The sun's location shows its strength and precedes all other factors. The cartoonist paints a picture of Gilgit Baltistan's post-CPEC reality and the impact of climate change on that region.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (A male, female, and a child cut down trees, sun, mountain, and water droplets) reflects the ideological context of Gilgit Baltistan. The Pak-China Economic Corridor is vital to Pakistan's economy and Gilgit Baltistan's ecology and ecosystem. Gilgit-Baltistan has several glaciers and water sources. The CPEC will run between the glaciers, carrying considerable traffic, but the proposal does not consider the impacts. Pakistan's diversified topography and demographic makeup make it one of the most susceptible nations to climate change. The cartoon's ideological underpinnings are included in the term change, reflecting the notion that the CPEC is damaging the environment of Gilgit instead of benefiting—this ideology influences how nature and humans interact socially.

The statement THIS IS NOT THE CHANGE WE WERE PROMISED corresponds to the visual environment of the cartoon strip and demonstrates that the people of Gilgit are suffering from climate change due to CPEC. The term 'change' alludes to a particular theme since the government promised less beneficial change for the area.

This cartoon strip demonstrates that the Pak-China Economic Corridor benefits Pakistan and the nature and ecosystem of Gilgit Baltistan. Gilgit-Baltistan is a mountainous area with several glaciers and abundant water supplies. The CPEC will run between the glaciers and carry a high traffic volume; however, the proposal has not considered the implications. To compound things, Pakistan is recognized as one of the most susceptible nations to the detrimental effects of climate change, owing to its varied topography and demographic characteristics.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon illustrates that the situation of the Pak-China Economic Corridor is vital to Pakistan's economy and Gilgit Baltistan's ecology and ecosystem. Gilgit-Baltistan has several glaciers and water sources. The CPEC will run between the glaciers, carrying considerable traffic, but the proposal does not consider the impacts. Pakistan's diversified topography and demographic makeup make it one of the most susceptible nations to climate change.

The CPEC and its influence on climate change in Gilgit Baltistan are new problems. There may be an emphasis on climate change debates and research in this area and in Pakistan and China.

The mountainous area of Gilgit-Baltistan has long faced climate change issues. Due to the region's dispersed nature, the province lacks the resources to address these issues. GB's environmental problems include pollution of air and water supplies, erosion of soils, glacier melting, temperature rise, increased flood risk due to global warming, and loss of biodiversity. Increasing population, consumerism, and waste creation significantly contribute to other environmental problems, including land degradation. Environment protection and amenities for the inhabitants of Gilgit-Baltistan are required if the CPEC is seen as a precursor to comprehensive development. A mute risk zone will arise in one of Pakistan's most vital future growth sectors.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'THIS IS NOT THE CHANGE WE WERE PROMISED' to foster an ideology of environmental degradation, which affects people's social lives and interactions with the environment.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which a man, a woman, and a child look anxiously at the mountain, which is melting due to the heat of the sun while the sun is shining brightly. On the other side, there are cut-down trees, and this cartoon depicts the issue of climate change in Gilgit. The dialectical hierarchy

is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that climate change is one of Pakistan's most serious threats to people, as seen in this cartoon.

4.1.34 Cartoon 34
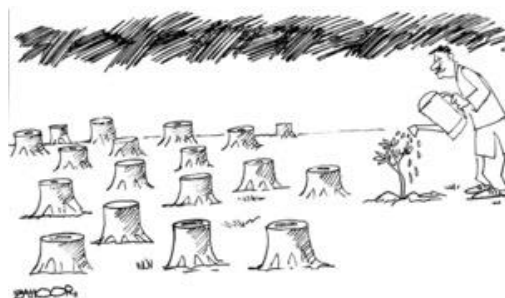
Taken from the daily 'Dawn' Dated: 27-02-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Tree trunks, a newly planted tree, a watering pot, water droplets, and a human character

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, the aim is represented by nature in this strip, and the action is as follows: A middle-aged man is watering a newly planted tree while the surrounding trees have been cut down.

CR: The subject is superordinate, and the object is subordinate in this depiction.

Position of Participants: The cartoonist drew zigzag lines on the top of this cartoon strip. Zigzag lines are formed by connecting diagonal lines at places. They acquire the dynamic and high-energy properties associated with diagonal lines. They generate enthusiasm and a great deal of movement. Their rapid and frequent direction changes give a sense of bewilderment and anxiousness. As they degrade, they might symbolize danger and devastation. In this cartoon, zigzag lines depict destruction and determination on the other.

Modality: The cartoonist drew half-cut trees to depict the truth of our world and, in some ways, to convey the message that humans ruined nature by cutting down the trees, and now we need them. As a result, the man plants a new tree to compensate for the loss.

Composition: Half-cut trees are positioned in a specific location in this cartoon strip, indicating more significance than new ones. Additionally, we cannot replace the natural environment with forestation. Here, the mutual framing of these pieces demonstrates that they constitute a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (Tree trunks, newly planted trees, watering pot, water droplets, and a human character) reflects the ideological context of deforestation. The cartoon's ideological underpinnings are included in the symbol "trees," reflecting the notion that the growing tendency of deforestation has a detrimental effect on the production and maintenance of forests and the livelihoods of individuals who live nearby. Due to illicit exploitation and ineffective enforcement of existing regulations, forest cover is dwindling alarmingly. Deforestation increases the danger of landslides, slope instability, flooding, increased surface runoff, and soil erosion. Following the 2005 Kashmir earthquake, an increased threat of landslides and debris flow was seen due to forest exploitation—this ideology influences how nature and humans interact socially.

The symbol 'new-planted tree and water' corresponds to the visual environment of the cartoon strip and demonstrates that the government will plant new trees. The sign 'tree' alludes to a theme since the cartoon is about deforestation.

This satirical cartoon strip illustrates the world's environmental problems. A middle-aged man is watering a freshly planted tree in this cartoon strip while all the other trees have been cut down. In a satirical manner, the cartoonist blames humans for the ecological problem.

**Outer Relations of Text (Ideo-, Bio- & Socio-Formation)**

Deforestation is the loss/removal of tree cover due to forests being destroyed for agricultural or livestock purposes. Forests affect the global climatic pattern through physical, chemical, and biological processes that govern the hydrological cycle, temperature stability, and atmospheric composition.

Scientists attributed the region's extraordinary pace of monsoon rains to the effects of climate change. Deforestation exacerbated the situation during the catastrophic disaster. Natural and manufactured circumstances conspired to create a disaster. Increased surface runoff and soil erosion resulted from soil deterioration and deforestation. Pakistan's government claims to have already planted over a billion trees as part of an ambitious plan initiated in 2019; the initiative, which the United Nations Environment Programme backs, seeks to plant ten billion trees by 2023. This cartoon strip depicts the problem succinctly.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the symbol 'cut down trees' to foster an ideology of environmental degradation, which affects people's social lives and interactions with the environment.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which a middle-aged man is watering a newly planted tree while the surrounding trees have been cut down, and this cartoon depicts the issue of climate change in Gilgit. The dialectical hierarchy is represented in the Inner Relations of Text (Ideo-, Bio- & Socio-Formation), which indicates that climate change and deforestation need the planting of new trees, as seen in this cartoon.

4.1.35 Cartoon 35
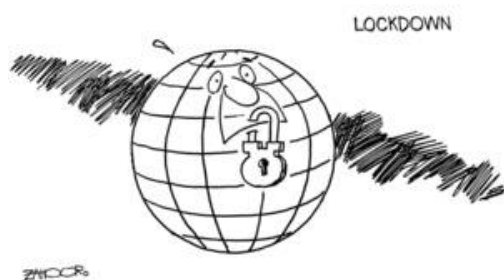
Taken from the daily 'Dawn' Dated: 25-03-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Earth, lock

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is the planet earth, the aim is nature, and the action is as follows: Our planet earth appears perplexed because its mouth is locked.

CR: Lock is superordinate, and the earth is subordinate in this depiction.

Position of Participants: In this cartoon strip, the lock is dominant to the earth, while the planet is inferior. Around the globe, the cartoonist drew zigzag lines. Their rapid and frequent direction changes give a sense of bewilderment and anxiousness. As they degrade, they might symbolize danger and devastation. The earth is befuddled and worried in this strip since its mouth is locked.

Modality: The word written in bold capital letters at the top-right indicates the truth and reality of the situation and, in a sense, presents the fact that humans placed the globe under lockdown in response to covid-19.

Composition: The earth is prominently shown in front of the audience. The image's framing reflects the earth's perplexity, while the lock on it signifies the source of the chaos. Additionally, the frame of all of this emphasizes an environmental issue. Further, the mutual framing of these pieces demonstrates that they form a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (Earth, lock) reflects the ideological context of covid-19, due to which earth was put in lockdown to avoid spreading the virus. The cartoon's ideological underpinnings are included in the term 'lock,' reflecting the notion that covid- 19 is a result of human activities—this ideology influences how nature and humans interact socially.

The signs 'earth and lock' correspond to the cartoon strip's ideological environment, demonstrate that the world is suffering from a pandemic, and put on the lock to avoid spreading the virus. Since this cartoon is about the lockdown, the sign 'lock' alludes to a particular theme. This satirical cartoon strip depicts the ecological crisis. Our planet earth appears perplexed in this illustration due to its mouth being locked. That is because of the global covid-19 shutdown.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip is a sarcastic representation of contemporary life. The lock on planet earth indicates the confusion spread worldwide because of covid-19. People have been quarantined in their houses to prevent the pandemic from spreading. The ground is growing cleaner because of this lockdown, and this cartoon strip represents the world as being in lockdown, which implies that humans are in lockdown.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the sign 'locked earth' to foster an ideology of environmental degradation, which affects people's social lives and interactions with the environment.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which our planet earth appears perplexed because its mouth is locked, and this cartoon depicts the issue

of covid-19. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that the earth is locked down due to a pandemic, as seen in this cartoon.

4.1.36 Cartoon 36

Taken from the daily 'Dawn' Dated: 22-04-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Earth

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is earth, the aim is nature, and the action is as follows: The globe is smiling and declaring I AM BREATHING AGAIN.

CR: The earth is superordinate in this depiction.

Position of Participants: The earth is superordinate in this depiction. The cartoonist drew zigzag lines around the globe to show the excitement of planet earth.

Modality: The text written in bold capital letters on the top-left page discloses the truth and reality of this planet and, in a sense, depicts that after lockdown, the earth is breathing again since people are trapped, and the world is regaining its original shape.

Composition: The earth is prominently shown in front of the audience. The framing of the image implies that the planet is regaining its natural shape following the lockdown. The way the earth is framed demonstrates a critical environmental component.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (earth and lockdown) reflects the ideological context of covid-19. The cartoon's ideological underpinnings are included in the sentence 'I am breathing again, reflecting the notion that the earth is returning to life due to lockdown—this ideology influences how nature and humans interact socially.

'I am breathing again' corresponds to the visual environment. It demonstrates that due to the lockdown of humans, the earth is breathing again and living its life. The term 'lockdown' alludes to a particular theme since the cartoon is about covid-19 lockdown. This cartoon strip illustrates the state of the world following the lockdown. It demonstrates that the earth is happy since breathing normally and reverting to its former shape.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This image illustrates that due to the fast spread of the new coronavirus (COVID-19), the world has implemented curfew/lockdown measures restricting human mobility. With the worldwide lockdown underway, the Internet and social media sources are awash with news and images depicting the planet as an unlikely benefactor of the Covid-19 epidemic. Nature seemed to have pressed the reset button, recovering the areas necessary for self-healing when manufactured activity paused. Despite the dread and gloom generated by the Covid-19 epidemic, there appears to be a traditional positive aspect and good repercussions.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'I am breathing again' to foster an ideology of environmental degradation, affecting people's social lives and environmental interactions.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which the globe is

smiling and declaring, 'I am breathing again,' and this cartoon depicts the issue of climate change. The dialectical hierarchy's synchronic component is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that the earth is returning to its origin due to the lockdown of humans, as seen in this cartoon.

4.1.37 Cartoon 37

Taken from the daily 'Dawn' Dated: 16-05-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Covid-19 as a giant, earth, a middle-aged man representing WHO

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is covid-19, and the goal is symbolized by a giant holding the entire earth in its hands and glaring at a human figure representing the World Health Organization in this strip.

CR: Covid-19 is superordinate, and the earth and human character are subordinate in this depiction.

Position of Participants: Covid-19 is superordinate, and the earth and human character are subordinate in this depiction. The cartoonist drew zigzag lines on the covid-19 symbol to show the danger and destruction of the pandemic. The frontal view of the image shows the demand-offer relation.

Modality: The sentence 'THE VIRUS MAY BE HERE TO STAY,' in bold capital letters uttered by a global health organization official, conveys the speaker's truth and the reality of our world and, in a way, presents the fact that covid-19 is here to stay and we should learn to live with it.

Composition: The covid-19 is prominently displayed in front of the audience. Its size reflects its dominance and demands greater attention than other players demand. The cartoonist shapes readers' perceptions of WHO.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (Covid-19 as a giant, earth, a middle-aged man representing WHO) reflects the world health organization's ideological context, which has the ideology that the virus is here to stay. The cartoon's ideological underpinnings are included in the term "virus," reflecting the notion that if humans poison nature, nature can ruin a human life—this ideology influences how nature and humans interact socially.

The statement 'The virus may be here to stay' corresponds to the visual environment of the cartoon strip and demonstrates that the virus is invading all over the world, and it is here to stay as other viruses did. The term 'virus' alludes to a particular theme since the cartoon's participant, 'covid-19,' has the character of a giant.

This cartoon strip is an accurate portrayal of today's reality. It illustrates the earth's condition during Covid-19, and health officials believe the virus may be here to stay while the globe seems befuddled.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip depicts the current state of covid-19 and the World Health Organization's stance on it. Covid-19 is here to stay as the virus mutates in unprotected nations, and global health professionals have said that the virus's final chance of eradication has dwindled. They believe this virus will remain with us indefinitely and change the same way as influenza pandemic viruses; it will evolve into one of the other viruses that harm humans.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'THE VIRUS MAY BE HERE TO STAY' to foster

an ideology of WHO, which affects people's social lives and interactions with the environment.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy are reflected in the structural information of the cartoon, in which a giant is holding the planet earth in its hands and staring at a human character who represents the World Health Organization. This cartoon depicts the reality of covid-19 virus and the inability of the World health organization to overcome it. The dialectical hierarchy is represented in the Inner Relations of Text (Ideo-, Bio- & Socio-Formation), indicating that Covid-19 is likely 'here to stay with us' as the virus mutates in unvaccinated countries and hopes to eradicate it diminishes.

4.1.38 Cartoon 38

Taken from the daily 'Dawn' Dated: 21-05-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: covid-19, locust, and a poor man

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a locust and covid-19, the object is a poor man, the aim is nature as depicted in this strip, and the action is the furious Locust and Covid-19 pointing a rifle at a scared and bewildered poor man.

CR: Locust and covid-19 are superordinate, and the poor man is subordinate in this depiction.

Position of Participants: In this picture, the locust and covid-19 are superior, while the poor man is inferior. The artist used zigzag lines to show the locusts' and covid-19 destructive force, resulting in an uncertain position and poverty.

Modality: The words locust and covid-19 show the identity of the characters in this strip.

Composition: The characters are positioned prominently in front of the audience. The image's framing conveys the overwhelming power of natural calamities over humankind. The reciprocal frame of poor man, locust, and covid-19 demonstrates that some risks benefit and harm poor people.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (covid-19, locust, and a poor man) reflects the ideological context of the locust attack and covid-19 pandemic. The cartoon's ideological underpinnings are included in the sign 'locust and covid-19', reflecting that these environmental issues affect poor people's lives—this ideology influences how nature and humans interact socially.

The signs 'locusts and covid-19' correspond to the cartoon strip's visual environment and demonstrate that these environmental issues target poor people. The term 'locust and covid-19' allude to a particular theme since this cartoon concerns environmental issues.

This cartoon strip depicts Pakistan's precarious circumstances during the locust onslaught and epidemic of covid-19. Pakistan had numerous issues with covid-19 and locusts in the middle of the year. Locusts were wreaking devastation on communities, while covid-19 caused havoc in major cities, killing hundreds. Until mid-July, the death toll remained high. The situation deteriorated across the country, and people suffered economically and psychologically.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

Pakistan experienced significant challenges with covid-19 and locusts in the middle of the year. Locusts destroyed villages, while covid-19 wreaked havoc in large towns, killing hundreds of people. The death toll continued until mid-July. For the entire country, the situation deteriorated, and people suffered economically and mentally. Pakistan is classified as a third-world country due to the number of people living below the poverty line. According to the ONE NATION PROJECT ranking, Pakistan ranks 42 in GDP. The state's institutional behavior has significantly burdened taxpayers and left the public with a trillion-dollar debt. When discussing social practices historically, it becomes clear that since its independence from the imperialist authority of British invaders, it has been unable to sustain its economy for various reasons. This cartoon is an actual depiction of the country's ecological catastrophe.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'covid-19 and locusts' to foster an ideology of environmental degradation, affecting people's social lives and environmental interaction.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which the furious Locust and Covid-19 are pointing a rifle at a scared and bewildered poor man, and this cartoon depicts the issue of environmental problems in Pakistan. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that climate change is one of Pakistan's most serious threats to people, as seen in this cartoon.

4.1.39 Cartoon 39

Taken from the daily 'Dawn' Dated: 03-06-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Prime minister Imran Khan, Covid-19 symbols, banner

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, and the aim is the tourist business, represented in this strip by a male character who is Pakistan's president, pointing toward the tourism industry banner, which is carried by covid-19 symbols.

CR: Speaker is superordinate, and the rest are subordinate in this depiction.

Position of Participants: The informant is superior. The cartoonist sketched zigzag lines on the banner to emphasize the risk posed by covid-19. In this cartoon, the president promotes tourism in the wake of Covid-19.

Modality: The lines in bold capital letters at the top of this strip indicate the speaker's truth and reality, revealing that PM is promoting the tourist business.

Composition: The speaker is positioned prominently in front of the audience. Contextually, the image framing shows joint or private ownership. This framework of the tourist sector and PM contextualize human co- or private ownership. The mutual frame of these three components demonstrates that they form a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (Prime minister Imran Khan, Covid-19 symbols, banner) reflects the ideological context of promoting the tourism industry during covid-19. The cartoon's ideological underpinnings are included in the term 'tourism,' reflecting the notion that Government established the National Tourism Coordination Board (NTCB). Worldwide travel prohibitions on coronavirus, the discovery of new tourist sites, and infrastructure development have bolstered domestic tourism in Pakistan, with millions of domestic tourists flocking to the gorgeous North and northwest this summer. This ideology influences how nature and humans interact socially.

The phrase 'tourism industry' corresponds to the visual environment of the cartoon strip and demonstrates that the government is promoting the tourism industry. The term 'tourism industry' alludes to a theme since the government promotes the tourism industry supported by covid-19.

A male actor appearing as Pakistan's president points to the tourist sector banner, carried by covid-19 symbols. It highlights the ecological issue. In this cartoon strip, the speaker is superior. The speaker promotes Pakistan's tourism business, idealizing Pakistan as the finest tourism destination. Everything in the backdrop is in favor of the Prime Minister's agenda. PM supports it rather than prohibiting travel due to the worldwide epidemic.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon illustrates that tourism is a priority issue for the current administration. Numerous efforts are being attempted to capitalize on the tourist industry's potential. To facilitate the development and enhancement of coordination with provinces, federal ministries, and private actors, as well as the facilitation of the development of policies, strategies, and frameworks for marketing and promoting tourism potentials nationally and internationally and capacity building for the provision of quality human resources, the Government established the National Tourism Coordination Board (NTCB). Worldwide travel prohibitions on coronavirus, the discovery of new tourist sites, and infrastructure development have bolstered domestic tourism in Pakistan, with millions

of domestic tourists flocking to the North and northwest this summer. This cartoon strip is a clear depiction of this reality.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'tourism industry' to foster an ideology of environmental degradation, affecting people's social lives and environmental interactions.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which a male character, who is Pakistan's president, points toward the tourism industry banner carried by covid-19 symbols, and this cartoon depicts the issue of climate change in Gilgit. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that the Government established the National Tourism Coordination Board (NTCB).

4.1.40 Cartoon 40

THE WORLD WE LIVE IN . . .

Taken from the daily 'Dawn' Dated: 05-06-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: tree trunks, a pile of rubbish, a factory, and smoke as a monster

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is smoke coming out from a building, and the goal is nature represented in this strip and action here is: Smoke coming out from a building is acting like a monster. In addition, there is a pile of rubbish and tree trunks representing the environment.

CR: Smoke is superordinate, and the rest are subordinate in this depiction.

Position of Participants: The smoke from the building is superordinate, and the rest are subordinate in this depiction. The subject is depicted broader than life and towering over the viewer's eye line in images taken from below or from a high angle, conveying a sense of power or significance. The seriousness of the situation is depicted here by the mound of trash and smoke. The cartoonist drew a curved line on smoke to show uncontrolled energy and vertical lines on the trees representing pollution's power. Horizontal and zigzag lines on the factory represent its power.

Modality: The sentence written at the bottom of this strip in bold capital letters reveals the truth and the reality of this world and, in a sense, presents the fact that the world we live in has become dirty and modern technology destroyed nature.

Composition: The monster is in a prominent position facing the audience. Framing in the image indicates that modern technology is polluting our environment. Furthermore, here mutual framing of these elements shows that they are a single unit called environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (tree trunks, a pile of rubbish, a factory, and smoke as a monster) reflects Pakistan's ideological context of environmental pollution. The cartoon's ideological underpinnings include the term THE WORLD WE LIVE IN, reflecting that we are now destroying forests. Our environment is dirty: we drink polluted water, breathe dusty air, and eat pesticide- and chemical-contaminated food. Therefore, we have illnesses. Human actions have harmed the ozone layer, raised the sea, and melted the Antarctic and Greenland ice caps. Now global warming warns us that climate change is real and will occur. Mother Earth and life on Earth are in jeopardy—this ideology influences how nature and humans interact socially.

The statement THE WORLD WE LIVE IN corresponds to the visual environment of the cartoon strip and demonstrates that people polluted the planet earth. The term 'world' alludes to a particular cartoon about our world.

This cartoon strip depicts the seriousness of the environmental problem. The punch line is 'THE WORLD WE LIVE IN…'. It illustrates the ecological situation. Smoke coming out from a building is acting like a monster. In addition, there is a pile of rubbish and tree trunks representing the environment. Everything in the background shows environmental pollution caused by factories. The cartoonist blames modern technology for this ecological crisis in a satirical way.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon depicts today's world in which we live. We are now destroying forests and wild creatures, searching for crude oil and coal. Our environment is dirty: we drink polluted water, breathe dusty air, and eat pesticide- and chemical-contaminated food. Therefore, we have illnesses. Human actions have harmed the ozone layer, raised the sea, and melted the Antarctic and Greenland ice caps. Now global warming warns us that climate change is real and will occur. Mother Earth and life on Earth are in jeopardy.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'THE WORLD WE LIVE IN…' to foster an ideology of environmental degradation, affecting people's social lives and environmental interaction.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which a man, Smoke coming out of a building, is acting like a monster. In addition, there is a pile of rubbish and tree trunks representing the environment, and this cartoon depicts the issue of climate change in Pakistan. The dialectical hierarchy is described in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that climate change is one of Pakistan's most serious threats to people, as seen in this cartoon.

4.1.41 Cartoon 41

Taken from the daily 'Dawn' Dated: 11-06-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Rain, Tattered umbrella, Health care system in Pakistan, The virus is falling like raindrops, a low-income family

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a covid-19, and the goal is human characters represented in this strip and action here; the virus spreads like raindrops, passing through the ragged umbrella that symbolizes Pakistan's health care system hovering over the heads of the family. The poverty-stricken family seemed to be in trouble.

CR: Covid-19 symbols are superordinate, and the human characters under the tattered umbrella are subordinate in this depiction.

Position of Participants: Covid-19 is superordinate, and the human characters are subordinate in this depiction. The cartoonist drew zigzag lines on the Pandemic to show its power. The direct gaze of the participants represents demand.

Modality: The words Pandemic and Health care system written on the top of this strip in bold capital letters reveal this situation's reality and show that covid-19 is spreading due to Pakistan's poor health care system.

Composition: The Pandemic facing the audience holds more salience than other things in the image. Framing in the image indicates Pakistan's poor healthcare system in the wake of the global Pandemic.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (Rain, Tattered umbrella, Health care system in Pakistan, The virus falling like raindrops, a low-income family) reflects the ideological context of covid-19. The audacious term 'Epidemic' alludes to the pandemic spreading throughout the country due to inadequate infrastructure. It relates to how society functions and institutions deliver services to individuals—this ideology influences how nature and humans interact socially.

The statement 'pandemic' corresponds to the visual environment of the cartoon strip and demonstrates that a pandemic is looming over the family's heads, but the healthcare system is failing to respond.

This cartoon highlights the country's health care system. A pandemic is looming over the family's heads, but the healthcare system fails to respond. The audacious term 'Epidemic' alludes to the pandemic spreading throughout the country due to inadequate infrastructure. It is a term that relates to how society functions and how institutions deliver services to individuals.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip is about a severe covid-19 onslaught in Pakistan. Hospitals were brimming with covid-19-infected patients, and clinicians were struggling with a shortage of infrastructure. Hospitals lacked personal protective equipment, and doctors were obliged to operate in these conditions. This cartoon depicts the entirety of this heinous incident. Additionally, Dawn represented the scenario without the possibility of establishing and forced censoring, which is frequently conducted covertly.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'pandemic' to foster an ideology of environmental degradation, affecting people's social lives and ecological interactions.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which The virus spreads like raindrops, passing through the ragged umbrella that symbolizes Pakistan's health care system hovering over the heads of the family. The poverty-stricken family seemed to be in trouble, and this cartoon depicts the issue of covid-19. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that covid-19 is hitting the healthcare system and the poor's life, as seen in this cartoon.

4.1.42 Cartoon 42

Taken from the daily 'Dawn' Dated: 01-07-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: locusts, newspaper

Interactive Participants: image-maker, observer, and readers

NRS: The Subject is a locust, and the goal is the crop represented in this strip. The action here is; two locusts are dressed like humans and are seen in a cheerful mood. One reads the newspaper while the other listens to him happily. The locust (reader) informs the other locust (listener) about a news headline in which the PM said, 'Agriculture is our top priority.'

CR: Speaker is superordinate, and the listener is subordinate in this depiction.

Position of Participants: The informing character is superordinate, and the listener is subordinate in this depiction. The cartoonist drew zigzag lines beside locusts to show the opposite angles. In this depiction, the locusts, which usually eat crops, read the newspaper in human-like clothes and laugh at the headline, which shows opposite relations.

Modality: The sentence written in the newspaper in this strip in bold capital letters, 'AGRICULTURE IS OUR TOP PRIORITY,' shows the opposite relation of the statements of drawn participants. It reveals that the government is failing to cope with the locust attack. It presents that agriculture is Pakistan's top priority, and the word on the character is 'Locust,' indicating that it is a significant problem nowadays.

Composition: In this cartoon, writing in the middle of the picture means saying two contradictory things. Humans and locusts are two different creations, but the locusts are shown in human attire. The location of the most prominent participants can be set as 'given' is more important than 'new,' or vice versa; therefore, 'ideal' is more apparent than 'real' and vice versa, the center margin relations. Furthermore, the locusts are in a prominent position facing each other means they are a single unit. Here mutual framing of locusts shows they are a single unit called environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (locusts, newspaper) reflects the ideological context of the locust attack. The cartoon's ideological underpinnings are included in the term "locust," reflecting the notion that the current Desert Locust outbreak has had a massive impact on Pakistan's agriculture, with swarms wreaking havoc on all crops —this ideology influences how nature and humans interact socially.

The statement 'AGRICULTURE IS OUR TOP PRIORITY' corresponds to the visual environment of the cartoon strip and demonstrates that locust is harmful to the country's economy. Since the cartoon is about a locust attack, the term 'locust' alludes to a particular theme. This cartoon strip closely depicts the situation in July 2020, when locusts devastated crops. It portrays the problem satirically. The punch line, 'AGRICULTURE IS OUR TOP PRIORITY,' as stated by the Prime Minister,

exemplifies the ecological crisis. In this cartoon strip, the speaker is superior to the listener. The speaker is reading the newspaper and laughing at the news since the speaker is a locust that destroys crops and acts adversely. The artist depicted two opposing scenes to illustrate an ecological issue.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

As of May 26, swarms of desert locusts had afflicted an estimated 1.5 million people since January 2020, in what has been described as Pakistan's biggest locust epidemic in over 25 years. Locusts that arrive before the rains are more likely to stay in farming regions or go east to India (Dawn, June 8, 2020). The current Desert Locust outbreak has had a massive impact on Pakistan's agriculture, with swarms wreaking havoc on crops. A team presents an overview of the dynamics of this outbreak, examines its effects and control methods, and describes the roles of various stakeholders in managing this pest, making recommendations for future improvements. In this cartoon strip, the punch lines AGRICULTURE IS OUR TOP PRIORITY, and LOCUST portray the reality, and due to locusts, Pakistan suffered from food insecurity in 2020.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language AGRICULTURE IS OUR TOP PRIORITY to foster an ideology of the country's economy, affecting people's social lives and environmental interactions.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which two locusts are dressed like humans and are seen in a cheerful mood. One reads the newspaper while the other listens to him happily. The locust (reader) informs the other locust (listener) about a news headline in which the PM said, 'Agriculture is our top priority,' and this cartoon depicts the issue of climate change in Gilgit. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that a locust attack is a great danger to the country's environment and economy, as seen in this cartoon.

4.1.43 Cartoon 43

Taken from the daily 'Dawn' Dated: 04-07-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: House, trees, mountain, rock

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a rock, and the goal is nature represented in this strip and action here is; a stone is rolling downwards from the mountain towards a tourism industry house.

CR: Rock is superordinate, and the tourism industry is subordinate in this depiction.

Position of Participants: The rock falling from the mountain is superordinate, and the tourism industry is subordinate in this depiction. The cartoonist drew curved lines from the rock's falling point to show the action's intensity. In addition, the diagonal line on the rock and mountains offer uncontrolled energy.

Modality: The words written on the building in bold capital letters reveal the tourism industry's identity and importance.

Composition: The rock and mountain are in a prominent position. Framing in the image indicates co or private ownership. Furthermore, here mutual framing of these three elements shows that they are a single unit called environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (House, trees, mountain, and rock) reflects the ideological context tourism industry. The cartoon's ideological underpinnings are included in the 'rock,' reflecting the notion that the COVID-19 pandemic outbreak in 2020 had a devastating effect on Pakistan's tourism sector. This year, domestic travelers benefited the local tourism economy despite a reduced influx of foreign visitors due to pandemic-related travel restrictions. —this ideology influences how nature and humans interact socially.

The phrase 'tourism industry' corresponds to the visual environment of the cartoon strip and demonstrates that covid-19 plays a significant hurdle in promoting tourism in Pakistan. The term 'tourism' alludes to a particular theme since this cartoon is about tourism. This cartoon strip depicts tourism in Pakistan in the current scenario. The rock falling from the mountain is superordinate, and the tourism industry is subordinate in this depiction. The cartoonist drew curved lines from the rock's falling point to show the action's intensity. In addition, the diagonal line on the rock and mountains offer uncontrolled energy. Everything in the background represents the critical situation in the tourism industry. It is wrapped in plastic to show this environmental problem.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

Pakistan has abundant natural beauty and historical and religious tourism attractions that draw many domestic and international travelers annually. However, the COVID-19 pandemic outbreak in 2020 had a devastating effect on Pakistan's tourism sector. This year, domestic travelers benefited the local tourism economy despite a reduced influx of foreign visitors due to pandemic-related travel restrictions. Pakistani academics and government officials feel that because Pakistan has enormous tourism potential, all-out efforts should be made to expand the growing tourism sector and attract domestic tourists and visitors worldwide after the epidemic diminishes.

As represented in this cartoon strip, social practice's biological, ideological, and sociological elements are in dialectical interaction. Subjects and aims' physical existence generates ideas in the minds of observers, affecting society and language.

This cartoon strip generates all three dimensions, which affect language. The presence of the tourism industry, mountains, trees, and rock indicates a biological dimension, which leads us to an ideological dimension, which suggests that rock (representing Covid-19) is falling towards the tourism industry and causing harm. Therefore, the global pandemic negatively affects the tourism industry and creates ideology. It takes us to the social component, which indicates that these things belong to a single unit called the environment.

4.1.44 Cartoon 44

Taken from the daily 'Dawn' Dated: 13-07-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: four middle-aged men, six locusts

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, the goal is a locust, and the action here is four men with swords staring at six giant locusts. The locusts are also observing them. It seems as if the fight is about to begin.

CR: The locusts are more prominent than in real life, so they are superordinate, and the human characters are subordinate in this depiction.

Position of Participants: Because the locusts are larger than life, they are superior to the human beings in this picture. Participants who shared the same eye line suggest they communicate while indirectly connecting with readers, indicating that the viewers are not participating in the activity.

Modality: The phrase GOVT VS LOCUST, written in bold capital letters at the top of this cartoon, indicates the reality of the situation and, in a way, conveys the fact that the government is attempting to deal with the locust infestation.

Composition: The locusts are prominent and attract more attention than the government based on size. The cartoonist frames the magnitude of the locust infestation and the government's failure to deal with it.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (four middle-aged men and six locusts) reflects the ideological context of the government's responsibility to cope with locust attacks. The cartoon's ideological underpinnings are included in the term 'govt vs. locust,' reflecting the notion that if the government could not cope with locust attacks, it would result in many environmental problems. This attack is due to climate change—this ideology influences how nature and humans interact socially.

The statement 'Govt vs. Locust' corresponds to the visual environment of the cartoon strip and demonstrates that government is ready to fight locusts with swords. It is inappropriate to handle this attack, and the government cannot cope with the attack. The term 'locust and government' alludes to a theme since the cartoon is about their war. This cartoon depicts an actual locust invasion and the government's inability to deal with it.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon illustrates a locust invasion and the subsequent government reaction. Pakistan's government announced a state of emergency on Saturday due to desert locust infestations in the country's eastern region. Desert locusts, giant herbivores resembling grasshoppers, arrived in Pakistan from Iran in June and have already wreaked havoc on cotton, wheat, maize, and other crops. Favorable climatic conditions and a slow reaction by the government aided the locusts in breeding and attacking agricultural regions— their potential for widespread devastation fuels concerns about food poverty.

The locust assault is unique in its scope and severity. Prime Minister Imran Khan committed to addressing the matter, stating that the government's priority was to defend agriculture and farmers. The federal government would take all necessary precautions and provide the infrastructure to safeguard crops from any potential hazard, emphasizing the danger of locusts. Pakistan last faced a significant threat from locusts in 1993. Now, locust swarms are wreaking havoc in neighboring India and East Africa.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. This cartoon strip uses language that creates all these three dimensions, affecting language. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language GOVT VS LOCUST to foster an ideology of government's responsibility, affecting people's social lives and environmental interactions.

4.1.45 Cartoon 45
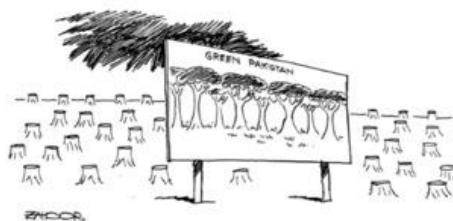
Taken from the daily 'Dawn' Dated: 20-07-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: cut down trees, trees marked on the banner

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is deforestation, the goal is green Pakistan, and the action here is a green Pakistan banner placed in front of cut-down trees.

CR: The banner is superordinate, and the cut-down trees are subordinate in this depiction.

Position of Participants: The banner is superordinate, and the cut-down trees are subordinate in this depiction. The cartoonist drew zigzag lines on the flag to show the confusion because the cartoonist drew two opposite situations.

Modality: The words on the banner offer a new situation and represent PM Imran Khan's clean and green Pakistan plan.

Composition: The green Pakistan banner is displayed prominently. The image below illustrates the significance of trees in our lives. In this photograph, the framing emphasizes the difference between the depicted scenarios. The frame of these trees demonstrates their connection to ecology.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (cut down trees, trees drawn on the banner) reflects the ideological context of the green Pakistan emblem that symbolizes the government's commitment to rehabilitating forests. However, tree removal results in the degradation of the natural ecosystem. The cartoon's ideological underpinnings are included in the term 'green Pakistan,' reflecting the notion that the government is trying to make Pakistan green—this ideology influences how nature and humans interact socially.

The phrase 'green Pakistan' does not correspond to the visual environment of the cartoon strip and demonstrates that due to deforestation, there is a need to plant new trees. The term 'green' alludes to a particular theme since the cartoon is about the environment. This cartoon portrays the issue of deforestation. The green Pakistan emblem symbolizes the government's commitment to rehabilitating forests. However, tree removal results in the degradation of the natural ecosystem.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon indicates that Pakistan is in a 'Green Emergency' condition. This emergency has badly affected the rural population relying on Pakistan's woods for livelihood. Along with changes in the ecology, this reliance has rendered them very vulnerable to the future deterioration of forests - a considerable number of households and workers in this region might lose their vocation, expertise, and habitat.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'green Pakistan' to foster an ideology of environmental degradation, which affects people's social lives and interactions with the environment.

The Inner Relations of Text (Ideo-, Bio- & Socio-Formation) of the dialectical hierarchy is reflected in the structural information of the cartoon, in which a man and a green Pakistan banner are placed in front of cut-down trees, and this cartoon depicts the issue of deforestation. The dialectical hierarchy is represented in the external relations of text (Ideo-, Bio- & Socio-Formation), which indicates that climate deforestation is one of Pakistan's most serious threats to people, as seen in this cartoon.

4.1.46 Cartoon 46

Taken from the daily 'Dawn' Dated: 11-08-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: PM Imran Khan, three dragons, and a sword

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, the goal is a dragon, and the action is as follows: The Prime Minister of Pakistan has a sword in his hand and preparing to combat a dragon entitled climate change, while the other two dragons observe the situation.

CR: Dragons are superordinate, and the PM is subordinate in this depiction.

Position of Participants: In this image, dragons are superior to the PM. The cartoonist used zigzag lines to depict the male character's incredible energy and rapid movement. The participants' indirect gaze implies that the spectator is not participating in the activity shown in the cartoon strip.

Modality: The words CLIMATE CHANGE written in bold capital letters on the dragon at the top of this strip show the reality that climate change is a major global issue and that Pakistan's PM is prepared to tackle it while other problems are put on wait.

Composition: Climate change's dragon is prominently portrayed. It is more prominent than the other participants in this strip. The graphic framing implies that the cartoonist attempts to convey the gravity of climate change and other issues.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from the dawn newspaper, published in 2020. In this cartoon, the biological aspect (PM Imran Khan, three dragons, and a sword) reflects the ideological context of environmental degradation, and in Pakistan, the PM is fighting the issue. The cartoon's ideological underpinnings are included in the term 'climate change,' reflecting the notion that if humans do not care about the place where they live, the result will be worse than it is depicted in the cartoon—this ideology influences how nature influences nature and humans interact socially.

The statement CLIMATE CHANGE corresponds to the visual environment of the cartoon strip and demonstrates a significant problem Pakistan is facing. The participant 'dragon' alludes to a particular theme of climate change. Climate change is shown in this cartoon as a significant issue affecting Pakistan, and the Prime Minister is attempting to address it while putting other issues on wait.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip illustrates the actions taken by the government to fight climate change. Pakistan sponsored World Environment Day earlier this year in collaboration with the UN Environment Program to promote awareness and address climate change. This year's subject was Ecosystem Restoration, and the UN Decade of Restoration began. During the occasion, Pakistan encouraged the industrialized countries to establish a Green Fund to assist the most vulnerable nations.

Heavily polluting industries contribute to global warming, which causes glaciers to melt and increase sea levels. Droughts, floods, and heat waves are also contributing to global warming. That endangers food security. Despite its negligible contribution to greenhouse gas emissions, Pakistan is already one of the ten most impacted countries. Global Climate Risk Index 2020 ranked Pakistan as the fifth most impacted nation by climate change.

From 1999 to 2018, the survey said Pakistan lost 9,989 lives, $3.8 billion in economic damages, and 152 severe weather events, increasing Pakistan's susceptibility to climate change. Pakistan has seen drier winters than the previous year. The ongoing acute water deficit in Pakistan will worsen in the following years. Pakistan requires a

multi-tiered strategy to address the growing climate change issues. Northern Pakistan has faced considerable deforestation owing to a lack of access to gas, power, and jobs. The government should undertake urgent reforestation initiatives on mountain slopes, including local populations.

The government should develop and implement a sustainable tourism policy since current practices such as unlawful development, inadequate garbage management, sewage, and deforestation endanger the ecosystem. It should also be proactive in its readiness and foresight via institutional development and cutting-edge technologies. The world's largest polluters should lead by example and assume full responsibility for a greener future.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses language that creates all these three dimensions, affecting language. This cartoon strip uses the language CLIMATE CHANGE to foster an ideology of environmental degradation, affecting people's social lives and environmental interactions.

4.1.47 Cartoon 47

Taken from the daily 'Dawn' Dated: 26-10-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Two middle-aged men, smog, a banner of no cooperation

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, and the goal is nature represented in this strip; two middle-aged male characters dressed as modern men are coughing hard, there is smog around them causing cough, and there is a banner of no cooperation between them.

CR: Smog is superordinate, and the human characters are subordinate in this depiction.

Position of Participants: The smog is superordinate, and the men are subordinate in this depiction. The cartoonist drew diagonal lines while drawing smog to show the uncontrolled energy of pollution, acting upon the environment, polluting the air, and causing humans to suffer.

Modality: The nouns on objects' shirts reveal their identity and tell us that they belong to 'DELHI' and 'LAHORE.' There is a banner representing no cooperation between them, and at the top of this strip, the noun 'SMOG' means power. The cartoonist drew two opposing countries in a difficult situation, but the words 'no cooperation' show they do not cooperate in any case.

Composition: Framing in the image indicates the seriousness of environmental pollution in Delhi and Lahore, but they are not cooperating. Human characters are larger than life, showing health problems due to smog. Furthermore, here mutual framing of these three elements shows that they are a single unit called environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (Two middle-aged men, smog, and a banner of no cooperation) reflects the ideological context of air pollution due to smog in Lahore and Delhi.

The cartoon's ideological underpinnings are included in the term 'smog,' reflecting that Lahore and Delhi are poles apart and frequently at odds. They are the world's most polluted cities. The subcontinent's air has been increasingly polluted in recent years. Winter brings a haze that covers practically the entire northern subcontinent, disregarding boundaries. Delhi and Lahore are hit—this ideology influences how nature and humans interact socially. The signs 'smog, Dehli, and

Lahore'correspond to the cartoon strip's visual environment and demonstrate that they are covered with smog.

This cartoon strip depicts the citizen of Delhi and Lahore. There is smog in the background, causing them to cough. The no cooperation banner between them represents opposite forces though they are suffering from the same problem; instead of cooperating, they blame each other for this dire issue.

**Outer Relations of Text (Ideo-, Bio- & Socio-Formation)**

This cartoon strip depicts the situation of Delhi and Lahore. Lahore and Delhi are poles apart and frequently at odds. They are the world's most polluted cities. The subcontinent's air has been increasingly polluted in recent years. Winter brings a haze that covers practically the entire northern subcontinent, disregarding boundaries. Delhi and Lahore are hit. It causes a sore throat to life-threatening respiratory disorders inhaling. In addition, as usual, the subcontinent's inhabitants would prefer to withdraw into mutual enmity than face the challenges. Crop burning is a grave issue in the Indian Punjab. However, in haste to blame external forces, its influence looks exaggerated. Hassan links Lahore's pollution to auto imports. Global warming is drying out the region. Then a changing climate delayed the westerlies, which used to clear the pollution. Human activity and global warming generate a feedback cycle that causes runoff. The issue grows enormously with time.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The physical existence of smog, men, and banner leads us to the sociological dimension and reveals social relations among drawn elements that create ideologies like no cooperation. This cartoon strip uses the language 'smog' to foster an ideology of environmental degradation, affecting people's social lives and ecological interactions.

The dialectical hierarchy is represented in the Inner Relations of Text (Ideo-, Bio- & Socio-Formation), which indicates that Lahore and Delhi are poles apart and frequently at odds. They are the world's most polluted cities. The subcontinent's air has been increasingly polluted in recent years. Winter brings a haze that covers practically the entire northern subcontinent, disregarding boundaries. Delhi and Lahore are hit. It causes the persistent sore throat to life-threatening respiratory disorders inhaling it. In

addition, as usual, the subcontinent's inhabitants would prefer to withdraw into mutual enmity than face the challenges. Crop burning is a grave issue in the Indian Punjab. However, in haste to blame external forces, its influence looks exaggerated, as seen in the cartoon.

4.1.48 Cartoon 48
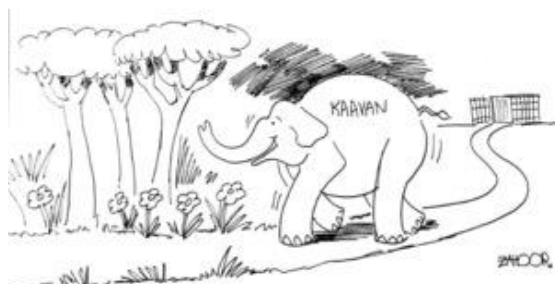
Taken from the daily 'Dawn' Dated: 02-12-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Elephant, trees, flowers, cage

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is an elephant, and the goal is nature represented in this strip and action; here is an elephant named 'Kaavan' walking and looking around happily after getting freedom.

CR: Elephant is superordinate, and the cage is subordinate in this depiction.

Position of Participants: The elephant named Kaavan is superordinate in this depiction, and the rest of the things are subordinate in this cartoon strip. The cartoonist drew horizontal lines on the elephant to show the demand-offer relation. In this strip, the elephant demand nature.

Modality: The noun 'Kaavan' on the back of the elephant drawn in this cartoon strip represents its identity. The noun Kavaan referred to the miserable life of elephant kaavan when he was caged. The cage refers to the past life of the elephant, and now he walks towards his natural habitat happily. The background represents his past life, and the foreground depicts his present life. The name written on the top of the elephant in

bold capital letters reveals the truth of the elephant Kaavan, in a sense, presents the fact that animals belong to nature and we cannot enslave them.

Composition: The elephant is in a prominent position walking toward its natural habitat. Framing in the image indicates the relation between the elephant and nature contextually. Moreover, here framing of mountains, animals, and trees contextually co or private ownership of humans. Furthermore, here mutual framing of these three elements shows that they are a single unit called environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (Elephant, trees, flowers, cage) reflects the ideological context of Kaavan's freedom. The cartoon's ideological underpinnings are included in the term Kavaan, reflecting the notion that wildlife is suffering in Pakistan—this ideology influences how nature and humans interact socially.

The word 'Kavaan' corresponds to the visual environment of the cartoon strip and demonstrates that Kavan was a male Asian elephant dubbed the world's loneliest elephant after his mate Saheli in 2012. Sri Lanka's government presented Kaaven to Pakistan in 1985. He lived in the Islamabad Zoo until November 2020, when he was relocated to a sanctuary in Cambodia in response to a campaign spearheaded by American singer Cher and local and international animal rights activists.

This cartoon strip depicts Kaavan's narrative succinctly. Additionally, the problem is satirical. In this cartoon strip, the elephant is superior to the cage. An Elephant called 'Kaavan' joyfully breaks from his confinement and enjoys nature. Everything in the backdrop is a representation of the elephant's liberty. The artist blames humans for animal servitude and shows ecological calamity satirically.

**Outer Relations of Text (Ideo-, Bio- & Socio-Formation)**

Kavan was a male Asian elephant dubbed the world's loneliest after his mate Saheli in 2012. Sri Lanka's government presented Kaaven to Pakistan in 1985. He lived in the Islamabad Zoo until November 2020, when he was relocated to a sanctuary in Cambodia in response to a campaign spearheaded by American singer Cher and local

and international animal rights activists. The Islamabad High Court ordered Kaavan's release in May 2020. According to animal protection charity Four Paws, Asian elephant Kaavan spent over three decades in Islamabad's Marghazar zoo, where his soul buddy Saheli died in 2012. Kavan was listless in the aftermath of her death and even began exhibiting indications of mental illness. After Saheli's death, many individuals petitioned for Kaavan's release, bolstered by Cher, who assisted in funding Kaavan's move. Earlier in October, the Islamabad High Court authorized Dr. Amir Khalil, a veterinarian from Four Paws, to organize the logistical relocation of Kaavan, whose rescue has been characterized as the organizations heaviest.

Kavan is also Pakistan's only Asian elephant, and his departure would mean the zoo closure where he spent over three decades. The zoo has made the news several times for its deplorable circumstances. Two lions perished in July due to smoke inhalation after a fire in their cage. Over 500 animals have gone missing from the zoo recently, and over two dozen have perished. As a result, the cartoonist attempted to bring attention to this problematic ecological situation with this illustration.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses language that creates all these three dimensions, affecting language. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'Kaavan' to foster an ideology of Kavaan's freedom, which affects people's social lives and interactions with the environment.

4.1.49 Cartoon 49
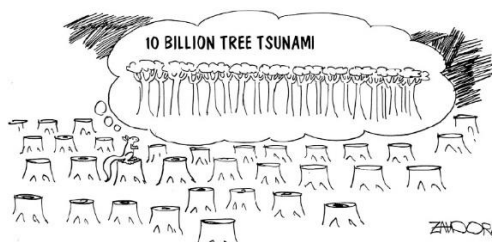
Taken from the daily 'Dawn' Dated: 03-12-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Trees and squirrel

Interactive Participants: image-maker, observer, and readers

NRS: The subject is a squirrel, the goal is nature represented in this strip, and the action here is a squirrel sitting on a half-cut tree and thinking about a tree tsunami announced by the government.

CR: Here, the government is superordinate, and drawn things are subordinate in this depiction.

Position of Participants: The squirrel sitting on a half-cut tree is subordinate in this depiction. The cartoonist drew horizontal lines on trees to show the demand-offer relation. In this strip, the government offering ten--billion-tree tsunami is also involved in deforestation.

Modality: The phrase 'Ten Billion Tree Tsunami' at the top refers to the plantation of trees. The words and the illustration of trees represent an ideal situation. The background means deforestation and, in a sense, indicates reality. The cartoonist drew two opposite situations to show the difference between an actual and a perfect situation. The sentence on the top of this strip in bold capital letters reveals the truth and reality of this world and presents that we are exploiting nature by cutting trees and destroying the natural habitat of wild animals.

Composition: The trees are in a prominent position. The cartoonist frames the idea of deforestation in the reader's mind.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (cut down trees, trees drawn on the banner) reflects the ideological context of the green Pakistan emblem that symbolizes the government's commitment to rehabilitating forests. However, tree removal results in the degradation of the natural ecosystem. The cartoon's ideological underpinnings are included in the term '10 billion tree tsunami', reflecting the notion that the government is trying to make Pakistan green—this ideology influences how nature and humans interact socially. The phrase 10 billion tree tsunami does not correspond to the visual environment of the cartoon strip and demonstrates that due to deforestation, there is a need to plant new trees. The term 'tsunami' alludes to a particular theme since the cartoon is about the environment.

This cartoon strip is a clear depiction of today's Pakistan. Moreover, the punch line is written on it '10 BILLION TREE TSUNAMI! It illustrates the ecological problem. This cartoon strip depicts the environmental issue, and the cartoonist blames humans for this ecological crisis in a satirical way.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This cartoon strip depicts deforestation and the Government of Pakistan's "Ten Billion Tree Tsunami Program. In collaboration with provincial and territorial forest and wildlife agencies, the Ministry of Climate Change implements the initiative throughout Pakistan. Pakistan's Prime Minister started this program on September 2, 2018, as part of 'Plant for Pakistan Day.' The 'Ten Billion Tree Tsunami' program aims to rehabilitate Pakistan's forest and wildlife resources, enhance the protection of existing Protected Areas, and promote eco-tourism, community participation, and job development via conservation. This cartoon strip shows Pakistan's present environmental predicament by emphasizing the issue of deforestation, which is destroying wildlife habitats daily. Therefore, the animals have been displaced from their native home and are currently awaiting the restoration of forests.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The subject's physical presence (squirrel) and aim (nature) instill ideas in

observers, shaping society and language. This cartoon strip uses language that creates all these three dimensions, affecting language. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the '10 billion tree tsunami' to foster an ideology of environmental degradation, affecting people's social lives and environmental interactions.

4.1.50 Cartoon 50
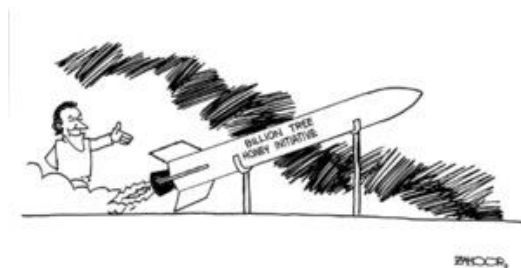
Taken from the daily 'Dawn' Dated: 23-10-2020

Visual Grammar

Elements and Structure (Narrative and Conceptual)

Drawn Participants: Pakistan's PM Imran Khan, missile

Interactive Participants: Image-maker, observer, and readers

NRS: The subject is a human character, and the goal is nature represented in this strip and action; here is a male character, Pakistani PM Imran Khan, pointing toward a missile about to launch.

CR: PM Imran Khan is superordinate, and the rocket is subordinate in this depiction.

Position of Participants: PM Imran Khan is seen in this cartoon strip standing behind a rocket and pointing toward it as superior. The missile that is awaiting command is in a subordinate position. The artist used zigzag lines to depict the projectile's demise and danger.

Modality: The phrase 'Billion Tree Honey Initiative' refers to the plantation of trees initiated by the prime minister of Pakistan. The symbol rocket represents this initiative and readiness of the project. It indicates that the project is about to launch. The

participant drawn on the left corner of this strip is the prime minister of Pakistan. He points towards a rocket about to launch, showing his power. The phrase BILLION TREE HONEY INITIATIVE, written in bold capital letters on the rocket, tells the truth about the scenario. Prime Minister Imran Khan inaugurated the 'Billion Tree Honey Initiative' on Monday to boost honey production through tree planting.

Composition: The rocket that is set to launch is prominently shown. The framing of the illustration implies that the PM's program is about to launch. Additionally, the mutual frame of these elements demonstrates that they form a unified entity termed the environment.

Dialectical Hierarchy Model:

Inner Relations of Text (Ideo-, Bio- & Socio-Formation)

This visual was taken from dawn newspaper, published in 2020. In this cartoon, the biological aspect (Pakistan's PM Imran Khan, missile) reflects the ideological context of the billion-tree initiative by the PM.—this ideology influences how nature and humans interact socially.

The statement BILLION TREE HONEY INITIATIVE corresponds to the cartoon strip's visual environment and demonstrates the government's campaign to increase honey output through tree planting. The term 'billion trees' alludes to a theme since the government promised to increase honey output through tree planting.

This cartoon strip depicts Prime Minister Imran Khan inaugurating the 'Billion Tree Honey Initiative' on Monday, a program to increase honey production through tree planting. The initiative will promote planting trees such as Kao, Phulai, Ber, Kikar, and other bee flora. Additionally, a framework will be established to encourage flora bees, enhance the quality of honey produced, offer employment for beekeepers, and sustain the activity through the supply of financial resources.

Outer Relations of Text (Ideo-, Bio- & Socio-Formation)

This image depicts the 'BILLION TREE HONEY INITIATIVE' by PM Imran Khan. Pakistani PM Imran Khan launched the 'Billion Tree Honey Initiative,' a campaign to increase honey output through tree planting. The effort will encourage the cultivation of Kao, Phulai, Ber, and Kikar trees and other bee flora. Additionally, a framework will be built to promote flora bees, improve the quality of honey produced, provide jobs for beekeepers, and support the activity financially.

There is a dialectical relationship between biological, ideological, and sociological dimensions of social praxis, and these interrelations are depicted in this cartoon strip. The biological existence of subjects and goals creates ideologies in observers' minds, and these ideological underpinnings influence society and language. This cartoon strip uses the language 'BILLION TREE HONEY INITIATIVE' to foster an ideology of initiative taken by the government's campaign to increase honey output through tree planting. The effort will encourage the cultivation of Kao, Phulai, Ber, and Kikar trees and other bee flora. Additionally, a framework will be built to promote flora bees, improve the quality of honey produced, provide jobs for beekeepers, and support the activity financially, affecting people's social lives and interaction with the environment.

CHAPTER 5

CONCLUSION

This chapter discusses findings and discussion, conclusions, limitations, and recommendations based on the dialectical analysis presented in the previous chapter.

5.1. Findings and Discussion

Language, ecology, and society are inextricably intertwined and tend to influence language users' cognitive capacities, as seen in the dialectical relationship of cartoons' triple dimensions. The ecolinguistics technique to analyze cartoon strips reveals cartoons with three-dimensional social, ideological, and biological contexts. Cartoon discourse is an effective medium for addressing ecological concerns in Pakistani culture.

The cartoonist used a variety of symbols to emphasize the environmental problems and climate change caused by human activities. The cartoon's underlying philosophy was to raise awareness about the ecological issue, which was the study's objective. After researching fifty environmental cartoons from the Dawn newspaper, the researcher revealed the cartoons' underlying message of ecological destruction.

Water is the first indicator of a connection between the environment and human activity, as it is a fundamental part of human life. It is the cartoonists' most often used symbol in these drawings. Cartoonists, particularly those working in western media, often use this symbol; it represents life and is the central feature of our planet Earth. Many cartoonists nowadays utilize water as a metaphor for life. Accordingly, the cartoonist depicts the water problem realistically to raise awareness about the scarcity of safe drinking water in many places in Pakistan. Despite four wars between India and Pakistan, they continue to share the Indus waters. The issue is now gaining more attention as both countries face water shortages. The cartoon illustrates coliforms, toxic metals, and pesticides polluting water systems, including surface and groundwater. Numerous WHO-mandated standards for drinking water quality are often ignored. The most prominent causes of water quality deterioration are human activities such as improper disposal of municipal and industrial effluents and extensive use of agrochemicals in agriculture. The cartoonist employed the elderly as fortune-tellers for

future water issues and depicted future generations' fates via symbols such as 'dripping water, desert, empty buckets, and the Indus water treaty inscribed on a clay pot ready to drown.

The cartoonist uses symbols well to convey the message of global warming. The cartoonist employed images of a burning sun, scorched earth, a sweating globe, a skeleton, an enraged amazon, a sweating mountain, and a desert. Global climate change poses several threats to Pakistan. Due to the nation's geographical diversity and its fluctuating tropical and continental climate, the country has already experienced some natural disasters caused by climate and weather (hot summers and cold winters). Pakistan is susceptible to heatwaves, droughts, flash floods, landslides, and sea storms or cyclones. Climate change is expected to exacerbate people's susceptibility by increasing the frequency and magnitude of natural disasters. ''Temperature increases are significant throughout the country (high confidence), particularly in the snow-covered mountainous north, resulting in faster glacier melt and downstream changes to the Indus River's flow'' (Ali, 2020, p. 89).

Heatwaves will likely become more frequent and intense in Pakistan, and the summer is expected to increase considerably. While it is uncertain if rainfall patterns will change, seasonal changes are possible, namely peak summer rains moving to August and peak winter rains shifting to March. Extremely wet days are projected to increase throughout the country, except in Sindh Province, where dry days are expected to increase (increasing drought frequency). As cartoon strips show, ''climate change can trigger significant negative feedback loops between livelihoods and health'' (Warso, 2019, p. 124).

The cartoonist employs a variety of symbols, such as rubbish and unpaved roads, to instill in readers an idea of land contamination. Due to mining, oil refineries, crowded landfills, deforestation, construction, industrial industries, chemical and nuclear power plants, and trash, Pakistan's soil is polluted. When the population grows, pollution rises proportionately. The issue is exacerbated when people contribute to soil degradation by dumping their waste outside, owing to illiteracy and a lack of awareness or concern.

The public expresses unhappiness about how the authorities handle pollution frequently. They claim that the government fails to address the issue and clear up the garbage that gathers on street corners. Ironically, some individuals who admit pollution and sanitation issues also openly litter rubbish. ''Everybody recognizes that the government is at fault for its incapacity to deal with the crisis'' (Ali, 2020, p. 156). On the other hand, it has been observed that people tend to avoid government-provided waste bins deliberately and often scatter trash around them. The government fails to collect that rubbish which accumulates for months, contaminating the whole vicinity and hindering passers-by from breathing due to the horrible odor that permeates the entire area. Additionally, overflowing waste poses a health and safety risk as it can cause air pollution and respiratory diseases, attract bacteria, vermin, and insects, and contaminate surface water.

The cartoonist illustrates plastic pollution via the usage of plastic items and bottles. People started using single-use products to support a more comfortable way of living, then disposing of them by littering in markets or other public locations. That was another primary source of land pollution. Additionally, discarding plastic objects harms the environment since they contain hazardous chemicals and take hundreds of years to decompose. There is also the problem of single-use plastic shopping bags, a severe issue in Pakistan. A 2019 article revealed that the Environmental Protection Department (EPD) survey reveals that as many as 55 billion plastic bags are used annually.'' They are recyclable but not biodegradable. Outside their homes, it seems as if residents litter plastic bags liberally. Prime Minister Imran Khan has taken measures to discourage using single-use plastic bags, even though they continue to be extensively used in Pakistan. Plastic pollution also seriously threatens marine life since marine species often swallow it or are entangled, eventually dying. According to research, 8 tonnes of plastic are dumped into the oceans annually.

In the cartoon strips analyzed, air pollution is shown as haze. In November 2019, during Pakistan's 'smog season,' Lahore routinely finished second behind Delhi on rankings of smog in major global cities — and sometimes exceeded the Indian capital. Cartoon strips feature locusts and pandemics to illustrate environmental difficulties caused by people. Deforestation is shown as tree cutting. As shown in these cartoon studies, there is a dialectical link between the cartoon's physical, social, and ideological surroundings.

Sharif et al. (2019, p. 76) claimed that ''newspaper reports fail to report environmental issues''. This study demonstrated that Dawn newspaper represents a striking disparity in the mainstream media's coverage priorities, with ecological concerns receiving far less attention than other publications. It is significant because Dawn has a critical role in establishing the national agenda in Pakistan. As a result, more media attention from this segment of Pakistan's media is vital to emphasize environmental challenges effectively. News placement is critical for agenda framing, and improved order of environmental news, particularly in visual discourse, may assist in increasing public and policymaker awareness of ecological deterioration in Pakistan. Most cartoons use an element of incongruity inside or between specific schemata to convey their point. Humans, language, and the environment have a dialectical interaction. According to the study findings, the cartoonist utilized a range of symbols to raise awareness about environmental degradation caused by human activity-induced climate change. The cartoons were created to increase awareness about the ecological problem, which was the study's purpose. The discussion above highlights Pakistan's vulnerability to climate change as one of the most susceptible countries globally. Along with food insecurity, Pakistan annually loses considerable resources to climate-related disasters such as floods and erosion.

Kettunen (2021) studied 'enviro-toons' (related to the environment) and claimed that ''the issues with classic enviro-toons are partially a result of the environmental ideology behind the plots. He suggested a need for more varied environmental opinions inside and outside academia. Therefore, a greater variety of enviro-toons has begun to develop'' (p. 23). This study explored that dawn newspaper has paid attention to climate change problems.

''Climate change is often restricted to event-driven coverage in Pakistani media'' (Ali, 2020, p. 76). Climate change has become a significant cause of worry for the whole globe, including Pakistan, and therefore, all media outlets, including Pakistan's state-run media, are taking environmental cartoons seriously. According to a Pakistani environmental cartoonist, climate change is not a goal of Pakistan's cartoonists. However, as the environment changes, this perception shifts. Nowadays, most cartoonists approach this issue without having had any formal instruction. Climate change reporting demands field experience, yet most cartoonists have a cursory acquaintance with environmental occurrences and trends. The media has concentrated

on this subject due to the drastic consequences of climate change. Environmental cartooning is still in its infancy in Pakistan but will evolve into a significant professional component.

Dialectical ecolinguistics examines the interaction of social, biological, and ideological elements that influence the production of varied cultural artifacts, including language. Language analysis illuminates eco-consciousness due to a constant dialectical interplay between an ecosystem's three components of social practice. This study explored the dialectical linkages between three components of social practice via visual texts that convey ecological concerns. Social praxis is a component of the language environment in dialectical ecolinguistics. It views three dimensions – ideological, social, and biological – as functionally interrelated to construct meaning collectively. Three-dimensional cartoon strips from the Dawn newspaper illustrate these three dimensions.

The cartoonist's attitude was not innate but fostered and nurtured by spotlighting the environmental destruction actions of individuals who do not care about their environment. The cartoonist's objective is to elicit public opinion on the subjects shown in the narratives and illustrations for these cartoons. Cartoon strips are helpful in language instruction since they often address various social and environmental issues. ''Cartoon strips are a one-of-a-kind medium for expressing matters to the audience in a brief, visual, structured manner, allowing the audience to grasp them more quickly and better understand the meaning'' (Gougen, 2019, p. 56). The cartoon strips show that Pakistan is among the nations most impacted by climate change worldwide. Pakistan loses significant resources annually due to climate-related catastrophes like flooding and erosion. The study elucidates the cartoon's text and illustrations' social and ideological message. The analysis presented in this work is just one interpretation of the cartoon's storylines and illustrations, demonstrating that cartoon discourse or text may be an effective medium for highlighting environmental and social challenges affecting Pakistani culture.

5.2. Conclusion

The current research examined all aspects of Bang and Door's dialectical ecolinguistics theory. The researcher evaluated 50 cartoons depicting environmental themes. All cartoons utilized in the study were obtained from the online edition of the Dawn newspaper. The chosen cartoons were created between 2018 and 2020. The water problem was the beginning point for this time restriction, while the drive to plant a billion trees by 2020 marked the conclusion. Three elements of dialectical ecolinguistics were used to analyze cartoon strips: identification of biological, ideological, and social meanings associated with the environment shown in these cartoons. The researcher discussed the first two dimensions independently, while the third dimension was explained after analyzing people's reactions to these drawings. The thoughts were expressed alongside the chosen cartoon in the newspaper's online cartoons section. Apart from deriving the social component from readers' and users' remarks, the researcher generated it by reading individual evaluations on the Dawn newspaper website. When analyzing the ideological part of a specific cartoon, the researcher first considers one of the symbols (for example, skeleton) and then searches for the best relevant ideology or meaning for that sign. After thoroughly comprehending the consumers' perspectives, third-level meanings were derived.

The underlying concept of ecological concerns and the cartoonists' perspectives became apparent after a three-dimensional analysis of all the cartoons. These fifty cartoons from Dawn newspaper depicted environmental catastrophe, and the researcher discovered during data collection that the whole world similarly portrays the environment and human relationships with the environment. Under the guise of 'cartoons,' global warming and plastic waste have been associated with humanity. The researcher demonstrated how the dawn newspaper interpreted the environmental problem using dialectical ecolinguistic analysis. The researcher concentrated on those cartoons that reflected the ecological situation that existed at the time.

These environmental symbols became associated with human activity through ideological and social elements. The researcher employed Gunther Kress and Van Leeuwen's visual grammar approach to evaluate the structural dimension of cartoons (2006). Each cartoon was analyzed using Bundsgaard & Jeppe (2000) model of dialectical ecolinguistics. The model depicts two dialectically related aspects of the

environment. These two aspects are the inner relations of language and the external links of language.

In contrast, the theory has three dimensions: sociological (human interaction with the environment), biological (physical existence), and ideological (discovering the hidden meaning of the specific symbol given in the cartoon). Each cartoon's text was examined using the Dialectical Hierarchy Model.' The dialectical analysis of all three aspects of social praxis was offered in paragraphs labeled 'Outer relations of language.' The discussion interprets and describes the analysis's findings. After examining the study's significant findings, it can be concluded that newspapers, particularly Dawn, most successfully convey environmental concerns by linking the environment and human activity.

As shown in the studies of the cartoons featured in this work, some may depict many environmental crises; others may describe one issue in words and another in drawing. The majority of cartoonists use an element of incongruity inside or between particular cartoons to convey their message. As stated in the introduction, the analysis is based on the cartoons' three dimensions of social praxis. As Matheson (2005) says, "Language speaks to us'' (p. 89). It indicates that language expresses our identities, opinions, beliefs, and socioeconomic origins. Additionally, the vocabulary used in cartoons elucidates these points—this article analyses verbal and nonverbal communication and the visual features of the cartoons. The dialectical ecolinguistic theory is utilized, and some cartoons use comparison or contrast.

These cartoons' symbolism and structure enhance awareness about Pakistan's environmental issues. The Dawn daily, one of Pakistan's leading dailies, successfully depicted environmental concerns and condemned humanity's detrimental actions and behavior towards the environment. The second question was addressed by examining cartoons' inner and outer relations and the vocabulary used by cartoonists to emphasize Pakistan's environmental catastrophe. The third issue has also been addressed by examining the dialectical relationship between the three dimensions of social practice. The cartoonist included all three aspects in his cartoons, and the environmental issues discussed in these cartoons exhibit the dialectical link characteristic of Eco awareness.

Climate change has become a severe concern to the whole world, including Pakistan, and as a result, all media sources, including Pakistan's state-run media, are taking environmental cartoons seriously. Covering climate change requires field knowledge, yet most cartoonists working on the topic have just a passing familiarity with ecological events and changes. There is a dearth of reliable and accurate data. However, the media has focused on this topic due to the dramatic shift brought about by climate change. In Pakistan, the depiction of environmental issues in cartoons is still in its infancy but will develop into a crucial professional component.

There are three dimensions to the ecolinguistic representation: ideological, social, and biological. The ideological contexts of the cartoons are mirrored in the structural analysis of cartoons depicting participants in society's physical surroundings. The participants' interactions with their surroundings represent the cartoons' societal contexts. The symbols encapsulating the issue emphasized by the Dawn newspaper's usage of symbols describe the biological context of the cartoons.

Cartoons may effectively highlight environmental problems and raise awareness about particular ecological concerns. Cartoons can express a concept in whatever form the cartoonist desires. The research discovered that media sources might also play a significant role in portraying an idea and can alter and influence viewers' perceptions of any notion linked to the environment, religion, language, society, or people.

5.3. Limitations

1. The researcher evaluated the Dawn newspaper to discern the dialectical relationship between the environment's three aspects.

2. The research is confined to three years, beginning in January 2018 and ending in December 2020. The use of cartoon strips is limited to analyzing the research study.

3. This research relies on visual and dialectical analysis.

4. This research was confined to the cartoons in the Pakistani English Dawn newspaper, and only cartoon strips depicting environmental themes were included.

5.4. Recommendations

The present research used dialectical ecolinguistics theory to examine cartoon strips on the environment, related human activities, and environmental interactions. The analysis results validate the study objectives. The following recommendations may be drawn:

1. Research may be conducted from a different angle, using the same theory and research techniques, but with an additional media source: for example, one can utilize and analyze cartoons from other Pakistani newspapers instead of analyzing only Dawn newspaper cartoons.

2. Individual efforts on social networking sites and media forums draw attention to environmental issues; research may be undertaken on social media platforms to ascertain ideological viewpoints.

3. The prospective researcher may also study environmental cartoons using various analytic techniques or dialectical ecolinguistic framework.

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