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FRAMES, FEELINGS AND FACTS: COGNITIVE LINGUISTIC ANALYSIS OF CLIMATE COMMUNICATION

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Abstract

Climate change is not only a scientific issue but also a social and communicative one, because the way climate facts are presented can shape how people understand and respond to them. Therefore, this study, examines how climate-related facts are organized through language and connected with emotional orientations. The study aims, first, to identify the cognitive frames and conceptual metaphors used in climate communication and, second, to examine how these frames connect climate facts with feelings such as fear, hope, responsibility, vulnerability, urgency, and agency. Furthermore, a qualitative interpretivist approach is used, and publicly available climate communication texts are purposively selected and analyzed through Cognitive Linguistic textual analysis, particularly frame semantics and Conceptual Metaphor Theory. Moreover, the findings show that crisis, war, race, health, disaster, responsibility, challenge, and resilience are major frames through which climate facts are presented. Additionally, these frames make different emotional meanings more salient: crisis and disaster emphasize fear, urgency, and vulnerability, while challenge, resilience, and collective action emphasize hope, agency, and responsibility. However, these linguistic frames do not automatically determine audience emotions or behavior. Therefore, the study concludes that climate communication involves an important relationship among facts, frames, and feelings. Finally, it recommends that journalists, policymakers, educators, and environmental communicators use scientifically accurate, culturally relevant, and balanced frames that communicate climate risks while also providing realistic pathways for action and hope..

Keywords: *Climate communication, Cognitive frames, Conceptual metaphors, Emotions, Climate facts*

Introduction

Climate change is no longer a distant environmental possibility; it is a present social, economic, political, and human reality. The Intergovernmental Panel on Climate Change (IPCC, 2023) reports that global surface temperature reached approximately 1.1°C above the 1850–1900 level during 2011–2020 and confirms that human activities have unequivocally caused global warming. More importantly, between 3.3 and 3.6 billion people live in contexts that are highly vulnerable to climate change, particularly in developing regions such as South Asia (IPCC, 2022). These figures show the scale of the problem; however, climate change is not experienced or understood through numbers alone. As the United Nations in Pakistan (2022) observed during the devastating floods, "It's not about numbers. It's about people." This raises an important question: when scientific climate facts enter public communication, how does language transform them into meanings, emotions, responsibilities, threats, and calls for action?

A farmer watching crops disappear under floodwater, a family leaving its home after an extreme weather event, or a young person hearing repeated warnings about an uncertain environmental future does not experience climate change as a statistical figure alone. Rather, climate change becomes meaningful through words, stories, metaphors, images, and familiar ways of understanding experience. Therefore, climate communication involves more than transferring scientific information from experts to audiences; it also constructs particular ways of seeing and interpreting the climate problem. For example, climate change may be described as a "crisis," "threat," "war," "race," "challenge," or "opportunity." Although these expressions appear to be ordinary linguistic choices, they can activate different conceptual structures and emotional orientations. Consequently, the same climate-related fact may be understood differently depending on the

frame through which it is communicated.

This study examines climate communication through the perspective of Cognitive Linguistics, which views language as closely connected with cognition, experience, conceptualization, and meaning-making. In particular, frames provide conceptual backgrounds through which situations are interpreted, while conceptual metaphors allow abstract experiences to be understood through more familiar domains (Fillmore, 1982; Lakoff & Johnson, 1980). For instance, the expression *fight climate change* conceptualizes climate action through the domain of war, activating ideas of conflict, opponents, strategy, struggle, and victory. Similarly, expressions such as *heal the planet* conceptualize environmental damage through the domain of health and recovery. Thus, linguistic choices do not merely describe climate change; they can organize how climate-related information is cognitively understood.

The importance of this issue has increased as climate communication has expanded across newspapers, television, government statements, scientific reports, environmental campaigns, social media, and other digital platforms. At the same time, audiences encounter climate information through competing narratives of disaster, economic loss, political responsibility, public health, technological innovation, individual action, and collective resilience. Nisbet (2009) argues that framing influences public engagement because different frames make different aspects of complex issues more salient. Similarly, Lakoff (2010) emphasizes the importance of conceptual framing in environmental communication. Furthermore, Flusberg et al. (2017) demonstrated the significance of war and race metaphors in climate discourse, showing why metaphorical choices deserve attention beyond their surface linguistic form.

Climate communication also has an important emotional dimension. Words associated with *disaster, collapse, irreversible damage,* and *existential threat* can foreground fear, anxiety, vulnerability, and urgency, whereas expressions such as *resilience, adaptation, innovation, renewal,* and *collective action* can foreground hope, agency, and possibility. However, emotional responses are not necessarily automatic. O'Neill and Nicholson-Cole (2009) found that fear-based representations can attract attention but may not always encourage sustained personal engagement. Therefore, the important issue is not simply whether climate communication is positive or negative; rather, it is how particular frames connect factual information with particular emotional orientations and perceptions of agency.

In the Pakistani context which makes this issue especially significant. Pakistan faces serious climate-related risks, including floods, heatwaves, droughts, and other extreme events. Most notably, the 2022 floods affected approximately 33 million people and caused extensive human, social, and economic losses (United Nations in Pakistan, 2022). Consequently, climate change in Pakistan is not merely an abstract scientific concern but a lived reality connected with livelihoods, agriculture, displacement, health, poverty, and infrastructure. Recent Pakistani studies have identified responsibility, economic consequences, disaster, threat, and efficacy as important dimensions of climate framing (Hussain, 2024; Shahid & Zahra, 2025). Nevertheless, existing research has largely focused on broad media frames, content categories, and conventional representations, leaving comparatively less attention to how specific linguistic expressions activate cognitive frames and connect climate facts with emotional meanings.

Therefore, the present study addresses this gap by bringing frames, feelings, and facts together within a single Cognitive Linguistic analysis. It specifically investigates what cognitive frames and conceptual metaphors are used to organize climate-related facts and how these frames connect those facts with emotions such as fear, hope, responsibility, vulnerability, urgency, and agency. In this way, the study moves beyond asking merely *which frames occur* and instead asks *how those frames are linguistically and cognitively constructed and how they make climate facts emotionally meaningful*. Ultimately, the study aims to contribute a deeper understanding of climate communication by demonstrating how language functions as a bridge between scientific facts, cognitive interpretation, and emotional response.

Research Objectives

The study has two closely aligned objectives:

1. To identify and analyze the cognitive frames and conceptual metaphors used in climate communication and examine how they organize and construct the meaning of climate-related facts.
2. To examine how these cognitive frames and metaphorical representations connect factual climate information with particular emotional orientations, such as fear, hope, responsibility, vulnerability, urgency, and agency.

Research Questions

The research questions are directly aligned with the two research objectives:

1. What cognitive frames and conceptual metaphors are used in climate communication, and how do they construct and organize the meaning of climate-related facts?
2. How do these cognitive frames and conceptual metaphors connect climate-related facts with particular emotional orientations, such as fear, hope, responsibility, vulnerability, urgency, and agency?

Significance of the Study

This study is significant because it examines climate communication not merely as the transmission of scientific information but as a process of cognitive and emotional meaning-making. Specifically, it applies Cognitive Linguistic concepts such as frames, conceptual metaphors, conceptualization, and construal to show how abstract climate facts are understood through familiar domains such as war, health, disaster, competition, and resilience. Moreover, by connecting cognitive frames with emotions such as fear, hope, responsibility, vulnerability, urgency, and agency, the study provides a more integrated understanding of how language shapes environmental meanings. Furthermore, the findings can help journalists, educators, policymakers, and environmental communicators develop climate messages that are scientifically accurate, cognitively accessible, and emotionally meaningful. This significance is particularly strong in Pakistan, where climate change is closely connected with floods, heatwaves, agricultural losses, displacement, and livelihood insecurity; therefore, understanding how climate discourse represents people as victims, vulnerable communities, responsible citizens, or active agents can support more locally relevant communication. Finally, the study provides a foundation for future interdisciplinary research connecting Cognitive Linguistics with environmental communication, discourse analysis, media studies, and climate psychology across different languages, cultures, and media platforms.

Limitations of the Study

Like any research study, this study has certain limitations. Firstly, the analysis is limited to the selected climate communication texts included in the study. Therefore, the findings may not represent every form of climate communication or every audience's interpretation of climate-related messages. Secondly, the study adopts a cognitive linguistic approach. Consequently, it focuses primarily on linguistic and conceptual patterns rather than directly measuring audience psychology or physiological emotional responses. When the study identifies expressions associated with fear, hope, responsibility, urgency, or agency, these interpretations are based on linguistic and conceptual evidence rather than direct experimental measurement of individual readers' emotions. Thirdly, conceptual metaphor and frame interpretation can involve a degree of analytical judgment. However, this limitation can be reduced through clearly defined analytical categories, systematic textual analysis, consistent coding procedures, and the use of established cognitive linguistic principles. Fourthlty, if the selected corpus is primarily English-language material, the findings may not fully capture climate communication in Pakistan's multilingual environment. In particular, Urdu and regional-language climate discourse may employ culturally specific metaphors, expressions, and conceptual frames that differ from those found in English. Therefore, the linguistic scope of the selected data should be clearly acknowledged. Finally, the study focuses on the relationship among frames, facts, and feelings and does not attempt to establish direct causal relationships between particular linguistic expressions and actual climate-related behavior. In other words, the study can identify how language constructs particular cognitive and emotional orientations, but it cannot by itself establish that a specific frame directly causes audiences to adopt a particular behavior.

Originality of the Study

The originality of this study lies primarily in its integrated cognitive-affective approach to climate communication. Rather than examining climate communication solely in terms of media frequency, thematic categories, or broad framing patterns, the study investigates how linguistic expressions activate cognitive frames and conceptual metaphors and how these structures connect scientific facts with emotional meanings. More specifically, the study treats frames, feelings, and facts as interconnected analytical dimensions rather than independent categories. Existing climate communication research has extensively examined framing, metaphor, public engagement, and emotional responses; however, the present study brings these dimensions together within a single Cognitive Linguistic framework. Furthermore, the study gives particular attention to the linguistic processes through which factual climate information is conceptualized. Thus, instead of treating a climate fact as having a fixed communicative meaning, the study asks how the same fact can acquire different

meanings depending on whether it is presented through a crisis frame, war frame, health frame, responsibility frame, vulnerability frame, resilience frame, or solution-oriented frame.

In this respect, the study's originality is captured in its central proposition: Climate communication is not only about what facts are communicated; it is also about the cognitive frames through which those facts become meaningful and the feelings those frames make possible.

Literature Review

Climate communication has developed into an important interdisciplinary field because scientific facts alone do not determine how climate change is understood or acted upon. Rather, people encounter climate change through language, media, narratives, metaphors, and everyday discourse. Consequently, communication does not simply transmit climate facts; it selects, organizes, emphasizes, and interprets particular aspects of them. Therefore, the present review focuses on the relationship among climate framing, cognitive conceptualization, conceptual metaphor, emotional meaning, and factual information, with particular attention to the Pakistani context. Ultimately, the literature shows that climate communication needs to be examined not only in terms of *what is communicated* but also *how it is cognitively framed and emotionally understood*.

Climate Communication and Framing

First, earlier approaches to climate communication largely emphasized the transmission of scientific information and public awareness. However, subsequent research demonstrates that the availability of information does not necessarily determine how audiences understand climate change. Badullovich et al. (2020) argue that framing helps make complex climate issues meaningful by emphasizing particular aspects of an issue. Similarly, Guenther et al. (2024), in their systematic review of 275 peer-reviewed studies, demonstrate the extensive development of climate framing research. Nevertheless, they identify conceptual fragmentation between frame production, media content, audience frames, and framing effects. Thus, although existing research establishes the importance of framing, it does not always explain the linguistic and cognitive processes through which frames are constructed.

Cognitive Frames and Conceptual Metaphors

Furthermore, Cognitive Linguistics provides a useful perspective for explaining how language organizes climate-related meaning. Fillmore's (1982) concept of frame semantics proposes that linguistic expressions activate broader structures of background knowledge. Similarly, Lakoff and Johnson (1980) demonstrate that conceptual metaphors are not merely decorative expressions but important mechanisms of thought. Accordingly, describing climate change as a *war*, *race*, *health problem*, *journey*, or *disaster* activates different conceptual structures. For example, a war metaphor may emphasize conflict, urgency, enemies, strategy, and victory, whereas a health metaphor may foreground illness, diagnosis, treatment, and recovery. Therefore, metaphor analysis can reveal not only *what* climate communication says but also *how* it organizes climate facts conceptually. Flusberg et al. (2017), for instance, show that war and race metaphors provide different ways of conceptualizing climate action. Consequently, the integration of framing theory with Cognitive Linguistics provides a stronger basis for examining how particular linguistic choices make certain aspects of climate change more salient.

Emotional Dimensions of Climate Communication

In addition, climate communication is closely connected with emotional meaning. Climate discourse can evoke fear, anxiety, hope, responsibility, vulnerability, urgency, and agency; however, research does not support a simple distinction between “negative” and “positive” emotions. O'Neill and Nicholson-Cole (2009) found that frightening climate representations may attract attention but can also produce helplessness or psychological distance. More recently, Huang and Guo (2024) showed that the effects of fear-based messages can depend on temporal distance, while Liu and Kuang (2024) demonstrated relationships among emotional responses, framing, and climate-action intentions. Similarly, Armbruster et al. (2022) emphasized the importance of perceived efficacy when examining fear, hope, and climate-policy framing. Thus, the literature increasingly suggests that emotional effects depend on how climate messages construct both threat and the possibility of action. Nevertheless, much of this research relies on experiments and surveys that measure emotional responses rather than examining how emotions are linguistically constructed. Therefore, a cognitive linguistic approach can complement existing research by investigating how particular metaphors, lexical choices, evaluations, and frames make emotional orientations available within discourse.

Facts, Frames, and Meaning

Importantly, scientific facts remain the foundation of climate communication; however, facts do not enter public discourse in completely neutral linguistic forms. Scientific information is transformed into headlines, news reports, policy statements, speeches, and social media messages, where it is selected, simplified, evaluated, and framed. For instance, rising temperatures may be represented as a *warning*, *crisis*, *threat*, *challenge*, or *call for action*. Thus, the scientific fact remains important, but its communicative meaning can change according to the conceptual frame through which it is presented. Guenther et al. (2024) identify harmful impacts, climate action, economic consequences, responsibility, justice, and efficacy among recurring areas of climate framing research. Nevertheless, the relationship between factual information, cognitive framing, and emotional meaning remains insufficiently integrated. Consequently, the present study treats facts, frames, and feelings as interconnected dimensions rather than as separate elements of climate communication.

Climate Communication in Pakistan

Moreover, the Pakistani context provides an important setting for examining these relationships because climate change is strongly connected with floods, heatwaves, droughts, agricultural losses, displacement, and livelihood insecurity. Accordingly, climate change is not merely an abstract scientific issue but also a lived social and economic experience. Recent Pakistani studies have identified responsibility, economic consequences, disaster, human interest, threat, efficacy, and episodic representation as important climate communication frames. Shahid and Zahra (2025), for example, identified responsibility and economic-consequence frames as prominent in Pakistani news and official communication. Similarly, Javed et al. (2024) identified scientific, economic, political, and human-interest frames in Pakistani English-language newspapers, while Hussain (2024) examined threat and efficacy framing in Pakistani Urdu- and English-language newspapers. Furthermore, studies of Pakistani media indicate a strong emphasis on disasters and immediate events, with comparatively less attention to solutions and mitigation (Hussain et al., 2022; Khan & Taj, 2025). However, these studies have largely relied on quantitative content analysis, interviews, or conventional framing approaches. Therefore, they identify *which frames occur* more effectively than they explain *how specific linguistic expressions and metaphors cognitively construct those frames and connect them with feelings*.

Methodological Trends and Synthesis

Methodologically, existing climate communication research provides valuable quantitative and experimental evidence. On the one hand, content analysis identifies the frequency and distribution of particular frames; on the other hand, experiments and surveys examine relationships between message characteristics and audience responses. Nevertheless, quantitative approaches may treat frames primarily as predefined categories, while experimental approaches may simplify the complexity of naturally occurring communication. In contrast, Cognitive Linguistic analysis can examine lexical choices, conceptual metaphors, agency, evaluation, and construal within naturally occurring texts. Therefore, the present study does not replace existing framing or emotional research; rather, it complements these approaches by examining the linguistic mechanisms underlying cognitive and emotional meaning.

Research Gap

Overall, the literature establishes that climate communication is shaped by framing, conceptual metaphor, and emotional meaning; however, these dimensions are often investigated separately. Climate framing research identifies dominant representations, emotional studies measure audience responses, and Cognitive Linguistics explains conceptualization, yet their integration remains limited, particularly in the Pakistani context. Consequently, the precise gap addressed by this study is the limited cognitive-linguistic examination of how climate facts are organized through frames and conceptual metaphors and how these constructions connect with emotional orientations such as fear, hope, responsibility, vulnerability, urgency, and agency. Thus, the present study moves beyond asking *"Which frames occur?"* to ask "How are those frames linguistically and cognitively constructed, and how do they connect facts with feelings?" Ultimately, the reviewed literature indicates that effective analysis of climate communication requires attention not only to the facts being communicated but also to the cognitive frames through which those facts become meaningful and the feelings through which they acquire emotional and social significance. Accordingly, this integrated perspective provides the theoretical and methodological justification for the present study, which brings frames, feelings, and facts together within a Cognitive Linguistic analysis of climate communication.

Research Methodology

The study examines how climate-related facts are framed through language and how these frames are connected with emotions such as fear, hope, responsibility, vulnerability, urgency, and agency. Moreover, attention is given to conceptual metaphors and linguistic choices that shape climate meanings. Therefore, a qualitative methodology is adopted to provide an in-depth interpretation of these linguistic and conceptual patterns.

Research Philosophy and Approach

The study follows an interpretivist philosophy because climate communication is understood as socially and linguistically constructed meaning (Creswell & Creswell, 2018). Furthermore, a qualitative approach is employed to interpret words, metaphors, frames, and contextual meanings rather than primarily measuring them numerically. Thus, the approach enables an in-depth examination of the relationship among climate facts, cognitive frames, and emotional orientations.

Research Design

A qualitative descriptive and interpretive design incorporating Cognitive Linguistic textual analysis is employed. Specifically, naturally occurring climate communication texts are examined to identify cognitive frames, conceptual metaphors, evaluative expressions, and other linguistic patterns. Moreover, the analysis is informed by frame semantics and Conceptual Metaphor Theory (Fillmore, 1982; Lakoff & Johnson, 1980), allowing individual linguistic expressions to be connected with broader conceptual and emotional meanings.

Population, Sampling, and Data Collection

The population consists of publicly available climate communication texts, including news reports, editorials, opinion articles, institutional statements, and related discourse. A purposive sampling technique is used to select texts based on their relevance, accessibility, linguistic richness, and evidence of frames, metaphors, facts, and emotional meanings. Initially, relevant texts are identified through keywords such as *climate change, global warming, climate crisis, climate emergency, floods, heatwaves,* and *climate action*. Subsequently, the texts are screened according to predetermined criteria, and information such as source, date, genre, and context is recorded. Finally, the selected texts are organized into a research corpus for systematic analysis.

Data Analysis

The data are analyzed through qualitative cognitive linguistic textual analysis. First, the texts are read repeatedly to develop familiarity with the data. Next, significant expressions related to climate, risk, responsibility, vulnerability, action, loss, hope, and urgency are identified. Then, conceptual metaphors are analyzed through Conceptual Metaphor Theory, including war, health, disaster, journey, competition, and burden metaphors (Lakoff & Johnson, 1980). Furthermore, cognitive frames are identified by examining the background knowledge and perspectives activated by recurring expressions (Fillmore, 1982).

The analysis is organized around the three central dimensions of facts, frames, and feelings. *Facts* refer to scientific, environmental, social, or economic information; *frames* refer to the conceptual structures through which these facts are organized; and *feelings* refer to emotional or evaluative orientations associated with those frames. Finally, recurring patterns and representative textual examples are compared and interpreted in relation to the research questions.

Ethical Considerations

Because the study is qualitative, trustworthiness is emphasized. Specifically, credibility is strengthened through repeated reading, clearly defined categories, systematic coding, and representative textual evidence. Moreover, interpretations are grounded in established Cognitive Linguistic principles, while dependability and confirmability are supported through transparent records of sampling, coding, and analytical decisions (Lincoln & Guba, 1985). Furthermore, since publicly available texts are analyzed, private information is not intentionally collected. All sources are appropriately acknowledged, and textual material is not deliberately misrepresented or taken out of context.

Discussion/Analysis

The analysis of climate communication shows that climate change is communicated not only through scientific facts but also through the cognitive frames and linguistic choices used to present those facts. In this regard, the study focuses on the relationship among facts, frames, and feelings, particularly how language represents climate-related information and connects it with emotions such as fear, hope, responsibility, vulnerability, urgency, and agency. Drawing on Cognitive Linguistics, especially Fillmore's (1982) frame semantics and

Lakoff and Johnson's (1980) Conceptual Metaphor Theory, the analysis shows that linguistic expressions can activate broader conceptual structures that influence how climate issues are understood. Therefore, the same climate fact may receive different meanings depending on the frame through which it is presented.

First, the analysis identifies several recurring frames, including the crisis/threat, war/conflict, race/competition, health/healing, disaster/vulnerability, responsibility, challenge/agency, and hope/resilience frames. These frames do not simply provide different words for the same information; rather, they highlight particular aspects of climate change and make certain meanings more noticeable. For example, the expression "climate crisis" presents climate change as a situation of danger, urgency, instability, and immediate need for action. Consequently, factual information about rising temperatures, extreme weather, or environmental damage may be associated with fear, concern, and urgency. However, as O'Neill and Nicholson-Cole (2009) suggest, fear does not automatically produce engagement. Thus, when crisis language is combined with possible solutions and agency, it may encourage action, whereas excessive threat may create helplessness.

Similarly, the war frame, represented by expressions such as "fight climate change," conceptualizes climate action as a struggle against an opponent. In this frame, climate change becomes the problem or enemy, while policies and actions become strategies for fighting it. As Lakoff and Johnson (1980) explain, such metaphors help people understand abstract issues through familiar experiences. Consequently, the war frame can create feelings of urgency, determination, solidarity, and agency. Nevertheless, it may also simplify the complex social, economic, and political causes of climate change by presenting the issue mainly as a conflict.

In addition, the race frame, as reflected in expressions such as "winning the race to net zero," presents climate action as competition involving speed, progress, goals, winners, and losers. Therefore, this frame emphasizes urgency and achievement, while potentially giving less attention to issues such as climate justice, vulnerability, and unequal responsibility. In contrast, the health frame, through expressions such as "heal the planet" or "sick planet," conceptualizes environmental damage as illness and climate action as treatment or healing. As a result, this frame makes vulnerability, care, empathy, recovery, and responsibility more salient.

Furthermore, the disaster and vulnerability frame is particularly important because climate communication often refers to floods, heatwaves, droughts, displacement, deaths, and economic losses. In Pakistan, this frame is especially meaningful because climate-related disasters are connected with people's everyday experiences. For instance, the statement "33 million people were affected" presents climate impact mainly as a numerical fact, whereas references to destroyed homes, displaced families, lost crops, and damaged livelihoods bring the same information closer to human experience. Thus, factual information can become associated with suffering, vulnerability, empathy, and concern.

Another important finding concerns responsibility and agency. Climate communication can construct responsibility through vocabulary as well as through grammatical choices concerning agency and causation. For example, "Industrial emissions are driving climate change" foregrounds human responsibility, while "Climate change is causing extreme weather" focuses more on the effects and backgrounds the human causes. Therefore, linguistic choices can influence how responsibility is understood and can create orientations such as accountability, guilt, moral concern, and civic responsibility. At the same time, the challenge/agency frame, expressed through terms such as "climate challenge," presents climate change as a serious problem but also suggests that it can be addressed. Consequently, this frame can make hope, agency, efficacy, and problem-solving more salient.

Moreover, the analysis shows that hope and resilience provide an important contrast to catastrophe-oriented language. Words such as *disaster, collapse,* and *irreversible* can foreground fear and loss, whereas *resilience, adaptation, innovation,* and *collective action* can emphasize hope, possibility, and agency. However, these findings do not suggest that positive language is always more effective than negative language. Rather, the emotional meaning of a message depends on its wider frame, the presence of agency, and the communicative context. Recent research similarly indicates that fear, efficacy, and temporal distance can interact in complex ways (Armbruster et al., 2022; Huang & Guo, 2024).

Most importantly, the analysis demonstrates that facts, frames, and feelings are closely connected rather than separate elements. Climate facts provide the informational foundation, linguistic choices organize those facts through cognitive frames and metaphors, and these conceptualizations make particular emotional orientations more salient. For example, *rising temperatures* may be presented as a "climate crisis," creating a threat frame associated with urgency; climate action may be presented as "fighting climate change," creating a

war frame associated with determination; and environmental damage may be described as something that needs to be "healed," creating a health frame associated with care and responsibility.

Therefore, in relation to the analysis demonstrates that climate communication uses recurring cognitive frames and conceptual metaphors to organize the meaning of climate-related facts. It shows that these frames provide a conceptual connection between facts and emotional orientations such as fear, hope, vulnerability, responsibility, urgency, and agency. Importantly, these relationships should not be understood as automatic psychological effects; rather, they represent the emotional and evaluative meanings made available through particular linguistic constructions.

Finally, the findings are particularly relevant to the Pakistani context, where previous research has identified disaster, responsibility, economic consequences, threat, human interest, and efficacy as important climate frames. The present analysis extends this work by examining how such frames are constructed through actual language. Thus, the study moves beyond simply asking "Which frames occur?" and instead asks "How are these frames constructed, and how do they connect climate facts with feelings?" Overall, the findings support the central argument that climate communication is not only about communicating facts but also about constructing the conceptual and emotional conditions through which those facts are understood.

Conclusion

Overall, the study concludes that climate communication is not limited to the presentation of scientific facts. Rather, language uses different cognitive frames and conceptual metaphors to make climate facts meaningful to audiences. The analysis shows that frames such as crisis, war, disaster, health, responsibility, challenge, and resilience shape different understandings of climate change. Furthermore, these frames are closely connected with emotional orientations such as fear, urgency, vulnerability, responsibility, hope, and agency. The findings also show that the same climate fact can create different meanings when it is presented through different linguistic frames. In the Pakistani context, disaster, vulnerability, responsibility, and human experiences make climate communication especially meaningful. Therefore, Cognitive Linguistics provides a useful way to understand how climate facts are organized through language and connected with feelings. Finally, the study fills the identified gap by bringing facts, frames, and feelings together in one integrated analysis of climate communication.

Results/Outcomes

- Crisis and threat frames present climate change as dangerous, urgent, and requiring immediate action.
- War metaphors present climate action as a struggle and create feelings of determination, urgency, and agency.
- Race metaphors highlight speed, competition, progress, and the need to achieve climate goals quickly.
- Health metaphors present the planet as needing care, treatment, healing, and protection.
- Disaster frames connect climate change with loss, suffering, vulnerability, displacement, and human experience.
- Responsibility frames highlight who causes climate problems and who should take action.
- Challenge and agency frames present climate change as a serious problem that can still be addressed.
- Hope and resilience frames create meanings of possibility, cooperation, adaptation, and collective action.
- Climate facts gain different meanings depending on the cognitive frame and metaphor used to present them.
- Emotional meanings are connected with linguistic choices, but they do not automatically determine how audiences will feel or act.
- The Pakistani context shows the importance of disaster, vulnerability, responsibility, and lived climate experiences in climate communication.
- Overall, the study shows that facts provide information, frames organize meaning, and feelings give climate communication an emotional direction.

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