Analyzing Ambiguity in Newspaper Headlines: The Case of Crash-Blossoms

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Abstract

The current study was conducted to explore ambiguous newspaper headlines in two leading Pakistani dailies, namely Dawn and The Express Tribune, focusing on "crash-blossoms", which are kind of headlines that initially confuse the readers with reference to their interpretation, due to syntactic shortcuts, and polysemy. Twenty-five ambiguous newspaper headlines were purposively selected from daily Dawn and The Express Tribune, which involved 24 proficeint undergradute readers. The findings of the study reveal that structural ambiguity is the most common type of ambiguity incorporated, more often inadvertently, which is followed by lexical, pragmatic and referential ambiguities respectively. From the findings it is revealed that the participants majorely relied on world knowledge, and structural re-parsing to disambiguate the headlines. Moreover, the study found about how the newspaper readers in a non-native English speaking context, particularly Pakistani readers in this study, navigate through ambiguous headlines make use of their cultural and linguistic knowledge, resultantly making new insights for Pakistani newspaper headline writers about improving clarity and contributing to media discourse in a non-native English context.

Key Words: Ambiguity, newspaper headlines, crash-blossoms, structural ambiguity, lexical ambiguity, pragmatic ambiguity, referential ambiguity

Introduction

Languages are characterised to be ambiguous, due to which a single utterance, phrase even a word may have more than one meaning or interpretaion. Ambiguity with respect to the newspaper headlines is due to the spatial limitations, which compels them to opt for structural short cuts, or because of the urge for eye-catching and unusual syntactic structures. For Bell (1991) "headlines encapsulate the essence of a story in a few words, often omitting function words and relying on condensed syntax," which at times result in unintended readings and interpretations. Headlines in newspapers are the first point of contact between the news readers and the news contents, hence, it is very important that headlines are written clearly. According to Fowler (1991) the language of media is not a unbiased medium; infact this is the plateform where ideological struggles and narratives are propagated, together with actively constructing and contesting meaning. When headlines are constructed, both intentionally and unintentionally, with ambiguity, it is more likely

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that the readers get mislead, and as a result misinterpret the same. Ambiguous headlines may result from lexical polysemy, syntactic complexity, or the omission of key grammatical elements. While some instances of ambiguity are unintentional, others may be deliberately employed for rhetorical or humorous effect. Regardless of intent, ambiguous headlines pose significant challenges for readers, as they require contextual knowledge and syntactic reanalysis to resolve. A particularly intriguing form of ambiguous headlines is known as "crash blossoms." The term was first coined in 2009 in an online discussion among copy editors after encountering the headline, "Violinist Linked to JAL Crash Blossoms," which led to a misinterpretation suggesting that the violinist had somehow transformed into flowers (Rowe, 2019). Crash blossoms arise due to structural ambiguities that cause readers to parse a sentence incorrectly on the first reading. As McArthur (2012) notes, "readers rely on initial parsing strategies when interpreting headlines, and when syntactic structures are misleading, comprehension falters." These headlines exemplify the unintended consequences of linguistic economy in journalism. Although ambiguity has generally been acknowledged as a linguistic and cognitive phenomenon, the literature available shows a significant gap in the focused examination of ambiguity in Pakistani newspaper headlines. Headlines, often crafted to be attention-grabbing and concise, may sacrifice syntactic clarity for brevity, leading to potential structural ambiguity, lexical ambiguity, or referential vagueness—a phenomenon notably discussed in the works of Reah (1998), Dor (2003), and Bell (1991). However, very few researches or none to the knowledge of researchers has to this date focused ambiguity in Pakistani Newspaper headlines, specifically with respect to how non-native English readers—particularly within the Pakistani context—disambiguate such headlines. Moreover, studies such as those by van Dijk (1988) and Bonyadi (2012) have informed that disambiguating a newspaper headline is partly influenced by socio-cultural background, partly by linguistic proficiency, and contextual knowledge. Still, these insights have not been significantly tested in the Pakistani linguistic environment, where readers are often navigating English-language newspapers as a second or foreign language, influenced by local cultural and linguistic norms. This adds another layer of complexity to ambiguity resolution, as Pakistani readers may rely on different cognitive strategies or interpretive frameworks compared to native speakers. Moreover, the inadvertent use of 'crash blossomic' ambiguity in newspaper headlines due to conciseness, syntactic shortcuts, polysemy and pragmatic subtleties have earned themselves the attention in applied linguistics (Liberman, 2009; Tannenbaum, 2014), however, the (psycho) linnguistic researchers have still not ventured in this area of Pakistani media landscape. The notable lack of literature on media linguistics and cognitive pramatics reveals a paucity of research on the reception and interpretation of English newspaper headlines by Pakistani readers, particularly with regard to ambiguity, underscoring a significant gap in media linguistics and cognitive pragmatic research. This oversight warrants scholarly attention, as it precludes a nuanced understanding of the complex dynamics between language, cognition, and media consumption in this context. The current study aimed to fill the knowledge gap through a systemic inquiry of the ambiguities found in the selected dailies as samples to be generalized in a Pakistani context, together with the cognitive and contextual mechanisms the participants employed to dismabiguate the ambiguities inherent in the selected dataset. By investigating the notion of crash-blossomic headlines, the study sought to contribute new knowledge in the existing literature of ambiguous headlines in a Pakistani context, understanding of media discourse processing, mechanism of constructing newspaper headlinnes, and reader interaction within a non-native English-speaking context.

Scope of the Study
This study critically examines the English-language newspaper headlines published in two major Pakistani dailies, namely Dawn and The Express Tribune. A purposive sampling of twenty-five

(25) newspaper headlines, which were published durin January 1st, to April 20th 2025, was carried out for the purpose of analysis. The retionale behind selecting these newspapers for data collection is due to their widespread readership, particularly among university going studetns. The study aimed to find out strategies employed by the participants to disambiguate the ambiguous headlines. The strategies used by a sample of 24 undergraduate students enrolled at a private university in Pakistan. The participants are a representative sample of a demography that regularly reads these newspapers, along with possessing the linguistic proficiency to provide valuable insights into how crash-blossomic headlines from the selected newspapers are cognitively parsed and contextually interpreted. By narrowing the corpus and participant pool in this way, the study aims to maintain a manageable yet meaningful focus while ensuring the findings remain relevant to broader discussions on media literacy, language comprehension, and ambiguity in postcolonial Englishes.

Significance of the study

This study is particularly significant to the field of media linguistics by exploring ambiguous newspaper headlines in a non-native English context, specifically in Pakistani English newspapers. The insights from the findings suggest how syntactic irregularities and pragmatic nuances in headlines can lead to ambiguity and misinterpretation, and how readers reach to the proper and intended understanding of such ambiguous headlines. Moreover, the findings contain meaningful insights and practical implications for media persons and news editors. The findings could potentially be great help to the news editor to constr craft and write headlines with more clarity to avoid miscommunication, specifically in societies with English as a second or official language.

Literature Review
Theoretical Background

Linguistis, pragmatists and psycholinguists have been exploring ambiguity in language for a long time now. Newspaper headlines, in particular, are prone to ambiguity due to their syntactic compression, lexical economy, and stylistic preferences aimed at grabbing reader attention in limited space (Reah, 1998; Bell, 1991). Headlines frequently omit function words, auxiliary verbs, and punctuation, thereby increasing the likelihood of structural and lexical ambiguity (Dor, 2003). Among such ambiguous constructions, "crash blossoms"—a term coined by Liberman (2009)— refer to structurally ambiguous headlines that lead readers to misinterpret their intended meaning on the first reading. These headlines pose interpretive challenges even for native speakers, and the problem may be exacerbated in English as a Second Language (ESL) contexts. Studies in discourse analysis and pragmatics have explored how meaning is negotiated in ambiguous texts, with researchers such as Yule (1996) and van Dijk (1988) highlighting the role of context in inferential meaning-making. However, most of this literature focuses on native English speakers or Western media. In contrast, research on ambiguity in South Asian or Pakistani English-language media remains sparse. Given the linguistic diversity in Pakistan and the widespread use of English in formal and journalistic domains, there is a need to explore how local readers navigate the complexities of English-language media discourse. Furthermore, readers' interpretation of ambiguous headlines is significantly shaped by their linguistic proficiency, prior knowledge, and inferencing abilities. Schema Theory (Rumelhart, 1980; Bartlett, 1932) posits that readers draw upon existing mental frameworks or "schemas" to construct meaning from texts. In ambiguous situations, such as crash blossoms, these cognitive structures enable readers to make sense of unexpected or confusing constructions. Relevance Theory (Sperber & Wilson, 1986) also contributes to this discussion by explaining how readers rely on contextual cues and seek the most relevant interpretation with the least cognitive effort. Both theories underscore the importance of background knowledge and context in resolving ambiguity.

Although these theories have significantly contributed in understanding of cognitive elements of language and in interpretation of discourse, they have not been made use of with respect to ambiguity in Pakistani English newspapers' context. This study sought to address this knowledge gap by exploring how Pakistani readers disambiguate ambiguous headlines, particularly crash-blossoms, through the lens of cognitive and pragmatic theories of interpretation.

Review of the Related Literature

Ambiguity is a fundamental aspect of language that can be both intentional and unintentional. In media discourse, it often emerges due to constraints on space, stylistic conventions, and the need for attention-grabbing headlines. According to Crystal (2003:22), "ambiguity arises when a word, phrase, or sentence has more than one interpretation due to its structure or meaning." This feature is particularly relevant in newspaper headlines, where brevity can lead to unexpected multiple readings. Allan (1986) highlights that ambiguity in media can be classified into lexical, syntactic, and pragmatic ambiguity, each affecting reader interpretation differently.

Newspaper headlines, in particular, rely on condensed syntax, which can lead to unintended readings. Bell (1991) asserts that "the compact nature of headlines forces linguistic shortcuts, making them prone to ambiguity." This phenomenon is especially evident in English-language media, where word order and lexical flexibility allow multiple interpretations. As Reah (2002) notes, "headlines often omit auxiliary verbs and determiners, creating structures that are open to misinterpretation."

Structural ambiguity in headlines results from multiple syntactic parses of the same phrase. Ferreira and Patson (2007) argue that "readers initially adopt the most straightforward syntactic structure when processing a sentence, which can lead to misinterpretation if alternative structures exist." For example, a headline such as "Teacher Strikes Idle Kids" could be interpreted as either students being hit by a teacher or students skipping school due to a teacher strike.

Semantically, headlines often contain polysemous words that contribute to their ambiguity. Pinker (1994) suggests that "human cognition favors efficiency, leading readers to choose the most familiar meaning first." However, in the absence of context, multiple interpretations compete for dominance, leading to misunderstandings. Pragmatically, the lack of contextual clues in headlines forces readers to infer meaning based on their background knowledge and assumptions, often exacerbating ambiguity (Levinson, 2000).

Crash blossoms are a specific subset of ambiguous headlines that result from structural misinterpretation. The term originated from the headline "Violinist Linked to JAL Crash Blossoms", which was initially misread as suggesting that a violinist had transformed into flowers (Rowe, 2019). These headlines are typically caused by garden-path effects, where readers are led down an unintended interpretative route before realizing an alternative reading.

McArthur (2012) explains that "crash blossoms exemplify the cognitive challenges of syntactic parsing in the absence of punctuation and function words." Such headlines often involve noun-noun compound ambiguity, verb-noun misinterpretation, or misplaced modifiers. For example, the headline "Squad Helps Dog Bite Victim" can be parsed as a team assisting a dog in biting a victim or as a team helping a victim who was bitten by a dog.

Research on ambiguous headlines has primarily focused on cognitive processing and linguistic analysis. Studies by Truss (2005) emphasize the role of punctuation in resolving ambiguity, arguing that "even minimal punctuation can dramatically alter a headline's interpretation." Similarly, Dor (2003) investigates how news editors balance conciseness and clarity, concluding that "headlines prioritize brevity over disambiguation, sometimes at the expense of readability."

More recent studies have explored the psychological effects of ambiguous headlines on reader perception. Gibson and Pearlmutter (1998) suggest that "when readers encounter an ambiguous

headline, they often revert to context-dependent inferencing, which may not always be accurate." This misinterpretation can influence readers' understanding of the news, potentially distorting public perception of events.

Context plays a crucial role in disambiguating newspaper headlines. Clark (1996) notes that "language comprehension is heavily dependent on context, which allows readers to filter out unlikely interpretations." In news discourse, headlines are typically followed by subheadings or lead paragraphs that provide additional context. However, in digital media, where headlines are often viewed in isolation (e.g., on social media), ambiguity can persist longer, increasing the likelihood of misinterpretation (Tagliamonte & Denis, 2008).

Research by Van Dijk (1988) highlights that "media consumers rely on schemas and prior knowledge to resolve ambiguity, but these heuristics can be biased or culturally specific." For example, the headline "Miners Refuse to Work After Death" may be clear to native English speakers familiar with strike terminology but might be misinterpreted by non-native readers as deceased miners refusing to work.

The literature on linguistic ambiguity in newspaper headlines highlights the challenges posed by condensed syntax, polysemy, and structural complexity. Crash blossoms serve as a particularly striking example of these issues, illustrating how unintended interpretations can arise from common headline-writing conventions. While context aids in disambiguation, the increasing prevalence of digital media, where headlines often appear in isolation, exacerbates the problem. Future research should explore strategies for reducing ambiguity in headlines while maintaining their conciseness and impact.

Research Questions

This research is conducted to find out the answers to the following research questions:
1   What specific linguistic features contribute to ambiguity in Pakistani English newspaper headlines?
2   What strategies do readers in Pakistan use to interpret ambiguous headlines?

Research Methodology

This study adopts a mixed-methods qualitative design to investigate the linguistic features that contribute to ambiguity in Pakistani English newspaper headlines and to explore the disambiguating strategies employed by readers when encountering such ambiguity. The methodology is structured around two phases:

1. Analysis of Headlines

To answer Research Question 1, regarding the linguistic features leading to ambiguity in Pakistani newspaper headlines, we conducted an analysis of selected headlines. A set of 25 ambiguous headlines was compiled from two Pakistani English daily newspapers, specifically Dawn and The Express Tribune, published between January and April 2025. These headlines were chosen based on their structural, lexical, or pragmatic ambiguity, characteristic of crash blossoms. The analysis involved coding these headlines and examining them through various theoretical lenses. We first applied Grice's Cooperative Principle (1975) to understand how violations of conversational maxims, particularly issues related to brevity, such as ellipsis and omission of grammatical elements create ambiguity. Relevance Theory (Sperber & Wilson, 1986) was utilized to analyze pragmatic gaps in headlines, where assumptions about contextual or cultural knowledge may not be accessible to all readers.

Lexical ambiguity, as conceptualized by Cruse (1986), helped categorize polysemous or homonymous terms requiring disambiguation. Additionally, we explored the conventions of "headlinese" (Mardh, 1980), focusing on syntactic compression techniques like nominalization and pre-modification to assess how structural underspecification contributes to ambiguity.

Finally, Dor's (2003) framework on pragmatic ambiguity highlighted how intentional vagueness can be employed for rhetorical or strategic purposes. Through qualitative coding, we classified the types of ambiguity encountered, namely lexical, syntactic, and pragmatic, enabling a better understanding of how these linguistic features lead to ambiguity in newspaper headlines.

2. **Reading Strategies**

To answer Research Question 2, concerning the strategies readers in Pakistan use to interpret ambiguous headlines, participants were selected through a reading proficiency test followed by an interpretation task involving ambiguous headlines. The participants were drawn from a group of 50 undergraduate students enrolled at a private university in Pakistan. To ensure adequate reading proficiency in English, the Nelson-Denny Reading Test (NDRT) was administered as a diagnostic tool. Out of the 50 students, only 24 passed the NDRT and were included in the main phase of the study. This step was crucial in ensuring that participants possessed the necessary comprehension skills to engage meaningfully with the ambiguous newspaper headlines. Readers employed various cognitive and contextual strategies to resolve ambiguity in headlines, as supported by psycholinguistic and discourse-processing theories. These strategies included minimizing cognitive effort (Relevance Theory), utilizing cultural and political knowledge (Van Dijk, 2008), filling syntactic gaps (Clark's audience design), accessing salient meanings first (Graded Salience Hypothesis), constructing mental models based on world knowledge (Johnson-Laird, 1983), relying on article content or prior exposure (Sanford et al., 2011), using syntactic probabilities (Ecker et al., 2022), and defaulting to culturally dominant interpretations (Hopp & Kende, 2018). A questionnaire was administered to readers after each ambiguous headline reading to determine the strategies they used for understanding newspaper headlines.

Material

Two types of materials were used in the study:

1.Nelson-Denny Reading Test (NDRT): This standardized test (see Appendix-A) measured students' reading comprehension and vocabulary levels, aiding in the identification of suitable participants for the interpretive task.

2. Crash Blossom Headlines: A set of 25 ambiguous headlines was compiled from two Pakistani English daily newspapers, specifically Dawn and The Express Tribune, published between January and April 2025. These headlines were selected based on their structural, lexical, or pragmatic ambiguity, characteristic of crash blossoms. A questionnaire. (see Appendix-B) was administered to readers after each ambiguous headline reading to determine the strategies they used for resolving ambiguity in newspaper headlines.

Data Collection Procedure

The data collection proceeded in two phases:

1. **Reading Proficiency Testing:** All 50 students completed the NDRT under controlled conditions. Based on their performance, 24 students who met a minimum threshold of reading proficiency were selected to proceed to the next phase.
2. **Headline Interpretation Task:** The 24 participants were provided with the 25 ambiguous headlines, on a worksheet. They were instructed to:
   ➢ Interpret each headline in their own words

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> ➤ Identify what strategies they used to disambiguate the headlines. (see Appendix-B)

Data Analysis

The ambiguous headlines were analyzed using syntactic and lexical frameworks to identify the specific linguistic features (e.g., structural ambiguity, missing articles, homonyms, etc.) responsible for the crash blossom effect. Then, the body content of each ambiguous news headline was explored to find out the intended interpretation of the ambiguous headline. The analysis was carried out as follows:

1. Musk's intervention in UK politics 'misinformed': minister

This headline has a lexical ambiguity. The word "misinformed' could mean Musk himself was misinformed or that his intervention was based on misinformation, making it unclear who is at fault or the nature of the misinformation.

2. Man United win on penalties after hectic FA Cup clash against Arsenal

This headline is a structurally and lexically ambiguous at the same time. The word 'Hectic' could describe the pace of the game or the level of the chaos, and 'win on penalties' might be taken as winning because of penalties or despite them, causing structural confusion.

3. 75 Pakistanis moved to Rwanda amid escalation of Congo Conflict: FO

This headline contains a referential ambiguity. It is unclear if the Pakistanis were relocated for safety, diplomatic reasons, or other purposes, and how the Congo conflict relates to Rwanda.

4. SHO says a bus rammed into a trailer which instantly killed the bus driver.

This is an structurally ambiguous headline. It is unclear if the bus driver was killed by the collison or by some other cause, and 'rammer' could imply intent or accident which can also cause the headline to lexically ambiguous as well.

5. Match winners down to ten men, draw 1-1 with hosts at extra time

This headline has a structural ambiguity. "Down to ten men" could mean a player was sent off or injured, and it's unclear if the draw happened during extra time or after.

6. Accuses Indian outlets of propaganda to sabotage the tournament

This headline is, both structurally and pragmatically ambiguous. Sytactically ambiguous due to the elipsis: who made the acuusation? Moreover, it is pragmatically ambiguous because it is not clear whether "propaganda" refers to misinformation or critical reporting.

7. Get the latest news and updates from Dawn

This headline has a pragmatic and lexical ambiguity. This generic headline could refer to any news, making it nonspecific and open-ended. On the other end the word 'Dawn' could be interpred as the early morning or the newspaper itself which is a publishing entity.

8. Confused state

There is a lexical ambiguity in this headline. The term "Confused state" refer to a nation's disoriented condition or a psychological state leading to multiple interpretations.

9. Challenge of a reset

Although there is no elipsis in this headline, it is still a structurally ambiguous headline. In the headline it is unclear whether the challenge lies in initiating a reset or in the reset itself being challenging.

10. Where are the feminists now?

This rhetorical question lacks context, making it open to various interpretations regarding the

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presence or actions of feminists. Hence, the headline is pragmatically ambiguous.

11. The case of missing characters in Pakistani dramas

This headline contains a lexical ambiguity. The "Missing characters" could refer to absent roles in narratives or decline in character development quality.

12. It's not surprising that many cinemas are closing down in Pakistan—we've turned cinema into a luxury

There is a pragmatic ambiguity in this headline. The statement could be interpreted as a critique of economic conditions or cultural shifts. Morover, the phrase "we've turned cinema into luxury is also polysemous, and not clear if the luxury refers to the condition of cinema or shift from cinema to something else altogather.

13. Cybercrime law given fangs to bite media

This headline is lexically ambiguous headline. The metaphor "given fangs" implies increased power, but it is unclear how this specifically affects media entities.

14. Danish Taimoor, filhaal and the curse of fragile male ego

There is a structural ambiguity in this headline. It is unclear whether "filhaal" refers to the actor's current situation or a specific project, leading to multiple interpretations.

15. Economy back on its feet, ready to take off again: Shehbaz

This headline has a metaphorical ambiguity. The phrase "ready to take off" is metaphorical and lacks specificity. It suggests economic improvement but does not concrete indicators or dataa to support the claim.

16. Judges' division, power disputes spark Supreme Court turmoil

This headline is structurally ambiguous. It is unclear whether "judges' division" refers to physical divisions or ideological differences, and "power disputes"lacks specificity. Moreover, the ambiguity also arises becuase it is unclear "judges's division" and "power disputes" are two separate causes that each contribute to the Supreme Court turmoil, or "judges' division" modifies "power disputes", meaning that the division among the judges are the specific type of power disputes causing the turmoil.

17. Controversial canals project on Indus River

There is a structural ambiguity in the headline. The ambiguity is becuase it has two possible interpretations. Firstly, it can be interpreted as the "The entire project is controversial", meaning that a canals project on the Indus River is controversial. On the other hand, it can interpreted as "the canals themselves are controversial, and the project involves them, meaning that a project involving controversial canals on the Indus River.

18. Culling freedoms

The healines contains semantic ambiguity, particularly it is metaphorically ambiguous, since the word "culling" can be interpreted in many ways, leading to different possible meanings. It could either be literally interpreted as "killing freedoms" or metaphorically as "reducing freedoms. The term "culling" is typically used in animal contexts, making its application to "freedoms" metaphorical and open to interpretation.

19. Abandoned allies

There is a semantic ambiguity, particularly a referential ambiguity, because it is unclear who abandoned whom or what the context is. It can be interpreted with respect to who did the abandoning? Like a government abondoning its allies, or a corporation cutting ties with business partners, and more. Moreover, it can also be interpreted with respect to who are the allies? They

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can be Nations, political or social groups, and more.

20. US judge could hold Trump admin in contempt

The headline contains structural ambiguity, specifically due to attachment ambiguity, it is unclear which part of the sentence the phrase "in contempt" modifies. This could possible be interpreted as a U.S judge might declare the Trump administration in contempt of court. On the other hand it could likely be interpreted as a U.S judge could physically detain the Trump administration.

21. Pakistan cricket has nosedived tremendously

This headline is both semantically and lexically ambiguous at the same time. The vagueness lies in the adverb "tremendously" and potential metaphorical confusion with "nosedived. The intended metaphorical meaning of the headline could most probably be a sharp decline in the performance, while an absurd literal interpretaion of the headline could most unlikely but possibly be the team literally plunging nose-first mid-game.

22. Trump 2 Pro Max

This headline is a blend of political and tech marketing language, containing structual and semantic ambiguity. Structurally it is unclear if this is about a product or a person. Morover, the tech parody mimics Apple's naming convention such as iPhon 15 Pro Max, framing Trump as a "product" with iterative upgrades. On the other hand this could hypothetically imply a "new and improved" version of Donald Trump, such as Trump 2.0 meets Pro Max hype.

23. Hostage to suspicion, acrimony and confusion?

This headline is rich with semantic and strutural ambiguity, making it open to multiple interpretations. Metaphorically the headline suggests that a person, group, or institution is trapped or constrained by negative emotions, and chaos. While the syntactic ambguity of the headlines suggests that this lacks a clear subject—who or what is the hostage?

24. Daniel Noboa Wins Ecuador Election, Vows to Expand Gang Crackdown

The headline has a subtle structural ambiguity that likely leads to minor misinterpretations. The headline can possibly be interpreted as Noboa plans to broaden the scope of existing anti-gang operations, while alternatively it can also be interpreted as geopgraphic expansion or new tactics for curbing the gangs.

25. Trump Calls Russia's Deadly Ukraine Strike on Sumy a 'Mistake', Blames Biden

This headline is structurally ambiguous. The headlines phrasing makes it unclear that who is blaming whom and what the relationship is between the "mistake", "claim" and "the blame". The headlines most likely and intended interpretation can be that Biden is blaming Trump for calling the strike a "mistake", however, upon encountering the headline at first one might think that Trump is calling the strikes a "mistak" and blames Biden for that.

After puposively selecting these ambiguous headlines from the dailies Dawn and The Express Tribune, 13 headlines from Dawn and 12 headlines from The Express Tribune and presenting their most and least likely intended meanings, the responses of both the dailies on the questionnaire were analyzed.

Categorization of Ambiguity Type

After the analysis The selected headlines through were categorized into the following ambiguity types based on their linguistic features as shown in the table 1:

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S.No	Ambiguity Type	Number of Headlines	%
1	Structural Ambiguity	10	40
2	Lexical Ambiguity	7	28
3	Pragmatic Ambiguity	4	16
4	Referential Ambiguity	2	8
5	Metaphorical Ambiguity	2	8

Most frequently occured ambiguity types found in the selected two dailies in Pakistan are shown using a pie chart:

Distribution of Ambiguity Types in Headlines
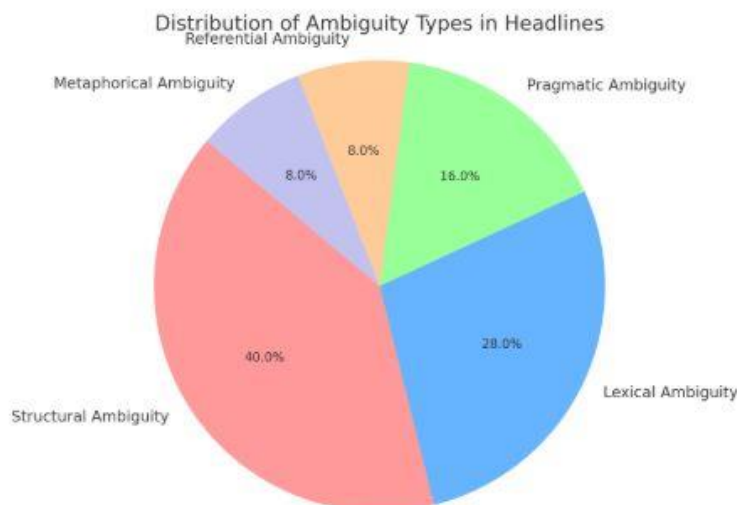
Disambiguation Strategies Employed by the participants

The participants of this research employed the following cognitive strategies to disambiguate the ambiguous headlines provided to them for their interpretation as is shown in table 2:

S.No	Strategy	% Participants Applying	Description
1	Contextual Knowledge	91.6	Used background or context to interpret the contents
2	Syntactic Reanalysis	75	Reconstructed sentence structure mentally to infer correct meaning
3	Lexical Substitution	58.3	Inferred based on intent, tone, or likely real-world situations
4	Referential Clarification	29.1	Asked or assumed clarity about the subject/object in vague regereneces

The strategies employed by the participants is also shown in the following bar graph:

Disambiguation Strategies Used by Students
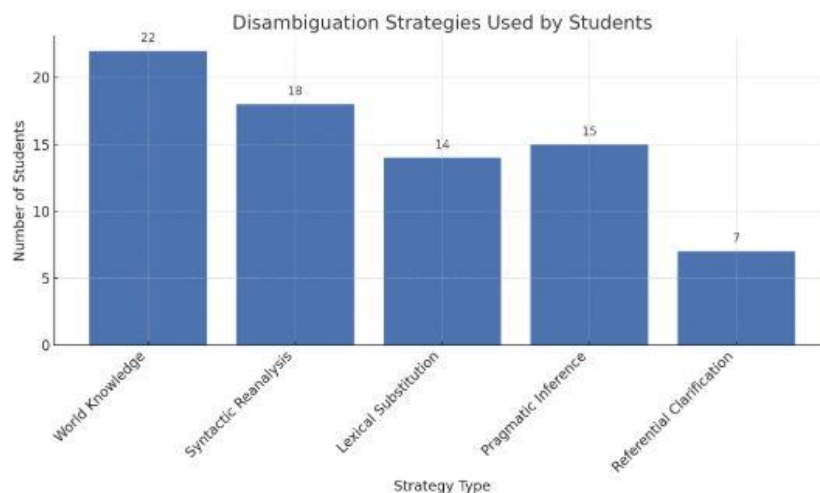
Discussion

The current research revolved around two main research questions:

- ✓ What specific linguistic features contribute to ambiguity in Pakistani English newspaper headlines?
- ✓ What strategies do readers in Pakistan use to interpret the ambiguous headlines?

The findings of this study inform the readers about the complex nature of media discourse in the Pakistani context, particularly regarding a readership for whom English functions as a second language.

Ambiguous Headlines:

The findings of this study more closely align with the findings of Bell (1991), and Dor (2003). The study informs us through the data extracted from the newspapers and attained from the participants is the predominance of structural ambiguity, which singly accounts for 40% of the selected headlines, which suggests that the syntactic shortening and omissions as the major contributors to headline ambiguity. In the dataset, extracted from the two newspapers, it was found that the headlines frequently omitted the function words, or the explicit agents, resulting in their more than one possible readings and interpretations. Such headline writing strategy confirms that such stylistic approaches to headline writing, like brevity, punchiness, and immediacy, can unitentionally result in ambiguous headlines. Moreover, this study extends the discourse by highlighting how Pakistani readers specifically navigate these ambiguities through contextual knowledge and syntactic reanalysis, a perspective that has received limited attention in earlier researches focused primarily on native English speakers.

Moreover, the findings of the study reveal that the lexical ambiguity follows the structural ambiguity grabbing 28% from the dataset, which is more often triggered by words with multiple meanings such as "state", "reset", or metaphorical verbs like "nosedived". The findings of the study confirm Pinker's (1994) argument that the human parser most likey processes the simpler meanings upon encountering a headline first, even if the readings do not match with the writer's intended meaning. Although in the study it is found that the pragmatic, referential and metaphorical ambiguities are less common, they contributed their share of ambiguities in the headlines, together with engaginf readers' contextual knowledge, inferencing abilities, and their assumptions about the sociopolitical context.

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The study found through the dataset that the ambiguity found in the media discourse is not only linguistically embedded but it is also due to cognitive and interpretive nuances. The underlying nature of crash blossoms, which is interpretations other than intended, resulting from structural shorcuts, posit that the headlines in newspapers prone to high rishk of clashing language economy and clarity of language.

Dismabiguating Headlines

In contrast to previous studies that predominantly examined western contexts, this research underscores the unique cognitive strategies employed by non-native English readers in Pakistan. One of the illuminating and comforting part of the study is the finding which informed about the cognitive resilence portrayed by the participants. After qualifying the underlying minimum threshold of reading proficiency through NDRT, the participants impressively demonstrated a number of disambiguating strategies. Over 91% of the participants used the contextual/world knowledge strategy to disambiguate the headlines presented to them through admisnitring a questionnaire, whihc make the strategy as the most frequently used strategy in disambiguating the ambiguous headlines. The contextual knowledge strategy underscores how the readers make use of real world information and schema based assumptions in correctly parsing the ambiguities. This aligns with Rumelhart's (1980) Schema Theory and emphesizes the importance of background or contextual knowlege in text processing.

Moreover, the findings inform us about the syntactic reanalysis mechanism as the second most common strategy, with 75%, in disambiguating the ambiguous headlines. It is found through participant responses that they reconstructed the given headlines mentally to reach at the most likely inteded interpretation of the headlines, which essentially helped them in doing away with the effects of the elipsis and omissions causing ambiguities in the headlines. The strategy of syntactic reanalysis mirrors Ferreira and Patson's (2007) "garden-path" reanalysis model.

The findings of the study also suggest other kinds of dismabiguating strategies, though with lower frequencies, such as lexical substitution and referential clarifications. From the findings it can be inferred that although ambiguities found in newspaper headlines pose challenges, readers equipped with linguistic and contextual skills and knowledge are able to negotiate the meaning, even if the headlines are cryptically constructed.

However, ambiguities in newspaper headlines are deemed as a universal linguistic phenomenon, the disambiguating strategies employed by the participants reflect a distinct but meaningful blend of linguistic knowledge, exposure to media discourse in English, and cultural context. The fact that the participants interpreted the ambiguous headlines as per the intended meaing, which were not originally in accordance with their linguistic or cultural settings informs us about the adaptability of ESL newspaper readers.

The findings from this study have significant implications for journalistic practice, for non-native English speaking cultures in general and for Pakistani context in particular. Newspaper editors and headline writers should take into consideration the fact that syntactic shorcuts, when coupled with cultural specifications, may result in misinterpretation. It is important for the editors and headline writers to be sufficiently aware about the crash-blossoms, and about the strategies non-native Egnlish newspaper readers use to process them, enables them to comep up with more thoughtful and inclusive headlines.

Conclusion

This study aimed to investigate the types of ambiguities present in Pakistani English-language newspaper headlines and the cognitive strategies employed by readers to disambiguate them. A

mixed-methods qualitative design was utilized, focusing on a set of 25 ambiguous headlines from Dawn and The Express Tribune and involving 24 undergraduate participants with adequate reading proficiency. The findings revealed that structural ambiguity was the most frequent type, primarily due to ellipsis and misleading syntactic structures. Participants predominantly employed contextual knowledge and syntactic reanalysis as strategies for interpretation. Limitations of this study include a small sample size and the focus on only two newspapers, suggesting future research could expand to include a broader range of publications and demographic groups to gain more comprehensive insights into ambiguity in Pakistani media discourse.

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