



MULTIMODAL HUMOR IN PAKISTANI EDITORIAL CARTOONS: A GTVH-BASED ANALYSIS

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Abstract

Applications of the General Theory of Verbal Humor (GTVH) beyond verbal-joke corpora and Western contexts remain limited and are predominantly qualitative. To fill this research gap, the present study explores the construction of humor in Pakistani editorial cartoons by employing the complete six-Knowledge-Resource (KR) architecture of the GTVH that includes Script Opposition, Logical Mechanism, Situation, Target, Narrative Strategy and Language. A stratified random sample of 500 editorial cartoons published between May 2023 and April 2024 was selected from five Pakistani Urdu- and English-language newspapers. All six KRs were systematically coded for each cartoon. The analysis reveals that humor is based primarily on Normal/Abnormal Script Opposition (85.2%), resolved mainly by Exaggeration and Juxtaposition (32.2% combined), situated in the context of the Political, Economic and Electoral macro-scripts (46.2%), aimed mostly at collective political actors (31.6%), presented with monologic caption/headline structures as Narrative Strategy (51.4%) and most often realized in the referential form of humor (73.4%). Together these distributions show an integrated profile of genre-level humor which is cognitively accessible, politically focused, visually predominant, actor-oriented, and normatively structured, and not simply a set of six independent tendencies. The study is the first to use the entire GTVH architecture to a full-scale corpus of multi-modal political cartoons from a non-Western context, which sets a baseline for future research on the use of the theory for genre-specific and culture-specific applications.

Keywords: *Corpus-Based Humor Research, Editorial Cartoons, General Theory of Verbal Humor (GTVH), Knowledge Resources, Pakistani Media, Political Humor.*

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1. Introduction

Humor is a pervasive mode of human communication through which people interpret experience, negotiate social relationships, and comment critically on the world around them (Martin & Ford, 2018; Morreall, 2009). The editorial cartoon is a very special type of multimodal political communication which uses both verbal and visual resources inside the same frame, commenting on political actors, events and institutions (Edwards, 1997; Tsakona, 2009). Unlike many humorous texts, whose humorous status must be established contextually, editorial cartoons are conventionally produced and received as satirical discourse: readers approach them expecting both entertainment and critique. This convention makes the genre particularly well suited to systematic humor research, because the analytical task shifts from establishing whether a text is humorous to explaining how its humor is constructed.

The General Theory of Verbal Humor (GTVH), developed by Attardo and Raskin (1991) and elaborated by Attardo (1994, 2001, 2020), provides the most comprehensive framework for humor analysis. The GTVH, based on Raskin's (1985) Script-based Semantic Theory of Humor, breaks down humor construction into 6 interacting Knowledge Resources (KRs) which are organized hierarchically in terms of their relative contribution to the identity of a humorous text (Attardo, 1994, 2001, 2020). Originally developed for verbal jokes, the theory was later extended to other forms of humor, including literary texts, stand-up comedy, sitcom dialogue, internet memes, and multimodal cartoons (Fallianda, 2018; Tsakona, 2009). Attardo (2020) himself proposes that the Language KR be reconceptualized as a broader Semiotic Strategy when the framework is applied beyond verbal humor. But most GTVH research — and nearly all of it applied to editorial cartoons specifically — has relied on the qualitative analysis of fewer than 100 texts. So, it remains unclear what a complete, reliability-tested, corpus-scale GTVH profile of a large multimodal political cartoon corpus would look like and whether its six Knowledge Resources function as a coherent system or as independent analytical dimensions.

This gap is further widened by the predominance of Western and Anglophone focus on existing research. The GTVH based research has been extended with productive results to Persian, Indonesian, Arabic, Chinese and Romanian texts (Alkaraki et al. 2023; Gao 2023; Heidari 2019; Mulyadi 2020, 2021; Soare 2020) where the categories of knowledge resources, as well as the specific contextual knowledge and intertextual resources, which they draw upon, remain culturally distinct. Research on South Asian texts, however, has largely ignored cartoon analysis specifically: no prior study has applied the GTVH's full six-KR structure to a comparably sized corpus with formal inter-coder reliability testing, in Pakistan or elsewhere in the non-Western world. The existing studies on Pakistani political cartoons have focused on semiotic and critical discourse analytic

approaches that analyse small and purposefully selected samples, thus demonstrating the importance of the genre as a forum of ideological expression but not investigating, using a broader theory of humour, the cognitive frameworks through which humour is created (Azhar et al., 2021; Maryum, 2023; Yasmin et al., 2024; Ashfaq, 2014; Ashfaq & Hussain, 2013).

The genre is also distinctively multimodal: meaning is rarely carried by a single mode but constructed through the interaction of verbal and visual resources within a single frame (Kress & van Leeuwen, 2001). This brevity is theoretically significant because a single-panel editorial cartoon compresses into one frame what a verbal joke typically develops over several sentences, making it an ideal context for examining how incongruity is created and resolved across multiple semiotic modes—something the GTVH was not originally intended to explain. In cognitive approaches to meaning construction, incongruity resolution is understood as a distinct process in which incongruous images are engaged as frames and reconceptualized as incongruous concepts (Coulson, 2001; Fauconnier & Turner, 2002). An account of cartoon humor needs to explain incongruity resolution and the distribution of incongruity resolution mechanisms across the semiotic resources through which they are realized. As a cognitive-semantic theory, already successfully extended beyond the verbal-joke domain (Attardo, 2020; Tsakona, 2009), the GTVH offers a principled basis for this task; it also provides a well-defined hierarchy of Knowledge Resources that is well suited for consistent and corpus-based coding, which less categorical cognitive theories do not.

To address this gap, the present study applies the complete six-KR GTVH architecture to a randomly sampled corpus of 500 editorial cartoons taken from five Pakistani newspapers — four English-language (*Dawn*, *The Express Tribune*, *The Nation*, *Daily Times*) and one Urdu-language (*Daily Jang*). The data was published between May 2023 and April 2024, a twelve-month period spanning political unrest, economic crisis, and the general elections in Pakistan. Rather than functioning as six independent dimensions, the six Knowledge Resources work together to form a coherent genre-level pattern in which the dominant realization of each resource reinforces the others.

The study addresses the following three research questions:

1. How are the six GTVH Knowledge Resources distributed across a corpus of Pakistani editorial cartoons?
2. What patterns of co-occurrence and interdependence emerge among the six Knowledge Resources?
3. What genre-level humor profile does this distribution support, and how does it compare with existing GTVH findings from verbal-joke and other cartoon corpora?

The study provides not only a substantive study of the construction of humor in a significant non-Western editorial-cartoon tradition, but also a methodological baseline –

the first of its kind at this scale – against which future genre- and culture-specific GTVH profiles can be compared.

2. Literature Review

2.1. The GTVH: Six Knowledge Resources

The GTVH views Script Opposition (SO) as a prerequisite for humor: A text is humorous if it contains two distinct, mutually incompatible scripts, and humor arises from the reader's recognition of the conflict between them (Attardo, 1994; Raskin, 1985). Raskin (1985) mentions three abstract forms of this opposition: Actual/Non-actual, Normal/Abnormal, and Possible/Impossible that are repeated in verbal and non-verbal humor. Logical Mechanism (LM) explains how the two opposed scripts are rendered co-interpretable rather than merely contradictory; Attardo (2001), drawing on Di Maio's (2000) corpus-derived taxonomy, catalogues 27 such mechanisms, ranging from exaggeration and juxtaposition to more elaborate forms such as analogy and role reversals. The other four Knowledge Resources (SI, Situation Macro-Script, TA, Target, NS, Narrative Strategy, LA, Language) provide the contextual, evaluative and surface-level aspects of a humorous text that contribute to the specific identity of the text itself (Attardo, 2020).

2.2. GTVH Research Across Genres and Cultures

Since its formulation, the GTVH has been applied to verbal jokes (Attardo, 1994; Raskin, 1985), literary texts (Oltean, 2013; Pindur, 2019), stand-up comedy (Gao, 2023; Mir, 2021; Mulyadi, 2021), sitcom dialogue (Elwood, 2006; Farkas, 2020), social media discourse (El-Masry, 2021; Mulyadi, 2020; Qureshi, 2023), internet memes (Iqbal, 2020), and multimodal cartoons (Fallianda, 2018; Tsakona, 2009), and to material in Persian, Indonesian, Arabic, Chinese, Romanian, and Urdu (Alkaraki et al. 2023; Gao, 2023; Heidari, 2019; Iqbal, 2020; Li, 2021; Masaeli, 2016; Mulyadi, 2020, 2021; Qureshi, 2023; Soare, 2020). But what threads together almost all of this work methodologically is that it all relies on the qualitative identification of Knowledge Resources in small to medium corpora; most of the GTVH studies are based on small numbers of texts (fewer than 100) and close reading of selected examples, not quantitative analysis (see also Agüero Guerra, 2016, on the limits of transferring the categorization of verbal-jokes to cartoon genres). Cross-linguistic operationalizability of the Knowledge Resources and the cultural particularity of the scripts, situational knowledge, and intertextual resources they draw on are not competing concerns but different levels of the same underlying issue. Little of this literature has been tested at a scale sufficient to assess how the framework behaves as it scales up — a gap the present corpus design is intended to address.

2.3. Multimodality and the GTVH

Applying the GTVH to editorial cartoons raises a challenge that its original verbal framework was not designed to address. Unlike verbal jokes, editorial cartoons construct

meaning through the combined use of words and images rather than through a single sequence of language. Tsakona's (2009) study of 565 Greek newspaper cartoons provides the closest point of comparison for the present research. She also shows that the GTVH's Knowledge Resources are productive regardless of the configuration in which they are available: verbal, interactive, or visual; she also demonstrates that the Language KR needs to be expanded to include the visual mechanisms that also contribute to the production of humor, a step which was to become the Semiotic Strategy to be proposed by Attardo (2020). Most importantly, Tsakona (2009) shows that in interactive cartoons, Script Opposition is often cross-modally realized: the two conflicting scripts are apprehended together, in one perceptual event — caption read and image seen simultaneously — rather than derived through a series of verbal inferences. This qualitative difference in verbal SO within the text is favoured by Logical Mechanisms in which the perception is immediate and not extended (Juxtaposition and Exaggeration are the clearest examples).

Samson and Huber's complementary three-category typology of cartoon configurations (illustrative – text provides humor; interactive – humor is for both modes; descriptive – image provides humor), on the other hand, does a different job, one that is more limited: it classifies a cartoon's modal composition, rather than theorizing how the humor is constructed. It doesn't compete with GTVH, instead, it is used sequentially; it offers a pre-analysis of the contents of the modals, which shape the use of GTVH's Knowledge Resources for a specific cartoon. Other frameworks can provide useful supplements without replacing the formal architecture of GTVH: Abdel-Raheem (2018) combines conceptual blending (Fauconnier & Turner, 2002) and relevance theory (Sperber & Wilson, 1986) with incongruity theory for the study of Arab political cartoons, and Pedrazzini (2019) has studied fifty cartoons from twenty-two nationalities, and found that of four possible modal configurations, genuine multimodal functioning is the most common. Unlike the alternative/supplementary frameworks, what the GTVH provides is a formal, six-Knowledge-Resource architecture that can support systematic quantitative comparison across an extensive corpus — directly on the basis of which the present study elaborates to significantly extend Tsakona's (2009) foundational design.

2.4. Editorial Cartoons, Political Humor, and the Non-Western Gap

Previous studies on political satire have arrived at a common conclusion that political satire is tendentious in its structure, either in the sense of targeting, showing normative standards, or having a social-critical purpose that sets it apart from other kinds of humorous language that are benign and not aggressive in their intent (Glenn, 2022; Nugraha, 2023; Sani, 2012; Tsakona, 2009). While the application of the GTVH to cartoon interpretation is relatively rare, there are some applications that are directly relevant to the present study, including the first application by Paolillo (1998) to cartoon interpretation, the most influential application to Greek newspaper cartoons by Tsakona (2009), who

introduced the three-part Real/Unreal SO typology, and the approach of Blaber et al. (2021), who applied multiple humor-theoretic perspectives to a corpus of COVID-19 editorial cartoons, in which Normal/Abnormal-type incongruity was also found to be central to the construction of cartoon humor, but where the possibility of Normal/Abnormal dominance being a genre-level feature of single-panel political cartoon humor, rather than a culturally specific pattern, was raised — without being resolved at the scale of the present corpus. Several recent studies have combined GTVH- or discourse-analytic methods with the three categories of image–text relations in cartoons proposed by Samson and Huber (2007) (illustrative, interactive, descriptive) to provide a complementary descriptive account of the composition of modal images in the domain of politics on contemporary geopolitical events.

Studies on non-western and non-English humor have grown significantly, ranging from Arabic (Alkaraki, 2023; El-Masry, 2021; Saleh, 2018), Persian (Heidari, 2019; Masaeli, 2016), Indonesian (Fallianda, 2018; Mulyadi, 2020; Mulyadi, 2021; Nugraha, 2023), Chinese (Gao, 2023; Li, 2021; Wu, 2023), and Nigerian and Jordanian (Al-Kayed et al., 2015; Asiru, 2023; Bamigboye, 2019; Sani, 2012) contexts, and now poses a significant challenge to the field's unstated Western-centrism. South Asian humor remains conspicuously underrepresented in this canon — a gap that is not merely one of scope but of content, since a framework's applicability can only be established across the diversity of contexts to which it has actually been applied. In the context of Pakistan specifically, the scholarship on editorial cartoons has been largely limited to those studies that have been conducted from the semiotic and critical-discourse-analytic perspectives (Ashfaq, 2014; Ashfaq & Hussain, 2013; Azhar et al., 2021; Husain et al., 2022; Maryum, 2023; Tahir et al., 2022; Tehseem, 2015, 2019; Yasmin et al., 2024), which provide a sense of the genre's significance as a medium of political communication and ideological expression without paying much attention to the cognitive processes involved in the construction of humor in a comprehensive humor theory. This study addresses these gaps by applying the complete six-Knowledge-Resource architecture of the GTVH to a reliability-tested corpus of 500 Pakistani editorial cartoons, extending the theory beyond the small-scale qualitative studies and predominantly Western contexts that have characterized previous research.

3. Methodology

3.1. Corpus Construction

The data of this study is editorial cartoons published in five newspapers in Pakistan: Dawn, The Express Tribune, The Nation, Daily Times (English-language) and Daily Jang (Urdu-language) from May 2023 to April 2024. The selection of newspapers employed purposive sampling criteria for three newspapers that fit the following inclusion criteria: (1) national circulation, (2) editorial cartoon in the newspaper for the entire period

of the research, and (3) the presence of official digital archives for viewing editorial cartoon. The 12-month sampling time period was selected due to its encompassing of a sustained period of political and economic significance in Pakistan, from the political unrest that unfolded after the arrest of the former Prime Minister Imran Khan in May 2023 till shortly after the General Election of 8 February 2024 with the declaration of the new Federal Government.

By systematically searching in the official electronic archives of the newspapers, the sampling frame obtained was 2056 cartoons (Dawn = 357; The Express Tribune = 349; The Nation = 355; Daily Times = 333; Daily Jang = 662). Because the study combines systematic quantitative coding with close qualitative multimodal analysis, a sample of 500 cartoons was drawn using stratified random sampling, with newspaper as the stratification variable and 100 cartoons allocated to each newspaper irrespective of its share of the population. The newspapers were divided into strata and cartoons were selected using simple random sampling with the use of random numbers generated in Microsoft Excel, with each eligible cartoon in each newspaper stratum having an equal chance of being selected and the researcher having no prior opinion on the humor or political content of the cartoons.

This study is grounded in an interpretivist paradigm informed by the cognitive-pragmatic assumptions of the GTVH. It views humor not as an inherent property of the text but as something constructed through the interaction between textual cues and the reader's cognitive and socio-cultural knowledge (Attardo, 2020; Raskin, 1985). Accordingly, identifying the six Knowledge Resources required interpretive judgment informed by the sociopolitical and cultural context of the cartoons. To ensure transparency and consistency, the study employed detailed coding procedures and formal inter-coder reliability testing.

Because Daily Jang serves an Urdu-language readership while the remaining newspapers serve English-language readerships, Urdu cartoons were coded and analyzed in Urdu to avoid the pragmatic loss that translation would introduce, particularly for Script Opposition, Logical Mechanism, and Language coding. The same six-Knowledge-Resource coding framework and operational definitions were used across both language groups, as was the case with the GTVH using its Knowledge Resources as cognitive and semantic units that are translatable across languages and not language-specific categories (Attardo, 2020); no separate coding scheme was developed for the Urdu subcorpus, and culturally specific expressions, political slogans, and literary allusions were interpreted in their original sociocultural context to ensure both analytical parsimony and linguistic authenticity.

3.2. Theoretical Framework and Operationalization of the Six Knowledge Resources

The GTVH's entire 6-Knowledge-Resource architecture (Attardo 1994, 2001, 2020; Attardo & Raskin 1991) was the only main analytical framework used in the study. The following are the operationalization of each Knowledge Resource.

1. Script Opposition: Script Opposition was coded at two levels: at an abstract level, according to Raskin's typology (1985) of Real/Unreal, which was expanded into three categories, Real/Non-actual, Normal/Abnormal, Possible/Impossible, as adopted by Tsakona (2009) in cartoon-specific application; and at a concrete level, specific opposing scripts activated within each cartoon were recorded as descriptive labels reflecting the specific political or social contrast represented. Coding took into account verbal, visual, and cross-modal realisations of each opposing script, given the multimodal nature of the corpus.

2. Logical Mechanism: The taxonomy that was used for coding Logical Mechanism was the one originally devised by Di Maio (2000) and subsequently utilized in the literature by Attardo (2001), which was not modified for comparability with previous GTVH research. Since Logical Mechanisms are cognitive, the same Logical Mechanism label could be used for any verbal, visual or verbal-visual realization.

3. Situation: Thematic analysis of political cartoons followed the methodological context of situation, which has been done inductively in Almohissen's (2023) research. A short description of the setting, the main characters and the actions in each cartoon was first assigned, and then compared across the entire corpus to identify repeated and common themes or macro-scripts (e.g., Politics, Economy, Elections, Judiciary) that were used to organise humorous elements, rather than the presence of a particular character or object.

4. Target: Target was coded into four mutually exclusive categories — Individual, Group, Institution/Organization, and Ideology/Concept — following Attardo's (2020) distinction, adapted from Priego-Valverde et al. (2018), between mere orientation (every humorous text is oriented toward someone or something) and Target proper (which requires that this orientation be accompanied by aggression, ridicule, or criticism).

5. Narrative Strategy: The original categories of “joke”, “riddle” and “narrative” as conceived by Attardo (1994, 2001) based on sequential verbal-joke structure can not be adapted to the genre focusing on single-panel simultaneity of Narrative Strategy. The four categories were therefore formulated inductively on the basis of repeated analysis of the corpus: Dialogue, Monologic Caption/Headline, Visual-Only Gag and Question-Answer.

6. Language: Language was coded first for the verbal/referential distinction (Attardo, 2020) – as verbal that is dependent on linguistic form and lost in paraphrase, and referential that depends on situational meaning and survives paraphrase – and then on the five levels of language hierarchy (phonological, morphological, lexical, syntactic, and

stylistic/prosodic). This article reports the verbal/referential distribution at the summary level, reserving the five-level linguistic analysis for a subsequent article.

Categories for which an existing GTVH coding framework was available (Logical Mechanism, Target) were based on the established coding framework; the remaining categories (the concrete SO labels, the thematic SI categories, and the NS taxonomy) were developed inductively by repeatedly examining the corpus and further developed in an initial trial-coding phase before full-corpus coding started.

3.3. Inter-Coder Reliability

Due to the subjectivity involved in coding GTVH in various analytical categories, a formal inter-coder reliability procedure was carried out prior to full-corpus analysis. The cartoons were randomly sampled using a stratified random sampling method, resulting in a sample of 50 cartoons (10% of the corpus) that were drawn from each newspaper, 10 for every newspaper. The reliability sample was independently coded by an independent second coder who has a PhD in Linguistics, is native Urdu/advanced English and has worked with the primary coder in the past. Cohen's Kappa (κ) was used to determine the level of agreement, using IBM SPSS Statistics, which was calculated separately for each coding category and which accounts for the chance-level of agreement (Neuendorf, 2017).

Table 1 *Inter-Coder Reliability for the Coding Categories*

Coding Category	Cohen's κ	Interpretation
Multimodal Category	1.00	Almost perfect
Script Opposition	.96	Almost perfect
Logical Mechanism	.94	Almost perfect
Situation	.92	Almost perfect
Target	.98	Almost perfect
Narrative Strategy	.94	Almost perfect
Language	.98	Almost perfect

Note. Interpretation based on the benchmarks proposed by Landis and Koch (1977).

All seven coefficients fall in the “almost perfect” range ($\kappa = .92$ – 1.00 ; Landis & Koch, 1977), substantially exceeding minimum levels generally regarded as acceptable in content-analysis research (Neuendorf, 2017). The comparatively lower — though still almost-perfect — agreement for Situation and Script Opposition reflects the greater interpretive judgment involved in identifying dominant macro-scripts and formulating concrete script oppositions, relative to the more constrained operational criteria governing Target and multimodal-category coding. Disagreements were subsequently reviewed jointly by both coders with reference to the coding manual, and the agreed coding was retained for all further analysis. Cross-newspaper distributional differences were

additionally tested using chi-square tests of independence for each quantified Knowledge Resource, reported alongside the relevant results below.

4. Results

4.1. Script Opposition

Table 2 *Percentage Distribution of Abstract Script Oppositions Across the Corpus (N = 500)*

Abstract Script Opposition	n	%
Normal/Abnormal	426	85.2
Actual/Non-actual	55	11.0
Possible/Impossible	19	3.8

Normal/Abnormal opposition is dominant in the corpus with 85.2% of the cartoons ($n = 426$), dominating all the five newspapers (range: 74–92, out of 100) consistently. Actual/Non-actual opposition comes in next-most often (11.0%) and Possible/Impossible the least often (3.8%). This distribution is analytically significant: it indicates that Pakistani editorial cartoons are not primarily engaged in absurdist or fantastical critique but remain grounded in recognizable political reality, exposing actual institutional dysfunction rather than constructing impossible alternatives. A chi-square test of independence confirmed a statistically significant association between newspaper and abstract SO type, $\chi^2(8) = 22.34$, $p = .004$, indicating that although Normal/Abnormal dominates throughout, its relative concentration — and that of the two minority types — varies systematically by outlet.



Figure 4.1 Cartoon from *Dawn* depicting journalist with eyes blindfolded, mouth stitched, and arms bound on World Press Freedom Day (3 May 2023)

A cartoon published in *Dawn* on 3 May 2023, marking World Press Freedom Day, depicts a figure whose eyes are blindfolded, mouth stitched shut, and arms bound. The

abstract SO is Normal/Abnormal, realized concretely as Freedom/Repression. The caption invoking “World Press Freedom Day” activates a normal script of open journalism and institutional protection of media freedom (Script 1); the visual depiction of bodily restraint and silencing activates an opposing script of systematic censorship (Script 2) which is abnormal. The cartoon’s critical force depends on the viewer holding both the international press-freedom discourse and the depicted Pakistani media reality in simultaneous tension — a cross-modal realization in which the verbal caption asserts the norm and the visual composition depicts its negation. The next cartoon for actual/nonactual script opposition is taken from Dawn.

COURT ORDERS UNFREEING
OF NAWAZ’S ASSETS

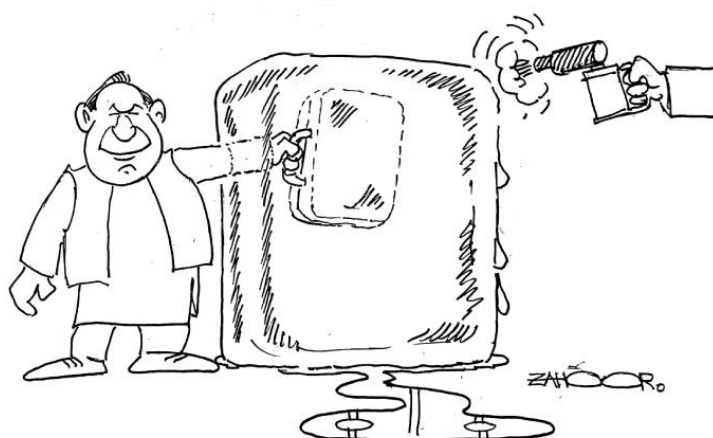


Figure 4.2 Cartoon from Dawn depicting literal 'unfreezing' of Nawaz Sharif's assets (12 November 2023)

A cartoon, which was published in Dawn a few days after Supreme Court ordered the unfreezing of Nawaz Sharif's assets ahead of the 2024 elections, shows a man holding a briefcase with a blowtorch on it, which is frozen by the ice. The abstract SO is Actual/Non-actual, realized concretely through a Legal/Absurd contrast. The caption’s legal-institutional register (“Court orders unfreezing of Nawaz’s assets”) activates the normative expectation of a formal legal financial-regulatory procedure (Script 1), while the visual literalization of “unfreezing” as a physical block of ice requiring heat (Script 2) collides with it which is absurd.

The third type of script opposition is possible/impossible. An example of this script opposition is given below in a cartoon taken from Daily Times.



Figure 4.3. Cartoon from Daily Times depicting domestic worker processed through meat grinder (6 August 2023)

The least frequent, and therefore the most extreme category, is Possible/Impossible, and is reserved for those cartoons which require a more forceful register. The cartoon given as figure 4.3. depicts a young, visibly bruised and tattered girl labeled “Housemaid,” positioned inside a heavy manual meat grinder and shown emerging as minced meat on a plate. The dark humor is grounded in an abstract script opposition of Possible/Impossible, realized concretely through a Humanitarian/Exploitative contrast. Script 1 (domestic-labor frame) is activated by the depiction of a housemaid, evoking the expectation of routine household work. Script 2 is introduced through the grotesque image of a meat grinder, which transforms labor into bodily destruction and subverts this expectation. The humor arises from the clash between ordinary domestic work and extreme violence, creating dark humor that critiques the dehumanization and exploitation of domestic workers.

4.2. Logical Mechanism

Table 3 *Percentage Distribution of the Seven Most Frequent Logical Mechanisms (N = 500)*

Logical Mechanism	n	%
Exaggeration	81	16.2
Juxtaposition	80	16.0
Analogy	62	12.4
Reversal	41	8.2

False Analogy	39	7.8
Field Restriction	36	7.2
Role-Reversals	27	5.4
Other LMs (each < 5%)	134	26.8

Of the 27 Logical Mechanisms in Di Maio's (2000) taxonomy, only a small subset dominates humor construction in the corpus. Exaggeration (16.2%) and Juxtaposition (16.0%) are the two most frequent mechanisms, followed by Analogy (12.4%); together these three account for 44.6% of all coded LM instances, while the remaining 23 categories are individually rare (each below 8%). A chi-square test of independence found no statistically significant association between newspaper and LM type, $\chi^2(96) = 104.33$, $p = .264$ — the only Knowledge Resource in the study for which cross-newspaper variation did not reach significance, suggesting that cartoonists across outlets draw on a broadly shared repertoire of connective mechanisms even as their relative emphasis differs descriptively (Dawn and Daily Times favor Exaggeration; The Express Tribune shows comparatively higher Analogy use).

Given below is the example of a cartoon taken from Dawn depicting exaggeration as logical mechanism.

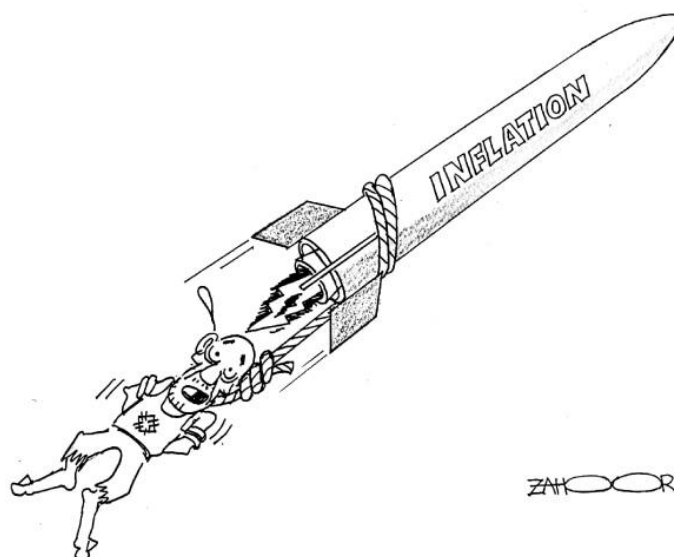


Figure 4.4 Cartoon from Dawn depicting common man strapped to inflation missile (5 May 2023)

The dominance of Exaggeration and Juxtaposition reflects a functional preference for cognitively accessible, visually executable mechanisms. A Dawn cartoon of 5 May

2023 depicts a common man strapped to an upward-launching missile labeled “Inflation”. The abstract SO is Normal/Abnormal, concretized as Financial Control/Extreme Powerlessness. The Logical Mechanism is exaggeration, which functions here not by merely amplifying inflation's impact but by literalizing it as a physical force that strips the individual of all agency. The mechanism is realized primarily through the visual mode. The next example is of juxtaposition.



Figure 4.5 Cartoon from *The Express Tribune* depicting man reading while woman scrubs floor in same domestic space (2 May 2023)

A cartoon published in *The Express Tribune* on 2 May 2023 depicts a man reading comfortably while a woman scrubs the floor beside him within the same domestic frame, with no accompanying text. The abstract SO is Normal/Abnormal, concretized as Gendered Leisure/Physical Labor. The Logical Mechanism is juxtaposition. The juxtaposition of the man's leisure and the woman's labor within the same domestic setting makes gendered inequality immediately apparent. The humor is conveyed entirely through the visual modality, with the spatial arrangement alone guiding interpretation. Together with the Script Opposition findings, the Logical Mechanism results show a consistent pattern: cartoonists portray socio-political problems as departures from normal expectations and make them humorous either by exaggerating them or by placing them in direct contrast with what is considered normal.

4.3. Situation

Table 4 Percentage Distribution of the Top Ten Situational Themes (N = 500)

Situation/Theme	n	%
Politics	98	19.6
Economy	73	14.6
Elections	60	12.0
Diplomacy	37	7.4
Judiciary	37	7.4

Governance	27	5.4
Inflation	25	5.0
Media	21	4.2
Security	21	4.2
Sports	12	2.4

Inductive thematic coding identified 27 distinct Situational categories across the corpus. The single largest theme is politics (19.6%), followed by Economy (14.6%) and Elections (12.0%) and these three macro-political themes comprise 46.2% of the entire corpus. A second tier (Diplomacy and Judiciary, each 7.4%) indicates long-term focus on international affairs and legal-institutional issues; social and cultural themes (Sports, Environment, Education, Religion) are unimportant. The thematic distribution of the texts was also found to differ significantly across newspapers using a chi-square test of independence, $\chi^2(104) = 225.78, p < .001$, with newspapers being comparatively elections-centered (Dawn), politics-centered (The Express Tribune, Daily Jang), and economy-centered (The Nation, Daily Times), showing that Situation selection is an editorial mechanism that shapes which domains of public life are available for satirical representation.

This concentration shows that humor is constructed primarily around political, economic, and electoral issues, with social and cultural themes receiving far less attention. The findings suggest that editorial cartoons function mainly as a tool of political accountability rather than broader social commentary.

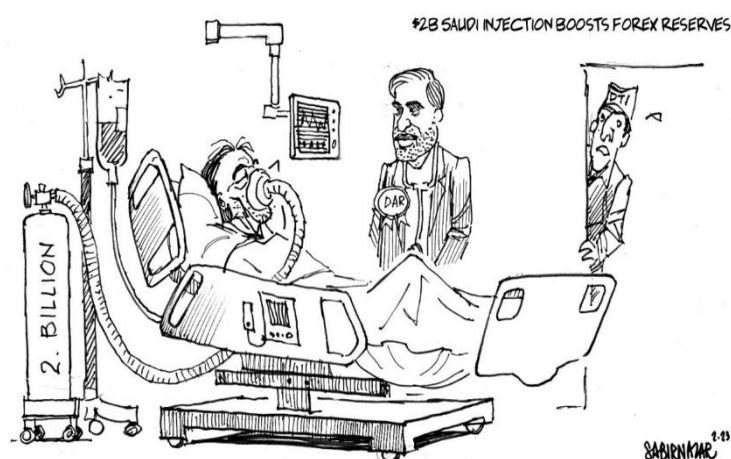


Figure 4.6 Editorial cartoon from *The Express Tribune* depicting Pakistan economy as ICU patient on life support (15 July 2023)

A representative cartoon published in *The Express Tribune* on 15 July 2023 depicts an unlabeled figure on a hospital bed connected to life-support equipment, identifiable

through contextual and textual cues (a “2 Billion” label, an accompanying caption referencing Finance Minister Ishaq Dar) as Pakistan’s economy during its 2023 IMF-dependent near-default crisis. Neither the visual hospital setting nor the textual labels alone constructs the Situation fully; their interaction — and the reader’s contextual knowledge of the unfolding economic crisis — produces the coherent macro-script of “economic ailment” that organizes the cartoon’s humor.

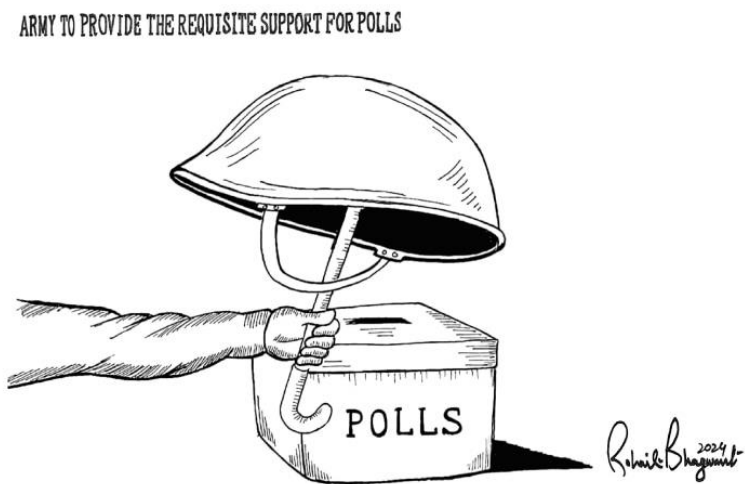


Figure 4.7 Editorial cartoon from Dawn depicting army helmet covering ballot box with 'ARMY TO PROVIDE THE REQUISITE SUPPORT FOR POLLS' caption (1 January 2024)

A second example is shown in a cartoon published in Dawn on 1 January 2024, depicts a soldier's arm holding a helmet over a ballot box with the word “POLLS” written on it, under the heading “ARMY TO PROVIDE THE REQUISITE SUPPORT FOR POLLS.” Electoral interference (an issue related to the presence of the military in 2024 elections) is composed multimodally through the macro-script of the military visual (arm and helmet) and the micro-script of the caption textual (noting the presence of the military in the elections). The incongruity of the helmet-over-ballot-box image is introduced into the background, thus evoking a backgrounded incongruity that can only be resolved inferentially, through the reader's background knowledge of the long-standing debate over civil–military relations in Pakistani politics: inferential dependence is itself of some theoretical interest because it suggests that the GTVH's Situation Knowledge Resource is primarily designed for the reception of verbal humour, and that incongruities are generated not through textual description alone, but through conjoint activation of visual symbolism and background political knowledge.

4.4. Target

Table 5 Percentage Distribution of Target Types (N = 500)

Target Type	n	%
Group	158	31.6
Individual	129	25.8
Institution/Organization	127	25.4
Ideology/Concept	86	17.2

One of the main findings of this study is that all 500 cartoons in the corpus exhibited clear orientation and were overtly aggressive, systematically converting orientation into explicit Target. This proves that, in the case of tendentious editorial cartooning, Target is not an arbitrary Knowledge Resource, but one that is required. The collective political actors (Group, 31.6%) are the most numerous in the four categories of Targets, followed by Individual (25.8%) and Institution/Organization (25.4%) in roughly equal numbers, with Ideology/Concept-based Targeting the least numerous (17.2%). The results of the chi-square test of independence confirmed that there is significant association between newspaper and Target type ($\chi^2(12) = 90.84$ for $p < .001$): Dawn and Daily Times show more of institutional Targeting, which is systemic-critique oriented; Daily Tribune shows the highest frequency of individual Targeting, reflecting a more personalized mode of criticism; Daily Jang emphasizes more on group Targeting; and The Nation is distinctive in privileging ideology/concept based Targeting.

Targeting in the corpus is not merely referential but performative, actively constructing political actors as objects of evaluation rather than simply naming them.

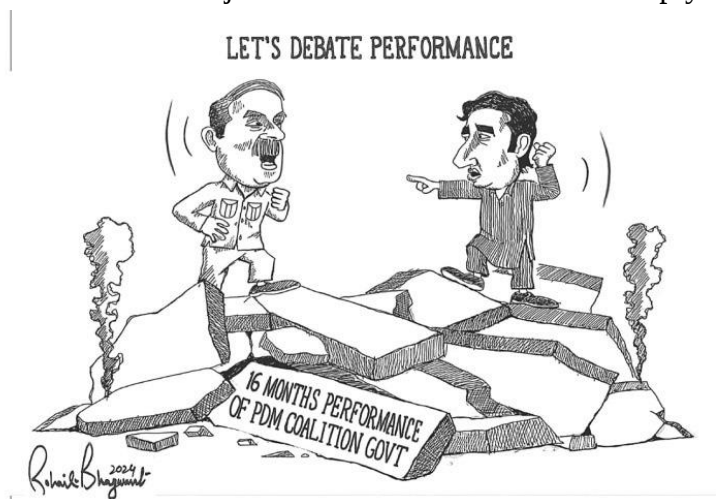


Figure 4.8 Editorial cartoon from Dawn depicting group target, PDM coalition leaders standing on broken governance slab (31 January 2024)

A Dawn cartoon of 31 January 2024 depicts two coalition leaders standing atop fractured stone slabs inscribed “16 MONTHS PERFORMANCE OF PDM COALITION GOVT” beneath the caption “LET’S DEBATE PERFORMANCE” — a Group Target

constructed multimodally through the visual metaphor of governance-as-rubble and the leaders' oblivious confrontational posture.



Figure 4.9 Editorial cartoon from *The Express Tribune* depicting individual target, Imran Khan pointing at Election Commission officials and threatening them with Article Six (8 January 2024)

An Express Tribune cartoon of 8 January 2024, which came in the wake of the Election Commission proceedings against Imran Khan, shows Khan pointing at the astonished officials of the Election Commission from the witness stand threatening them with “Article Six”, a role-reversed Individual Target made by the accused.

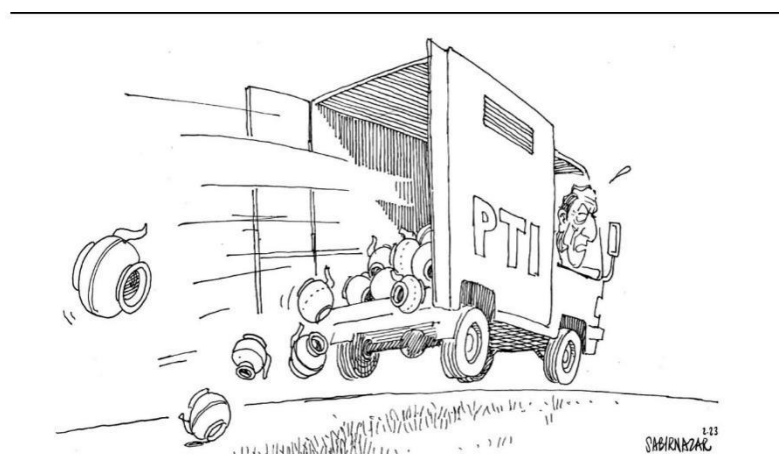


Figure 4.10 Editorial cartoon from *The Express Tribune* depicting Imran Khan driving PTI truck while clay pots fall and shatter from rear targeting PTI as institution (12 June 2023)

A third example, published in *The Express Tribune* on 12 June 2023 amid a wave of mass departures from Imran Khan’s party following the events of 9 May 2023, depicts

Khan driving a moving truck labeled “PTI” while numerous clay pots — associated in Pakistani political culture with turncoats and party-switchers — fall from the rear and shatter. Here the Target is the party as an Institution/Organization rather than Khan individually: the Logical Mechanism of Analogy maps political defection onto physical object loss from a moving vehicle, and Khan’s forward motion despite the visible losses intensifies the critique by suggesting institutional obliviousness to organizational collapse.

Across these examples, the overall pattern reveals an ideologically organized system of selection: political actors and institutions are consistently reshaped into symbolic sites of critique, confirming Target as a central evaluative mechanism through which political meaning is assigned rather than a descriptive background feature of the genre.

4.5. Narrative Strategy

Table 6 Overall Frequency and Percentage Distribution of Narrative Strategies (N = 500)

Narrative Strategy	n	%
Monologic Caption/Headline	257	51.4
Visual-Only Gag	142	28.4
Dialogue	86	17.2
Question–Answer (Q&A)	15	3.0

Since Attardo (1994, 2001) proposed the joke-, riddle- and narrative-based NS types, based on sequential verbal-joke structure, they were not applicable to the single-panel simultaneity-oriented genre; the four categories proposed in this study were inductively derived from the corpus. The dominant format is monologic Caption/Headline (51.4%), meaning that there is a high level of reliance on textual anchoring which is supported by images; the second most common format is Visual-Only Gag (28.4%), where there is a strong reliance on visual support only; Dialogue is a further 17.2%, and the Question–Answer format marginal (3.0%), which is closest to a traditional verbal-joke delivery. The data from the chi-square test of independence indicated that there was a significant cross-newspaper variation ($\chi^2(12) = 195.94$, $p < .001$): Dawn and Daily Times are strongly caption-led, The Express Tribune showed a higher emphasis on Visual-Only Gags, The Nation is the most structurally diversified, and Daily Jang has a hybrid pattern with comparatively higher use of Dialogue and Q&A.



Figure 4.11 Editorial cartoon illustrating monologic caption: 'SUN SETS ON THE SHEHBAZ REGIME' (Dawn, 11 August 2023)

A Dawn cartoon of 11 August 2023 illustrates the dominant Monologic Caption format: a large sun sets behind a silhouetted figure beneath the headline “SUN SETS ON THE SHEHBAZ REGIME.” The caption’s neutral, journalistic register activates a script of routine democratic transition (Script 1), while the visual silhouette subtly reframes this as an externally orchestrated exit (Script 2); the format’s single authoritative textual statement controls the interpretive pace, establishing Script 1 before the visual composition reframes it.



Figure 4.12 Editorial cartoon illustrating alliteration as a phonological feature. (The Nation, 16 June 2023)

By contrast, a *Nation* cartoon of 16 June 2023 exemplifies Dialogue: Finance Minister Ishaq Dar outlines an economic “Plan B” to an intern, who reinterprets the phrase as “B for begging” — a sequential exchange in which the punchline depends on the viewer processing both conversational turns before the incongruity, resolved through referential ambiguity as the Logical Mechanism, fully registers.

4.6. Language

Table 7 *Distribution of Verbal and Referential Humor Across the Corpus (N = 500)*

Humor Type	n	%
Referential	367	73.4
Verbal	133	26.6

The corpus shows a prevalence of referential humor (73.4%, $n = 367$) over verbal humor (26.6%, $n = 133$) because the former is dependent on situational meaning and/or contextual meaning and is preserved in paraphrase, whereas the latter is dependent on the linguistic form and is lost in paraphrase. The distribution is consistent across all five newspapers, but a chi-square test of independence reveals that there is a statistically significant difference between the newspapers based on the referential proportion, $\chi^2(4) = 15.63$, $p = .004$: Daily Jang and The Nation have higher verbal parts than the other newspapers (36% and 31%, respectively). This finding has a clear implication for the GTVH's Language Knowledge Resource in the multimodal application: the GTVH's Language Knowledge Resource is the terminal Knowledge Resource, the surface realization through which all others are expressed; this means that the GTVH's model of application is linguocentric; verbal expression is the final common pathway of humor in the GTVH. In the present corpus, however, the visual mode is the main source of humor incongruity in most cartoons, whereas the function of language is mainly as a referential anchor that helps in the stabilization of the humor incongruity rather than it being a source of humor on its own, thus the assumed hierarchy in multimodal contexts is inverted. This pattern is similar across quantitative levels as with the LM data above: incongruity is generated primarily through the visual mechanisms, and the language KR's evidence of the dominant role of the referential marks the stabilization and fixation of visual incongruity, supporting the idea that the latter is not produced by the language.

4.7. The Pakistani Editorial Cartoon Humor Profile

While each of the preceding six sections dealt separately with the individual Knowledge Resource, they together describe a single, coherent system of Knowledge Resources, directly addressing RQ2 and RQ3, namely at the level of genre. This synthesis produces three inductive clusters of functions. Script Opposition and Logical Mechanism collectively form the cognitive resources for the construction of incongruity and making it interpretable: 85.2% of cartoons used Normal/Abnormal SO, the most common mechanisms of which were Exaggeration/Juxtaposition (32.2% combined), which are both

readily realizable visually. Situation and Target are the referential resources grounding the humor, and directing its evaluative force: the concentration on Politics, Economy, and Elections (46.2%) is the macro-political sphere within which Targeting – focused on the collective political actors (31.6%) and, at the individual level, on the political figures most central to the 2023–2024 political crisis – directs specific evaluative criticism. The formal resources that regulate how incongruity is introduced and developed are Narrative Strategy and Language: Monologic Caption/Headline (51.4%) and referential-dominant Language (73.4%).

Together, these findings reveal a distinctive Pakistani editorial cartoon humor profile that is cognitively accessible, politically focused, visually driven, actor-centered, and normatively organized. Although the five newspapers differed significantly in most Knowledge Resources (see Sections 4.1–4.6), they shared the same underlying humor logic, varying primarily in their thematic emphases, targeting patterns, and narrative strategies rather than in the nature of humor itself. Overall, the findings demonstrate that the GTVH provides a robust framework for analysing large-scale multimodal political cartoons in a non-Western context, while also indicating that some Knowledge Resources require genre-specific adaptation.

5. Discussion

5.1. A Coherent Genre-Level System, Not Six Independent Distributions

The main interpretive thesis of this study is that Pakistani editorial-cartoon humor, taken as a whole across its six GTVH Knowledge Resources, forms a coherent and patterned system rather than six loosely related tendencies. Normal/Abnormal Script Opposition needs to be conveyed via a visually and cognitively accessible Logical Mechanism to be rendered interpretable, and Exaggeration and Juxtaposition provide exactly that; and a genre in which the visual mode is typically the primary incongruity needs a correspondingly concentrated evaluative direction, and Group- and Individual-level political Targeting provide that; and a genre in which the primary incongruity is visual requires a Narrative Strategy capable of establishing a verbal frame before visual disruption occurs, and the dominance of Monologic Caption/Headline, with referential rather than verbal Language provides exactly that. Each Knowledge Resource's dominant realization is used to complement the others' — and this is why the outcome can be referred to as a genre profile, rather than six separate frequency tables.

This description should not be interpreted as a statistical regularity, but as a genre norm. Despite the different editorial positions, orientations and languages of the five newspapers, editorial cartoonists in Pakistan all share a common humor logic that prioritizes recognizability over experimentation, political credibility over absurd incongruity, and macro-political relevance over more general cultural or social commentary. This corpus-based textual analysis cannot determine which of these factors

— a shared professional approach among cartoonists and editors, communicative constraints of the genre, or both — drives the convergence, since that would require production-side evidence, a limitation discussed below. What the convergence does call for, however, is a critical examination: a genre that uses the same cognitive mechanisms, the same themes, the same evaluative hierarchies in editorially distinct media is one whose core assumptions about who should be held accountable and what should be considered political abnormality warrant scrutiny, not just description, as the GTVH makes clear.

The near universality of Normal/Abnormal Script Opposition (85.2%) is noteworthy in this regard, as it provides an interpretive implication in addition to its simple frequency. The cartoon is not just a representation of deviation, it must also suggest a norm from which the deviation occurred which the reader is expected to construct, sometimes in the absence of explicit statement of that norm. Throughout this corpus, it was always the same set of ideas about the proper functioning of a competent judiciary, a fair election, a strong finance ministry or a free press that was responsible for that reconstructive effort. From this angle, the predominance of Normal/Abnormal SO suggests that editorial cartooning in Pakistan during this period was both in the name of satire, as well as in the form of a kind of implicit civic pedagogy: the regularity with which SO was juxtaposed with the norm, its cartoonists, collectively and perhaps inadvertently, held up an image of legitimate government in the negative space they satirized. The present results do not conflict with Bakhtin's (1981, 1984) observation — which was picked up by the political-cartoon literature by Prendergast (2019) and Mulkay (1988) — that satire does not necessarily function as a univocal ideological engine; in the present case, even where Targeting is concentrated asymmetrically (Section 4.4), the assumed normative architecture on which the political cartoons are based is widely shared across the political spectrum.

5.2. Comparison with Prior GTVH Cartoon Research

The Pakistani profile dovetails with and builds on the limited existing scholarship around GTVH. The elements identified in Greek newspapers cartoons, however, by Tsakona (2009), through his qualitative analysis, as being important in the construction of cartoon humor, namely incongruity and cross-modal script activation, are also found in the Pakistani newspapers cartoons and, hence, may be representative of the genre-level properties of single-panel cartoon humor in the context of politically engaged cartoons, and not just culturally specific to Pakistan or Greece. The present results are broadly in line with the findings of the modal-interaction and incongruity effects reported in more recent multimodal cartoon scholarship that analysed thematically distant corpora such as editorial cartoons dealing with the COVID-19 outbreak (Blaber et al., 2021) and cartoons that comment on the current geopolitical crisis (Lulu, 2025; Makaruk et al., 2025). In congruence with the present corpus, script incongruity was also found to be central to the

humor of cartoons by Paolillo's (1998) earlier research based on a script analysis of cartoon interpretation, though that research did not empirically demonstrate at scale the centrality of script incongruity to cartoon humor as the present corpus does.

What the present corpus adds, apart from corroborating these earlier qualitative findings, is scale and formal reliability: no previous GTVH-based cartoon study (in Pakistan or in any other similarly non-Western context) has used the full six-Knowledge-Resource architecture with the scale and independent second coding, reporting Cohen's Kappa for each of the coded types. Papers that have previously suggested Normal/Abnormal dominance, cross-modal activation, or Target-centered aggression are tendencies in closely read, small samples, the present findings suggest that these are statistically supported, corpus-level tendencies, with 85.2% Normal/Abnormal opposition, 89.8% cross-modal realization among interactive multimodal cartoons, and Target present in literally every one of 500 sampled cartoons. For the genre-profile claim developed in Section 5.1, a pattern in a few illustrative examples is suggestive, but a pattern in 500 randomly sampled cartoons from five newspapers, with chi-square tests determining statistical reliability for cross-newspaper differences is more indicative of the genre as a whole. The Pakistani corpus, however, has a distinct linguistic and intertextual profile — particularly in the Urdu medium cartoon media — and a distinct hierarchy of political Targeting that emerges from the press during the election season of 2023–2024, which goes beyond the comparative literature.

5.3. Implications for the GTVH

Beyond its descriptive contribution, the corpus profile carries brief but direct implications for the GTVH's own theoretical development, elaborated at length elsewhere but worth noting here. The finding that Target is present in all 500 cartoons — rather than the optional status Attardo (2020) assigns it on the grounds that not all humor is aggressive — indicates that Target functions as genre-obligatory within tendentious editorial cartooning specifically, even if it remains genuinely optional in less inherently critical humor genres. The finding that Attardo's (1994, 2001) original, verbal-joke-derived Narrative Strategy categories (joke, riddle, narrative) do not transfer to a genre organized around single-panel simultaneity indicates that NS categories require genre-specific inductive re-derivation rather than direct cross-genre application. And the finding that 89.8% of interactive multimodal cartoons realize their two opposing scripts across, rather than within, a single semiotic channel indicates that cross-modal Script Opposition activation constitutes a distinct cognitive configuration meriting explicit theoretical elaboration within the GTVH, rather than being treated as a straightforward extension of Raskin's (1985) originally single-channel model. These three observations do not challenge the GTVH's core architecture — indeed, the framework's Script Opposition and Logical Mechanism categories demonstrate clear, corpus-confirmed explanatory power

throughout this analysis — but they specify where genre-specific extension, rather than direct application, is required when the framework is deployed beyond its original verbal-joke domain. A full treatment of these modifications, together with two further patterns identified during qualitative coding that fall outside the scope of any of the six Knowledge Resources as currently formulated — the absence of a formal vocabulary for visual compositional features such as relative scale and spatial foregrounding, and the GTVH's silence on humor reception as opposed to humor production — is developed at length elsewhere; the present article confines itself to noting that the six-KR architecture, evaluated as a whole against this corpus, performs its descriptive and explanatory task with evident success even where individual categories require the specific extensions summarized above.

6. Conclusion

This study has applied the GTVH's full six-Knowledge-Resource architecture to a large, reliability-tested corpus of Pakistani editorial cartoons. Humor is overwhelmingly built through Normal/Abnormal Script Opposition with Logical Mechanisms (Exaggeration and Juxtaposition) presented in a visually accessible manner, set within a very limited macro-political thematic framework, targeted at identifiable collective and individual political actors, and presented in a predominantly monologic style of caption-led narrative. Taken together, these distributions form a single, statistically sound and structurally coherent genre profile: the Pakistani editorial cartoon humor profile, which is consistent across five editorially distinct newspapers and both major languages of the Pakistani press and is not distinct for each newspaper or for each language.

This profile is provided solely as a comparative baseline not as a last word or universal description of editorial-cartoon humor. It was limited by three constraints that could influence future engagement with it. The delimitation of the corpus to a single twelve-month period, May 2023–April 2024, is coincidental as this was an unusually tumultuous period of elections and economy in Pakistan, and of course whether the profile, and especially the percentages of Normal/Abnormal Script Opposition (85.2%) and Politics, Economy, and Elections (46.2%), would be the same in a quieter period of Pakistan's political history or in Pakistani cartooning of earlier decades will have to be determined using data from those periods. Second, since it is a genre-level property of politically engaged single-panel cartooning in general and not just in the Pakistani context, it can only be validated with an equivalent scale and reliability test in other nation and cultural settings. Third, being an analysis of published texts, the analysis itself can describe with precision a resulting profile of the texts under study but cannot evaluate in isolation whether this profile is a shared professional strategy of cartoonists and editors or a emergent property of the communicative constraints of the genre, which would only be possible with production-based evidence that this analysis does not cover.

These limitations point toward comparative cross-national corpora — building on the convergence already observed with Tsakona's (2009) Greek corpus and Blaber et al.'s (2021) COVID-19 cartoons — that could test whether Normal/Abnormal Script Opposition dominance and cross-modal realization are genre-level universals of politically engaged single-panel cartooning, rather than features specific to Pakistan or to this period. The GTVH literature since Attardo and Raskin (1991) has left the scope of the theory open. Without a complete, quantitatively grounded, corpus-scale application of its full architecture, it remained unclear what the theory looks like outside the verbal joke and outside the Western context in which it was developed — the question this study set out to answer.

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