

Review

Linguistic and Framing Patterns in Bangladeshi Print Media Representations of Dhaka's Rickshaw Pullers: A Content Analysis of Headlines and Leads

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Abstract

This study examines how Bangladeshi print news constructs representations of Dhaka's rickshaw pullers. A qualitatively driven mixed-methods content analysis was conducted on 50 news items published in five national dailies between 2018 and 2024. The items were selected purposively from 67 candidates using headline relevance, story centrality, and length. Analysis focused on headlines, sub-headlines, and leads. Seventeen primary codes were organized into five mutually exclusive primary themes at the article level, while a separate voice/source indicator was used only for qualitative auditing. The five themes were urban-problem framing (16%), linguistic and framing bias (30%), economic and social contribution and worker visibility (24%), policy engagement and its limits (22%), and health, labor rights, and humanizing representation (8%). The largest single primary code was fatalistic death reporting (18%). Because the sample is purposive and the analysis is focused on headline- and leads-level text, these findings describe patterns within this corpus and do not establish audience effects, newsroom intent, or policy consequences. The findings suggest that contribution, rights, health, and worker voice receive less attention in the coded material than problem- and event-centered framing, while also showing that humanizing and policy-oriented reporting is present in a minority of items.

Keywords

Rickshaw pullers, Informal economy, Media representation, Linguistic bias, Framing analysis, Critical discourse Analysis, Content analysis, Bangladesh

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1. Introduction

Dhaka's informal workforce is an important part of the city's economy and everyday mobility [1]. Rickshaw pullers are a large and visible occupational group within this informal transport system, and cycle rickshaws remain an established component of urban movement in Dhaka [2-4]. Research also documents the livelihood and migration pathways through which workers enter rickshaw pulling and the precarious conditions associated with this work [5-7].

The marginalization discussed in this study is not treated as synonymous with poverty or illegality. Informality refers to work outside or at the margins of formal regulatory and social-protection arrangements, but it does not mean that every informal worker is wholly outside protection or that informal activity is itself illegal [8,9]. Existing research nevertheless documents economic insecurity, migration-related precarity, and weaknesses in access to health and social protection among rickshaw pullers [5-7].

Media representation is relevant to this context because news texts select problems, causes, actors, and possible responses rather than simply reproducing events [10-12]. Word choice and sentence structure can also affect how agency and responsibility are represented [12,13]. These theoretical insights motivate an analysis of how rickshaw pullers are described in the sampled texts. They do not, however, by themselves establish that particular representations cause changes in public attitudes, institutional obligations, or policy outcomes; such effects are outside the design of this study.

Research on the representation of rickshaw pullers in Bangladeshi newspapers remains limited. This study therefore examines how the sampled print texts construct the social identity of rickshaw pullers, what linguistic and framing patterns recur in headline- and lede-level material, how their economic and social contribution is recognized, and how policy engagement and observable recognition of rights, dignity, identity, or contribution appear in the corpus.

2. Literature Review

2.1 Historical and Conceptual Background

Rickshaws developed from human-powered two-wheeled vehicles in nineteenth-century Japan and later took distinctive forms across South Asia [14-17]. In Dhaka, the rickshaw became closely associated with the city's transport and cultural landscape, including rickshaw painting and related forms of visual heritage [16,17]. Research on urban transport also identifies cycle rickshaws as a space-efficient form of mobility in dense cities such as Dhaka [2,4]. Human-powered rickshaws, battery-powered rickshaws, and auto-rickshaws are not treated as interchangeable in the present study because their technologies and regulatory contexts differ; the decision to combine them analytically is explained in Sections 5.2 and 9.

A rickshaw puller is a worker who earns a livelihood by operating a rickshaw. Studies of Bangladesh describe many pullers as low-income and mobile workers who enter the occupation through rural-to-urban migration and other livelihood transitions [6,7]. The informal-economy literature further emphasizes that informality concerns the organizational and regulatory position of work and should not automatically be equated with illegality or complete absence of worker protection [8,9].

2.2 Media Representation of Class and Marginalized Groups: Theoretical Debates

Research on working-class representation has developed through debates over ideology, media power, symbolic absence, and the construction of social problems [18-20]. Two complementary strands are especially relevant here. Tuchman's concept of symbolic annihilation draws attention to the absence or distortion of marginalized groups, while Hall and colleagues show how disadvantaged groups can be represented through narratives of disorder, crime, and social problems [19,20]. These positions are treated here as complementary rather than exhaustive: one helps identify what is missing or made invisible, while the other helps identify how a group becomes visible through negative problem definitions.

A Bangladesh-specific illustration is provided by Ashraf and Prentice's [21] account of the 2011 SL Sweater factory protests. They report that national media headlines reduced the incident to workers vandalizing vehicles, while the workers' accumulated grievances and demands received less prominence. This case is used as a relevant Bangladesh example of how labor protest can be reframed through disorder-oriented language; it is not treated as evidence that the same pattern necessarily recurs across all Bangladeshi labor journalism.

2.3 Methodological Developments: From Framing to Corpus-Based Analysis

Since the 2000s, research on media bias has increasingly combined framing analysis, critical discourse analysis, corpus linguistics, and mixed approaches [22-24]. Corpus-based work has shown how repeated lexical choices can acquire ideological meaning, while research on media voice emphasizes whose perspectives are included or excluded [22,25]. The present study adapts these insights at a small-corpus level by using a structured codebook to identify recurring headline- and lede-level patterns and then reporting descriptive frequencies for the primary codes.

2.4 Global Comparative Evidence

Comparative research on migrant and refugee coverage shows substantial cross-national variation: humanitarian framing was more prominent in Italian coverage than in British, German, or Spanish coverage, while threat-oriented framing (e.g., welfare or cultural threat) was more common in Italy, Spain, and Britain [26]; Swedish coverage of refugees and migrants tended to be more positive than the more polarized coverage found in the United Kingdom [27]. These findings indicate that media representation is not a universal pattern but is shaped by national political and cultural context—a consideration relevant to interpreting Bangladeshi coverage within its own institutional and cultural setting.

2.5 South Asia and Bangladesh: Evidence and Research Gap

Research in the Global South has examined informal workers such as street vendors, rickshaw and tuk-tuk drivers, and waste collectors, often noting problem-centered, brief, or decontextualized representation [28]. Research on auto-rickshaws in India likewise identifies tensions in public and media narratives around congestion, disorder, and worker precarity [29]. Bangladesh-specific scholarship on rickshaw pullers has concentrated more strongly on health, socio-economic conditions, conflict, transport, and cultural forms than on systematic linguistic analysis of newspaper representations [30-36]. The present study addresses this gap through a defined five-newspaper corpus and a reproducible primary codebook.

The study does not assume that negative representation is produced solely by ideological intention. Event-driven news values, institutional sourcing routines, regulatory conflict, and the limited availability of worker voices may all shape the observed texts. These alternative explanations are considered when interpreting the findings.

RQ1: How do the sampled Bangladeshi print texts construct the social identity of rickshaw pullers at headline- and lede-level?

RQ2: What linguistic and framing patterns characterize this headline- and lede-level material?

RQ3: To what extent do the sampled texts acknowledge rickshaw pullers' economic and social contributions?

RQ4: How, if at all, do the sampled texts engage with policy proposals and with observable recognition of workers' rights, dignity, identity, or contribution?

3. Research Objectives

Aligned with the research questions, this study aims to:

- (1) Examine how rickshaw pullers are represented in the sampled Bangladeshi print texts.
- (2) Analyze the language, agency cues, and framing patterns used to characterize rickshaw pullers.
- (3) Assess how often the sampled texts explicitly acknowledge rickshaw pullers' economic and social contributions.
- (4) Describe policy-relevant reporting and observable recognition of rights, dignity, identity, or contribution in the sampled texts.

4. Theoretical Framework

This study treats media representation as a textual site where problems, causes, actors, and possible responses are constructed. It combines framing analysis, a linguistic-bias framework, and critical discourse analysis (CDA), but assigns each tradition a distinct analytical role. Framing analysis identifies the overall proposition of a text; linguistic-bias analysis attends to lexical choice and agency; and CDA provides an interpretive lens for connecting these observed patterns to broader relations of power and visibility. The analysis does not use any of these frameworks to infer audience attitudes or newsroom intentions.

4.1 Framing Theory: Operationalized Message-Level Analysis

Framing theory is used to identify observable message-level functions drawn from Entman's four-part model: problem definition, causal attribution, moral evaluation, and treatment recommendation [11]. These functions were translated into coding indicators in the present corpus. Problem definition was operationalized through traffic/disorder and lawbreaker framing (1a, 1b); moral evaluation and treatment-related framing through disruptive-protester and policy codes (1c, 4a-4d); causal attribution through scapegoating (2c); and positive recognition through contribution acknowledgment (3a). The coding target was the main proposition expressed in the headline, subheadline, or leads, not the article as a whole.

4.2 Linguistic Bias Framework: Lexical Choice and Agency

The linguistic-bias framework draws on research on labeling, criminalization, agency attribution, and related language patterns [13]. In this study, it was operationalized through criminalization vocabulary (2a), fatalistic death reporting (2b), passive-victim framing (1d), and related source/voice observations. A linguistic feature was not treated as bias simply because it was negative; the coding rule required the wording and surrounding observed text to match the inclusion criteria in Appendix A. The analysis therefore distinguishes grammatical form from the interpretive claim attached to that form.

4.3 Critical Discourse Analysis: Interpretive Context

CDA is used as an interpretive orientation rather than as a separate statistical or coding system. It helps interpret how recurring patterns of problem definition, lexical choice, agency, and source selection may reproduce unequal visibility or power relations [23]. The corpus does not measure readership, so no empirical claim is made about the interests or characteristics of an assumed audience. CDA is therefore applied only to interpret patterns that are directly observed in the sampled texts.

4.4 Synthesis: Explicit Framework-to-Analysis Mapping

The framework-to-analysis correspondence is explicit. Framing theory operates primarily at the message level and maps most directly to RQ1, RQ3, and RQ4 through problem definition, causal attribution, and treatment recommendation. The linguistic-bias framework operates at the word/sentence level and maps most directly to RQ2 through criminalization, labeling, and agency-related indicators. CDA operates at the interpretive level and is used across RQ1-RQ4 to contextualize the observed patterns in relation to voice, visibility, and power. The three perspectives were not applied as a time-ordered sequence during coding; they were used as coordinated analytical lenses on the same observed material. This distinction prevents the theoretical layering from being mistaken for a sequential coding procedure.

5. Methods

This study uses a qualitatively driven mixed-methods content-analysis design. The qualitative component identifies and interprets recurrent framing, linguistic, agency, contribution, and policy patterns in headline-, subheadline-, and lead-level text. The quantitative component converts the final primary-code classifications into descriptive counts and percentages. The two components are integrated by using the quantitative distribution to show the relative prevalence of qualitatively defined patterns; no inferential statistical tests are performed.

5.1 Study Period

The coded corpus covers items published between 2018 and 2024. The period includes major episodes of road-safety debate, the COVID-19 period, and recurring disputes over battery-powered and other informal three-wheeled transport. The sample is therefore interpreted as a corpus from a defined historical window rather than as a timeless representation of Bangladeshi news coverage.

5.2 Corpus and Sampling

The corpus comprises five nationally distributed daily newspapers: three Bengali-language titles (Bangladesh Pratidin, Prothom Alo, Kaler Kantho) and two English-language titles (The Daily Star, New Age). The newspapers were selected purposively to provide linguistic and institutional variation across the Bangladeshi national press rather than to claim that these five titles constitute an exhaustive or statistically representative set of newspapers. The final sample contains ten items from each newspaper (Table 1).

Table 1. Presents the candidate and final sample distribution by newspaper.

Newspaper	Language	Initial Candidate Items (of 67)	Final Sample n (%)	Not Retained
Bangladesh Pratidin	Bengali	11	10 (20%)	1
Prothom Alo	Bengali	17	10 (20%)	7
Kaler Kantho	Bengali	10	10 (20%)	0
The Daily Star	English	15	10 (20%)	5
New Age	English	14	10 (20%)	4
Total	-	67	50 (100%)	17

The 50-item corpus is analyzed as a single combined dataset. The balanced allocation of ten items per newspaper supports coverage of both language groups and all five titles but does not support statistically meaningful newspaper-to-newspaper or Bengali-versus-English comparisons. Any cross-publication observations are therefore descriptive only. The finalized codebook is provided in Appendix A, headline-level vehicle-type visibility is summarized in Appendix B, and the complete corpus overview is provided in Appendix C. The corpus also contains human-powered, battery-powered, and auto-rickshaw/easy-bike references. Because vehicle type was not coded as a separate analytic variable in the completed sheet and 37 of the 50 headlines do not specify a vehicle type, vehicle-type comparisons are not treated as inferential findings; headline-level visibility is reported descriptively in Appendix B.

The vehicle categories are analytically distinct. The decision to retain them within one broader informal-transport corpus is justified by the study's focus on media representation of workers and transport practices, but the limitation is explicit: findings about battery-rickshaw regulation or auto-rickshaw drivers should not automatically be generalized to human-powered cycle-rickshaw work.

5.3 Search Strategy, Screening, and Eligibility

News items were located through the Newspaper Archive Branch of Dhaka University Central Library and the digital archives of the five newspapers. Searches used the English terms 'rickshaw', 'rickshaw puller', 'battery rickshaw', and 'auto rickshaw', and the Bengali spellings *রিকশা* and *রিক্সা*. The search produced 67 candidate items, which were then screened against the eligibility criteria described below. The available research record does not preserve a single dated export of all search results, so the manuscript reports the search sources and terms but does not claim an independently verifiable search date or database hit count beyond the documented 67 candidates.

Three eligibility criteria were applied: (a) direct presence of a rickshaw- or rickshaw-puller-related term in the headline; (b) centrality of rickshaw pullers or rickshaw-related work to the story rather than incidental mention; and (c) sufficient textual material in the sampled item to support the planned headline/lead coding. The final set was balanced at approximately ten items per newspaper. Because the original screening record did not separately log each exclusion reason, the manuscript reports the total candidate pool and final sample but does not retrospectively attribute the 17 exclusions to length, genre, or any single criterion. This is treated as a limitation rather than inferred away.

The sampling procedure is purposive and therefore vulnerable to selection bias. In particular, a preference for longer items may favor stories with more available textual material and certain genres or event types. The sample should consequently be interpreted as a defined analytic corpus, not as a probability sample of all rickshaw-related reporting. Claims about placement or prominence are bounded to the observed corpus and are not presented as estimates of the wider newspaper system.

5.4 Sampling Unit, Unit of Analysis, and Observed Textual Unit

The sampling unit and denominator are the individual news item ($N = 50$). For each sampled item, the unit of analysis is the article as a publication item, while the observed textual unit for coding is the headline, subheadline, and opening paragraph (lede). This distinction is central: the study does not claim exhaustive whole-article discourse analysis. Each article nevertheless receives one primary code and one corresponding primary theme so that the descriptive frequencies use a constant denominator of 50; each article therefore contributes one observation to the primary-theme distribution.

5.5 Coding Framework and Procedure

Coding followed a hybrid, theoretically informed process. First, the primary coder read the observed headline/subheadline/lede material and recorded recurring features in an analytical memo. Second, those observations were organized into candidate categories. Third, the candidate categories were compared with the operational concepts in framing theory, the linguistic-bias framework, and CDA, and the code definitions were refined. Fourth, the finalized codebook was applied to the 50-item corpus. Fifth, each item received one dominant primary code and one primary theme, while a separate voice/source indicator (2d) was retained as a non-exclusive qualitative audit indicator and was not included in the mutually exclusive percentage denominator. Coding was manual and did not depend on qualitative-analysis software.

Table 2 summarizes the primary codebook and code frequencies for the 50-item corpus.

Table 2. Primary codebook summary and code frequencies (N = 50 articles; one primary code per article). The voice/source indicator 2d was used only as a non-exclusive audit indicator and is therefore not included in the primary-code frequency table. Full definitions, inclusion/exclusion rules, and examples appear in Appendix B.

Theme	Code	Code Name	n	%
1	1a	Traffic/Congestion Blame Framing	1	2%
1	1b	Lawbreaker/Illegal Framing	1	2%
1	1c	Disruptive Protester Framing	5	10%
1	1d	Passive Victim Framing	1	2%
2	2a	Criminalization Vocabulary	3	6%
2	2b	Fatalistic Death Reporting	9	18%
2	2c	Scapegoating / Singular Causal Attribution	3	6%
3	3a	Contribution Acknowledgment	3	6%
3	3b	Vehicle-centric Culture Coverage	6	12%
3	3c	Individual Moral Story (non-structural)	3	6%
4	4a	Specific Policy Proposal / Advocacy	7	14%
4	4b	Reactive vs. Proactive Framing	1	2%
4	4c	Charity/Rescuer Framing	1	2%
4	4d	Absence of Reform Proposal	2	4%
5	5a	Health Coverage	2	4%
5	5b	Labor Rights Coverage	0	0%
5	5c	Positive Humanization	2	4%
-	-	Total	50	100%

5.6 Translation

Bengali headlines and ledes were translated into English by members of the research team for presentation in this manuscript. The research team rechecked headline wording against the archived source during data entry, and English quotations from Bengali-language newspapers are identified as author translations. No formal back-translation or independent bilingual audit was conducted. Because translation can alter tone, agency, and lexical connotation, the original Bengali wording remains the evidentiary reference for interpreting linguistically sensitive examples, and translation is treated as a methodological limitation rather than as a neutral step.

5.7 Credibility, Reliability, and Reflexivity

Qualitative credibility and quantitative reliability were treated as different issues. Credibility was supported by an analytical memo documenting coding decisions and ambiguous cases, re-verification of headline text against archival sources during data entry, and explicit reflexive attention to possible confirmation bias. Reliability, by contrast, requires independent coding that can be compared with the primary coder. The completed workbook contains a template for second-coder comparison but no completed independent second-coder dataset; therefore no percent-agreement or Cohen's kappa statistic is reported. This limits claims of reproducibility, especially for interpretive codes such as scapegoating, criminalization, and framing. The manuscript consequently treats all percentages as descriptive results from the completed primary coding. The analytical memo also records the team's awareness that prior labor-rights advocacy experience could influence interpretation, and protest-related cases were flagged for closer checking against the codebook criteria.

Reflexivity: the research team includes a member with prior involvement in labor-rights advocacy, which could plausibly shape interpretation of protest-related coverage. This was identified explicitly during coding as a potential source of confirmation bias, and protest-related articles were flagged for closer re-reading against the coding criteria to reduce this risk. Readers should nonetheless weigh the single-coder design when evaluating the findings; independent double coding is recommended for any replication (Section 9).

5.8 Ethical Considerations

The study analyzed publicly available, previously published newspaper material and involved no interviews, surveys, participant recruitment, or collection of private personal data. No participant consent was therefore sought. No institutional ethics review was sought because the study was limited to public news content and involved no interaction with human participants; this statement describes the ethical scope of this study and should not be interpreted as a universal institutional exemption rule.

6. Findings

Five mutually exclusive primary themes emerged from the 50-item corpus. Using the primary-code mapping in the completed coding sheet, urban-problem framing accounted for 8 articles (16%), linguistic and framing bias for 15 (30%), economic and social contribution and worker visibility for 12 (24%), policy engagement and its limits for 11 (22%), and health, labor rights, and humanizing representation for 4 (8%). These percentages are based only on the single primary code assigned to each article. Secondary features and the non-exclusive voice/source indicator were not added to the denominator or double-counted (Table 3).

Table 3. Thematic definitions and illustrative exemplars with coding fit.

Theme	Definition	Illustrative Exemplar and Coding Fit
Theme 1: Urban-Problem Framing (n = 8, 16%)	The sampled text presents rickshaw pullers or rickshaw activity primarily through traffic, disorder, lawbreaking, protest disruption, or passive victimhood.	Bangladesh Pratidin (11 June 2018): “All the reasons for traffic jams in Dhaka.” Coding fit: the headline makes rickshaws salient within a congestion problem frame and therefore meets the 1a inclusion rule at the observed textual level.
Theme 2: Linguistic and Framing Bias - Criminalization, Fatalism, and Causal Attribution (n = 15, 30%)	The sampled text uses criminalizing terminology, reports death in ways that suppress or leave responsibility unclear, or isolates rickshaws/pullers as the salient cause of a broader problem. These are grouped because all concern negative construction of agency, responsibility, or causality.	Prothom Alo (21 September 2021): “Banned autos run on donations; 30 million taka is being embezzled every day in Dhaka.” Coding fit: the term “embezzled” supplies criminal-offense vocabulary in the observed text without a stated formal proceeding, meeting 2a.
Theme 3: Economic and Social Contribution and Worker Visibility (n = 12, 24%)	This theme captures whether pullers are acknowledged as contributors, rendered visible through vehicle-centered cultural coverage, or represented mainly through individualized moral stories rather than structural context.	Prothom Alo (December 2023): UNESCO recognition of rickshaw art. Coding fit: the observed headline/lead foregrounds rickshaw heritage and the vehicle while the sampled material did not foreground pullers as workers, meeting 3b.
Theme 4: Policy Engagement and Its Limits (n = 11, 22%)	This theme covers specific policy proposals, reactive policy framing, media-as-rescuer stories, and problems presented without a reform proposal. These are grouped because they describe different forms and limits of policy engagement in the sampled texts.	New Age (14 February 2023): “Auto-rickshaw drivers demand less deposit, trade union right.” Coding fit: the headline names specific policy demands, meeting 4a. The code does not imply that the newspaper itself endorsed the proposal.
Theme 5: Health, Labor Rights, and Humanizing Representation (n = 4, 8%)	This theme captures limited but identifiable coverage of occupational health, labor rights, and humanizing portrayals that present pullers as people beyond the occupation.	New Age (15 December 2020): “73.7pc rickshaw pullers visit pharmacies for healthcare.” Coding fit: the headline directly concerns pullers’ access to healthcare and meets 5a. Two such health items were present in the sample; the theme should not be read as absolute absence.

6.1 Theme 1: Urban-Problem Framing (n = 8, 16%)

Table 3 provides the thematic definitions and illustrative exemplars used to demonstrate coding fit.

Traffic/congestion blame (1a), lawbreaker/illegal framing (1b), and passive-victim framing (1d) each accounted for one primary-coded article (2%). The traffic example, “All the reasons for traffic jams in Dhaka,” was therefore interpreted only as a headline-level problem definition, not as proof that the full article attributed all congestion to rickshaws. Similarly, “Rickshaw puller killed as tree breaks down on him at TSC” (New Age, 2023) was coded 1d because the puller is presented as the grammatical object of the event at the observed level. Taken together, the theme indicates a recurring presence of problem/disorder or passivity frames in the sampled material, not a claim that all coverage of rickshaw pullers adopts these frames.

6.2 Theme 2: Linguistic and Framing Bias - Criminalization, Fatalism, and Causal Attribution (n = 15, 30%)

Fatalistic death reporting was the largest primary code (2b, n = 9, 18%). The code was not triggered by passive voice alone. The inclusion rule required death or accident reporting in a passive construction together with unclear or absent assignment of responsibility in the observed headline/lede. Examples include “Rickshaw-puller killed by garbage truck” (New Age, 2021), “Rickshaw puller dies as police van hits his three-wheeler” (Prothom Alo, 2023), and “Wall collapse during heavy rain kills Rickshaw-puller in Dhaka” (The Daily Star, 2022). These examples are therefore read as headline-/lede-level patterns in agency and accountability, not as claims that the full stories omitted investigation or follow-up.

Criminalization vocabulary (2a, n = 3, 6%) was coded only when criminal-offense language was applied in the observed text to the puller or the rickshaw-related activity without a stated formal legal context that would make the wording merely descriptive of a documented proceeding. The “embezzled” example in the Prothom Alo item of 21 September 2021 illustrates this rule. Scapegoating/causal attribution (2c, n = 3, 6%) required the observed text to isolate rickshaw activity as the sole or primary explanation for a broader urban problem without naming other relevant causes. This criterion distinguishes causal isolation from a neutral statement that rickshaws exist, operate, or consume resources; where the evidence is limited to a headline, the interpretation remains bounded to that textual level.

The sampled headline/lead material also showed limited direct worker voice in items coded within this theme. This observation refers only to the material actually reviewed, not to the full articles. The auxiliary source/voice indicator (2d) was therefore kept separate from the primary-theme percentages and was used to support qualitative interpretation rather than to create a fourth primary percentage category.

6.3 Theme 3: Economic and Social Contribution and Worker Visibility (n = 12, 24%)

Vehicle-centric culture coverage was the largest component of Theme 3 (3b, n = 6, 12%). Items about rickshaw art and heritage foregrounded the vehicle or cultural object. They were coded 3b only when the observed headline/lead celebrated or centered the cultural object while not foregrounding the workers who operate the vehicles. This is a comparative coding criterion within the observed material; it does not assume that every cultural story is obligated to discuss working conditions.

Direct contribution acknowledgment (3a, n = 3, 6%) was also present, including “If rickshaws run, the lives of 10 million people will continue” (Kaler Kantho, 2020) and “Rickshaw pullers earn more in Dhaka, but have less safety” (The Daily Star, 2019). Individual moral-story framing (3c, n = 3, 6%) highlighted individual integrity or circumstance without linking the story to structural or occupational policy questions. Within this theme, the positive contribution code (3a) can therefore be compared only with the other primary codes in Theme 3: 3b and 3c together accounted for 18%, while 3a accounted for 6%. These comparisons are compatible because they use the same primary-code denominator.

6.4 Theme 4: Policy Engagement and Its Limits (n = 11, 22%)

Specific policy proposal/advocacy (4a) was the most frequent code within Theme 4 (n = 7, 14%), followed by absence of reform proposal (4d, n = 2, 4%), reactive framing (4b, n = 1, 2%), and charity/rescuer framing (4c, n = 1, 2%). Importantly, 4a identifies the presence of a specific policy proposal; it does not imply that the newspaper itself endorsed the proposal. In the sample, only one item was a policy-focused editorial, while another editorial was a human-interest item. The distinction between source-voiced policy demand and institutional editorial advocacy is therefore maintained throughout the analysis.

For example, “Drivers and owners want separate lanes for rickshaw movement” (The Daily Star, 2019) and “Auto-rickshaw drivers demand less deposit, trade union right” (New Age, 2023) contain specific demands voiced by actors in the story. By contrast, “Why wasn't action taken at the beginning?” (Prothom Alo, 2021) exemplifies reactive policy framing because it evaluates a prior response without itself supplying a defined forward-looking alternative. “Rickshaw ban brings no respite” (New Age, 2019) was coded 4d because the problem is raised without a specific reform proposal in the observed material. These distinctions prevent policy reporting from being equated automatically with editorial advocacy.

6.5 Theme 5: Health, Labor Rights, and Humanizing Representation (n = 4, 8%)

Health coverage (5a, n = 2, 4%) and positive humanization (5c, n = 2, 4%) were the only observed primary codes within Theme 5. The New Age item “73.7pc rickshaw pullers visit pharmacies for healthcare” directly addresses healthcare use, while “In the land of elderly rickshaw pullers” foregrounds the circumstances of older workers. No item was coded under dedicated labor-rights coverage (5b, 0%). These results indicate low representation within this corpus; they do not establish an absolute absence of health, labor-rights, or humanizing coverage across Bangladeshi media as a whole.

The two humanizing cases, including “Policeman, I am disabled... I drive a rickshaw for a living” (Bangladesh Pratidin, 2018) and “Pulling the weight of the world” (Kaler Kantho, 2019), are useful disconfirming cases because they demonstrate that the same newspapers could also present pullers with personal identity or circumstance beyond a problem-centered frame. They do not, by themselves, prove the absence of bias; rather, they show that the corpus contains both constraining and more humanizing forms of representation.

7. Discussion

The analysis shows a mixed pattern rather than a uniformly negative one. The largest primary category concerned linguistic and framing bias, while the contribution/worker-visibility and policy-engagement themes also contained both negative and constructive elements. In particular, the presence of contribution acknowledgment, humanizing features, and specific policy demands means that the corpus cannot be reduced to a simple absence-versus-presence binary. The empirical contribution of the study is instead the distribution of different ways in which pullers become visible in the observed textual material.

The findings are broadly compatible with scholarship that emphasizes problem-centered representations of working-class groups and the marginalization of worker voice [25,37]. They are also directionally consistent with research on auto-rickshaw discourse in India, where congestion, disorder, and regulation can overshadow occupational precarity [29]. The Bangladeshi garment-work example discussed in the literature review [21] provides a relevant local comparison for the way protest can be narrated through disruption. These comparisons should be read as contextual parallels rather than as proof that the same mechanism operates identically across sectors or media systems.

A cautious interpretive implication is that repeated problem-centered and low-agency formulations may contribute to a narrower textual repertoire through which rickshaw pullers are made visible. This is compatible with the representational concerns of framing and CDA, but it remains a textual interpretation rather than evidence of audience effects, newsroom intention, or policy causation. The study therefore does not claim that the observed coverage caused public attitudes or policy inaction. Rather, it identifies discourse patterns that merit further testing with audience, newsroom, and policy data.

Several alternative explanations remain plausible. Protests, accidents, and regulatory disputes are highly event-driven and may be more newsworthy than routine occupational contributions. Some items concern vehicle regulation rather than the people who operate the vehicles, and source access may favor officials, police, or organizational representatives. News-production routines and the need for concise headlines may also encourage simplified problem definitions. The present content analysis cannot distinguish these explanations empirically, but recognizing them reduces the risk of attributing every observed pattern to intentional class bias.

Placement should likewise be interpreted descriptively. The corpus contains items on front pages, last pages, national/city pages, special coverage, lifestyle sections, opinion/column pages, and editorial pages. These categories are not treated as a common ordinal scale of importance because they serve different editorial functions. The study therefore does not use the observed placement distribution to claim a general prominence hierarchy for rickshaw coverage.

No formal Bengali-versus-English comparison was conducted. The inclusion of both language groups was intended to broaden corpus coverage, not to imply a tested language difference. A larger stratified sample would be needed to examine language, newspaper, and vehicle-type differences systematically.

Three extensions follow directly from the study's limitations. First, a larger stratified corpus should support formal comparison across Bengali- and English-language newspapers and across vehicle types. Second, full-article analysis should test whether headline/lead patterns persist or are corrected by context later in the story. Third, audience or experimental research could test whether exposure to different frames is associated with changes in perceptions of rickshaw pullers, policy preferences, or support for worker protections. These questions cannot be answered by the present design alone.

8. Recommendations

The recommendations below are practical implications of the observed patterns, not interventions that were empirically tested in this study.

For newsrooms and editors: consider routine inclusion of workers' contribution and occupational context when reporting rickshaw-related urban issues, especially because contribution acknowledgment was a primary code in only 3 of 50 items (6%) while vehicle-centric culture coverage accounted for 6 of 50 (12%).

For journalists: when reporting protests, accidents, or regulatory disputes, distinguish allegations from established findings, identify responsible actors where the evidence permits, and include direct worker perspectives when available. These practices respond directly to the prominence of fatalistic death reporting (9 of 50 items) and the limited worker-voice observations in the coded material, but they were not tested as interventions here.

For journalism education and professional training: use examples of criminalizing language, agency suppression, and singular causal attribution to teach reporters how small lexical and framing choices can affect representation. Training should also emphasize translation sensitivity when Bengali and English reporting are compared.

For policymakers and labor organizations: treat newspaper reporting as one source of public discourse rather than as a proxy for worker need or public opinion. The presence of specific policy demands in 7 of 50 items (14%) suggests that policy issues enter coverage, but the corpus does not establish whether those demands are representative, influential, or effective.

For future media-monitoring initiatives: maintain a searchable archive with article date, newspaper, vehicle type, section, headline, lead, quoted-source categories, and code decisions so that independent coders can reproduce the analysis and reliability statistics can be calculated.

9. Limitations

Several limitations constrain the interpretation of the findings.

First, the corpus contains 50 items from five national dailies over 2018-2024. It does not include television, radio, digital-native outlets, or social media, so the findings should not be generalized to Bangladeshi media as a whole, to audiences, or to periods outside the sampled window. The findings are bounded specifically to this purposive print corpus.

Second, article selection was purposive rather than random. The use of headline relevance, story centrality, and available textual material may favor certain genres, events, and longer items. Seventeen of the 67 candidates were not retained, but the original screening record did not separately document how many exclusions were attributable to length, genre, or other criteria. Consequently, the sample cannot be treated as representative and the placement distribution cannot be used as a population estimate.

Third, coding was completed by one primary coder. The workbook contains a second-coder reliability template but no completed independent second-coder dataset, so percent agreement and Cohen's kappa cannot be reported. This is especially important for interpretive distinctions such as scapegoating, criminalization, and framing, where reasonable coders may differ. The descriptive percentages should therefore be treated as results of the completed coding rather than as reliability-tested population estimates.

Fourth, the observed textual unit was primarily the headline, subheadline, and lead. The study therefore does not establish how the full article body framed each issue. Context, counter-claims, sources, and corrective information appearing later in a story may not be captured. References to “coverage” in the interpretation should be read as coverage in the sampled headline-/lead-level material.

Fifth, Bengali-language material was translated into English without formal back-translation or independent bilingual verification. Because the study examines linguistic bias, translation is particularly consequential: lexical choices can affect perceived tone, agency, and criminalization. The manuscript therefore treats the Bengali source text as the evidentiary basis and translations as presentation aids.

Sixth, the corpus combines human-powered, battery-powered, and auto-rickshaw/easy-bike references. Vehicle type was not built into the primary analytic variable, and most headlines did not specify the exact type. Appendix B reports only the vehicle-type information visible in headlines. More definitive vehicle-type comparison would require systematic recoding of full texts.

Seventh, the study deliberately avoids formal language-group comparison despite including Bengali- and English-language newspapers. The ten-item allocation per newspaper is appropriate for corpus coverage but too small for strong comparative inference. Similarly, no claim is made that vehicle type, newspaper, or section independently predicts framing.

Finally, this content analysis cannot establish audience attitudes, newsroom decision-making, or policy outcomes. Phrases such as “may reinforce” and “may sustain” are therefore interpretive formulations about the compatibility of textual patterns with representational theory, not claims of demonstrated causal effect.

10. Conclusion

This content analysis of 50 news items from five Bangladeshi national dailies between 2018 and 2024 identifies recurring patterns in how rickshaw pullers become visible in headline-, subheadline-, and lead-level news text. The primary-code distribution is led by linguistic and framing bias, followed by urban-problem framing, policy engagement and its limits, economic and social contribution and worker visibility, and health, labor rights, and humanizing representation. The corpus therefore contains both constraining and constructive representations rather than a single uniform media position.

The findings are bounded to the sampled newspapers, items, period, and observed textual units. They should not be interpreted as evidence of newsroom intent, audience effects, or direct policy influence. The most defensible conclusion is that the sampled texts make some aspects of rickshaw work highly visible - especially urban disorder, accidents, regulation, and individual events - while other dimensions, including occupational rights, health, and sustained worker-centered contribution, appear less frequently as primary frames. Humanizing cases and explicit policy demands show that alternative forms of representation are present, although they are not dominant in the corpus.

Research on informal transport workers in Bangladesh is developing but remains smaller than the literature on transport, health, and livelihoods themselves [30-36]. Future work should therefore expand the corpus, preserve complete headline/lead/body data, and combine content analysis with comparative and audience-based designs. The normative

question of whether more inclusive reporting should follow is distinct from, and should not be presented as proven by, the empirical patterns documented here.

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Ethics Statement

Not applicable. This study analyzed publicly available, previously published newspaper content and involved no human-participant interaction or collection of private personal data.

Informed Consent

Not applicable. The study did not involve human participants.

Data Availability Statement

The coding dataset and supporting article-level coding information are available from the corresponding author upon reasonable request, subject to copyright and archive-access restrictions on the underlying newspaper articles.

Author Contributions

Md. Sipon Mia: Conceptualization, methodology, corpus design, coding, analysis, and original manuscript preparation. Hajrat Hania: Literature review, source verification, coding review, and critical revision of the manuscript. Both authors approved the final manuscript.

Conflict of Interest

The authors declare no conflict of interest.

Generative AI Statement

Generative AI (OpenAI ChatGPT) was used to assist with language editing, manuscript organization, and revision of presentation during manuscript preparation. The authors retained responsibility for the study design, data, coding decisions, interpretation, references, and final content and verified the manuscript before submission.

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Appendix A: Codebook

Full primary codebook applied in coding (Section 5.5), including operational definitions, inclusion/exclusion rules, and one illustrative example per code. Code 2d is retained as a non-exclusive auxiliary voice/source indicator and is not part of the primary 50-article percentage denominator.

Code	Code Name	Theme	Definition	Example
1a	Traffic/Congestion Blame Framing	1	The observed headline/lede presents rickshaws as a cause of traffic congestion or urban disorder without relevant alternative context in the observed unit.	"All the reasons for traffic jams in Dhaka" - Bangladesh Pratidin, 2018
1b	Lawbreaker/Illegal Framing	1	The observed text labels rickshaws/pullers as illegal, banned, or law-violating in a way that functions as a negative characterization rather than a neutral statement of formal status.	"Illegal easy bikes and rickshaws are making 4 million residents suffer" - Prothom Alo, 2019
1c	Disruptive Protester Framing	1	The observed protest coverage foregrounds disruption, blockade, conflict, or disorder while the underlying demands receive insufficient prominence in the observed headline/lede.	"Rickshaw workers and owners block three roads - Anarchy" - Bangladesh Pratidin, 2019
1d	Passive Framing	Victim 1	The puller is represented as a passive object of an event, with little or no visible agency in the observed text.	"Rickshaw puller killed as tree breaks down on him at TSC" - New Age, 2023
2a	Criminalization Vocabulary	2	Criminal-offense terminology is applied to the puller or rickshaw-related activity without an accompanying legal context that would make the wording a straightforward report of a formal proceeding.	"Banned autos run on donations; 30 million taka is being embezzled every day in Dhaka" - Prothom Alo, 2021
2b	Fatalistic Reporting	Death 2	A death/accident is reported in passive or similarly low-agency construction AND the observed text leaves the responsible party unclear or does not identify an accountability frame. Passive voice alone is insufficient.	"Rickshaw-puller killed by garbage truck" - New Age, 2021
2c	Scapegoating / Singular Causal Attribution	2	The observed text isolates rickshaws/pullers as the sole or primary explanation for a broader urban problem and omits competing causes in the observed unit. Simple statements of use, presence, or consumption are not sufficient unless the causal/problem-isolation frame is explicit.	"Illegal easy bikes and rickshaws are making 4 million residents suffer" - Prothom Alo, 2019
2d	Voice/Source Audit Indicator (auxiliary, non-exclusive)	Auxiliary	The observed headline/lede lacks direct puller/family voice and relies mainly on institutional or authority sources. This indicator may co-occur with any primary code and is not included in primary-theme percentages.	Used as a qualitative source/voice audit indicator; no primary-frequency count is reported.
3a	Contribution Acknowledgment	3	The observed text explicitly acknowledges pullers' contribution to mobility, employment, household livelihoods, or low-carbon transport.	"If rickshaws run, the lives of 10 million people will continue" - Kaler Kantho, 2020
3b	Vehicle-centric Culture Coverage	3	Cultural or heritage coverage foregrounds rickshaw art/heritage or the vehicle while the workers operating it are not foregrounded in the observed unit. This is a comparative visibility criterion, not a claim that every cultural story must discuss labor conditions.	UNESCO listing coverage focusing on rickshaw heritage - Prothom Alo, 2023
3c	Individual Story (non-structural)	Moral (non-structural) 3	An individual puller's integrity, hardship, or personal circumstance is highlighted without connection in the observed unit to broader occupational or policy structures.	"The honesty of another rickshaw puller" - Kaler Kantho, 2019
4a	Specific Proposal Advocacy	Policy / 4	The observed text names a specific policy, regulatory, labor-rights, infrastructure, or livelihood proposal. The code does not by itself imply newspaper endorsement; proposal source is recorded separately where known.	"Auto-rickshaw drivers demand less deposit, trade union right" - New Age, 2023
4b	Reactive vs. Proactive Framing	4	The observed text evaluates a previous event or asks why action was not taken earlier without itself	"Why wasn't action taken at the beginning?" - Prothom Alo, 2021

Code	Code Name	Theme	Definition	Example
			presenting a defined forward-looking policy alternative.	
4c	Charity/Rescuer Framing	4	The observed text presents the media as a personal benefactor or rescuer rather than foregrounding structural reform.	"Tara Mia will now return home by rickshaw..." - New Age, 2023
4d	Absence of Reform Proposal	4	A policy-relevant problem is described in the observed unit but no specific reform or solution is proposed there.	"Rickshaw ban brings no respite" - New Age, 2019
5a	Health Coverage	5	The observed text addresses pullers' health risks, healthcare use, or access to medical services.	"73.7pc rickshaw pullers visit pharmacies for healthcare" - New Age, 2020
5b	Labor Rights Coverage	5	The observed text addresses union rights, minimum wage, social security, or related labor protections independently of protest description.	None coded in the sample (0%). With N=50, the smallest non-zero article proportion is 2%.
5c	Positive Humanization	5	The observed text presents a puller as a person beyond the occupation - for example through family, disability, community, identity, or personal circumstances. Humanization is not treated automatically as absence of bias.	"Policeman, I am disabled... I drive a rickshaw for a living" - Bangladesh Pratidin, 2018

Appendix B: Headline-Level Vehicle-Type Visibility

Vehicle-type wording visible in headline	n	Interpretive note
Battery-powered/e-rickshaw explicitly named	9	Explicit battery/e-rickshaw wording in the headline.
Auto/easy-bike explicitly named	3	Auto-rickshaw/easy-bike/auto wording is explicit in the headline.
Van-rickshaw/mixed explicitly named	1	Van-rickshaw or mixed vehicle wording is explicit.
Rickshaw type not specified in headline	37	The headline says rickshaw/rickshaw puller without specifying a vehicle technology/type.
Total	50	This is a headline-level descriptive audit only; it is not a vehicle-type comparison of full articles.

Because vehicle type was not a formal primary coding variable and many headlines use generic "rickshaw" wording, Appendix C is descriptive only. It is included to make the decision to group vehicle categories transparent and should not be interpreted as evidence of comparative framing differences by vehicle type.

Appendix C: Corpus Overview

Full listing of the 50 sampled articles (Sections 5.2-5.3), with newspaper, publication date, section/page, translated headline (author translation), and final primary theme. The primary theme follows the primary-code assignment in the completed coding sheet.

ID	Newspaper	Date	Section/Page	Translated Headline	Theme
A001	Bangladesh Pratidin	Aug 4, 2021	Special Coverage	Rickshaw-pullers of Dhaka struggling to survive the pandemic	3
A002	Bangladesh Pratidin	Jan 14, 2018	Special Coverage	"Policeman, I am disabled... I drive a rickshaw for a living."	5
A003	Bangladesh Pratidin	Dec 10, 2023	Lifestyle and Entertainment	From streets to heritage: UNESCO recognizes rickshaws and rickshaw art as intangible cultural heritage	3
A004	Bangladesh Pratidin	Dec 21, 2023	Lifestyle and Entertainment	Rickshaw art faces crisis in Dhaka	3
A005	Bangladesh Pratidin	Sep 28, 2022	Lifestyle and Entertainment	Rickshaw painting exhibition begins at Zainul	3
A006	Bangladesh Pratidin	Oct 29, 2021	Lifestyle	Parveen now drives a rickshaw in Dhaka city	3

ID	Newspaper	Date	Section/Page	Translated Headline	Theme
A007	Bangladesh Pratidin	Jun 11, 2018	Last page	All the reasons for traffic jams in Dhaka	1
A008	Bangladesh Pratidin	Dec 7, 2023	Last page	Dhaka's rickshaws and rickshaw paintings receive UNESCO recognition	3
A009	Bangladesh Pratidin	Jul 10, 2019	Last page	Rickshaw workers and owners block three roads - Anarchy / Parts of Dhaka at a standstill	1
A010	Bangladesh Pratidin	Jul 10, 2019	Last Page	Rickshaw Ban: Pullers carry on protests	1
A011	Prothom Alo	May 13, 2020	Last Page	Cop, rickshaw puller die after showing symptoms	2
A012	Prothom Alo	Oct 31, 2019	Front Page	Illegal easy bikes and rickshaws are making 4 million residents suffer	1
A013	Prothom Alo	Jun 6, 2023	Front page	Battery rickshaws consume 3,500 megawatts	2
A014	Prothom Alo	Sep 21, 2021	Front page	Banned autos run on donations. 30 million taka is being embezzled every day in Dhaka	2
A015	Prothom Alo	Jan 31, 2019	Front page	Want alternative employment for rickshaw pullers	4
A016	Prothom Alo	Jul 9, 2019	Front Page	Rickshaw Ban: Pullers block portion of city road	1
A017	Prothom Alo	Apr 20, 2018	Front page	Rickshaw workers' hunger strike, clashes with police, 6 arrested	1
A018	Prothom Alo	Apr 16, 2021	Front page	Rickshaw-puller killed by garbage truck	2
A019	Prothom Alo	Jan 24, 2023	front Page	Rickshaw puller dies as police van hits his three-wheeler	2
A020	Prothom Alo	Jun 4, 2021	Editorial	Why wasn't action taken at the beginning? Battery-powered rickshaw	4
A021	Kaler Kantho	Nov 17, 2019	Editorial	The honesty of another rickshaw puller	3
A022	Kaler Kantho	Sep 18, 2022	Column & Opinion	Battery-run Rickshaws: Danger lurks in the alleys	2
A023	Kaler Kantho	Dec 22, 2023	Column & opinion	How did rickshaws become our heritage?	3
A024	Kaler Kantho	Feb 8, 2019	Column & opinion	Pulling the weight of the world	5
A025	Kaler Kantho	Jun 14, 2023	Column & Opinion	In the land of elderly rickshaw pullers	5
A026	Kaler Kantho	May 17, 2020	Column & Analysis	If rickshaws run, the lives of 10 million people will continue.	3
A027	Kaler Kantho	Jun 1, 2024	Column & Analysis	When there is a solution in Delhi, why is there a problem in Dhaka?	4
A028	Kaler Kantho	Sep 29, 2023	Column & Analysis	How rickshaw puller Selim asked the state for a 'food list'	3
A029	Kaler Kantho	Aug 11, 2021	Capital/city page	Child Jisanul killed in Khilgaon / Rickshaw driver's confession	2
A030	Kaler Kantho	Jun 23, 2021	Capital/city page	Battery will be removed if battery-powered van-rickshaw is received	4
A031	New Age	Dec 15, 2020	Capital/city page	73.7pc rickshaw pullers visit pharmacies for healthcare	5
A032	The Daily Star	Oct 14, 2022	Capital/city page	Battery-powered rickshaw drivers attack police box in Pallavi	1
A033	The Daily Star	Jul 8, 2019	Capital/city page	Drivers and owners want separate lanes for rickshaw movement	4
A034	The Daily Star	Mar 26, 2021	Capital/city page	Motorcycle collides with rickshaw, killing driver!	2
A035	The Daily Star	Jul 31, 2022	Capital/city page	Battery-run rickshaw puller killed in Dhaka	2

ID	Newspaper	Date	Section/Page	Translated Headline	Theme
A036	The Daily Star	Oct 24, 2022	Capital/city page	Wall collapse during heavy rain kills Rickshaw-puller in Dhaka	2
A037	New Age	Sep 7, 2023	Capital/city page	Rickshaw puller killed as tree breaks down on him at TSC	1
A038	The Daily Star	Nov 28, 2021	Capital/City page	When, from where, and through whom did rickshaws come to Bangladesh?	3
A039	The Daily Star	Jun 27, 2019	Capital & City	Rickshaw pullers earn more in Dhaka, but have less safety	3
A040	The Daily Star	Sep 13, 2020	Capital & city	Arrangements to allow battery-powered rickshaws and vans on DSCC roads: Taposh	4
A041	New Age	Oct 27, 2020	Bangladesh National Page	/ Still, battery-powered rickshaws are running	2
A042	New Age	May 15, 2022	Bangladesh National Page	/ Battery-powered rickshaws – complications, what is the path for unemployed youth?	4
A043	New Age	Jul 8, 2019	Bangladesh National Page	/ Rickshaw ban brings no respite	4
A044	New Age	Oct 1, 2023	Bangladesh National Page	/ Tara Mia will now return home by rickshaw after Prothom Alo published the news.	4
A045	New Age	Feb 14, 2023	Bangladesh National Page	/ Auto-rickshaw drivers demand less deposit, trade union right	4
A046	New Age	Apr 14, 2023	Bangladesh National Page	/ Rickshaw driver's body recovered from Shahbagh road	2
A047	New Age	Mar 15, 2022	Bangladesh National Page	/ Attempt to hijack rickshaw by slitting driver's throat, 1 arrested	2
A048	New Age	Sep 16, 2020	Bangladesh National Page	/ Rickshaw and van owners flock to Nagar Bhavan to get licenses	4
A049	New Age	Nov, 2020	Bangladesh National Page	/ Rickshaw driver dies while fleeing from magistrate	2
A050	New Age	Aug 8, 2023	Bangladesh National Page	/ Rickshaw puller pours kerosene on himself and sets himself on fire	2