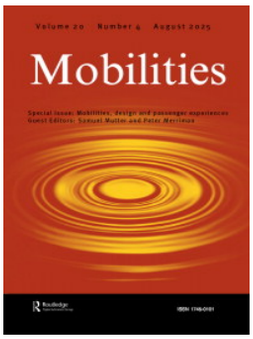

Mobilities

ISSN: 1745-0101 (Print) 1745-011X (Online) Journal homepage: www.tandfonline.com/journals/rmob20

How linguistic patterns obscure responsibility in newspaper coverage of traffic crashes in German-speaking countries: an interdisciplinary study

Dirk von Schneidemesser, Sonja Bettge, Hugo Caviola, Andrea Sedlaczek, Martin Reisigl, Felix Schindler & Michael Wirz

To cite this article: Dirk von Schneidemesser, Sonja Bettge, Hugo Caviola, Andrea Sedlaczek, Martin Reisigl, Felix Schindler & Michael Wirz (20 Aug 2025): How linguistic patterns obscure responsibility in newspaper coverage of traffic crashes in German-speaking countries: an interdisciplinary study, Mobilities, DOI: 10.1080/17450101.2025.2534634

To link to this article: https://doi.org/10.1080/17450101.2025.2534634

Published online: 20 Aug 2025.

MOBILITIES
https://doi.org/10.1080/17450101.2025.2534634

How linguistic patterns obscure responsibility in newspaper coverage of traffic crashes in German-speaking countries: an interdisciplinary study

Dirk von Schneidemesser[a], Sonja Bettge[a], Hugo Caviola[b], Andrea Sedlaczek[c], Martin Reisigl[c], Felix Schindler[d] and Michael Wirz[e]

[a]Research Institute for Sustainability at GFZ, Potsdam, Germany; [b]University of Bern, Bern, Switzerland; [c]University of Vienna, Wien, Austria; [d]Freelance Journalist, Zurich, Switzerland; [e]City of Winterthur Police Department, Winterthur, Switzerland

ABSTRACT

In this interdisciplinary study, we examine how linguistic patterns in newspaper coverage of traffic crashes in German-speaking countries (Austria, Germany and Switzerland) obscure responsibility and perpetuate systemic biases. Through a content analysis of 229 articles, the research highlights the prevalence of linguistic constructions including passive voice, metonymy, and reflexive verbs, that shift responsibility for crashes from motor vehicle drivers to pedestrians and cyclists. The findings reveal that, as in other language contexts, traffic crashes are often framed as isolated, inevitable events, downplaying systemic issues such as infrastructure and policy. Linking these patterns to public perceptions of responsibility, we underscore their potential to hinder support for safety-oriented mobility reforms. Based in part on the results, we suggest changes in journalistic practices and have developed guidelines to foster equitable and accurate reporting, with implications for advancing safer and more sustainable mobility systems.

ARTICLE HISTORY
Received 8 January 2025
Accepted 7 July 2025

KEYWORDS
Traffic crashes; vehicular violence; responsibility attribution; media framing; mobility and safety

Introduction

Worldwide, traffic crashes kill 1.3 million people a year (Miner et al. 2024) and are the leading cause of death for people aged 5 to 29 years (WHO 2023). In Germany, 2839 people were killed in traffic in 2023, with 228 in Switzerland and 396 in Austria, and injuries are far higher (BMI 2024; DESTATIS 2024; FEDRO 2024). Though traffic deaths overall are sinking, the number of traffic deaths among cyclists in these countries is rising (European Commission 2024).

The consistent high rate of traffic related death and injury is a deeply rooted, structural problem. Despite the human cost, public outcry remains limited and punctual. Measures that have been shown to improve traffic safety continue to be met with intense opposition (for example Superblocks in Austria and Germany (Brenner et al. 2024; von Schneidemesser and Kirby 2024) or the speed-limit reductions in Germany (Bauernschuster and Traxler 2021)). Policy framing significantly affects public support (Pickett, Ivanov, and Wozniak 2022), and reporting on traffic violence can influence support of prevention measures (Goddard et al. 2019). Our research contributes to the growing body of literature focused on the interplay between communication about

CONTACT Dirk von Schneidemesser dvs@rifs-potsdam.de Research Institute for Sustainability at GFZ, Potsdam, Germany.

traffic violence and transformation processes with the goal of increasing safety and sustainability in mobility, extending it to yet under-researched German-language countries.

Research on linguistic patterns and responsibility attributions

The way we speak and write about mobility matters for policy and implementation. Using 'accident' to refer to traffic crashes or collisions has been criticized for downplaying their severity and suggesting their inevitability. As a response, numerous academic associations such as *The British Medical Journal* and journalistic outlets like the Associated Press have cautioned against using 'accident' in many cases, suggesting in the context of traffic 'crash' or 'collision' instead (Dalton 2018; Davis and Pless 2001), arguing that "accident' is often understood to be unpredictable—a chance occurrence or an 'act of God'—and therefore unavoidable. However, most injuries and their precipitating events are predictable and preventable' (Davis and Pless 2001, 1320). For English, the UK-based journalist Laura Laker created guidelines with scientists and practitioners for reporting on traffic collisions (Laker 2021).

In German-speaking contexts, Caviola and Sedlaczek (2020) show how the water flow metaphor affects expectations of what the goals of traffic and infrastructure are, prioritizing flow while being stationary or hindering flow is linguistically devalued. von Schneidemesser and Caviola (2024) argued that the very word for traffic accidents in German (*Verkehrsunfälle*) suggests that they are a natural phenomenon, inevitable and beyond our control. This is in contrast to the reality that our mobility behavior and infrastructure are the result of human decisions in political processes (Norton 2011). Modern traffic infrastructure does not occur naturally, and mobility behavior is not predetermined, but the result of complex social influences, which have led to a system of automobility (Urry 2004). As an example, Reisigl (2021) has demonstrated this through an analysis of automobile advertisements in print media.

Policy and practice are directly influenced by discourse, determining whom the built environment and non-infrastructural rules privilege. Transportation safety and efficiency are unequally distributed. The allocation of privilege in mobility 'involves power relations that combine transport mode-specific differences and wider social inequalities […] codified and reinforced through policy and practice' (Fevyer and Aldred 2022, 760). Norton (2011) documented how responsibility for road safety was shifted from motorists to pedestrians in less than a decade in 1920s United States.

The following subsections of the introduction provide the specific theoretical foundation that forms the basis for our research. First, we look at the role of context (crash statistics, traffic infrastructure and rules) and its relevance in the perception of responsibility in coverage of crashes. We then turn to the literature related to language use in the attribution of responsibility in coverage of crashes, and subsequently briefly look at police communication as an important source of language patterns in this context, before describing our research methods.

Crashes in context

Previous research in the English-speaking countries and the Netherlands has found that news coverage of traffic crashes portrays the incidents as unrelated events, flukes in an otherwise well-working system (Connor and Wesolowski 2004; Keliikoa et al. 2022; Ralph et al. 2019; Scheffels, Bond, and Monteagut 2019; te Brömmelstroet 2020). Considering crash statistics, this tendency omits an important part of the information relating to traffic crashes. Further research has suggested that if news coverage of traffic crashes offered information about the broader context of traffic crashes, public support might increase for measures that would bring more safety (Goddard et al. 2019).

Depicting crashes as isolated events or uncommon 'flukes' instead of as part of a broader pattern can shift the perception of responsibility from a structural to an individual level (Iyengar 1996).

In the case of traffic collisions, this is the difference between the responsibility being solely attributed to one or more involved individuals or the responsibility being also attributed to the automobile-oriented transport system.

Language patterns and the attribution of responsibility

Language use patterns in coverage of traffic violence have been found to shift responsibility away from drivers, especially when a crash involves cars or trucks on the one side, and cyclists or pedestrians on the other (Magusin 2017; Ralph et al. 2019; Scheffels, Bond, and Monteagut 2019). Shifting blame occurs in many areas systematically through well-documented linguistic strategies (Trew 1979, 106; van Leeuwen 1996, 38–42, 2008, 28–32). Specifically for reporting on traffic violence, news coverage has been shown to shift blame away from motorists (Fevyer and Aldred 2022; Ralph et al. 2019; te Brömmelstroet 2020). This practice takes on various forms.

First, referring to the vehicle instead of its driver as in 'car hit cyclist' belongs to the rhetorical category of metonymy (Reisigl 2006, 602–603, Reisigl and Wodak 2001, 57–58; Richardson 2007, 67–68, 201). The non-linguistic literature from anglophone countries refers to this as 'object-based language' (Goddard et al. 2019; Ralph et al. 2019).

It shifts the focus away from agents—such as drivers—and thereby obscures agency and responsibility for actions. Ralph et al. (2019) examined local news articles covering traffic crashes between motorists, and pedestrians or cyclists. They found that 81% of references to drivers mentioned the vehicle instead of the driver (Ralph et al. 2019, 5). te Brömmelstroet (2020) analyzed Dutch media crash coverage, finding that in 28% of headlines and 70% of articles covering crashes involving two actors, the vehicle was mentioned instead of its driver. Similarly, Feyver and Aldred (2022) in their discourse analysis of coverage of traffic deaths in a local London newspaper, discovered that drivers were systematically backgrounded by referring to the vehicle rather than the driver, while cyclists were referred to as people and thereby attributed agency.

A second common linguistic means of backgrounding a social actor is the use of the passive voice together with a prepositional phrase, as in 'A pedestrian was hit by a driver'. (As opposed to active voice: 'A driver hit a pedestrian') (see e.g. Hodge and Kress 1993, 16). This serves to push the agent ('a driver') into the background and shift the focus of the sentence onto the pedestrian (in our example). Hodge and Kress (1993) describe three effects of this passive transformation: '(a) The theme of the sentence (what is it about) changes from actor to affected […]. (b) The link between actor and process is weakened, that is, the causal connection is syntactically looser […]. (c) The process, because it is completed ('was hit'), becomes more like an adjective, a state' (26). Readers tend to attribute responsibility for an act more towards the victims if they are in the focus of the sentence (Niemi and Young 2016; cited in Ralph et al. 2019, 2). Scheffels, Bond, and Monteagut (2019) also find that passive formulations obscure responsibility. Ralph et al. (2019) observed that passive formulations were found in more than 80% of headlines, and 75% of articles used passive formulations in the body of the text. te Brömmelstroet's (2020) analysis shows that there were more passive formulations than active formulations when collisions between motorized and non-motorized traffic participants were covered. McLeod and Murphy (2014, 8) also list the use of the passive as a common theme in reporting on crashes involving cyclists.

A third way to shift responsibility through language is suppression: not mentioning an involved actor at all (van Leeuwen 1996, 2008). For example, by using *passive without any prepositional phrase*: 'A pedestrian was hit'. (Instead of 'a pedestrian was hit by a driver'.) If actors are excluded, it becomes difficult for them to be perceived as responsible. Hodge and Kress (1993) explain the effects of this change from active to passive voice: 'The cause of the process is deleted, and it may be difficult or impossible to recover' (26). Ralph et al. (2019, 5) found that 52% of headlines and 32% of the sentences describing crashes in the local news articles covering traffic crashes completely suppressed the agentive actor. te Brömmelstroet (2020, 6) finds in his analysis of Dutch news coverage of traffic crashes that an actor is suppressed in 58% of the headlines.

A fourth way of shifting responsibility is accomplished through the use of reflexive verbs, for example 'the pedestrian injured herself'. With respect to the linguistic representation of actors, a reflexive verb ('injured herself') can have similar effects to passive voice. First, the actor of the cause is deleted, i.e. the person who injured the pedestrian. Second, the theme of the sentence is changed from actor to affected, i.e. the pedestrian. In addition, the linguistic as well as cognitive focus on the pedestrian is even strengthened through the double reference to the affected person by the noun and the reflexive pronoun. This linguistic change to a reflexive construction shifts blame from perpetrators to victims. While it is common in both English and German to use the reflexive when describing injuries inflicted upon oneself ('She cut herself while cooking'), this is also common in German when describing injuries resulting from a crash involving multiple actors. A direct translation of a common formulation type may reveal the peculiarity: 'After being hit by the car, she fell and hurt herself severely'.

A fifth way that responsibility can be shifted or obscured is by *one-sidedly adopting the perspective of a certain traffic participant*. The linguistic and psychological literature on perspectivization is multifaceted (Sandig 1996). All of the linguistic patterns already mentioned (i.e. metonymy, passive with and without a prepositional phrase, reflexive construction) contribute to the overall framing of a crash representation. Three further criteria for coding the perspective of an article are indicated below. Studies from both North America (McLeod and Murphy 2014, 8) and Germany (Paeth 2021) have found that the perspective of drivers is more likely to be adopted than that of users of active transport modes in coverage of traffic violence. The relevance of this aspect was also emphasized in a workshop conducted by the authors with Swiss journalists and police communicators in April 2024.

Police reporting on traffic collisions

A connection has been established between media coverage of traffic crashes and the provision of information about these from the police. Often, journalists do not have the resources to investigate traffic crashes and to report based on their own in-depth research. This can lead to police press reports being published in part or in full as media articles (Ralph et al. 2022). In Germany and numerous other countries, the police are a privileged source of information for journalists, making it possible for journalists to adopt texts received from police with little or no editorial changes. We are aware of two analyses of the press releases of German police regarding traffic crashes (Nordhoff 2023; Paeth 2021). Both analyses found that metonymy and passive verb use as described above were strongly represented in German police press releases. Paeth (2021) also finds suppression of social actors to be common in police press releases.

Methods

To analyze language patterns used in the coverage of traffic crashes between unequal traffic participants, we conducted a content analysis of 229 German language newspaper articles from Austria, Germany, and Switzerland covering traffic crashes involving drivers of motor vehicles (cars, trucks, motorcycles, or transit vehicles) on one side, and active travelers on the other. (For present purposes, active travel includes walking, (e-)bicycling, wheel chairing and low speed motorized modes such as electric wheelchair or e-scooters.)

Data: newspaper article corpus

The corpus of newspaper articles was gathered via two online newspaper databases (*WISO Presse* and *APA Online Manager*). Four national and four regional quality newspapers and one

national tabloid per country were included in the search.[1] The newspapers were chosen based on their circulation (with a preference for a higher circulation while maintaining a regional distribution) and their availability in the two databases used. The articles cover two sample periods of 10 days each, from June 2022 to June 2023. The month of June was chosen, as the national road accident statistics of the three countries identify it as the month with the highest number of collisions leading to personal injury. A search string was used that combined three categories of search terms with an AND operator:

1. nouns/verbs associated with vulnerable road users (e.g. *pedestrian*, *cyclist*, *bike*, *sidewalk*, *to cross*)
2. nouns/verbs referring to the collision (e.g. *accident*, *crash*, *collide*, *hit*)
3. verbs/adjectives referring to the consequences of the collision (e.g. *injured*, *died*, *killed*, *fatal*).[2]

The search result of a total of 849 newspaper articles in the two selected periods was cleaned up in two steps: In the first step of corpus compilation, duplicates, results unrelated to traffic crashes and opinion-based article genres (commentaries, interviews, letters to the editor) were deleted. This left a total corpus of 522 newspaper articles. In a second step before coding, the newspaper articles that did not describe crashes involving active travelers and motor vehicle drivers were excluded.

Our resulting corpus of 229 articles used for the content analysis was composed of 69 articles from Austrian newspapers, 38 articles from Swiss, and 122 articles from German newspapers. 143 were articles from regional or local newspapers, 86 from newspapers with a national scope. See Table 1 for further description of the corpus.

Content analysis

Our research team is made up of a social scientist, linguists, a journalist, a police spokesperson, and a traffic planner. We conducted a content analysis of the corpus using a codebook (Krippendorff 2019; Neuendorf 2002). Codebooks of previous studies from Ralph et al. (2019) and te Brömmelstroet (2020) provided a starting point. Then, combining an abductive approach (see Blaikie and Priest 2019) with a process of selective coding based on Grounded Theory (Glaser and Strauss 1967), we integrated interdisciplinary expertise to create a codebook with two major goals. First, next to planning and social sciences (the disciplinary sources of much of the previous work), we included expertise from police and journalistic work, and we enriched our codebook with linguistic categories to enable a more precise linguistic analysis of the language use itself. (Some examples of this are going from 'object-based language' to a more linguistically precise 'metonymy' (see below) at the behest of our linguists, or differentiating between the built environment and non-infrastructural measures, as per advice from the planner and police team members.) Second, we refined and integrated the codes for language use in the German context.

Table 1. Composition of newspaper articles in Corpus.

		Newspaper type		Geographical coverage	
Newspaper sources	Country	Tabloid	Quality press	Regional or local	National
Austria	69	31	38	35	34
Switzerland	38	6	32	27	11
Germany	122	26	96	81	41
Total	229	63	166	143	86

In this process, we carried out two pilot applications of the codebook in which each member of the research team coded pilot corpuses of 10 articles. Over six sessions, we reflected together and adjusted the codebook for validity of the codes and consistency between coders.

This process resulted in the codebook. Subsequently, two of the authors coded the corpus using the qualitative data analysis software MAXQDA, by marking the parts of the articles (sentences, words, or entire articles) where a code is observable according to the code descriptions below. The code groups in the final codebook are described in the following, and a table with each code listed as well as the frequency of the codes is provided in Appendix 1.

Article meta-data

To be able to characterize the article and its parts, articles were coded for *national source* (from Austria, Switzerland or Germany), whether the news outlet is *regional* or *national*, and whether it is a *tabloid* or a *quality newspaper*. Further, the *headline* and the *lead* were coded to differentiate from the body of the text.

Main injured person

The transport form used by the *main injured person* in the crash was coded at the article level; per article the code was only applied once. If more than one person was injured, the person with the more severe physical injuries was coded as the main injured person.

Contextualizing information

Articles were coded if they contained *crash statistics* at any level from hyperlocal to national, or referred to crash frequency by citing past crashes. (1) If there was *reference to built infrastructure* as playing a part in causing the crash or the absence of infrastructure that may have helped prevent the crash, this was also coded (e.g. presence or absence of a bikelane, sidewalk or pedestrian crossing). (2) And it was coded if *non-built structural measures* were referenced (such as calls for lower speed limits or the need for electronic turning assistants in trucks). (3) These codes were applied at the article level.

Passive and reflexive verb use

The use of *verbs in the passive*, and *reflexive verbs* were coded at the sentence level in the description of the crash. The use of verbs in the passive was coded separately, according to whether the sentence construction referred to an actor or if there was no mention of an actor. Here, actors included people (e.g. drivers, bus-drivers, cyclists) and objects (e.g. cars, trucks, motorcycles). Metonymy was coded separately (see below). The occurrence of reflexive transitive verbs was also coded when used to describe injuries sustained from the crash (e.g. 'injured themselves' ('*verletzte sich*')).

Metonymy

Metonymy was coded at the sentence level and, as with the verbs, limited to the description of the crash. Metonymy was coded when *a vehicle was named as an actor in place of a human*. The codes included: car, truck, transit, motorcycle, e-bike, bicycle or other.

Social actor perspective portrayal

This code was applied when the text took on the perspective of one party involved in the crash. Three main criteria served to inform when the code was applied: 1) setting-the-scene information which establishes a certain perspective (e.g. 'A woman was driving on Main St. towards Westend, when…'); 2) the mention of intentions without explicitly stating how they

are known (e.g. 'She wanted to turn into a driveway'.); and 3) participant or witness perspective adoption (e.g. '…when a cyclist suddenly veered right'; 'the driver could not brake in time', 'the cyclist did not see the pedestrian'). These criteria help to reveal the closeness of the crash representation in the text to the perspective of one of the involved social actors.

These codes were applied at the article level and applied exclusively to an article, so that the overall perspective portrayal in the article was identified. For this, a certain social actor's perspective needed to be linked to a transport mode (car, truck, transit, motorcycle, e-bike, bicycle or other). If more than one perspective was portrayed, the code is applied to that perspective which is allotted more space and attention in the text. If multiple perspectives are represented and there is not a clear dominant perspective, no code was applied.

Causal attributions

Causal attributions were coded at the article level. Explicit statements that the cause of the crash is unknown and the suggestion of built infrastructure as a cause of the crash were coded, but not attributed to a specific actor. The remaining causal attributions occurred in the texts in reference to a certain actor and were coded with the transport mode of the actor whose responsibility attribution for the crash was affected. The codes for causal attribution without referencing a specific actor were *cause unknown and unsafe infrastructure*. The remaining codes for causal attributions that were attributed to specific actors were: *victim behavior*, *alcohol*, *drugs*, *speeding*, *didn't see*, *nature*, *lost control* and *other*. The code titles imply the content of their application (see Appendix 1 for examples). *Didn't see* was coded when it was stated that an involved actor did not or could not see, overlooked, looked but failed to register, or was otherwise unaware of the presence of the other actor leading to the crash. *Nature* was coded when natural phenomena were referred to as (partial) causes (e.g. 'the sun was low', 'the street was wet'). Alcohol and drugs were coded as the root cause and other causal attributions like lost control or victim behavior were not additionally coded if they were the likely result of intoxication (so: unless otherwise specifically de-coupled from alcohol or drug consumption).

Inter-coder reliability

We calculated inter-coder reliability using Cohen's Kappa. Both coders coded 25 of the same articles in the corpus (11% of the corpus), and used these to calculate Cohen's Kappa, resulting in an overall Kappa of 0.85. While there are no strict rules as to what level is acceptable, above 0.7 is considered desirable (Neuendorf 2002, 154–156).

Frequent occurrences of words and concepts

To further interrogate the text, we found that some concepts (e.g. the frequency of words like 'accident' or 'collision') were suited to *frequency tallies*. For these, we conducted word counts using the search function of the content analysis software, which counted the frequency of words or phrases. To verify that these word or phrase frequency tallies were capturing the intended use and meaning, we used a search function that was set to display 13 words before and 13 words after the word or phrase searched for and excluded uses in a different sense (e.g. not referring to the collision or the results thereof).

Results

We found a systematic focus on the injured person, a high rate of use of the 'accident' term, passive verbs, and metonymy in the case of drivers. There was little contextualizing

information, and causal attributions exonerated drivers and burdened pedestrians and cyclists. These are explained in detail below. Translations of passages from the corpus are those of the authors.

Main injured person

The texts determined the main injured person through assertive speech acts, indicating who was most seriously injured. Most often, there was only one party injured, though a small number of articles mentioned numerous parties. Applying the rules in our codebook was not a problem, as the main injured person was clear, with the exception of four articles with no injuries described.

The vast majority of main injured people were pedestrians and (e-)bicyclists, making up 89% of main injured people in all articles. Car drivers were the main injured people in 3% of the articles. For the full results, see Table 2. The high number of active travel users relative to motor vehicle drivers reflects the specific selection of articles for our corpus. In crashes involving unequally protected participants, those with less mass and speed (e.g. pedestrians or cyclists) are more likely to be injured or killed than those with more mass, speed, and physical protection (e.g. drivers).

The main injured person was mentioned in 76% of headlines. 63% of headlines did not mention a second actor at all (as in: 'Cyclist severely injured' (*Rheinische Post*)). Some titles alluded to a second actor without actually mentioning them (as in: 'Child overlooked, Accident. Sun probably blinded and a collision happened' (*Südwest Presse*). When mentioned in the headline, a second actor was referred to as a person in 15% of headlines, while 22% used metonymy and mentioned a vehicle or an object associated with one (e.g. a car door, a trailer) as a second actor involved in the collision.

Accident or collision

The German word for 'accident' (*Unfall*, and declinated forms) occurred 462 times in our corpus, in 80% of the articles (see Table 3). The second most frequent term to refer to traffic crashes was 'collision' (*Kollision*), used 84 times in 28% of articles. The German word stem *-prall* is a verb referring to a physical impact. It was used to describe crashes 41 times in the corpus (15% of articles).

Contextualizing information

In total, 17% of articles in the corpus have some kind of context information implying that crashes are systemic or might be preventable if infrastructural or non-infrastructural measures had been implemented. Crash statistics or references to the frequency of crashes were found in only 5% of the articles. Examples include the mention of local crash statistics

Table 2. Main injured person.

Transport mode	Number of articles	Percent (%) of articles
Car driver	6	3
Truck driver	0	0
Transit driver	0	0
Motorcycle driver	2	1
E-bicyclist	20	9
Bicyclist	103	45
Pedestrian	21	35
User of another transport mode	13	6

Table 3. Frequencies of terms used to refer to the collision.

German original	English tanslation	Frequency in Corpus	Frequency in articles (N)	Frequency in articles (%)
Crash, Accident, etc.				
Unfall, Unfälle	accident, accidents	462	184	80%
*zusammenst**	collision	35	29	13%
crash	crash	8	5	2%
*kolli**	collision/collide (word stem)	84	65	28%
prall	impact (as in "impact with or upon")	41	35	15%

(e.g. 'In May alone, one pedestrian and one cyclist were injured in an accident in district four.' (*Neue Zürcher Zeitung*)). One article paired statistics with suggestions of patterns, e.g.

> 'Even if every traffic fatality is one too many, the proportion of fatal accidents is lower than in previous years. During all of last year, eleven people died in road traffic, and in 2021 that number was as high as 15. In most cases, it is weaker road users who die; last year's fatalities included three pedestrians and three cyclists, as well as four motorcyclists.' (*Rheinische Post*).

Infrastructure as a factor contributing to a crash was mentioned in 7% of the articles in our corpus. The majority of these were articles that had a follow-up nature which included discussions on improving traffic safety with the local community or with experts as the result of a crash. One article simply referred to a 'confusing traffic situation' at the crash site, that had already led to a crash there two years previously (*Kronen Zeitung*).

Five percent of the articles referred to structural factors aside from built infrastructure that could have helped prevent crashes. Four articles suggest reducing speed limits, two articles mention electronic turning assistants for trucks. Other measures are mentioned in only one article each (e.g. drivers opening doors with their right hands, or traffic light programming).

Passive and reflexive verb use

Sixty-nine percent of the articles in the corpus include passive verb formulations. Passive verb use without naming an actor (e.g. '71-year-old hit' (*Kronen Zeitung*)) was found in 26% of article headings (in the headline or the lead), and in 52% of articles in total (including body text). Passive constructions that mention an actor or vehicle in a prepositional phrase were found in a further 12% of headings ('79-year-old cyclist injured in collision with car' (*Oberösterreichische Nachrichten*)), and 37% of articles when including the text body. We further observed a high frequency of specific abstract formulations that convey a passive meaning, such as 'it came to [an accident] (*es kam zu [einem Unfall]*)', found in 14% of articles.

Reflexive verb use was found in 19% of articles. This is rarely found in the headings, with a few exceptions, such as 'Cyclist injures himself' (*Freie Presse*). More commonly, it is found in the body of the text when describing the crash, in the example of a woman who was hit by a driver, 'As a result, the woman fell and, according to police, gave herself minor injuries' (*Freie Presse*).

Further verbs that contribute to shifting responsibility and portraying inevitability of crashes

To further illustrate verb use, frequencies of selected examples of verb use in crash descriptions are shown in Table 4. Some of these are particular to reporting on traffic violence and are commonly (but not always) used in the passive. For example, *erfassen* is a verb commonly used to describe statistical recording but is also used in crash reporting to describe a collision (see discussion for more). *Touchieren* means 'to touch', usually in a gentler way than in the context of a traffic crash, and is otherwise relatively uncommon. Verbs like these have the effect of

Table 4. Frequencies of verb use in crash descriptions.

(German original)	(English translation)	Frequency in Corpus	Frequency in articles (N)	Frequency in articles (%)
Common manifestations of reflexive verb use in crash descriptions				
verletzte sich, sich verletz*	injured themselves	17	17	7%
zog sich […zu], zugezogen	got herself [injured] (literally: pulled herself [injuries])	17	17	7%
[sich] ereigne*	occur(ed)	34	32	14%
Verbal constructions suggesting inevitability of crashes (selected examples)				
passier*	happened	28	17	7%
es kam, kam es*	it came to [a collision], a [collision] occurred	36	33	14%
erleid*, erlitt*	suffer	46	40	17%
Verbs modifying the intensity of crashes				
erfass*	seize, record, register, grasp, capture, catch	99	75	33%
touchier*	touch (peculiar, as in fencing)	22	20	9%
ramm	ram/rammed	31	24	10%

portraying an impact in a milder, euphemistic way. *Rammen*, 'to ram', on the other hand, is a verb that is more active and describes impact in a more intense and clearly undesirable way. *Erleiden* ('to suffer', as in: 'she suffered fatal injuries' (*sie erlitt tödliche Verletzungen*)) portrays harm by focussing on the person suffering, without demanding a cause of the suffering. *Passieren* and *sich ereignen* ('happen' and 'occur') are process verbs that put the cause of whatever happened in the background, as if the incident had no cause or caused itself. The latter verb is also an example for an abstract reflexive verb: 'The accident occurred around 12:30 pm on Grefrather Street' (*Rheinische Post*), though the German original 'Der Unfall ereignete sich gegen 0.30 Uhr auf der Grefrather Straße' reads as though 'The accident occurred itself around…'

Metonymy

Vehicles were often referred to instead of their drivers or riders. We coded 212 examples of this type of metonymy, in 66% of the articles. As the code was applied at the sentence level, numerous articles contained two or more occurrences of metonymy. Of the 212 occurrences we found, 91% replaced drivers of motor vehicles: 60% of them named cars instead of people, 20% referred to transit vehicles (trams and busses) doing things, and 11% trucks. Only 2% referred to motorcycles and e-bikes instead of their riders, respectively, and 1% referred to the bicycle rather than the bicyclist. Pedestrians were not represented with metonymies. The 5% comprising 'other' included tractors, unspecified types of vehicles, and a blind spot ('Blind Spot wiped out another life' (*Kronen Zeitung*)). See Figure 1 for the distribution of metonymy by transport mode.

Common examples are cars running into people, as in '…was hit by a car.' In some cases, the journalists took the metonymy further, as in this example from the *Rheinische Post*: 'The car, a black Daimler-Benz sedan, was said to have continued on its way in the direction of Gereonsplatz without attending to the slightly injured cyclist'. Other cases extended the metonymy to parts of the vehicle, like the bumper or the door. In *BILD* a sentence reads: 'a carelessly opened car door abruptly tore the engaged 60-year-old out of life'.

Social actor perspective portrayal

We were able to code closeness to a certain social actor's perspective in 43% of the texts. The remaining texts did not show a clear enough alignment with a certain perspective to warrant a code, using our methodology. Of the coded texts, 39% showed a closeness to the portrayal of car and truck drivers (36% and 3%, respectively). Active transport users' perspectives were more closely related to in 54% of the coded texts (29% bicyclists, 17%

pedestrians, and 8% e-bicyclists). The perspectives of drivers of public transit vehicles were predominant in 3% of the coded texts, and 4% for other transport modes.

Causal attributions

We divided the codes of causal attributions into two main categories: burdening (*victim behavior*, *alcohol*, *drugs*, *speed*) and exonerating (*didn't see*, *nature*, *lost control*) attributions as shown in Table 5. (When *didn't see* was applied in the sense of 'overlooking' ('übersehen'), it is included in the exonerating category. This is because its function is not to underline a lack of attention, but rather it covers up or obscures the underlying causes. To 'overlook' something is an excusable mistake that can happen to anybody.) Table 5 shows the percentage of articles coded with having a causal attribution according to burdening and exonerating causal attributions by users of active travel modes and car and truck drivers, rather than motor vehicle drivers (no occurrences of causal attributions to motorcyclists were found, and only once were transit drivers attributed a causal attribution code (*didn't see*)). The code *cause unknown*, applied when it was explicitly stated that the cause of a collision was (yet) unknown, was found in 8% of the texts.

The most common exonerating causal attribution was *didn't see*, which occurred in 14% of the articles. This included 7% for car drivers, 5% for truck drivers, 1% each for pedestrians and (e-)

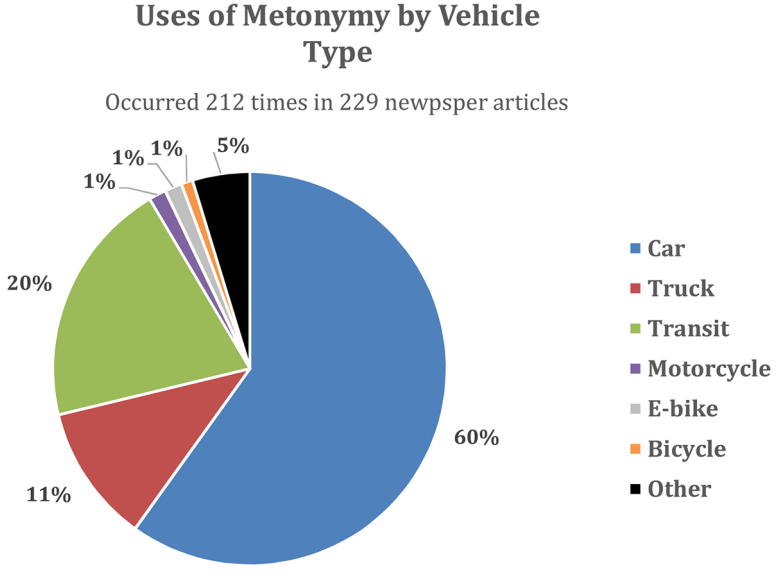

Figure 1. Uses of metonymy by vehicle type.

Table 5. Burdening and exonerating causal attributions, % (N) of articles coded.

	Total % (N)	Active travel % (N)	Car & truck drivers % (N)
Exonerating causal attributions			
Didn't see	*14% (32)*	2% (4)	12% (28)
Nature	*2% (5)*	0% (1)	2% (4)
Lost control	*2% (4)*	1% (2)	1% (2)
Total	*18% (41)*	*3% (7)*	*15% (34)*
Burdening causal attributions			
Victim behavior	*13% (30)*	13% (29)	0% (0)
Alcohol	*8% (19)*	3% (6)	6% (13)
Drugs	*1% (3)*	0% (1)	1% (2)
Speed	*0% (1)*	0% (0)	0% (1)
Total	*23% (53)*	*16% (36)*	*7% (15)*

bicyclists. Actors 'overlooking' ('übersehen') other road users is a common formulation in this case, as in the following example: 'A 42-year-old woman from Gladbeck wanted to drive out of her driveway onto the road. She overlooked the cyclist. A collision occurred. The 58-year-old cyclist fell and acquired herself minor injuries'. (*Westdeutsche Allgemeine*) There were also mitigating instances of this, as in 'apparently overlooked' (*Frankfurter Rundschau*), or reveal speculation, as in 'The 55-year-old may have overlooked pedestrians on a pedestrian crossing…' (*Kronen Zeitung*).

A further 13% of the articles suggested that *victim behavior* was a cause of the crash. Common examples are 'sudden' or similar movements, not being aware of traffic, or not following rules (the latter was not coded if confirmed by judicial proceedings). Pedestrians were coded in conjunction with victim behavior in 6% of articles. In the following example, the coverage puts the pedestrian in an active role, while the driver is relegated to the role of a witness who was not involved: 'The accident occurred in the bus stop area in Triester Street. The pedestrian seemed to have tried to cross the road in front of the truck. The driver stopped immediately when he noticed the accident' (*Kleine Zeitung*). Conveyed is a speculation about the pedestrian's potentially irresponsible behavior (crossing in front of a truck), while the driver stopping immediately, though equally as speculative as no source is cited, is unquestioned.

Victim behavior was also attributed to e-bicyclists in 1% of articles, in 6% of the articles to bicyclists (e.g. '… a twelve-year-old cyclist suddenly veered across the lane.' (*Rheinische Post*)). Drivers were not attributed victim behavior in any articles.

Alcohol was the next most common causal attribution and was portrayed as a cause of the crash in 9% of the articles in the corpus. Six percent of the articles implicated car drivers with alcohol, 1% pedestrians, and (e-)bicyclists in 2% of the texts. An example is: 'The police stated that the cyclist was alcoholized and was riding in zig-zags' (*Rheinische Post*).

Overall, 7% of articles included burdening causal attributions for car and truck drivers, while this was more than twice as high (16%) for pedestrians and (e-)bicyclists. Exonerating causal attributions occurred in 15% of articles for car and truck drivers, and in only 3% of articles for pedestrians and (e-)cyclists. Causal attributions burdened active travel users twice as often (16%) as car and truck drivers (7%).

Discussion

Traffic violence represented as inevitable and isolated

Our findings largely align with previous studies in English- and Dutch-speaking countries. Metonymy and the use of the passive are found with similar prevalence and function as in those cases (Goddard et al. 2019; Keliikoa et al. 2022; te Brömmelstroet 2020). Certain aspects, such as the use of reflexive formulations, seem to be distinctive of German-speaking countries. Reflexive constructions in German, however, similarly shift responsibility away from the motor vehicle drivers, and toward the injured persons, in our case usually active travel users.

In our corpus, we observed fewer instances of counterfactual statements imagining alternative outcomes based on changes to past circumstances than found by Ralph et al. (2019) in North American coverage. Particularly, the counterfactual suggestion that collisions would not have happened had people worn a bicycle helmet or use of safety equipment was found in only 1% of articles, mention of wearing of dark clothing was not observed at all. This aligns more closely with Feyver and Aldred's (2022) findings (who also found no counterfactual statements regarding helmets or dark clothing) and may reflect a difference between European and North American coverage.

The dominant use of *Unfall* (accident) to describe crashes (used in 80% of articles) is higher than in North American and Dutch reporting (Keliikoa et al. 2022; Ralph et al. 2019; te Brömmelstroet 2020). Beyond its clear dominance as the word with which to describe crashes, the use of *Unfall* may lead even more strongly than its English counterpart to suggest inevitability of crashes and at the same time to downplay the role of involved social actors. The word *Unfall* does not linguistically require actors: the word-stem '*-fall*' is intransitive, so its meaning suggests that something

happens to persons, but that these persons do not act themselves. Further, the *Unfall* occurs most commonly with verbs (*sich ereignen ('to occur'), passieren,* or *geschehen (both 'to happen')*) that denote that this event just happens by itself, a language pattern that does not prompt the question as to the cause of the incident (von Schneidemesser and Caviola 2024). This is in contrast to other words that can describe a crash, like *Zusammenstoß* or *Kollision*, which we found used far less often, but implicitly ask the question of involved actors.

The German verb *erfassen*, used to describe crashes in one third of the texts, has the word stem *fassen* at its heart, which means to touch or grasp (with hands or claws). In this way, the use of *erfassen* in connection with a metonymy to describe a collision semantically imbues the object (e.g. a car) with agency and metaphorical limbs. The subject of the verb *erfassen* is the dominant actor, which moves in a kinetic sense. The person who is *grasped* (*erfasst*) is in a more passive or static role. Interestingly, a pedestrian does not 'grasp' another pedestrian, but we observed that a car often does. Further, it is common to describe natural phenomena such as tsunamis or avalanches 'grasping' (*erfassen*) people, which emphasizes the inevitability and power relations connected with this verb. The large and/or powerful are the ones who do the act of 'grasping' (*erfassen*) the small and less powerful.

Infrastructure and other systems-level solutions

Only 7% of the articles mentioned infrastructure as a factor in collisions, often in the context of political or civil debates following an incident. These articles, published after the event, feature family members, experts, or activists discussing potential safety improvements. Similarly, only 5% of the articles included crash statistics, meaning that immediate crash reporting rarely situates incidents within the broader context of traffic violence. As in English and Dutch media, traffic crashes in German-speaking countries are framed as isolated events, ignoring their systematic nature. The public health crisis posed by traffic violence is absent from the coverage of the incidents that constitute it. This focus shifts attention to less critical issues:

> 'Instead of being seen as human tragedies, traffic crashes are presented as glitches in the machine – as dehumanized interferences with the overall functioning of a well-oiled machine, where the effects on traffic flow trump the impacts on the people involved.' (te Brömmelstroet 2020, 10).

The absence of contextual information, particularly regarding infrastructure and crash statistics, may fuel public resistance to safety-oriented infrastructural changes. As Ralph et al. (2019, 2) argue, neglecting the systematic nature of traffic violence leads readers to 'hold individuals responsible for negative outcomes and put less pressure on public leaders to make changes.'

These findings underline recommendations in previous research, and we would emphasize the potential for journalists to improve reporting by contacting local actors familiar with the streets and the context. In our corpus, inclusion of local expertise coincided with information on infrastructure and potential solutions. Especially when geographically located crash statistics are readily available on applications like the Accident Atlases, available for Austria, Switzerland, and Germany,[3] journalists can include specific crash statistics without investing substantial time.

Language patterns shifting responsibility

Traffic safety measures like speed limit reductions, road diets or traffic calming are contingent on public support. More research is required to determine whether Goddard et al. (2019) findings from the North American context, that reporting on traffic violence influences public support for infrastructural safety measures, also apply to the German case. If they do, then the portrayal of traffic violence in German-speaking countries could be hindering safer infrastructure. Two main findings support this. First, reporting on traffic violence as unrelated isolated incidents rather than as a systemic and preventable public health problem negates the perception of the need for systemic policy responses. Put differently, the failure to connect the individual manifestations of

traffic violence with the systemic cost of yearly more than 3,000 traffic deaths in German-speaking countries, hinders problem awareness and support for solutions. Second, the linguistic patterns revealed above (e.g. passive and reflexive formulations, exonerating causal attributions) systematically shift responsibility for traffic violence away from drivers. As motorists are not portrayed as the cause of traffic violence, it may seem absurd to implement safety measures that reduce driver privileges (e.g. limiting speed, space-usage, etc.) in the name of prevention.

At the same time, these and other commonly used formulations such as *Unfall* ('accident'), *erleiden* ('to suffer [something]'), *passieren* ('to happen'), or *sich ereignen* ('to occur [itself]'), suggest inevitability by obscuring or eliminating the causes of traffic violence.

Our analysis shows that victims appear in 76% of the headlines, while only 15% mention a second person involved. The fact that harm is unequally distributed amongst traffic participants is seldom explicitly mentioned. But harm *is* unequally distributed: road users who pose minimal risk (cyclists, pedestrians) suffer disproportionately, while those who pose greater risks (motorists) are often unharmed. Language patterns tend to mention the victims, but not the actors responsible for causing harm. This pattern aligns with findings in North American and Dutch contexts (Ralph et al. 2019; te Brömmelstroet 2020).

Journalistic practices compound these biases, as in 'Even though the 41-year-old immediately swerved out of the way, a collision occurred. The 84-year-old cyclist fell and acquired herself minor injuries'. (*Rheinische Post*) In this example, the construction 'a collision occurred' strengthens the impression of inevitability, which obscures responsibility. Together with reflexive verbs like 'acquired herself minor injuries', they shift responsibility towards the cyclist, while detaching the collision from the driver's responsibility. The claim 'the driver immediately swerved', is likely unverified (and possibly unverifiable), and reported uncritically.

Nacken (2024) finds reflexive verb use in 29% of articles covering collisions involving active travel users and drivers, but only in 5% of articles covering crashes between two drivers. Our explanation is that the reflexive is difficult to apply to actors that are partially or fully suppressed. Passive formulations and metonymies that hide actors behind vehicles do not lend themselves to reflexive formulations. The result is a systematic shifting of responsibility away from drivers through these linguistic patterns: drivers are shielded from responsibility attribution, which is often shifted toward active travel users.

Reporting on traffic violence in German-speaking countries frequently fails to uphold impartiality, subtly shifting blame from motorists to cyclists and pedestrians. This cultural norm is likely unintentional, but pervasive. It perpetuates systemic biases and undermines the presumption of innocence that should apply equally to all road users, as outlined by the German Press Council's Codex (Deutscher Presserat 2017, 11).

Social actor perspective portrayal

The coding of the alignment with a certain actor's perspective delivers inconclusive results. Our rules only allowed the application of the code to less than half (43%) of the articles in the corpus. Thus, while the code as we applied it proved reliable, the limited application leads to doubts about its validity and our operationalization of the concept. Further research on the perspectives adopted in reporting on traffic crashes using discourse analysis would be valuable, and can build on previous work (e.g. Fevyer and Aldred 2022; McLeod and Murphy 2014).

Conclusion

Our findings come at a moment in which mobility and infrastructure planning are fiercely debated issues in the German-speaking countries from which we draw our corpus. A struggle amongst political, administrative, and civil society actors regarding a mobility transition (*Verkehrswende*) is ongoing (Andert and Nagel 2024; Schwedes 2021; von Schneidemesser, Herberg, and Stasiak 2020). Against this background, it may be of importance that the role of infrastructure is seldom mentioned in the context of traffic violence.

We find that linguistic patterns in newspaper coverage of traffic crashes in the German-speaking world portray traffic crashes as isolated events. This is in contrast to what we know about the systemic and predictable nature of traffic crashes in Austria, Switzerland, and Germany. Further, we find that the newspaper coverage of traffic crashes tends to attribute more responsibility for crashes to users of active travel modes and shifts the responsibility away from car and truck drivers. This is discursively constructed in a variety of ways, some more subtle, as when metonymy suppresses the agency of people driving vehicles. Other ways of attributing responsibility for crashes to active transport users are more explicit, such as causal attributions that burden them more and exonerate car and truck drivers more.

The language patterns documented above may be a contributing factor to the acceptance of traffic violence by the public. They may also play a role in hindering particularly infrastructural measures for more traffic safety that would reduce access to space, speed, or other privileges enjoyed by motorists. If language patterns hinder the attribution of responsibility to the relevant actors and present traffic crashes as isolated, unexpected 'flukes', rather than a predictable and systematic source of injury and death, automobile-oriented societies are less likely to grapple with the causes and begin providing more safety. To help address this, the authors and others have followed Laker's (2021) English example and created a German guideline for language use in covering traffic crashes (Caviola et al. 2025).

Our findings are overall in accordance with those from English and Dutch-speaking countries. This suggests that coverage of traffic violence with linguistic patterns privileging motorists is likely not a phenomenon limited to a single linguistic culture or country, and is only one of numerous reasons for the entrenchment of automobility (Walker and te Brömmelstroet 2025). Similar language patterns privileging motorists are found in varying language contexts, but also across varying economic structures (Hall and Soskice 2001) and media systems (Hallin and Mancini 2004). More research should be done to determine the prevalence in other linguistic and cultural contexts, for example in countries with romance languages.

Notes

1. The following newspapers were included in the corpus (quality press + national/regional/tabloid): For Austria: *Kurier*, *Der Standard*, *Salzburger Nachrichten*, *Die Presse/Kleine Zeitung*, *Oberösterreichische Nachrichten*, *Tiroler Tageszeitung*, *Vorarlberger Nachrichten/Kronen Zeitung*. For Germany: *Frankfurter Allgemeine Zeitung*, *taz*, *Die Welt*, *Frankfurter Rundschau/Westdeutsche Allgemeine Zeitung*, *Rheinische Post*, *Südwest Presse*, *Freie Presse/Bild*. For Switzerland: *Tages-Anzeiger*, *Neue Zürcher Zeitung*, *Basler Zeitung*, *Der Bund/Berner Zeitung*, *Aargauer Zeitung*, *Luzerner Zeitung*, *St.Galler Tagblatt/Blick*.
2. The complete search string was: (Fussgänger* OR Passant* OR Radler* OR Radlenker* OR Radfahr* OR Fahrrad* OR Velo* OR Bike* OR Pedelec OR Zebrastreifen OR Gehweg OR Gehsteig OR Bürgersteig OR Schulweg OR überqueren OR queren) AND (Unfall OR Kollision OR Crash OR Zusammenstoss OR Zusammenprall OR kollidiert* OR prallt* OR rammt* OR erfasst* OR anfahren OR überfahren OR überrollt OR touchiert*) AND (unfall* OR sterben OR tödlich OR getötet OR verletz*).
3. Austria: https://www.statistik.at/atlas/verkehrsunfall/. Switzerland: https://www.astra.admin.ch/astra/de/home/dokumentation/daten-informationsprodukte/unfalldaten/geografische-auswertungen/interaktive-karte.html. Germany: https://unfallatlas.statistikportal.de/.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

Stiftung Mercator; Stiftung Mercator Schweiz.

References

Andert, M., and M. Nagel. 2024. "Failed Mobility Transition in an Ideal Setting and Implications for Building A Green City." *Npj Climate Action* 3 (1): 114. https://doi.org/10.1038/s44168-024-00189-z.

Bauernschuster, S., and C. Traxler. 2021. "Tempolimit 130 auf Autobahnen: Eine evidenzbasierte Diskussion der Auswirkungen." *Perspektiven Der Wirtschaftspolitik* 22 (2): 86–102. https://doi.org/10.1515/pwp-2021-0023.

Blaikie, N. W. H., and J. Priest. 2019. *Designing Social Research: The Logic of Anticipation* 3rd ed. Cambridge MA: Polity Press.

BMI 2024. *Verkehrsstatistik 2023. 396 Verkehrstote auf Österreichs Straßen im Jahr 2023*. Bundesministerium Inneres (BMI). https://www.bmi.gv.at/202/Verkehrsangelegenheiten/unfallstatistik_vorjahr.aspx

Brenner, A.-K., W. Haas, C. Rudloff, F. Lorenz, G. Wieser, H. Haberl, D. Wiedenhofer, and M. Pichler. 2024. "How Experiments with Superblocks in Vienna Shape Climate and Health Outcomes and Interact with the Urban Planning Regime." *Journal of Transport Geography* 116: 103862. https://doi.org/10.1016/j.jtrangeo.2024.103862.

Connor, S. M., and K. Wesolowski. 2004. "Newspaper Framing of Fatal Motor Vehicle Crashes in Four Midwestern Cities in the United States, 1999–2000." *Injury Prevention: journal of the International Society for Child and Adolescent Injury Prevention* 10 (3): 149–153. https://doi.org/10.1136/ip.2003.003376.

Caviola, H., M. Reisigl, A. Sedlaczek, F. Schindler, D. von Schneidemesser, M. Wirz, and I. Janssen. 2025. "Unfallsprache - Sprachunfall: Leitfaden zur Berichterstattung über Kollisionen im Verkehr." https://sprachkompass.ch/themen/verkehr/sprachunfall-unfallsprache

Caviola, H., and A. S. Sedlaczek. 2020. "Grenzenlose Mobilität und fließender Verkehr. Eine kritische Sprachreflexion." *GAIA – Ecological Perspectives for Science and Society* 29 (3): 161–169. https://doi.org/10.14512/gaia.29.3.6.

Dalton, M. 2018. *When covering car crashes, be careful not to blame the victim*. https://www.cjr.org/analysis/when-covering-car-crashes-be-careful-not-to-blame-the-victim.php

Davis, R. M., and B. Pless. 2001. "BMJ Bans "Accidents." *BMJ (Clinical Research ed.)* 322 (7298): 1320–1321. https://doi.org/10.1136/bmj.322.7298.1320.

DESTATIS 2024. *Durchschnittlich 8 Tote und 1 004 Verletzte pro Tag im Straßenverkehr im Jahr 2023*. https://www.destatis.de/DE/Presse/Pressemitteilungen/2024/07/PD24_261_46241.html

Deutscher Presserat 2017. *Publizistische Grundsätze (Pressekodex): Richtlinien für die publizistische Arbeit nach den Empfehlungen des Deutschen Presserats*, *Beschwerdeordnung*. https://www.presserat.de/files/presserat/dokumente/download/Pressekodex2017light_web.pdf

European Commission 2024. *Annual Statistical Report on Road Safety in the EU, 2024*. 56. Brussels: European Commission, Directorate General for Transport. https://road-safety.transport.ec.europa.eu/document/download/b30e9840-4c22-4056-9dab-0231a98e7356_en?filename=ERSOnext_AnnualReport_20240229.pdf.

FEDRO 2024. *FEDRO Annual Report. Roads and Traffic 2023/2024. Developments, Facts and Figures*. Bern: Federal Roads Office (FEDRO). https://www.astra.admin.ch/dam/astra/en/dokumente/abteilung_direktionsgeschaefteallgemein/strassen-verkehr/strassen_und_verkehr_2023_2024.pdf.download.pdf/roads_and_traffic_2023_2024_developments_facts_and_figures.pdf.

Feyver, D., and R. Aldred. 2022. "Rogue Drivers, Typical Cyclists, and Tragic Pedestrians: A Critical Discourse Analysis of Media Reporting of Fatal Road Traffic Collisions." *Mobilities* 17 (6): 759–779. https://doi.org/10.1080/17450101.2021.1981117.

Glaser, B., and A. Strauss. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Mill Valley, CA: Sociology Press.

Goddard, T., K. Ralph, C. G. Thigpen, and E. Iacobucci. 2019. "Does News Coverage of Traffic Crashes Affect Perceived Blame and Preferred Solutions? Evidence from an Experiment." *Transportation Research Interdisciplinary Perspectives* 3: 100073. https://doi.org/10.1016/j.trip.2019.100073.

Hall, P. A., and Soskice, D. (Eds.) 2001. *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage* 1st ed. Oxford University Press: Oxford. https://doi.org/10.1093/0199247757.001.0001.

Hallin, D. C., and P. Mancini. 2004. *Comparing Media Systems: Three Models of Media and Politics* (1st ed.). Cambridge, UK: Cambridge University Press. https://doi.org/10.1017/CBO9780511790867.

Hodge, B., and G. R. Kress. 1993. *Language as Ideology* 2nd ed. London & New York: Routledge.

Iyengar, S. 1996. "Framing Responsibility for Political Issues." *The ANNALS of the American Academy of Political and Social Science* 546 (1): 59–70. https://doi.org/10.1177/0002716296546001006.

Keliikoa, L. B., M. D. Thompson, C. J. Johnson, S. L. Cacal, C. M. Pirkle, and T. L. Sentell. 2022. "Public Health Framing in Local Media Coverage of Crashes Involving Pedestrians or Bicyclists in Hawai'i, 2019: A Content Analysis." *Transportation Research Interdisciplinary Perspectives* 13: 100525. https://doi.org/10.1016/j.trip.2021.100525.

Krippendorff, K. 2019. *Content Analysis: An Introduction to Its Methodology*. Thousand Oaks: SAGE. https://doi.org/10.4135/9781071878781.

Laker, L. 2021. *Media Guidelines for Reporting Road Collisions*. Active Travel Academy – University of Westminster. https://www.rc-rg.com/guidelines

Magusin, H. 2017. "If You Want to Get Away with Murder, Use Your Car: A Discursive Content Analysis of Pedestrian Traffic Fatalities in News Headlines." *Earth Common Journal* 7 (1): 65–97. https://doi.org/10.31542/j.ecj.1229.

McLeod, K., and L. Murphy. 2014. *Bicyclist safety must Be a priority. Findings from a year of fatality tracking and the urgent need for better data.* League of American Bicyclists. https://bikeleague.org/sites/default/files/EBC_report_final.pdf

Miner, P., B. M. Smith, A. Jani, G. McNeill, and A. Gathorne-Hardy. 2024. Car harm: A global review of automobility's harm to people and the environment. *Journal of Transport Geography*, 115: 103817. https://doi.org/10.1016/j.jtrangeo.2024.103817

Nacken, L. 2024. *"Radfahrerin Schwer Verletzt" Eine Inhaltsanalyse Der Unfallberichterstattung Deutscher Lokalzeitungen Zum Framing Des Systemischen Gewaltrisikos Der Automobilität Zwischen Unsichtbarkeit Und Victim Blaming*. Vienna: University of Vienna.

Neuendorf, K. A. 2002. *The Content Analysis Guidebook*. Thousand Oaks: SAGE. https://doi.org/10.4135/9781071802878.

Niemi, L., and L. Young. 2016. "When and Why We See Victims as Responsible: The Impact of Ideology on Attitudes Toward Victims." *Personality & Social Psychology Bulletin* 42 (9): 1227–1242. https://doi.org/10.1177/0146167216653933.

Nordhoff, J. 2023. *Framing in Der Verkehrsunfallberichterstattung Eine Empirische Bestandsaufnahme Zum „Übersehen Von Verkehrsteilnehmenden "Bis Hin zu „Konnte Nicht Mehr Rechtzeitig Bremsen"*. Münster: Deutsche Hochschule der Polizei.

Norton, P. D. 2011. *Fighting Traffic: The Dawn of the Motor Age in the American City*. Cambridge, MA: MIT Press.

Paeth, L. 2021. *Die Darstellung Von Unfällen Zwischen Rad- Und Autofahrenden Personen in Der Pressearbeit Der Polizei: Eine Vergleichende Inhaltsanalyse Von Pressemitteilungen Der Polizeidienststellen Wiesbaden Und Leipzig Mit Blick Auf Die Zuschreibung Von Verantwortung an Die Unfallparteien*. Leipzig: University of Leipzig.

Pickett, J. T., S. Ivanov, and K. H. Wozniak. 2022. "Selling Effective Violence Prevention Policies to the Public: A Nationally Representative Framing Experiment." *Journal of Experimental Criminology* 18 (2): 387–409. https://doi.org/10.1007/s11292-020-09447-6.

Ralph, K., T. Goddard, C. Thigpen, and R. Davis. 2022. "Intervening at the Blotter, Not the Broadcast: Improving Crash Coverage By Targeting Police Press Releases." *Transportation Research Interdisciplinary Perspectives* 15: 100669. https://doi.org/10.1016/j.trip.2022.100669.

Ralph, K., E. Iacobucci, C. G. Thigpen, and T. Goddard. 2019. "Editorial Patterns in Bicyclist and Pedestrian Crash Reporting." *Transportation Research Record: Journal of the Transportation Research Board* 2673 (2): 663–671. https://doi.org/10.1177/0361198119825637.

Ralph, K., N. J. Klein, C. Thigpen, and A. Brown. 2021. "Public Support for Transport Reform: Does it Matter if we 'Reduce Driving' or 'Shift Trips'?" *Findings*. https://doi.org/10.32866/001c.29897.

Reisigl, M. 2006. "Rhetorical Tropes in Political Discourse." In *The Encyclopedia of Language and Linguistics: Vol. Volume 10* 2nd ed., 596–605. Oxford: Elsevier.

Reisigl, M. 2021. "Weniger ist mehr! Diskurskritische Betrachtungen zur Rhetorik der Automobilität." *Deutsche Sprache* 4: 7. https://doi.org/10.37307/j.1868-775X.2021.04.07.

Reisigl, M., and R. Wodak. 2001. *Discourse and Discrimination. Rhetorics of Racism and Antisemitism*. London: Routledge.

Richardson, J. 2007. *Analysing Newspapers. An Approach from Critical Discourse Analysis*. Houndsmills, Basingstoke, Hampshire: Palgrave Macmillan.

Sandig, B. 1996. "Sprachliche Perspektivierung und perspektivierende Stile." *Zeitschrift Für Literaturwissenschaft Und Linguistik* 26 (2): 36–63. https://doi.org/10.1007/BF03396104.

Scheffels, E., J. Bond, and L. E. Monteagut. 2019. "Framing the Bicyclist: A Qualitative Study of Media Discourse about Fatal Bicycle Crashes." *Transportation Research Record: Journal of the Transportation Research Board* 2673 (6): 628–637. https://doi.org/10.1177/0361198119839348.

Schwedes, O. 2021. *Verkehr im Kapitalismus*. Bielefeld: Transcript Verlag. https://doi.org/10.1515/9783839459652.

te Brömmelstroet, M. 2020. "Framing Systemic Traffic Violence: Media Coverage of Dutch Traffic Crashes." *Transportation Research Interdisciplinary Perspectives* 5: 100109. https://doi.org/10.1016/j.trip.2020.100109.

Trew, T. 1979. "Theory and Ideology at Work." In *Language and Control* edited by R. Fowler, B. Hodge, G. Kress, and T. Trew, 94–116. London: Routledge & Kegan Paul.

Urry, J. 2004. "The 'System' of Automobility." *Theory, Culture & Society* 21 (4-5): 25–39. https://doi.org/10.1177/0263276404046059.

van Leeuwen, T. 1996. "The Representation of Social Actors." In *Texts and Practices* edited by C. R. Caldas- Coulthard and M. Coulthard, 32–70. London, New York: Routledge.

van Leeuwen, T. 2008. *Discourse and Practice. New Tool for Critical Discourse Analysis*. Oxford: Oxford University Press.

von Schneidemesser, D., and H. Caviola. 2024. Sprachliche Stolperfallen bei der Mobilitätswende. *Mobilogisch*, *1/2024*. https://mobilogisch.de/beitraege/sprachliche-stolperfallen-bei-der-mobilitaetswende/

von Schneidemesser, D., J. Herberg, and D. Stasiak. 2020. "Re-claiming the responsivity gap: The co-creation of cycling policies in Berlin's mobility law." *Transportation Research Interdisciplinary Perspectives* 8: 100270. https://doi.org/10.1016/j.trip.2020.100270.

von Schneidemesser, D., and N. Kirby. 2024. "Zivilgesellschaft Als Treiber Der Mobilitätswende: Kiezblocks Als Beispiel Für Stadtgestaltung Von Unten." In *Handbuch Mobilität Und Gesellschaft* edited by W. Canzler, J. Haus, A. Knie, and L. Ruhrort, 1–16. Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-37804-2_28-1.

Walker, I., and M. te Brömmelstroet. 2025. "Why Do Cars Get a Free Ride? The Social-ecological Roots of Motonormativity." *Global Environmental Change* 91: 102980. https://doi.org/10.1016/j.gloenvcha.2025.102980.

WHO. 2023. Global Status Report on Road Safety 2023 (1st ed). World Health Organization, Geneva.

Appendix 1: Codebook

Code	Example	Occurrence in the 229 newspaper articles
Metadata		
Isolating vs. Contextualizing Framing (Level of analysis: Article)		
Crash statistics or crash frequency	"This year, the woman is the sixth cycling death out of a total of 14 traffic deaths in Berlin."	12
Built infrastructure as context	"…on the other side of the road there was a bus stop and a pharmacy. A crosswalk is located 600 meters away."	15
Non-infrastructural measures as context	"In countries like Spain, the Netherlands, France and Switzerland, the maximum speed limit is 80 km/h - resulting in fewer road deaths."	11
Verb use in crash description (Level of analysis: Sentence)		
Passive verbs, no actor named	"The child was killed."	163
Passive verbs, actor named	"The child was killed by a driver."	110
Reflexive transitive verbs	"The pedestrian injured herself…"	44
Metonymy in crash description (Level of analysis: Sentence)		
Apply one of the following: Car; Truck; Transit; Motorcycle; E-bike; Bicycle; Other	"Car runs over pedestrian."	212
Actor Perspective Portrayal (Level of analysis: Article)		
Apply one of the following: Car; Truck; Transit; Motorcycle; E-bike; Bicycle; Pedestrian; Other	"A man was walking across Karlsplatz…"	98
Exonerating and burdening causal attributions (Level of analysis: Article)		
→ to qualify these codes, apply one of the following: Car; Truck; Transit; Motorcycle; E-bike; Bicycle; Pedestrian; Other		
Cause Unknown	"The cause of the collision are unknown."	18
Victim behavior	"A nine-year-old suddenly ran onto Friedrichstraße."	32
Unsafe Infrastructure	"The crash occurred where the cycle path and car lane merge."	6
Alcohol	"It is suspected that the driver was drunk. A blood sample was therefore taken."	21
Drugs	"An investigation is also being carried out into whether the driver was under the influence of drugs."	3
Speeding	"The driver was traveling at excessive speed."	1
Didn't see	"The driver overlooked the pedestrian."	33
Nature	"The cyclist was unable to brake in time on slippery fall leaves."	6
Lost control	"A speeding driver lost control over his car."	3
Other cause	N.A.	9
Main injured person (Level of analysis: Article)		
Apply one of the following: Car; Truck; Transit; Motorcycle; Ebike; Bicycle; Pedestrian; Other	"The e-bike rider was critically injured."	225