TRUTH IS ONLY HEARSAY?

[redacted] Misinformation [redacted]
[redacted] as an [redacted] Informational, [redacted]
[redacted] Discursive, [redacted] and [redacted]
Perceptual [redacted] Challenge [redacted]

A. Lina Buttgereit

Truth is only hearsay?

Misinformation as an informational, discursive, and perceptual challenge

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Faculteit der Maatschappij- en Gedragswetenschappen

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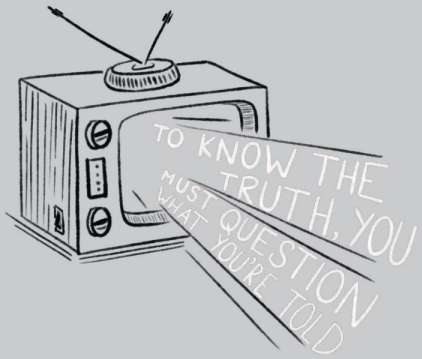
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Introduction

The Three Faces of Misinformation



"Is truth only hearsay?" This question highlights a growing tension between truth as an objective property and truth as constructed and subjected to individual perception. After all, expressions such as "speaking my truth", against "your truth", suggest that "truth is relative to an individual" (Wyatt & Ulatowski, 2023) Similarly, Adams et al. (2023) note that "it appears that the process of knowing is undergoing a transition whereby objectivity is second to intersubjectivity" (p. 1436). While objectivity is always filtered through the eye of the observer, democracy nonetheless requires a common ground where truth claims can be made, tested, and contested in pursuit of a collective description of events (Lukianova & Tolochin, 2022). In other words, a healthy democracy does not presuppose a single objective truth, but it does depend on a publicly accessible set of facts to sustain consensus-building. Today, this common factual ground is increasingly fragile and subject to debate, if not at risk of delegitimization. Institutions once tasked with securing epistemic authority appear to be losing their capacity to sustain a collectively agreed-upon factual basis. In an information environment where legitimacy and political resonance may outweigh empirical accuracy, the conditions of what citizens believe in and trust are destabilized.

A prevailing explanation for this democratic strain has been the rise of *misinformation* and its potential to mislead citizens, erode trust, and fuel polarization (Ecker et al., 2024). Surveys suggest that citizens worldwide believe that as much as half of what they see online is misinformation (van der Meer & Hameleers, 2024). Some scholars, too, have treated misinformation as "a major threat worldwide" (van der Linden et al., 2020, p. 460). The widespread concern has generated a vast amount of research aimed at defining, identifying, and countering false information. The underlying logic is straightforward: If misinformation is the problem, we must determine what counts as misinformation, measure its prevalence, and develop interventions to reduce its spread and impact. This dominant approach to misinformation relies on a positivistic premise in which misinformation can be objectively defined as claims that diverge from empirical reality, identified through fact-checking, and measured as discrete informational units. Research in this strand of literature tends to focus on the effects of these demonstrably false claims on relatively passive audiences (Balog-Way & McComas, 2025).

Yet, there seems to be a paradox. Despite the alarm about misinformation's prevalence and threat, the actual amount of false information that people encounter on a day-to-day basis is consistently estimated to be low, mostly consumed by a narrow fringe group motivated to seek out false and inflammatory content (Allen et al., 2020; Altay et al., 2022; Budak et al., 2024). This tension between perceptions and measured prevalence of falsehoods suggests that misinformation and its impact on society and democracy cannot be understood merely as the presence and effects

of demonstrably false content. Instead, threat perceptions and the belief that misinformation can be prevalent make up an important part of the issues surrounding the debated status of truth, calling for a more holistic perspective on the wider challenge of misinformation. Citizens' doubts about truth and legitimacy persist, even when false claims are supposedly relatively rare (Newman et al., 2025).

The gap between measured exposure and perceived threat points to a broader epistemic challenge. Julien Labarre has described this erosion of confidence in truth discernment as the emergence of *Epistemic Vulnerability,* which describes a three-dimensional concept explaining the public's impaired trust and interpretative capacity for political information (Labarre, 2025). First, it entails a high perceived exposure to false information, tying it to skepticism and the rejection of true information based on the mere perception that the information environment is flooded with falsehoods. Second, it covers distrust in news media, suggesting that the decreasing confidence in traditionally reliable sources of factual information undermines the shared trust in a common set of facts. Third, it entails a sense of information disorientation, describing a perceived confusion about what is true and false, challenging people's trust to make sense of the political information landscape. Taken together, epistemic vulnerability underscores a broader uncertainty when it comes to which information can be trusted in an informational ecosystem that is flooded with a variety of complex, misleading information types and discourse contesting the accuracy and legitimacy of true information and the institutions that put them forward.

Consequently, the problem cannot be reduced to the circulation of demonstrably false claims alone. Instead, there is a need for a more integrated approach that examines not only messages of misinformation as an informational genre, but also how truth and falsehoods are challenged in discourse and how audiences perceive and navigate this informational landscape. Therefore, this thesis aims to extend our view on misinformation as an *informational genre* including its gray areas and to look at its intersections with its *discursive* and *perceptual* aspects as three considerations that jointly shape the information environment.

First, I will look at misinformation as an informational genre. This dimension describes messages that are false or misleading, meaning that they cannot be proven with evidence or supported with expert opinion (Hameleers & Minihold, 2020). In accounting for the nuances of misinformation, this dissertation considers that the information landscape operates on a spectrum, not a binary. Most problematic information that people encounter does not consist of fabricated claims that can be definitively labeled "false". Instead, it exists in gray areas such as true but decontextualized information or the selective and misleading use of information (Brennen et al., 2020; Wardle, 2018). These forms of deceptive information are both more

common and more challenging to identify than outright fabrications (Brennen et al., 2020). Yet, the binary framework struggles to account for these kinds of information.

Second, misinformation as a challenge to democracy extends beyond messages to encompass the legitimacy of institutions and the contestation of facts. This discursive dimension entails how information and institutions are *accused of or labeled as* misinformation (Egelhofer & Lecheler, 2019). Using the term *Disinformation Order,* Bennett and Livingston (2018) suggest that the successful circulation of misinformation results from a broader legitimacy crisis of reliable information sources and, consequently, declining citizen trust. Struggles over credibility not only target specific messages but also messengers of epistemic authority. How misinformation is talked about and thus how information gets labeled as false, by whom, and with what intent, shapes the information landscape as much as the presence of false claims themselves. Weaponizing misinformation discourse can thus aim to strategically undermine trust in legitimate sources and redefine who may legitimately claim epistemic authority in public discourse (Egelhofer & Lecheler, 2019).

Third, audiences do not just passively receive misinformation but actively navigate information uncertainty. Misinformation perceptions are the subjective ideas about what misinformation is and entails, irrespective of the actual accuracy of a given message (Stubenvoll et al., 2021). Although facts are always contingent upon their context and interpretation (Hameleers & van der Meer, 2025), recent trends suggest a growing tendency to politicize even basic empirical claims. The concept of *Factual Relativism* (Van Aelst et al., 2017) propounds that it is "not correctness, but ideological congruence and political gains that determine which description of empirical observation wins the battle for legitimacy" (Hameleers & van der Meer, 2025, p. 2). Relatedly, factual belief polarization describes not just the divergence of opinions and attitudes but political divides over what factually constitutes reality itself (Rekker & Harteveld, 2024). In this politicized environment of competing truth claims and attacks of legitimacy, there is a growing need to understand how audiences of this information environment navigate and process information. The audiences' ideas about misinformation may diverge from academic definitions thereof, which requires an in-depth investigation into how the phenomenon is subjectively perceived.

As these three considerations and their intersections illustrate, misinformation as a challenge is not only about outright falsehoods. It is part of a wider epistemic challenge that also entails how truth is contested, and covers a broader terrain of information types that cannot be neatly sorted into categories of "true" or "false". This dissertation does not aim to negate any of the misinformation research thus far as a definable genre. Instead, I will take a step back and

connect the informational dimension of misinformation as a *genre* to its *discursive* and *perceptual* elements to provide a broader understanding of why the navigation of the information landscape has been so challenging. With that, I argue that the discourse about misinformation and perceptions misaligning with academic definitions may be a crucial piece of the puzzle besides relatively low estimates of the volume of misinformation alone. With that, this dissertation also investigates both the actors of misinformation discourse and the perceptions of the audience. With the aim of supporting an informed citizenship, I will argue that the perceptual and discursive dimensions of misinformation cannot be overlooked in supporting citizens in navigating truths and falsehoods in the information ecosystem.

To ask, admittedly, rhetorically, whether truth is only hearsay does not aim to challenge the notion of truth from an epistemological standpoint. Instead, I want to ask how truth or the lack thereof is referred to in public discourse, and how misinformation is perceived and weaponized to challenge the idea of a common set of facts as a foundation for consensus-building. Misinformation as a broader phenomenon evolves around what is *heard* - what is perceived, (dis)trusted, or believed, and what is *said* - what is shared and contested in political discourse. It thus aims to explore to what extent our judgments about misinformation are based less on objective criteria than on the interplay of perception and discourse. In an overarching sense, this dissertation thus seeks to give insights into the following question:

> ***How do the informational, discursive, and perceptual dimensions of misinformation shape the content, experience, and evaluations of the contemporary information environment?***

In what follows, I introduce the respective dimensions in more detail. After offering an example for each of the three dimensions, I will lay out the definitions and debates surrounding them when it comes to misinformation as an informational genre and as discourse. Then, I will lay out what misinformation perceptions are, why they matter in light of the genre and discourse, and make an argument about current blind spots in misinformation research that we should consider in addition to, not instead of, the research that is predominantly being conducted. Last, I will present the research that informs the three empirical chapters of this dissertation, and go into detail about the research design and data used for the studies.

Genre, Discourse, Perception? An Example from the Dutch Context

Before outlining how this dissertation empirically investigates the three dimensions of misinformation, an example can illustrate how the informational, discursive, and perceptual dimensions interact in practice around a single event.

On the evening of September 25th, 2019, three people were injured in a stabbing incident at a café terrace in Groningen. The Dutch public broadcaster NOS reported that the police arrested a 67-year-old man from Groningen and seized a knife (NOS Nieuws, 2019). The local newspaper *Dagblad van het Noorden* reports: "Man stabs three people on terrace of De Drie Gezusters in Groningen; visitor pulls perpetrator across table" (DVHN, 2019). The following day, a politician from the radical-right party *Partij voor de Vrijheid (PVV)* reposts the article on Twitter (now X) with the following false message:



Figure 1: Example Tweet Demonstrating the Three Faces of Misinformation

In English, this tweet translates to: "Man stabs three people on the pleasant terrace of De Drie Gezusters in Groningen. What the media won't tell you: the confused man has a North African appearance (according to a reliable source) and apparently hates beer" (Marjolein Faber PVV [@pvvfaber], 2019).

This statement is false, as indicated by journalistic fact-checkers and empirical observations (Kerstens, 2019). Witnesses had said that the offender was a white man, which was also later confirmed by the Public Prosecution Service (OM). With that, the tweet presents a simple example of misinformation as an **informational genre**, showcasing a statement that can be debunked with evidence. We cannot prove for sure whether the politician knowingly spread false information at this point. Yet, we do know that she refused to delete it even after being confronted with a correction (NOS Nieuwsuur, 2019), which is why, technically, we would refer to *dis*information.

Yet, this tweet also displays the discursive dimension of misinformation in multiple ways. First, it displays an accusation challenging the media's legitimacy. By stating "what the media will not tell you", the politician suggests the intentional omission of supposedly important details by the media in informing the public about the incident. It also displays that accusations of inaccuracy go beyond the accusation of false messages, but also present nuances (such as selective omission). Interestingly, in this case, the accusation of selective omission is becoming misinformation in its

own right, because we in fact know that the media did not omit this false detail. Second, several media outlets reported on the tweet (e.g., Kerstens, 2019) and fact-checked it. With that, the tweet has been amplified in public media discourse. There were additional interactions between outlets and the politician herself, in which she repeatedly insisted that the tweet was factually correct (NOS Nieuwsuur, 2019). Third, multiple users on Twitter directly commented under the tweet, calling it "leugens!" (lies) and "nepnieuws" (fake news). Comments like these exemplify misinformation as a discursive label attached to information in an attempt to point out a lack of credibility. The discourse around the tweet spanned five years until the politician admitted in 2024 that the tweet was incorrect (Dutchnews, 2024).

Finally, the *perceptual* dimension demonstrates what audiences consider to be misinformation. In this specific case, users are confronted with opposing truth claims (i.e., the politician's false assertion versus media corrections). While some users perceived and called out the politician's message as misinformation, others appeared to accept the politician's framing. For instance, one user commented: "If North African descent is the same as being a native 67-year-old from Groningen, that is also useful to know for future reporting in the media, statistics, etc....". Despite the corrections from other commenters, this user's perception seemingly shifted to be more critical of the media coverage of the event by finding the politician's false claim credible.

This dissertation investigates these dynamics across three empirical chapters. Accusations of misinformation from politicians are inductively analyzed in **Chapter 1**, while **Chapter 3** investigates the effects of misinformation accusations in the shape of community notes. The audience perceptions are mainly addressed in **Chapter 2**, which comprehensively maps out the content citizens perceive as misinformation, where they encounter it, and how they assess it. Additionally, the three chapters account for the nuances within the informational genre by addressing the varieties of it within discourse and perceptions, and the effects of misinformation and labels across degrees of deception.

What Misinformation is – And is not

Misinformation is a broad and complex phenomenon. Yet, in practice, academics have been working with definitions to measure and study its reach and effects. In starting to inform the empirical chapters of this dissertation, it is important to clarify how misinformation is defined and operationalized in the literature and how it is distinguished from related concepts. This conceptual foundation is crucial as it allows for a better assessment of where misinformation discourse and perceptions align with or transgress the boundaries of the informational genre as defined in the literature. As the empirical chapters will eventually demonstrate, simplifying

misinformation conceptually and overlooking discrepancies with public perceptions may obscure important nuances underlying epistemic vulnerability.

The Core Definition and Related Concepts

In general, misinformation definitions focus on information being factually incorrect, meaning that it cannot be "supported by empirical or verifiable evidence or expert opinion" (Hameleers & Minihold, 2020, p.4). Commonly, there is a distinction between misinformation, which may be spread unintentionally, and disinformation, which involves the deliberate creation and dissemination of false or misleading information (Baines & Elliott, 2020). With this basic definition, we can distinguish mis- and disinformation from other types of harmful information. Malinformation, for instance, refers to the misuse of genuine information with the intent to cause harm (First Draft, 2020). Propaganda, the systematic attempt to influence perceptions and behavior while hiding its purpose, can be characterized as a broader, overarching strategy of communication (Egelhofer & Lecheler, 2019). This strategy instrumentalizes *any* information, meaning that disinformation can be part of propaganda, but not every propaganda strategy is based (entirely) on disinformation. Conspiracy theories, in turn, present specific narratives that aim to explain events or practices by referring to "the machinations of powerful people, institutions, or a secret society" (Douglas et al., 2017; Zeng, 2021, p. 3). Lastly, rumors refer to pieces of "unofficial" content, meaning that their authenticity has not been verified through institutional authority (Akhtar et al., 2018; Kapantai et al., 2021; Zeng, 2021). The distinguishing feature from misinformation is thus their lack of validation over factual inaccuracy. While these concepts have their own definitions, some authors consider them to be on the same level as mis- and disinformation (Kapantai et al., 2021).

Gray Areas of Factual Inaccuracy

Whereas these phenomena can be conceptually distinguished from misinformation relatively clearly, there exists more conceptual fluidity with other kinds of deceptive and misleading information that fall under the umbrella of misinformation. As Guess and Lyons (2020) argue, empirically determining what qualifies as false is not always straightforward. This would also require a gold standard of truth stripped from interpretation and description, which is not available. Since almost all our understanding of the world is mediated, it raises the question of the extent to which an objectively verifiable truth is attainable. Therefore, when testing misinformation, research tends "to focus on claims that can be directly verified" (Guess & Lyons, 2020, p. 11). Put differently, while nuances and gray areas have been conceptually acknowledged (e.g., Wardle, 2021) and related concepts have been placed in taxonomies with

mis- and disinformation (e.g., Kapantai et al., 2021), empirically, research often focuses on messages that are clearly verifiable. However, this operationalization does not take into account the range of information and labels that blur the boundaries of true and false information, such as the incorrect interpretation of facts or the misleading use of statistics and contextual elements in an overall true account of events.

Conceptually, recent frameworks try to take this logic into account by categorizing misinformation along a spectrum instead of relying on a restrictive binary approach of true versus false. For instance, Wardle proposed a typology of information depending on the degree of deception, including misleading information, false connections, and true information that is being decontextualized (Wardle, 2018). Other scholars describe ratios of true and false elements within a given piece of information (e.g., Adams et al., 2023), including true messages with small manipulations (Anspach & Carlson, 2020). Some also include biased and hyper-partisan content under the umbrella of misinformation (Pennycook & Rand, 2021).

These examples demonstrate that the boundaries are not always clear to determine. Yet, considering these more nuanced kinds of misleading information is important because it has practical implications: Perhaps unsurprisingly, partially true but misleading information is more common in the information ecosystem even when overall knowledge on a topic is still sparse (Brennen et al., 2020). Similarly, visual misinformation presents a crucial and understudied challenge, considering that many popular social media platforms (e.g., TikTok, Instagram) are visually based (Heley et al., 2022). Visuals offer unique ways of misleading audiences, such as through the use of authentic visuals in false contexts (Heley et al., 2022) and the depictions of expressions and behaviors of people that could shape evaluations of the content (Peng et al., 2023). Additionally, visuals can serve as supposed evidence for events and arguments (Yang et al., 2023).

The Definitional Challenges

In sum, there exists an array of types of false, misleading, and other types of problematic information that are not directly captured in the definition that is often put to the test empirically. Ironically, there is no right or wrong answer when it comes to how misinformation ought to be defined (see Hameleers & Van Der Meer, 2025). A narrow definition focused on fabricated falsehoods and deliberately deceptive messages suggests that the problem may be rare and confined to small partisan segments (Budak et al., 2024). Including other concepts, such as politically motivated framing, in a very broad definition would make misinformation appear pervasive and lose conceptual clarity. Hence, some academics urge to refrain from the use of misinformation as a catch-all term that is disentangled from the intent (Baines & Elliott, 2020).

Whereas a definition juxtaposing misinformation to clearly verifiable facts is undeniably important for empirical research (in fact, to an extent, I utilize such a clearly verifiable example in Chapter 3), in the context of this dissertation, I investigate how misinformation *is referred to*, and how it is *perceived*. Against the backdrop of the pervasive misinformation perception from audiences (van der Meer & Hameleers, 2024), I want to better understand the boundaries that are set in misinformation discourse and individual-level perceptions without restricting this research with a specific definition prior.

That is also why I do not make the clear distinction between mis- and disinformation, as it is often unclear whether perceived false information was created and spread intentionally. In the respective empirical chapters and the general discussion, I refer back to the concept of misinformation and discuss to what extent misinformation discourse and perceptions transgress the boundaries of inaccuracy as described in the approaches above. Thus, relating to misinformation as an *informational genre,* this dissertation looks into the following questions: To what extent are different kinds of problematic information referenced and perceived as misinformation in everyday political discourse? Put differently, how broadly is factual inaccuracy treated when talking about information, and where do audiences draw the line themselves? To understand this, **Chapter 1** inductively analyzes the varieties of misinformation discourse in the context of media criticism. **Chapter 2** explores the varieties of information that audiences perceive to be false in everyday life. Additionally, **Chapter 3** compares the effects of true, false, and also decontextualized misleading content on credibility perceptions and behavioral intentions to engage with information to directly test the effects of nuances of inaccuracy. Given that much of the misinformation effects research treats the concept as a binary, we still have a relatively small understanding of these gray areas in the public. Thus, in order to effectively support citizens in truth discernment, we need to understand how misinformation is discussed and perceived in its broader complexity.

Misinformation Discourse – Talking *About* Misinformation

Building on this conceptual discussion of misinformation, this dissertation also examines the discursive dimension, covering the way in which misinformation is talked about. Hereby, I follow the argument that talking *about* misinformation itself shapes perceptions, trust, and public understanding of the concept (Egelhofer & Lecheler, 2019). I understand misinformation discourse to refer to the broader ways and specific instances in which misinformation is discussed, framed, contested, or labeled, whether this happens in public debate, media coverage, or online platforms. Misinformation discourse ideally should serve as a navigation tool that actually points people toward suspicious claims in an overloaded

information setting. It can guide audiences through complex information landscapes, signaling unreliable claims and informing about misinformation narratives. At the same time, it can backfire or even be hijacked strategically, amplifying confusion and distrust.

Misinformation discourse manifests in different ways. In a general sense, one can observe increasing coverage of the phenomenon as a global and societal problem in the media. For instance, when the World Economic Forum announced disinformation to be the most pressing global short-term risk (World Economic Forum, 2024), the topic received widespread media coverage. Although intended for informational purposes, the spike in misinformation coverage signals a disproportionate share of false information in the average news diet (Budak et al., 2024). Additionally, reporting on false claims due to their newsworthiness amplifies the salience of misinformation in public discourse (Evanega et al., 2020).

Misinformation discourse also appears in more specific instances. The use of warning messages, for instance, has become a common and effective instrument of search engines and other platforms to warn audiences about the presence of false or unreliable content *before* exposure (Martel & Rand, 2023). Yet, these warnings come with a downside: Although they reduce the perceived credibility of false information, they also have been shown to reduce trust in accurate information (van der Meer et al., 2023; Williams-Ceci et al., 2024). Hence, merely talking *about* misinformation can add to a heightened skepticism towards all information. More commonly, misinformation discourse presents itself in the shape of misinformation labels, referring to accusations of factual inaccuracy towards a piece of information or outlet aiming to shape the perceptions of the information or messenger (Egelhofer & Lecheler, 2019). Thus, misinformation labels function as an "ordering device", serving to make sense of a complicated informational world through indicating supposed factual inaccuracies, misleading elements, or questionable reliability of information (Braun, 2019). These labels appear in the shape of fact-checks, either from professional or crowd-sourced fact-checking and warn users *during* exposure about false or uncredible information, often successfully (Walter et al., 2020). However, such labels are also used in a strategic and delegitimizing manner, for example, in political discourse to attack opponents. To this day, the most prominent case exemplifying this discursive dynamic is Donald Trump and his use of the *Fake News* label, which he first used on his Twitter in December 2016, leading to its quick proliferation in public and media discourse (Wright, 2021). Over time, political figures in power globally have taken over this rhetoric in an attempt to discredit epistemic authority (e.g., Graham & FitzGerald, 2024). Indirectly, Big Tech platforms are facilitating this widespread delegitimizing discourse by allowing it on their social platforms (Zitelli, 2025). Thus, delegitimizing labels like these aim to discredit opposing or disliked narratives. These attacks, often targeted at traditionally reliable mass media, can be

concerningly effective in reducing the perceived trustworthiness of reliable information or even entire outlets, especially among people with strong populist attitudes (Egelhofer et al., 2022). The effectiveness is probably why this strategy has been further expanded to not just target individual disliked messages, but entire outlets as "lying press" or "fake news media". Similarly, science as an institution and individual academics and experts face delegitimizing attacks insinuating that they are morally inferior (Mede & Schäfer, 2020). With that, misinformation discourse does not only refer to individual messages – it also aims to establish and discredit the epistemic authority of entire institutions.

As I argue in chapter 3, misinformation labels also likely matter according to popular theories of information processing, as they offer a mental shortcut signaling deception and dishonesty. In general, the Elaboration-Likelihood-Model (ELM; Petty & Cacioppo, 1984) and the Heuristic-Systematic Model of Information Processing (HSM; Todorov et al., 2002) propound that new information is generally processed quickly and superficially, unless a specific motivation for deeper engagement is present. According to this logic, most people use heuristics for most messages. As I show in that chapter, misinformation labels can serve as such a heuristic – referring to a cue that people can rely on for information judgment.

Taken together, misinformation discourse is not merely about falsehoods; it also entails the contestation of epistemic authority. By examining the actors who shape this discourse in **Chapter 1** and the effects it can have on the audience's information processing in **Chapter 3**, this dissertation explores and tests the role of misinformation discourse for public misinformation perceptions.

Why Misinformation Perceptions Matter

One key actor of interest in this dissertation is the audience of misinformation. While the literature often considers the audience as passive recipients of misinformation exposure or subjects of its effects leading to false beliefs (Balog-Way & McComas, 2025), the perceptual angle taken in this dissertation empowers the audience to be active agents by focusing on how they view and experience misinformation. Specifically, it focuses on which information audiences *reject* because they perceive it to be false (Matthes et al., 2023). The misinformation belief perspective overlooks a critical step. People must perceive a claim as misinformation before it can be corrected, dismissed, or distrusted. For instance, confirmation bias, referring to the judgment of information in accordance with one's prior beliefs, is a strong predictor of message acceptance or rejection (Zhou & Shen, 2022). If someone accepts a false claim due to this bias, they do not perceive it as misinformation.

Understanding perception matters because audiences appear to define misinformation more

broadly than scholars do. Whereas scholarly definitions tend to focus on verifiably false content (Guess & Lyons, 2020), audiences also describe biased, sensational, or otherwise distrusted reporting as misinformation (Kyriakidou et al., 2023). This gap may help explain why surveys find that people estimate a much higher prevalence of misinformation in their media diets (van der Meer & Hameleers, 2024) than researchers find empirically (Allen et al., 2020; Altay et al., 2022). The mere perception of ubiquitous misinformation, even when exposure is relatively low, can erode trust and fuel political cynicism (Chan et al., 2023; Jones-Jang et al., 2021). Hence, diving deeper into the nature and contexts of these perceptions is crucial. This dissertation does so by collecting and analyzing organic encounters with perceived misinformation in **Chapter 2**, while also assessing the context in which it is encountered and the line of reasoning provided for the identification as inaccurate content.

Again, the literature proposes that these perceptions are also shaped by misinformation discourse. Fact-checkers and social media platforms use corrective labels as heuristics to guide judgment, sometimes successfully, but sometimes at the cost of spillover skepticism towards reliable information (van der Meer et al., 2023; Williams-Ceci et al., 2024). At the same time, political actors can decrease credibility perceptions of disliked narratives among audiences (Egelhofer et al., 2022). **Chapter 3** assesses how perceptions can be affected by misinformation discourse, utilizing community notes as examples. Thus, this dissertation connects misinformation perceptions to the informational and discursive dimensions of the phenomenon. Misinformation is not only about identifying inaccuracies within the informational genre of an array of false and misleading messages, but also how these messages are framed and contested in discourse, and ultimately how they are perceived by audiences. Considering the vast amount of different kinds of misleading and other problematic information, we have yet to understand how these nuances are perceived by the audiences.

Blind Spots in Misinformation Research

The study of misinformation has become a fast-growing field in political communication. Yet, based on the considerations of the aforementioned three dimensions of misinformation and their intersections, we can identify blind spots in misinformation research that limit our ability to grasp the contemporary epistemic crisis holistically. These blind spots do not negate any of the prior research, but instead offer new avenues that have received comparatively little attention thus far. The empirical chapters of this dissertation aim to offer contributions to our understanding regarding three of these limitations (for an overview, see Figure 2).

First, misinformation research needs to look beyond isolated false messages

A first blind spot is the literature's focus on isolated messages, or even headlines and

statements, alone. Researchers have made significant advances in developing measures of citizens' exposure to misinformation (e.g., Allen et al., 2020; Del Vicario et al., 2016) and testing interventions to correct or reduce beliefs in misperceptions (e.g., Walter et al., 2020). This work has generated a wealth of insights into its potential harms, but overlooks the challenges from the broader epistemic environment in which such messages acquire meaning, are being contested, and are being interpreted by an audience with agency *in situ* (Balog-Way & McComas, 2025). To understand why misinformation feels so pervasive, we need to move beyond the message level and attend to how discourse, trust, and perception shape its significance. To do so, this dissertation maps out how truth and falsehoods are referred to in public discourse (**Chapter 1**), tests the effects of these discursive labels in swaying perceptions (**Chapter 3**), and conducts a bottom-up investigation into how perceived falsehoods are encountered and evaluated in everyday information consumption (**Chapter 2**).

Second, misinformation research needs to go beyond binaries, both in terms of messages and practices of delegitimization

Naturally, when causally testing the effects of false information, scholars need to distinguish between true and false narratives. Yet, this approach neglects the effectiveness of misleading information that is true but presented out of context, framed selectively, or exaggerated in ways that could foster misperceptions. Because the discrepancy between this kind of misleading information and the truth is much smaller than in the case of outright false information, misleading information is more likely to successfully deceive (Rogers et al., 2017; Tay et al., 2022; Vijaykumar et al., 2021).

Similarly, research on misinformation labels has focused on common extremes, such as the infamous *Fake News* label hijacked and potentially owned by the radical right (Egelhofer & Lecheler, 2019; Farhall et al., 2019; Tamul et al., 2020). At the same time, we pay relatively little attention to more nuanced ways of referring to supposed misinformation and deconstructing epistemic authority. By focusing on binary categories, research risks obscuring the more subtle and legitimized ways in which misinformation and delegitimization surface. This is why this dissertation looks at the nuances of misinformation discourse (**Chapter 1**), compares the effects of misleading and false information and labels (**Chapter 3**), and maps out the varieties of perceived inaccuracies by audiences (**Chapter 2**).

Third, studies lack the qualitative dimension of perceived misinformation exposure

As laid out before, there seems to be a discrepancy between the measured exposure to misinformation and the perceived widespread and pervasive nature, according to audiences. Yet, research into misinformation perceptions frequently focuses on the quantitative nature of

perceived misinformation, that is, the perceived share of false information in the audience's news diets (Knuutila et al., 2022; Matthes et al., 2023) or the choice among a selection of possible definitions of misinformation (e.g., Osman et al., 2022). Some work suggests that people describe broad categories of information as misinformation, such as biased news, sensationalized content (Kyriakidou et al., 2023), or hyper-partisan content (Nielsen & Graves, 2017). Similarly, epistemic vulnerability underscores that this public disorientation stems not only from false narratives but from a broader struggle to interpret and trust political information (Labarre, 2025).

By overlooking the subjective experience of audiences as active agents navigating their information environment, we risk missing why misinformation feels so pervasive despite the relatively low measured exposure. Thus, we lack some more insights into the *qualities* of these perceptions beyond the evaluation of experimental stimuli. *What* is perceived as misinformation and why? To what extent do discursive practices shape these perceptions? What are indicators of (un)trustworthy information and sources in the eyes of the audience? In incorporating these qualitative dimensions of citizens' perceptions and sensemaking in **Chapter 2**, I take a step back to offer room for these perceptions independent from academic definitions to understand the root of information uncertainty bottom-up.

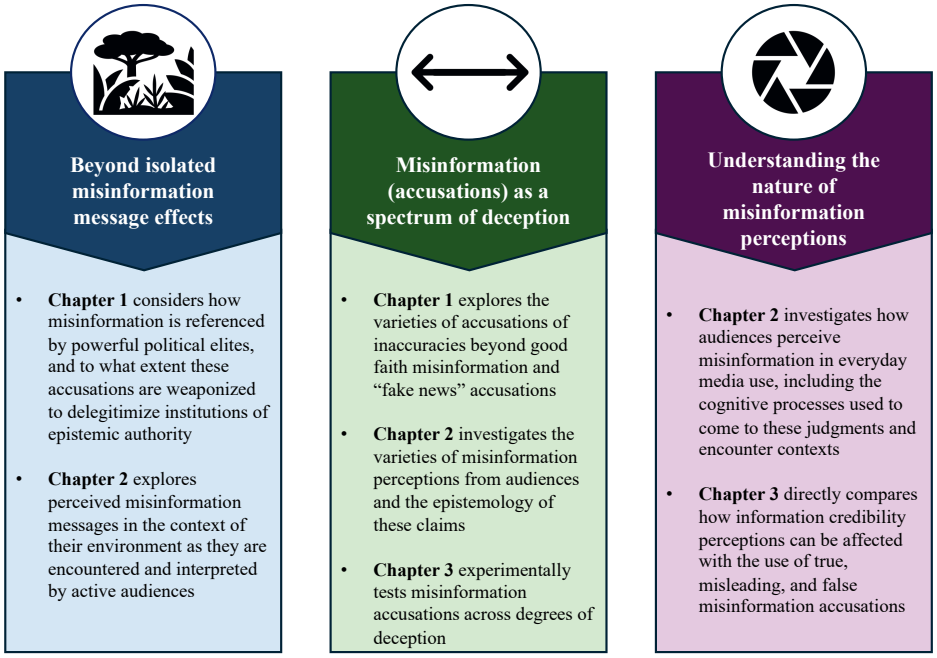


Figure 2: Overview of Blindspots in Misinformation Research Addressed in this Dissertation.

Case Selection

To understand the role of the intersection of misinformation as an informational, discursive, and perceptual phenomenon, this dissertation utilizes Germany and the Netherlands as geographical contexts. These two Western European countries serve as interesting cases for the study of misinformation.

Germany and the Netherlands are considered among the most resilient countries to misinformation. This is suggested due to their (relatively) low levels of populist communication, societal polarization, and the relatively resilient media environment in terms of the strength of the public broadcaster, size of the online media market, social media news consumption, and comparatively high trust in the media (Humprecht et al., 2020). Trust in "most media most of the time" is still high in relative terms in Germany (45%) and the Netherlands (50%) in comparison to, for instance, the United States (30%; Newman et al., 2025). Yet, despite this resilience, citizens in both countries report widespread concerns about misinformation. Both populations express uncertainty about truth discernment (Newman et al., 2025), considerable epistemic vulnerability (Labarre, 2025), and high perceived levels of misinformation online (van

der Meer & Hameleers, 2024). Journalists and EU correspondents similarly report ongoing concerns about misinformation (Lecheler et al., 2024; RSF, 2024). Hence, while these countries seem to be among the least likely cases for a crisis in terms of truth and legitimacy concerns, perceptions of misinformation are still widespread.

This paradox makes Germany and the Netherlands particularly relevant for investigating misinformation beyond the informational dimension alone. If high levels of perceived misinformation and epistemic vulnerability cannot be explained by exposure to falsehoods or institutional instability alone, then the discursive and perceptual dimensions become especially pervasive. Put differently, understanding what drives uncertainty in supposedly resilient contexts offers insights into the challenges of the contemporary epistemic challenges beyond the circulation of fabricated messages.

Studying these cases also offers some degree of generalizability. First, if the discursive weaponization of misinformation and perceptual uncertainty manifests even in resilient contexts, these dynamics are likely present or even amplified in less resilient democracies. Second, both countries show negative trends when it comes to these resilience indicators, for instance, regarding the growth of populist parties and decreasing trust in the media (Coi, 2024; Newman et al., 2025). Thus, at this point in time, the observations could serve as an early indicator of how the respective dimensions may evolve as resilience weakens. Last, these cases also extend the predominantly U.S.-focused literature in existing misinformation research (see e.g., Murphy et al., 2023) by examining contexts without a highly polarized two-party system and considerable partisan animosities (Nechushtai, 2018). The multi-party systems and less polarized political environments may reveal more nuanced forms of misleading information and accusations thereof.

Outline of the Dissertation

The studies presented in the following three chapters, based on three separate data collections, shed light on the proposed blind spots within misinformation research. I do so by implementing both qualitative and quantitative approaches, including qualitative analyses of textual and visual material (**Chapter 1 & Chapter 2**), an experience sampling method study combining elements of data donations and survey measures longitudinally (**Chapter 2**), and a survey experiment to investigate the causal mechanism behind the effects of misinformation discourse (**Chapter 3**) in Germany and the Netherlands. Figure 3 presents an overview of the respective dimensions of misinformation that are addressed by each chapter.

The empirical chapters start with an exploration of misinformation discourse. **Chapter 1** examines how leading political figures in Germany use misinformation discourse, focusing

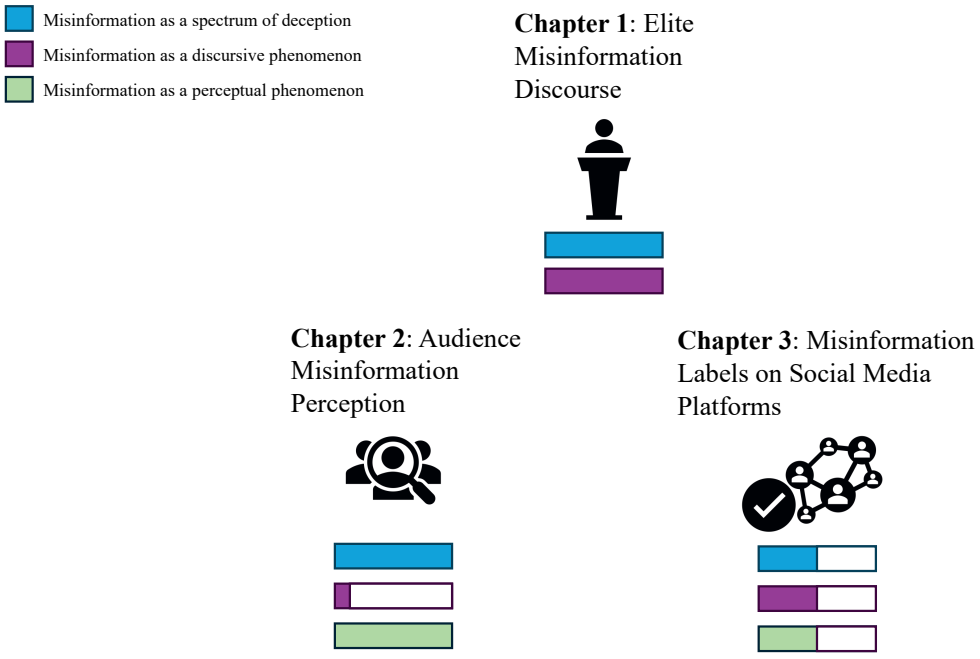


Figure 3: The Emphasis of the Three Dimensions of Misinformation in each Chapter

specifically on the varieties of accusations within media criticism. Whereas prior research has focused mainly on blunt delegitimizing accusations, this chapter maps the broader repertoire of ways in which politicians question accuracy, credibility, and epistemic authority of the media. It thus serves as a foundational starting point to understanding misinformation as a discursive phenomenon in practice. Focusing on politicians is crucial not only because of their reach and influence, but also because of their strategic interest in presenting narratives about them, their parties, and policies in a specific light (Waisbord, 2018). I focused on media criticism specifically because, normatively speaking, it is a legitimate form of misinformation discourse when not transgressing boundaries of good faith and when following an aim to preserve and improve journalism as an institution instead of tearing it down (Cheruiyot, 2019). Yet, this line is difficult to define and requires an idea of the landscape of media criticism discourse. To offer this overview, the chapter qualitatively analyzes N = 545 tweets from German politicians of all relevant parties across multiple years, covering federal election times, the Covid-19 pandemic, as well as one year without a specific political or politicized event. In line with the aim of this dissertation, there needed to be some specific analytical foci: The coding focused on the

explicitness of perceived inaccuracy over disagreement, and thus the explicitness of mis- and disinformation labels over disliked narratives. Second, in line with the idea of a weakened epistemic authority of the media, the analysis unveils the disruptive potential of the criticism when delegitimizing journalists and the media instead of aiming to support and improve these institutions. The findings reveal that accusations vary not only in the extent to which they attribute malicious intent to journalists, but also in whether they target verifiable inaccuracies or reflect broader disagreements.

This raises an important question: if the varieties of what is labeled "wrong", be it factually or morally, are so broad in discourse, then how do audiences perceive their information environment in day-to-day media use with respect to inaccuracy? To what extent could the uncertainty about distinguishing between right and wrong be shaped by broader ideas about what misinformation could entail, and what role do biases and trust play in this perception?

With that, **Chapter 2** shifts from political discourse to audience perceptions, asking how people themselves navigate their information environment and decide what counts as misinformation. Rather than treating audiences as passive recipients of messages, this chapter adopts an audience-centered framework that foregrounds their agency in labeling and evaluating contested information. Hereby, my aim was to see where people encounter perceived inaccuracies, where they draw the line between true and false, and how they come to these conclusions. To capture these dynamics *in situ*, the chapter employs an experience sampling method approach that combines screenshots of perceived misinformation from participants with survey responses. Over the course of one week, N = 693 German and Dutch participants were instructed to take screenshots of encountered information that they perceived to be misinformation and to respond to a subsequent questionnaire evaluating the information, specifying the encounter context, and elaborating on their conclusion that the information may be inaccurate (N = 2762 with completed surveys). This approach not only circumvents recall effects and challenges in coming up with ad-hoc misinformation definitions, but also grasps examples of perceived misinformation in their encounter context. Based on the submitted material, the chapter develops and coins the concept of *misinformation experiences,* covering the context in which misinformation is encountered, the actual content of the perceived misinformation, and the cognitive process in evaluating it as such. **Chapter 2** analyzes a subsample of the submissions inductively to map out the varieties of misinformation experiences. Some key conclusions are that most perceived misinformation is encountered on social media, and that participants indeed differentiate between a variety of false claims. Example categories of perceived inaccuracies entail fabricated information, but also misleading headlines, decontextualized information, and disagreement with journalistic interpretations of

data points. Hereby, participants rely on a variety of evaluation processes, ranging from the reliance on simple heuristics to credibility and plausibility assessments, and sometimes active verification behavior. Importantly, the dataset also included instances of misinformation discourse, both in the shape of articles talking *about* misinformation and the use of community notes or other fact-checking labels attached to social media posts.

Three main conclusions from these projects inform the third project. First, misinformation discourse is manifold and is noticed in audiences' misinformation perceptions. Second, perceptions of and references to facticity are not binary, but refer to a range of inaccuracies. Third, audiences seem not to scrutinize every piece of information in detail, but rather rely on heuristic judgments. Against this backdrop, **Chapter 3** finally assesses these elements by testing the causal effects and a cognitive mechanism of misinformation labels across degrees of deception (N = 1018) in Germany. Hereby, I was interested in directly testing the extent to which misinformation labels can shape perceptions and subsequent behavioral intentions. The chapter compares the appropriate application of misinformation labels to actual misinformation with the incongruous annotation to true information, and a gray-area case where true but decontextualized information is labeled as misinformation. The experiment demonstrates the effects of misinformation labels utilizing community notes, following Meta's announcement to shift away from professional fact-checking in early 2025. Based on the idea that misinformation labels are crucial to support the navigation of a complex informational landscape, this chapter assesses their effectiveness in reducing engagement with misinformation and decontextualized information, but also their pitfalls when applied to true information. Additionally, while prior research established that affective (rather than cognitive) mechanisms explain (mis)information engagement (So et al., 2023; Song et al., 2023), this chapter tests to what extent the presence of misinformation labels in the shape of community notes triggers a cognitive credibility assessment that consequently explains information engagement. This is done using real immigration and environment examples, covering one issue with left- and right-wing ownership, respectively. Working with a Facebook-like interface and real article examples, this study shows high ecological validity. The chapter finds that misinformation labels in the shape of community notes successfully decrease the perceived credibility of information and subsequently the intention to engage with the information. However, they do so equally for true, misleading, and false information, suggesting that they can function as both corrective and deceptive tools. Together, these studies provide a more comprehensive understanding of the epistemic challenge democracies are facing. This integrative approach offers new insights into misinformation research and offers pointers on how we can support citizens in navigating an increasingly complex information landscape.

Chapter 1

Beyond Lügenpresse

How Politicians Criticize and Delegitimize the Media in Germany



Abstract

Media criticism is a crucial part of meta-journalistic discourse, ensuring that journalists adhere to their democratic functions, such as informing citizens in an honest and complete manner. However, the profession increasingly faces hostile, nonevidence-based attacks from politicians that attempt to strategically fuel distrust among citizens and delegitimize opposed viewpoints. Despite this reality, we lack a systematic overview of the boundaries between constructive feedback and weaponized attacks in media criticism. To address this gap, we inductively analyzed how media criticism is represented within the social media discourse of ten German politicians from all major parties. Using a grounded theory approach, we conducted a qualitative content analysis of a subset of their tweets from 2015, 2017, and 2022 that contain media criticism (N = 545), mapping the types and severity of the criticism, the construction of opposing narratives, and the explicitness of references to facticity over opinions. We identified four themes within media criticism discourse, ranging from misinformation attributions to severe accusations of the intentional distortion of reality through the media. Politicians (strategically) employ a wide range of media criticism and inaccuracy claims beyond judgments of facticity with differing degrees of severity for the profession. Based on our findings, we propose a typology of media criticism from political elites that adds nuance to our understanding regarding the boundaries between supportive and disruptive criticism for journalism.

keywords: Media criticism, Disinformation, Delegitimization, Media trust, Politicians, Social Media

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Introduction

Media criticism is a crucial asset to democracies. Rational, evidence-based criticism ensures that journalists attain their democratic functions as critical watchdogs of elites in power and secures the correction of erroneous information without censorship (Figenschou & Ihlebæk, 2019). However, journalism in countries such as Germany has faced increased hostile attacks from politicians in recent years, challenging the norms of rational and civil criticism underpinning this ideal (Egelhofer & Lecheler, 2019). Instead of motivating critical thinking among audiences, accusations suggesting the intentional deception of citizens through the media delegitimize their position as a fourth estate, fuel institutional distrust, and impact the work of journalists (Bennett & Livingston, 2018; Lecheler & Egelhofer, 2022). Although there exists a variety of research on the use of hostile delegitimizing labels by politicians - such as Fake News or Lügenpresse ("lying press"; Brummette et al., 2018; Darius, 2022; Farhall et al., 2019) - our understanding of the boundaries between disruptive and constructive media criticism beyond explicit disinformation labels is limited.

This lack of understanding is concerning in a digital journalistic environment shaped by social media's affordances. Specifically, due to the compromised role of traditional journalistic gatekeepers on social media and the facilitated dissemination and amplification of false narratives on social platforms (Pasquetto et al., 2020), citizens around the world increasingly worry that misinformation is ubiquitous in online settings (e.g., Newman et al., 2022). The skeptical stance towards information and the availability of multiple narratives around facts has led to the notion of truth becoming seemingly negotiable. Especially on social media, different versions of socio-political reality compete for the audience's short-lived attention (Waisboard, 2018). Terms such as "factual relativism" or "post-truth" suggest that deliberation becomes nearly impossible when political camps cannot argue on the same set of facts (Van Aelst et al., 2017). This informational uncertainty creates new opportunities for politicians to challenge disliked media narratives as false information. As such, factual relativism is not only characterized by mis- and disinformation, but it also facilitates the further disempowerment of mass media as reliable information sources. Criticism like *fake news* has been "appropriated by politicians around the world to describe news organizations whose coverage they find disagreeable" (Carlson, 2016, p.5). Although fake news is a rather extreme example, the widespread belief surrounding ever-present false information can be successfully weaponized by political actors to label disliked information as "mis-" or "disinformation" to gain or uphold political power (Lecheler & Egelhofer, 2022). Still, we know very little about the extent to

which politicians make use of this strategy beyond the use of legitimate criticism and delegitimizing labels, especially when it comes to non-populist actors (Solis & Sagarzazu, 2020). Against this backdrop, we need to investigate the varieties of media criticism as well as how and whether criticism does or does not refer to verifiable truth claims beyond delegitimizing labels.

Responding to the call to more comprehensively map the ways in which media criticism does (not) delegitimize the journalistic profession (Carlson, 2017) in an era of factual relativism, we ask:

How is media criticism represented in politicians' social media discourse in Germany?

Using a qualitative content analysis of political communication on Twitter, we inductively arrive at a more comprehensive mapping of different types of media criticism in Germany's (relatively) high-trust and low-polarization setting, which still experiences increasing pressure on and hostility towards the profession of journalism (RSF, 2023). We focus on the extent to which criticism is delegitimizing – i.e., challenging journalistic authority, as well as how accusations of untruthfulness over opinion-based disagreement specifically may confound the boundaries of constructive criticism. Suggesting (intentional) factual inaccuracy and deception, these accusations additionally challenge journalists' epistemic authority. With this focus, we are bridging and extending the disinformation and media criticism literature by exploring its multi-faceted variety communicated by political elites and the context of these accusations in terms of subjects and targets, and offer an evidence-driven typology that helps our understanding of the boundaries between legitimate criticism and disruptive attacks and their potential negative consequences for the profession of journalism.

The Functions of Media Criticism in Democracies

Media criticism is "part of a meta-journalistic discourse which comprises all public expressions about journalism, its definition, boundaries, and legitimacy" (Egelhofer et al., 2021, p. 654). It is thus a crucial democratic tool for journalistic accountability that ensures the maintenance of quality in media performance without censorship by identifying instances that deviate from journalistic norms (Cheruiyot, 2019). On a system level, media criticism can also strive to point out and offer foundational alternatives to flaws in the underlying system of news production (Carlson, 2009). Normatively speaking, media criticism only covers civil expressions that strive for positive change in journalism (e.g., Wyatt, 2007), whereby critics take on the role of the "fifth estate", that is "watching the watchdogs" (A.S. Hayes, 2008).

Many scholars in recent years, however, have acknowledged that the recent rise of more hostile attacks towards the media has overstepped these normative boundaries (e.g., Cheruiyot,

2019). Prior work notes that delegitimizing media references entail incivility and lack substantive reasoning (Egelhofer et al., 2021). In line with analyzing how the normative boundaries of media criticism are overstepped, we consider those references delegitimizing that suggest that the media fail to attain their democratic functions; that is, independently performing checks and balances on the three pillars and to inform the public in an honest and balanced manner (Ukka, 2019). In contrast to constructive media criticism, delegitimizing criticism suggests a systematic failure to achieve these functions, weaponizing accusations to weaken or abolish the media and their epistemic authority instead of trying to strengthen them with suggestions for positive change. Because we aim to map the discursive variety of such accusations and extend recent studies about more severe "fake news" accusations (e.g., Ross & Rivers, 2018; Waisbord, 2018), we consider a broader definition than media criticism that is disentangled from its normative expectations. Against this background, we look for all negative media references and define them as any expression of dissatisfaction with or disapproval of a journalistic product, a journalist, a media outlet, or any criticism of the general discourse around the role of journalists and journalism. Dissatisfaction is a broad term covering a range of aspects, including, but not limited to, a call to change a journalistic product, routine, or regulation, outright opposition against a medium or the media, or even threats towards journalistic actors.

Media Criticism in the Relationship Between Politicians and Journalism

Politicians are crucial actors when it comes to constructive media criticism. Ideally, politicians and journalists are interdependent actors deriving legitimacy from and creating accountability for one another through founded criticism in a shared culture of political communication (Van Dalen, 2021). Hence, constructive criticism from politicians aims to improve journalism quality through respectful effort and reasoning (Egelhofer et al., 2021). Politicians, using constructive and well-founded criticism, have the power to point out the press' accountability towards citizens, advocate for diverse perspectives, and stimulate critical thinking among audiences.

However, with significant discursive power (Jungherr et al., 2019), politicians may misuse criticism strategically to question the legitimacy of news media: to gain electoral advantage, disrupt the established order, strengthen ties with their followers through confirming their biases, or to avoid accountability (e.g., Lecheler & Egelhofer, 2022). The "Fake News" label exemplifies this, weaponizing disinformation for political gain (Egelhofer & Lecheler, 2019; Waisbord, 2018). Social media facilitates this weaponization, allowing for personalized communication from politicians and creating an illusion of personal contact with audiences (Engesser et al., 2017). Additionally, news on social media is often paired with criticism of it, for example, in comment sections (Carlson, 2016). Thus, social media have often been

considered a cause for growing hostility towards journalists and an increase in media criticism (Egelhofer et al., 2021). Recent quantitative research suggests that media criticism from political elites on social media platforms in Germany is relatively often characterized by incivility or lacks argumentation (Egelhofer et al., 2021), making it a crucial discursive space to investigate. Thus, politicians may benefit from strategically crossing the cultural boundaries of founded and reasoned criticism to questioning the democratic role of the fourth estate – increasingly pressuring the profession, potentially resulting in self-censorship for journalists that constantly face uncivil attacks on their routines, daily practice, or even person (Balod & Hameleers, 2021; RSF, 2023).

Towards a Typology of Media Criticism in Germany

To explore the nature of media criticism in politicians' direct communication on social media, we not only investigate the types and possible severity of media criticism narratives presented but also the explicitness of facticity-related mis- and disinformation labels and the construction of opposing truth claims as sensitizing or direction-giving concepts for our mapping exercise (also see Hameleers & Minihold, 2020). Herewith, we aim to arrive at an evidence-driven typology of the nature of media criticism in politicians' discourse, extending research focusing on the weaponization of fake news and disinformation to identify possible additional ways and degrees of delegitimizing the press. These sensitizing concepts are not treated as being exhaustive – they simply guide the exploration of the varieties of media criticism.

(Non-)Factual Media Criticism

When it comes to accusations of untruthfulness, prior research has differentiated between mis- and disinformation accusations (e.g., Hameleers et al., 2022), referring to the attribution of unintentionally or intentionally disseminated falsehoods. Therefore, mis- and disinformation does not only exist as an informational genre but also as an accusatory label assigned to the media (Egelhofer & Lecheler, 2019). The distinction between the labels is crucial: Whereas misinformation attributions simply point out erroneous information as honest mistakes, disinformation accusations assign intentional behavior to the target. Disinformation attributions, often used to spread distrust among right-wing populists (Hameleers & Minihold, 2020), are inherently delegitimizing. Assigning deliberate factual inaccuracy to the media questions the democratic role of journalism as a truth-seeking institution. Beyond these labels, we know little about the discursive elements of criticism that may also point out how accurate information is, for instance, falsely contextualized or interpreted. We thus explore these accuracy-related boundaries of accusations and non-falsifiable criticism to better understand how the epistemic authority of the media is referenced.

Opposing Truth Claims in Media Criticism

The weaponization of accusations is especially concerning when accompanied by false opposing counter-narratives. Specifically, politicians may not only point out what is perceived to be "wrong" but also respond with opposing claims suggesting what is "right", claiming epistemic authority over the media (Ross & Rivers, 2018). Opposing statements become more problematic when leaving the realm of falsifiability, such as with the popular argument of a perceived "over-interpretation" of journalists (Crawford, 2006), which should be "balanced" with the politicians' opinions (Kruger, 2022). Thus, we pay specific attention to the discursive use and verifiability of opposing claims in the context of media criticism.

Severity of Accusations for the Profession of Journalism

Despite the general importance of corrective media criticism, we have argued that it can be misused strategically to delegitimize the media's epistemic credibility. With our analysis, we seek to better understand the severity of accusations, referring to the extent to which identified themes move away from constructive media criticism and become delegitimizing for the profession. We ask:

RQ 1: How does media criticism from politicians differ based on the type and severity of accusations, the construction of opposing truth claims, and the explicitness of mis- and disinformation labels?

Additionally, we have highlighted the disruptive potential of specifically disinformation accusations. We thus analyze how disinformation accusations might be present and differ discursively from other accusations:

RQ 2: How do disinformation attributions differ discursively from other forms of media criticism?

Lastly, based on prior literature on populist rhetoric, we consider the different political ideologies and contrasts between mainstream and challenger politicians, meaning those who have been in government on a federal level with those that have not (Vries & Hobolt, 2020). The two challenger parties (LINKE, Alternative für Deutschland) are the only populist parties in the sample (PopuList, 2020).

RQ 3: How does media criticism vary across political ideologies and mainstream versus challenger politicians?

Methods

The sampling and analysis procedure was preregistered anonymously with elaborate explanations on OSF. Figure 1 provides an overview of the case selection, data collection, and analysis process. The project was approved by the Ethics Review Board of the University of Amsterdam.

Case Selection: The German Context

We consider Germany a relevant case showing how media criticism may be weaponized in a country that (still) displays relatively stable media trust but currently faces new challenges (Darius, 2022). Germany, compared to many other multi-party systems with proportional representation, displays relatively low levels of polarization (Newman et al., 2022; Reiljan, 2020). Moreover, political elite incivility in Germany tends to get punished with backlash (Maier, 2021), indicating a relatively civil political discourse. However, hostility in social networks towards journalists is growing, and media pluralism has been declining (RSF, 2023). Additionally, recent political discussions have increasingly scrutinized the legitimacy of public broadcasters (Holtz-Bacha, 2021). Concurrently and in line with a global trend, Germany experiences an upsurge in right-wing populism, cultivating a hostile rhetoric towards the media (e.g., Hameleers & Minihold, 2020), even though the relative share of (right-wing) populist politicians is still small compared to other European countries (Rooduijn et al., 2019). Considering these developments, we expect to find both a traditional, relatively civil media criticism discourse as well as recent uncivil and hostile destabilization efforts towards the private media sector, as well as the public service media. In the latest elections (2021), seven parties from a wide ideological range were elected into parliament with more than 5% of votes, all of which are well-established in the German political landscape. This offers a unique opportunity to explore the varieties of media criticism in the context of political challenges that many Western countries are currently facing.

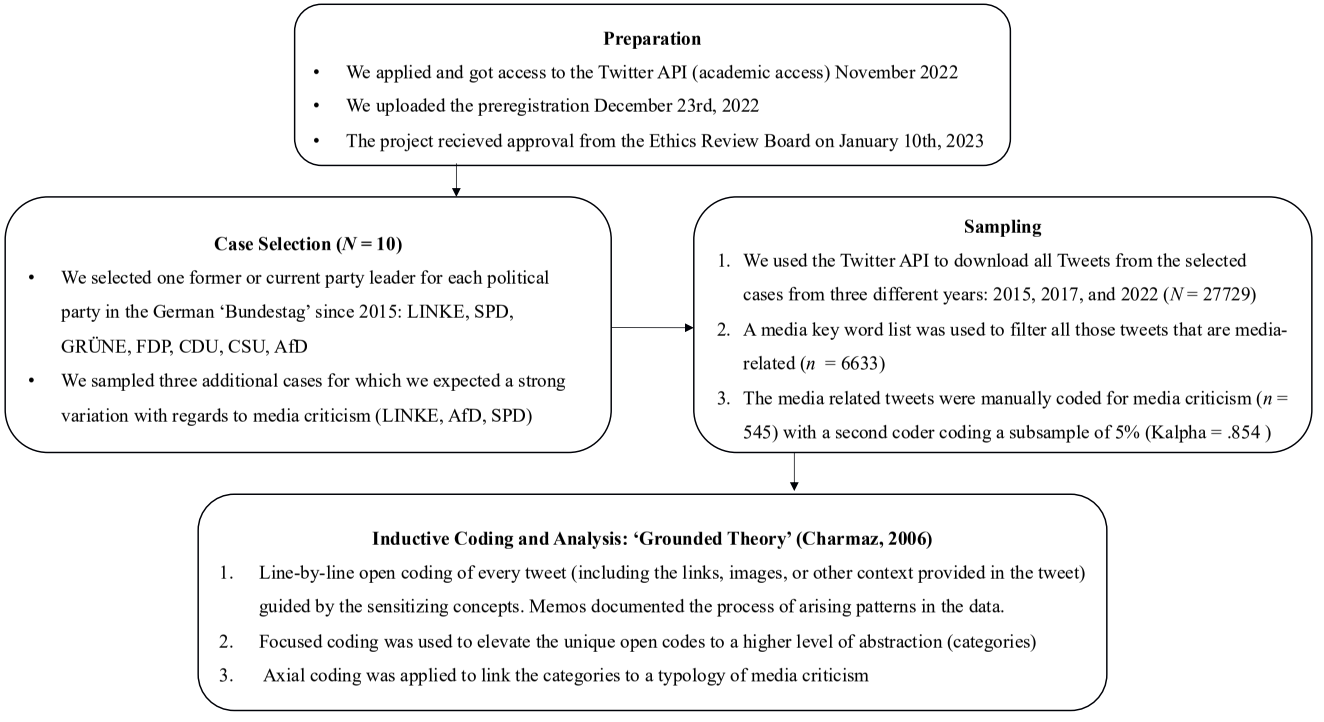


Figure 1: Overview of the Sampling Procedure and Analysis Strategy

Data Collection and Sample

Because of its pivotal role in political communication (Valenzuela et al., 2018), we rely on Twitter (now X) for our sample frame of relevant posts showcasing media criticism. Not only is it used by a variety of politicians for communication with wide audiences (e.g., Farhall et al., 2019; Ross & Rivers, 2018), but social platforms also attract the attention of traditional media, possibly reaching an even bigger audience (Kruikemeier et al., 2018). Additionally, the platform has been used for delegitimizing messages towards the media (Hameleers, 2022). To ensure that we explore maximum variation of media criticism, we sample tweets from politicians across the ideological party spectrum from multiple years (2015, 2017, and 2022). In 2015, Pegida ("Patriotic Europeans Against the Islamisation of the West", a pan-European, far-right extremist movement) and the AfD (Alternative for Germany, a populist, far-right party) were on the rise, largely promoting a rhetoric against the established media. 2017 was an election year, but there were no significant events in the meta-journalistic discourse. 2022 was sampled to capture the aftermath of the Covid-19 pandemic, which has impacted the discourse surrounding facts and the routines and safety of journalists (RSF, 2023). To select politicians, we rely on the number of followers and media references (see Appendix A for more information) to choose one respective party leader for each of the seven parties that have been represented in the Bundestag since 2015. Party leaders tend to have the largest following and thus have the most visible and potentially impactful criticism. However, considering their more civil communication due to the responsibility of their position, we added three additional cases for which we expect strong variation. This includes one popular left- and right-wing politician, who are known for their relatively extreme policy stances, as well as the current federal minister of health, who is known for his evidence-driven (meta-)scientific discourse, especially since the Covid-19 pandemic. We collected all their tweets across the three respective years using the Twitter API in February 2023 (N = 27,729). Table 1 provides an overview of the selected cases.

Table 1

Overview of Selected Cases

Case	Party / Function (since)	Follo-wers[a]	Tweets[b]	Media references	Media criticism
Politician 1	LINKE / Party Leader (2012-21)	129K	3455	830	42
Politician 2	GRÜNE / Party Leader (2022)	138K	3735	815	59
Politician 3	SPD / Party Leader (2021)	149K	3917	674	24
Politician 4	FDP / Party Leader (2013)	689K	6502	1703	65
Politician 5	CDU / Party Leader (2022)	280K	633	207	9
Politician 6	CSU / Party Leader (2019)	413K	2312	505	5
Politician 7	AfD / Party Leader (2017)	241K	913	211	34
Politician 8	LINKE / Parl. co-chair (2015-19)	683K	744	227	15
Politician 9	AfD / Deputy Leader (2017)	99K	3550	788	238
Politician 10	SPD / Minister of Health (2021)	1 Mio	1968	673	54
		N	27729	6633	545

To identify media-related tweets, we used a media keyword list from Egelhofer et al. (2021; see Appendix B) that we extended with additional keywords. It includes general media-related terms (journalism, news, etc.), as well as names of popular media outlets, programs, and journalists, leaving n = 6633 tweets with media references[1]. The main author manually selected those tweets containing media criticism based on the definition in this study (n = 545). Another author additionally selected media criticism from a subsample of 5% of all tweets with media references to assess agreement on the selection criteria; this was satisfactory (= 0.854).

[1]Note that some of the inclusive search terms (such as 'Zeit', a popular news outlet = 'time') led to media-unrelated results.

Analysis and Credibility Strategies

Coding and analysis followed the stepwise coding procedures of the Grounded Theory approach (V. Braun & Clarke, 2013; Charmaz, 2006) and were chiefly conducted by the first author. All 545 tweets were assigned open codes on the level of individual tweets guided by the sensitizing concepts. They ensured that the coder paid specific attention to the data-driven (i.e., non-interpretative) variety of criticism and opposing truth claims and guided the researcher-derived and more theory-bound interpretation of the severity of accusations and the explicitness of mis- and disinformation labels. We additionally coded each tweet's target and considered responses/links to other tweets, images, or links to external sources to ensure contextual understanding. All authors held regular peer debriefing and common coding sessions in this process to ensure transparency and procedural reliability.

During focused coding, the many unique open codes (~700) were merged, elevated to higher levels of abstraction, and assigned to themes. For example, data-driven codes such as "sloppy work of outlet" and "rushed headlines could have had consequences" were elevated to the category "lack of journalistic quality standards", which is part of a broader theme of 'deviations from professional standards'. We documented and extensively discussed all decisions in this process. Peer debriefings ensured agreement in the process of abstracting codes to themes (see Appendix C for further documentation). After identifying these coding categories and themes during focused coding, the last step of axial coding serves to understand the relationships and conceptual links between these themes and categories. In this case, all emerging themes and categories were analyzed in light of the normative boundaries of media criticism. Specifically, we analyzed to what extent the themes fall under or move away from the definition of constructive media criticism or have delegitimizing qualities. These results inform the typology of media criticism.

Results

The study aimed to map out the different ways in which politicians in Germany criticize the media, specifically considering references to facticity. Before turning to the research questions, we offer some descriptive findings on the messengers and targets of media criticism.

Who Targets Whom with Media Criticism?

Nearly 50% of tweets containing media criticism were posted by the two right-wing populist actors included in our sample. However, the candidate of the liberal party (11.9%), the leader of the green party (10.8%), and the federal minister of health (9.9%) also presented a considerable

amount of criticism relative to the sample. Interestingly, the CDU and CSU party leaders offered barely any criticism despite having a considerable amount of general media references. If present, their criticism contributed to the critical discourse surrounding the role of the public service media.

All politicians addressed a variety of targets. Most often, they were targeting specific media outlets (25.6%) or the public service media as a whole (PSM; 21.1%). Only around 14.3% were directed at "the media" or "the reporting" in general. Sometimes, politicians were addressing (specific) journalists, too (16.1%). Thus, criticism was often targeted towards a higher level than a specific journalistic product, even though specific articles were sometimes used to exemplify the point of criticism towards a specific outlet or the media in general.

Media Criticism in the Social Media Discourse of German Politicians

German politicians presented a wide variety of media criticism in their social media discourse. We identified four overarching themes in media criticism: Accusations of (1) deviations from professional standards, (2) deviations from social norms and personal values, (3) distorted representation, and (4) intentional bias and fabrication. Additionally, we point out the distinctive references to the Public Service Media, which differ in their discursive construction. Figure 2 presents an overview of the derived themes and subcategories. We argue that the ordering of themes represents the severity of accusations, starting with what we consider part of constructive media criticism and gradually moving away from its normative standards with opinion-based statements, delegitimization regarding normative role performances, and lastly, systematic democratic functions, expressing systematic distrust in the honest and impartial functioning of the media. It is important to note that we do not make any claims on the legitimacy of criticism, thus whether they align with actual media performance in the respective cases. Instead, we present a data-driven typology of negative media references in light of the boundaries of constructive, evidence-based media criticism.

We present the themes and their discursive construction (RQ1) and discuss their implications for journalism, the discursive elements of disinformation accusations (RQ2), and differences across ideologies and between mainstream versus challenger politicians (RQ3), where appropriate.

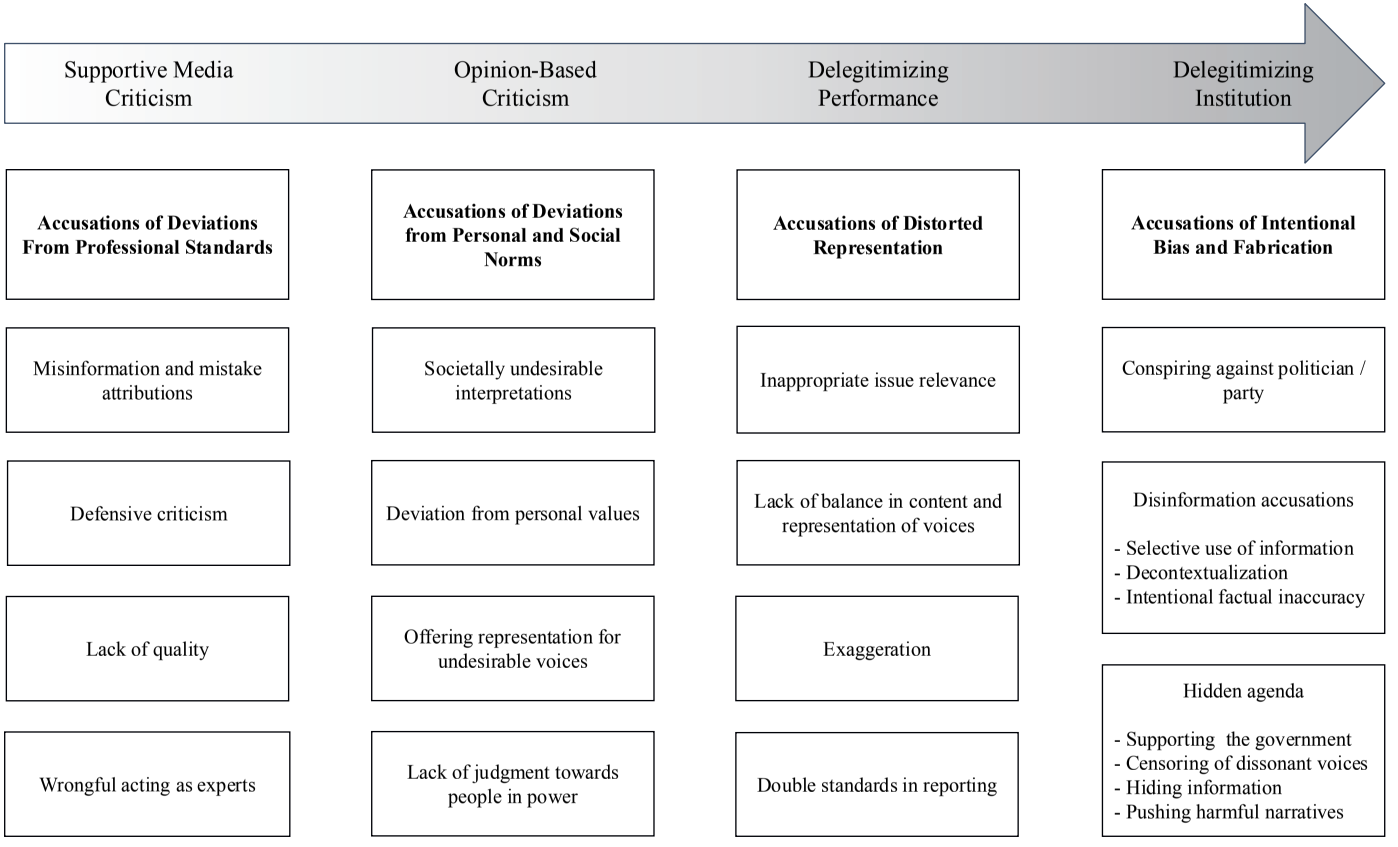


Figure 2: Typology of Media Criticism in the Social Media Discourse of German Politicians

Accusations of Deviations from Professional Standards

The first theme in media criticism discourse comprises statements that follow the normative ideas of supportive media criticism, pointing out perceived falsehoods in general or specifically in reports on the politician, limits of professional boundaries, and perceived inconsistencies in journalistic quality. The critique does not systematically cast doubt on the intentions or functioning of media institutions, but points out individual acts or journalists for making mistakes or inaccurately reporting on certain events or situations (i.e., non-systematic). First, politicians commonly point out perceived misinformation or defend themselves against alleged misconceptions, misinterpretations, or factual inaccuracies, such as "The piece of text from the ZEIT is not a quote from me, but a misunderstood representation […]." (Politician 4, 2022 [4A])[2]. Interestingly, this kind of defensive media criticism was most commonly voiced by the politician of the liberal party FDP (RQ3). The misinformation attributions often serve as counterclaims to statements written about the politicians.

Second, politicians also make references to expert knowledge, setting boundaries for journalists' professional roles acting as experts, or interpreting expert opinions. As one politician argued when interpreting the legitimacy of expert knowledge about COVID-19, the claims of experts should not be taken at face value but critically assessed regarding the validity of conclusions drawn: "I think a lot of people need to hear this (including journalists): a disease with 1% mortality is not what we usually consider mild in medicine." (Politician 10, 2022 [Retweet; 10A]). Again, these statements do not suggest malicious intentions, but instead criticize a transgression of professional limits.

Lastly within this theme, politicians highlight alleged inconsistencies in journalistic quality. These references do not relate to mistakes in content but focus on supposed sloppy journalistic routines and their outcomes. Despite not suggesting intention and rarely using any

[2]Tweets are translated from German. See Appendix D for all original tweets with links.

generalizations, one can observe considerable variation in the style of accusations. Some politicians employ mocking language and cynicism "Article is worth 0 cents. Couple anecdotes and insults, zero research […]" (Politician 10, 2017 [10B]). A perceived lack of quality standards seems to legitimize a more uncivil criticism.

Overall, these references to professional standards align with the normative notion that media criticism should be used to ensure that journalists adhere to their professional standards (Cheruiyot, 2018). Apart from the sometimes cynical style, they can be considered part of a corrective media criticism discourse in which the media is held accountable for failures and inconsistencies through the political system. They highlight singular inconsistencies in the quality and correctness of journalism without assigning intent or systematic behavior to the respective targets. In some instances, politicians even specifically highlight "honest mistakes" or singular "slip-ups" from the general perceived quality: "Generally a good journalist. But conspiracy theories prevent neither covid nor climate deaths […]" (Politician 10, 2022 [10C]).

Relating to ideological differences (RQ3), if at all, challengers tend to generalize instances to outlets or "the media" as a whole, whereas mainstream politicians direct their criticism almost exclusively to specific outlets, products, or journalists. In most cases, politicians used this type of criticism as a defense against articles written about them, aiming to refute or correct the information presented. Overall, the corrective criticism reflects the normative idea that politicians and the media should hold each other accountable in terms of mistakes, quality, and professional limits (see Van Dalen, 2021).

Accusations of Deviations from Personal and Social Norms

The analysis further unveiled normative accusations surrounding a supposed societally or personally disliked interpretation of the media, as well as statements that revolve around power dynamics, involving the inclusion or exclusion of particular voices and opinions and the framing of opposing political figures. In contrast to theme 1, this theme revolves around opinion-based statements over verifiable mistake accusations in the former theme, meaning that they depend on the subjective ideas of the politicians voicing them.

First, politicians often deem specific media output morally "wrong" or inconsistent with their values or frame targets as outsiders deviating from societal norms: "BZ calls this year's #Berlinale the "Berlinale of Women" because 115 of 441 films came from women. #fail" (Politician 2, 2015 [2A]). These accusations typically arise in the context of social issues such as Gender and sexuality that are subject to current public debates. In line with the nature of this criticism, it is often targeted at specific journalists and opinion pieces. By employing strong normative judgments such as "disgusting" or "mockery", politicians stress a perceived disparity

between the "wrong" outlet/journalist and the "just" politician. Remarkably, instead of providing additional opposing opinions or arguments, politicians tend to dismiss the journalistic piece as self-explanatorily "wrong" or "bad" for democratic discourse.

Whereas these categories criticize the interpretation of issues, the theme also entails subjective accusations surrounding an alleged *lack* of judgment toward political figures. This criticism is mostly reflecting opposition to how political opponents are framed without offering corrective alternatives: "What does Faeser know about the financing of mosque associations from #Qatar? Apparently nothing if you ask the media" (Politician 9, 2022 [Retweet; 9A])".

Last, subjective judgments surrounding the appearance of particular people and groups in the media form part of this normative discourse. Hereby, politicians do not relate to balanced or equal representation, but instead discuss which voices and opinions are (un-)desired in journalistic output – and thus political discourse - at all: "It was AfD theme night, which is a shame. Media allow AfD to force topics on them" (Politician 10, 2017 [10D]). Pointing out the consequences of supposed (over-)representation, the media are framed as contributors to the success of undesirable social groups. This criticism is often voiced by politicians from the political left commenting on the appearances of AfD politicians in the media (RQ3). They do not accuse the media of deliberate action but use criticism for a seemingly educational purpose: "When other parties and media adopt the AfD's and Pegida's descriptions of problems, you make them stronger. (Politician 1, 2017 [Retweet; 1A])".

Overall, this discourse contributes to a longstanding debate surrounding journalistic role perceptions and the question of an objective versus interpretative journalism (Skovsgaard et al., 2013). Although many scholars conclude that objectivity is not achievable and that the role of journalists also contains an interpretative function (Wahl-Jorgensen, 2013), this theme shows that journalists are in a vulnerable position when deviating from an 'objective' presentation of reality through commentary. Especially criticizing the framing of or the room given to the 'wrong' voices challenge to the profession: On the one hand, they ought to refrain from (the "wrong") interpretative functions, on the other hand, they face accusations of being too uncritical of voices deemed unfit for political discourse. Clearly, the nature of this criticism is influenced by personal values and ideological stances. It can thus be considered general political discourse carried out in the media arena. Even though opinion-based criticism on media content is part of a democratic discourse, it deviates from the normative notion of media criticism pointing out inconsistencies or mistakes in the quality of the media. Whereas pointing out disliked interpretative narratives based on opinions rather than supposed facts does not delegitimize the media, it reflects ideological motives over specific corrective statements,

challenging the objectivity norm on a broader level. Consequently, with this theme, journalists' role perceptions are constantly challenged both in interpretative and non-interpretative functions.

Accusations of Distorted Representation

A third pattern arising in politicians' social media discourse comprises references to the media presenting information in a way that distorts reality, suggesting that they allegedly fail to attain their democratic-representative role beyond isolated instances due to their agenda, perceived bias in content and viewpoints, exaggerations, and double standards in reporting. In contrast to the second theme offering subjective evaluations, this theme suggests the existence of an objective and quantifiable reality that the media should represent but would fail to. With that, the accusations delegitimize the role performance of the media more systematically, but refrain from suggesting intentional behavior that would challenge the basic premise of the media as institutions informing the public in an honest manner.

First, it covers an alleged inappropriate issue relevance on the media agenda. The assigned lack of attention to relevant issues is highlighted either through claims that the media prioritize unimportant events/details, focus on irrelevant aspects undermining an issue's severity, or completely miss crucial topics. They imply that the media would fail to offer an accurate depiction of relevant issues. Right-wing challengers in particular emphasize this alleged issue by pointing out a supposed disparity between the German mainstream media and alternative sources on the Internet: "[…] With the Internet, you're well informed - but what about when you only have ARD/ZDF […]?" (Politician 9, 2017 [9B]).

Another point of contention within this theme is the perceived balance of perspectives and the question of objectivity versus bias. Challenger politicians highlight supposed deviations from an ascribed journalistic objectivity norm. Additionally, they criticize a supposed lack of fair representation: "MerkelSchulzFestspiele on ARD/ZDF: #SPD & #Union received 10 x more airtime in election broadcasts than the LINKE #btw" (Politician 8, 2017 [8A]). Similarly, challenger AfD politicians repeatedly demand more media attention, arguing with the need for fairness in democratic representation. With that, the media is often faced with accusations of double standards in reporting, in which one political party is supposedly favored over another.

Lastly, politicians also criticize supposed inaccurate depictions of events through exaggerations. They suggest that journalists, sometimes even driven by a desire for drama, prioritize exaggerations over their professional duty to present an "accurate" image of events, confounding accuracy with interpretative perceptions "The fact that of all outlets, @BILD, which is always happy to spread #Lauterbach's scaremongering, is now calling for a return to normality is ironic…" (Politician 7,

2022 [7A]). It is noteworthy that politicians tend to voice these accusations without providing numbers or verifiable evidence, but seem to "innocently wonder" about the lack of issues on the media agenda.

Overall, politicians suggest an objective reality to the representation of people, topics, and viewpoints that is not present in the media, bringing up the controversial objectivity norm not in terms of interpretation, but representation. The implications of this theme carry greater severity as the accusations are not rooted in personal disagreement (theme 2) or misinformation (theme 1), but in the belief that representation in media reporting is systematically distorted. With that, the accusations question the role of informing the public fairly and fully and thus delegitimize the media's performance.

Although these accusations do not suggest a malicious intent to deceive, using performance delegitimizing accusations to refer to perceptions of reality and "wrong" representations that cannot be falsified ascribes a norm to journalists that is challenging to fulfill - highlighting the blurry conceptual boundaries of facticity in (systematic) misinformation accusations. Wardle (2018), for instance, argues that the dissemination of misleading information - such as exaggerations - can be categorized as misinformation. These gray areas underscore the necessity for a criticism discourse relying on reasoning, supported by arguments or verifiable evidence to assess their legitimacy.

Accusations of Intentional Bias and Fabrication

The last theme, almost exclusively voiced by right-wing populists, entirely delegitimizes the media as an institution. It surrounds implications and outright attacks suggesting that the media intentionally abuse their power to disseminate false information for political purposes, conspire against opponents, and act deliberately against their duty to inform the public fully and honestly, sometimes even suggesting an entire hidden agenda to harm the people. It goes beyond performance delegitimization and instead dismisses the institution as an epistemic authority entirely. The narratives are frequently accompanied by aggressive rhetoric and threats.

First, politicians suggest that specific outlets or the media systematically conspire against them or their respective party as opponents. This argument is often justified by emphasizing the alleged repetitive, sometimes agitating nature of media attacks, portraying the alleged malice and harmful impact of the media. The "conspiring" media is juxtaposed with the "innocent' ' messenger, suggesting that the media violates the desirable power balance between them: "Those who have listened to 1 evening ZDF (#frontal21, #heutejournal, #dieanstalt, #heuteplus) propaganda against the #AfD, know: GEZ must go […]" (Politician 9, 2017 [Retweet; 9C]; Note: GEZ is the organization that collects fees for public radio and television).

With that, politicians employ blame-shifting tactics to move the accusations away from them and onto the target.

Second, on a societal level, this discourse presents the people as alleged victims of the media intentionally pushing false narratives on them. Accusations of disinformation emerge, with politicians using terms like "Fake News" to suggest intentional deception by the media. Interestingly, these accusations go beyond factual inaccuracy and encompass the supposed deliberate selective omission of information or deceptive framing: "Damn plague!! These are not activists!!! These are leftist extremists and criminals!!! #fakenews" (Politician 9, 2017 [9D]).

Last, the most severe accusations revolve around the idea that the news media would follow a systematic covert endeavor that contradicts the principles of democracy. In line with the populist rhetoric, the media are portrayed as colluding with the government to push a narrative that harms the ordinary people. This includes accusations suggesting that the media hides specific events or censor dissonant voices. These accusations imply an abuse of power to pursue political, anti-democratic goals: "For 9 months, no AfD representative has been invited to the major talk shows on ARD & ZDF. This is a #media war against an opposition party and 5 million voters. Public broadcasting is an anti-democratic state institution" (Politician 9, 2022 [Retweet; 9E]).

The theme shows various distinctive delegitimizing strategies in the right-wing populist rhetoric (RQ3), with calls to abolish outlets and cherry-picking instances to generalize to broader issues with the media. Moreover, the challenger politicians use labels such as "agitprop activists" to delegitimize journalists, as well as delegitimizing and call-to-action hashtags such as #BILDmussweg (Bild needs to go), which are rarely found among mainstream politicians.

The disinformation accusations in this theme present three key differences in their discursive construction (RQ2): First, they are uncivil in nature. Politicians employ delegitimizing labels and cynical language such as condescending insults, *schadenfreude*, and sarcasm to point out supposed absurdities in content. Second, politicians use disinformation narratives to justify severe suggested consequences for the media. A commonly observed narrative is the suggestion that the media, through its actions, has already lost its legitimacy or will delegitimize itself. Accordingly, some narratives call to abolish an entire outlet or its funding. Lastly, references to truth differ from other accusations. Politicians reference truth, for example, by suggesting that media institutions aim to legitimize lies. However, the conceptual boundaries of disinformation accusations go beyond the alleged dissemination of false facts and encompass decontextualization and the selective use of information. In these instances, challengers rely on opposing sources such as party-affiliated "media-experts" that make unverifiable claims. Additionally, challenger politicians use anecdotal evidence from "witnesses" within the media or from an alternative source to claim the omission

or decontextualization of issues on the mainstream media agenda.

Overall, the notion of deliberate deception by the media inherently undermines the legitimacy of the profession, making these accusations the most disruptive in terms of democratic outcomes. In line with prior research (Hameleers, 2021; Schmuck & Hameleers, 2020; Van Dalen, 2021), this hostile anti-media sentiment was voiced almost exclusively by AfD politicians. The attacks varied from isolated disinformation accusations to claims of a secret disinformation-agenda. Besides being a threat to the profession, delegitimizing accusations can be weaponized to present opposing narratives to the media and claim epistemic authority over them (Van Dalen, 2021). Undoubtedly, these accusations pose a threat to a profession that is already under pressure in times of factual relativism.

The Discursive Structure of Criticism towards the Public Service Media

Due to their distinctive function and funding in Germany, the discursive construction of the criticism towards the public service media (PSM) differs considerably from other targets. While the content of accusations addresses the topics presented in our four themes, their justification recurrently highlights the distinctive role of the PSM. Most of the criticism on the PSM was expressed by right-wing populist politicians (RQ3) and concerns the financial structure of the PSM, justifying the alleged severity of criticism through addressing a supposed disproportionate income of people working in the PSM and the broadcasting fee. Additionally, considering that the PSM cannot have an editorial guideline near a political camp, many politicians make implicit references to their legislated independence. Specifically, politicians present strong judgments when they perceive a lack of objectivity or a lack of quality in products of the public service media based on their inherent role of representing the public's viewpoints. The different standards expected from PSM are also reflected in a broader range of delegitimizing criticism, often expressed through threatened consequences from politicians. Compared to other targets, politicians tend to point out specific instances in the PSM as a 'failure' of the system and link their criticism to demands. Examples of alleged bias, mistakes, or personnel decisions are used to call for the abolition of the broadcasting fee or defunding the institution altogether:

> "Böhmermann compares children to rats. No, you really don't have to get upset about this man anymore. But how can ZDF pay someone like that from our broadcasting fee? Abolish the broadcasting fee!" (Politician 9, 2022 [Retweet; 9F]).

Moreover, PSM were the only target with specific references to legitimacy or the lack thereof: "The #Schlesinger affair has the potential to finally strip the #ÖRR of its legitimacy" (Politician 5, 2022 [5A]). Again, the severity of accusations varies considerably across politicians, and the

style tends to be strongly uncivil and cynical when expressed by challenger (vs mainstream) politicians (RQ3). With that, we can also observe more delegitimizing references, overstepping the boundaries of criticism that aims to preserve and improve the institution.

General Discussion and Conclusion

With press freedom in Germany and many other countries being increasingly under pressure (RSF, 2023), there is a great need to better understand how and on what grounds politicians (strategically) criticize the media. We aimed to map out media criticism using Germany as a relatively high-trust and low polarization setting, recently experiencing similar political challenges to many other countries, allowing for an adequate geographical transferability. This study used a grounded theory approach to propose a typology of media criticism to help understand the spectrum and boundaries of supportive and disruptive criticism in politicians' discourse. We identified four main themes encompassing the varieties of accusations that are expressed to point out disagreement, both on a factual and normative level, with varying degrees of suggested failure and intentional behavior, and proposed a (conditional) order of severity for the profession, relating to the degree of deviation from constructive media criticism. We come to the conclusion that there is a variety of criticism that is in line with the idea of supportive media criticism, relating to journalistic quality or verifiable mistake attribution (Cheruiyot, 2019). Beyond that, we found a second theme that is based on opinion-based statements, such as criticizing commentary pieces. Whereas this criticism is not delegitimizing, its basis on ideology or opinions of the individual does not aim to point out specific flaws in news production, but instead challenges the degree to which journalists should have an interpretative role. Theme three, the supposed distortion of reality, in turn, suggests that there exists an objective, representative reality that journalists fail to depict. We argued that this theme delegitimizes the role performance of journalists as it suggests a failure to adhere to the representative objectivity norm ascribed to them. Lastly, we identified a theme that delegitimizes the media as an institution entirely. These accusations suggest not only a systematic failure to adhere to professional norms but also malicious intent to manipulate the people and to achieve political goals.

Whereas our results are consistent with prior research suggesting that right-wing populist politicians frame the media as intentionally deceptive to question their democratic function (e.g., Egelhofer et al., 2022; Hameleers, 2021), we extend the literature by showing the more subtle ways of questioning media content that do not delegitimize the existence of the media, but their role performance through claiming that they fail to represent reality systematically.

With that, we also contribute to the misinformation literature by showing the conceptual overlap and distinctions of media criticism with mis- and disinformation labels by elaborating on gray areas (such as decontextualization) or non-factual criticism based on opinions and norms.

The results suggest three challenges for the academic literature within the realm of media criticism discourse. First, they further bend the already tenuous conceptual boundaries of how we think about mis- and disinformation accusations and facticity (Wardle, 2018). In line with the worries of an increasing trend towards "factual relativism", falsehoods are assigned to issues that are not clearly falsifiable, but subject to perceptions. For instance, the term fake news is occasionally used to suggest an alleged media silence or understated threats. Moreover, politicians often make claims about a "wrong" representation of reality. With that, politicians mingle the absence of objectivity (both in terms of interpretation and representation) with mis- or disinformation, blurring the lines of falsehoods and subjective perceptions in their social media discourse. In line with this, experimental research suggests that objectivity is, in fact, perceived through a subjective lens (Mothes, 2017). This type of criticism, referencing the role perceptions of news media as a representative reflection of political ideologies and issues, puts the profession under pressure and sets unachievable role expectations. Consequently, in media criticism, we may need to consider mis- and disinformation beyond falsehoods (Wardle, 2018) and follow the idea of understanding it as the *perception* of misleading information or any information that was created to deceive (Hameleers, 2023). The analysis unveiled a perceptual challenge, whereby deviations from reality can be considered a subjective phenomenon. Because the results showed relatively few verifiable accusations compared to unfalsifiable perceptions, further research should investigate these types of "mis-" and "disinformation" and the impact that they can have on citizens.

Second, some tweets presented a discrepancy between the severity of the accusation and the employed style and language, for example when phrasing misinformation accusations (i.e. absence of assigned intent) in an uncivil and cynical manner. These observations raise the question of the extent to which the style and content of an accusation can be disentangled when considering democratic outcomes of media criticism. Specifically, we need to better understand whether it is the kind of negative reference that could harm the profession or the style in which the message is conveyed, especially when it comes to mockeries and cynicism.

Third, this paper analyzed media criticism detached from the actual role performance of the media. With that, we cannot make any claims about the legitimacy of the accusations. For example, there is some evidence that German news slanted toward AfD topics in the time running

up to the elections in 2021 (Löw & Dewenter, 2022) or that governing parties receive favorable attention overall (Dallmann et al., 2015). Germany, being considered a pragmatic journalistic culture, is characterized by strict adherence to news values and a skeptical stance towards those in power (Esser, 2008), which may play into a perceived abundance of criticism from the politicians' side. At the same time, in comparison to other European countries, German journalists seem to give less room to partisan bias and entertainment overall (van Dalen et al., 2012). Despite offering valuable insights into the varieties of media criticism, the lack of contextualization of singular pieces of criticism with media performance presents a limitation of this paper.

Additionally, the proposed typology cannot certainly predict to what extent media criticism is supportive or disruptive for journalism, given the diverse manifestations in the observed discourse. Despite suggesting an order of the delegitimization of themes, we think that depending on the degree of generalization, the suggested consequences, and incivility, even mild accusations could be potentially impactful. Future research could combine types of accusations with differing stylistic elements or fact checks to understand their potential impact on citizens.

Last, the sampled politicians should not be regarded as 'representatives' for their respective parties or all German politicians in general. In fact, media criticism could be seen as a distinctive political communication style of specific political personas. Consequently, it is challenging to claim saturation. Considering that most criticism was identified in the social media discourse of the selected cases that were not party leaders, it is possible that more variation in the presentation of media criticism exists. This is especially the case when it comes to politicians from the CDU and CSU, whose highly professionalized social media feeds rarely featured any negative media references.

In conclusion, this study sheds light on the diverse nature of media references from German political elites and its potential implications for journalism. The findings underscore the pressure the profession is facing from a variety of judgments, the blurred boundaries of mis- and disinformation accusations, and the disruptive nature of delegitimizing discourse. Through further addressing these complexities, we can strive towards a better understanding of how media criticism from politicians can hold the media accountable without causing a disruptive impact on the profession.

Chapter 2

Misinformation Experiences

An Experience Sampling Approach to Map Perceived Misinformation Exposure among German and Dutch Media Users



Abstract

Misinformation continues to be seen as a major societal threat, yet academic measures of misinformation consistently arrive at relatively low estimates. We introduce and map out the concept of *misinformation experiences:* An audience-centered framework integrating encounter dynamics, content features, and rationales behind inaccuracy judgments. Using a seven-day Experience Sampling Method via WhatsApp, we collected real-time screenshots of perceived misinformation with data on the encounter contexts and rationales behind the identification from media users in Germany (N = 404; 1,643 screenshots) and the Netherlands (N = 289; 1,119 screenshots) from their day-to-day media use. The descriptive and inductive results reveal broad ideas about misinformation beyond accuracy tied to habitual media use. Audiences arrive at a variety of judgments through heuristics and plausibility assessments shaped by contexts and specific content features. The study advances misinformation research by moving beyond common limitations of recall-based approaches and by demonstrating the audience perspective on misinformation.

keywords: audience-centered research, misinformation perceptions, misinformation experiences, experience sampling method, epistemic vulnerability, information uncertainty

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Introduction

Misinformation continues to be recognized as a major societal threat. More than half of citizens worldwide report serious concerns about misinformation salience and discernment in the realm of news (Newman et al., 2025; van der Meer & Hameleers, 2024). Yet, academic measures of misinformation prevalence often fail to mirror these public misinformation perceptions as they arrive at considerably lower estimates of misinformation salience (Acerbi et al., 2022). This mismatch suggests that the perceived threat of misinformation extends beyond beliefs in falsehoods. Instead, it reflects a deeper concern about navigating and trusting an information environment saturated with a multitude of sources, competing truth claims, and synthetic or AI-generated content (Labarre, 2025). Responding to this wider crisis of legitimacy and truth, this paper proposes to conceptualize misinformation perceptions as holistic experiences that are rooted in users' own curated and selected information settings.

This approach adds to existing research in various ways. Most misinformation research to date has relied on a binary framework, treating information as either true or false (for an overview, see Murphy et al., 2023). While this has advanced measurement and causal inferences, it may overlook the epistemic gray zones and interpretive processes that characterize how people encounter information in practice. In response, existing audience-centered research has begun to explore subjective understandings of misinformation (Lee, 2022; Nielsen & Graves, 2017), showing that people apply the label to a much wider range of content and contexts beyond the traditional scholarly understanding of misinformation. Still, these approaches often rely on retrospective survey designs, also tapping into general uncertainty and recall biases (Naab et al., 2019), and cannot consider context features and the heuristics and biases that could shape misinformation judgments in situ. This limits our understanding of when and where people actually believe they encounter misinformation, what features trigger their suspicions, and how they justify their judgments. Yet, these dynamics are essential to capture because *perceptions* of ubiquitous misinformation alone can erode trust in institutions and reliable information (Chan et al., 2023; Van der Meer et al., 2023) and heighten political cynicism (Jones-Jang et al., 2021).

To address these conceptual and methodological limitations, this study introduces and explores the concept of *misinformation experiences* as a novel, audience-centered, and ecologically valid approach to studying misinformation perceptions in context. Rather than treating misinformation as a fixed property of content, the framework maps out how individuals experience it across three interconnected dimensions: the a) encounter dynamics of perceived misinformation, the b) content features that prompt suspicion or rejection, and the c) rationale

explaining why judgments about the alleged misinformation in the content are made. Crucially, by analyzing the intersections of the encounter dynamics, the content of the submissions, and the rationale behind misinformation perceptions, we aim to more comprehensively measure audience perceptions of misinformation as an interconnected *experience* of content, source, and verification or justification in light of uncertainty and epistemic vulnerability (Labarre, 2025). The following research question guides this endeavor:

How do individuals experience misinformation in everyday digital environments, and what do these experiences reveal about the contextual, content-based, and cognitive dimensions of misinformation perceptions?

To investigate this question, we conducted a 7-day Experience Sampling Method (ESM) study in Germany (N = 404, 1,643 surveys) and the Netherlands (N = 289, 1,119 surveys) using the messenger app WhatsApp to collect in-situ screenshots of perceived misinformation and responses to subsequent questionnaires on the encounter context and judgment rationales. Using all encounter surveys and a subsample of 440 screenshots, we present how and where misinformation is encountered and inductively analyze the subjective boundaries of misinformation across real-time encounters. This approach allows us to go beyond self-reported recall or specific source-tracking and explore how misinformation is navigated and judged in the flow of everyday digital experiences. We discuss how this study serves as a starting point to tailor interventions and measures to the widespread concern of (mis)information audiences while discussing the limitations of our approach.

Theoretical Framework

Misinformation Experiences as an Ecologically Valid Approach to Perceptions

To introduce our novel concept of misinformation experiences, we first situate it in relation to existing conceptualizations and research on misinformation perceptions. Misinformation perceptions are generally defined as a subjective conceptualization of what misinformation entails from the viewpoint of media users, irrespective of the actual facticity of the content (Stubenvoll et al., 2021). In practice, misinformation perceptions are often used to study the perceived quantity thought to circulate (Matthes et al., 2023; Stubenvoll et al., 2021) but also ad-hoc judgments about the perceived boundaries of factual accuracy (Nielsen & Graves, 2017). Misinformation experiences, by contrast, emphasize the situated ways in which audiences

encounter perceived misinformation, its content features, and the rationale in evaluating it in practice. Put differently, experiences direct the attention to the lived moments when audiences negotiate the boundary between right and wrong during everyday media use, rather than to generalized estimations of the ubiquity or conceptual boundaries. With that, misinformation experiences are perceptual at their core, but extend the concept toward an integrative account of how audiences construct and navigate the category of misinformation.

The perceptual, audience-centered logic is still understudied outside of the effects of misinformation discourse on the perceptions of information (Matthes et al., 2023) despite its potential disruptive impact on democratic outcomes (Jones-Jang et al., 2021) or the credibility of true information and truth discernment (Egelhofer et al., 2022; Van der Meer et al., 2023). The concerns are not always related to the actual misinformation prevalence in a given geographical context (Knuutila et al., 2022), suggesting that at least when it comes to misinformation's pervasiveness, perceptions could be distorted and disproportional at times, as audiences seem to expect misinformation frequently across platforms, issues, and sources (Hameleers & Garnier Ortiz, 2024). We aim to explore the nature of these perceptions, contributing to the qualitative dimension shaping these worrying quantitative perceptions.

Towards a Multi-Dimensional Account of Misinformation Experiences

Extending our understanding of audiences' perception of ubiquitous misinformation and information uncertainty, we propose and explore a three-dimensional concept of misinformation experiences, including *encounter dynamics*, the p*erceived false content*, and the *rationale* of identifying it as misinformation. The encounter dynamics capture the platforms, sources, and circumstances in which perceived misinformation is encountered. The perceived false content includes the mode, topics, and the role of verifiability and evidence as crucial indicators for misinformation. Additionally, we consider the *perceived* inaccuracy of the content from the audience's perspective in this content category. Last, the rationale deals with *why* participants state they perceive a certain piece of information as misinformation, and thus why they perceive it to be unbelievable. It reflects an individual's cognitive use of falsification procedures, biases, and general distrust in identifying supposed misinformation.

We argue that the joint consideration of these dimensions can give a complete understanding of misinformation experiences (see Figure 1). For example, different platform affordances in the encounter context shape which content can thrive, and offer different cues and expectations when it comes to whether information can be trusted (Hameleers & van der Goot, 2025). In turn, specific content characteristics can shape the cognitive assessment and thus the rationale provided by participants (Flanagin et al., 2020). Given the fast and dynamic nature of

personalized information environments, we explore the varieties in these three dimensions to understand the subjective nature of information uncertainty and, consequently, misinformation perceptions, from an audience perspective. In the following, we map out these three dimensions and their interconnections.

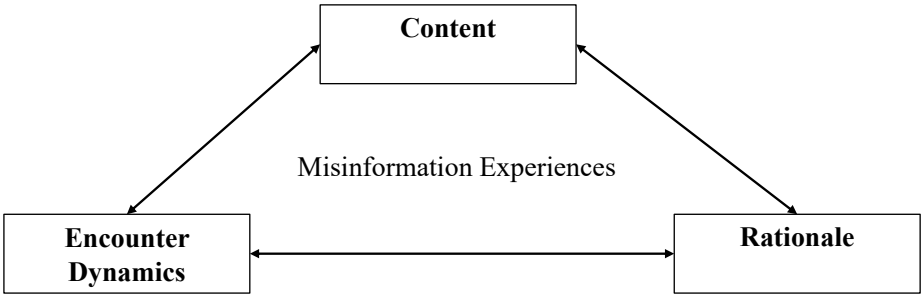


Figure 1: Misinformation Experiences

Encounter Dynamics

First, it is crucial to understand where and how audiences encounter perceived misinformation when navigating the increasingly complex and interconnected digital information landscape. To grasp encounter spaces, the current literature has, for instance, employed domain-level analyses using a list of pre-defined fake news sources to capture the origins of false narratives online. In this research, estimates of the prevalence of unreliable compared to credible sources from the years 2016-2021 range from 0.1 to 6 % (Acerbi et al., 2022). Yet, while offering an estimate of actual fake news exposure, there are likely sources beyond the list of domains perceived as problematic information, especially in light of the disproportionate exposure *perceptions* (Knuutila et al., 2022).

Platforms and sources jointly shape both *what* content individuals are exposed to and *how* this information is interpreted, providing a crucial dimension for misinformation experiences. For instance, social media are met with different role expectations compared to traditional news media, which are subjected to journalistic gatekeeping (Hameleers & van der Goot, 2025). On these platforms with broad, anonymous networks, misinformation is expected more prevalently (Newman et al., 2025). Additionally, platform affordances such as algorithmic curation, the visibility of fact-checking, and social endorsement cues (Metzger et al., 2010) provide contextual signals that can guide information assessments. Beyond the platforms, the specific source can also shape misinformation perceptions, even so far that it can override content cues (Ha et al., 2023). In this sense, platform and source together define the situational context of

misinformation encounters, shaping initial expectations of accuracy, trust, and the interpretive lens through which the information is processed. Therefore, we argue that perceived misinformation content depends on the dynamics in which it is encountered.

RQ1: How and where do audiences encounter perceived misinformation?

Content

The academic literature has traditionally defined misinformation as factually incorrect information that lacks empirical evidence or verification through expert opinions (Hameleers & Minihold, 2020). This binary definition - true or false - allows for methodological clarity in content and domain analyses as well as experimental work (see e.g., Acerbi et al., 2022). Yet, defining the boundaries of misinformation content remains a challenge (e.g., Lee, 2022), and some have included additional categories or broader definitions to better cater to the complexity of the informational environment. Some scholars have expanded the scope by including gray areas like satire, hyper-partisan content, or Malinformation (Baines & Elliott, 2020; Wardle, 2018). Others utilize the term *misleading information* to capture statements that are merely decontextualized or draw false conclusions from true information. Additionally, many scholars have acknowledged that there may exist types of gray areas, such as misinterpretations or exaggerations, that are not clearly relating to facticity or a lack thereof (e.g., Lee, 2022; Osman et al., 2022).

Another very common gray area in the context of visual misinformation is the decontextualization of content, where authentic imagery is attributed to a context it does not belong to (Brennen et al., 2021). Consequently, restricting the definition to factually incorrect information may overlook or overestimate some of the perceptual threats that citizens see in their information consumption behavior. While there are many gray areas of factual inaccuracy, it remains unclear where citizens themselves draw the line between true information and misinformation in real life. Moreover, audiences' informational uncertainty is likely driven not just by matters of accuracy but also by disagreement (Nielsen & Graves, 2017). Concepts like motivated reasoning (Kunda, 1960) propound a general tendency to accept information that aligns with prior attitudes as accurate and to dismiss information conflicting with one's beliefs. Furthermore, conflations with accusatory *labels* towards information, such as the often-used term "Fake News" in response to political disagreement, may contribute to a perception of distrust towards information that may academically be classified as reliable (Egelhofer & Lecheler, 2019). Hence, we aim to assess which content characteristics are present in perceived misinformation, and to what extent audiences operate with more expansive definitions of misinformation than scholars.

RQ2: Which content features characterize perceived misinformation?

Rationale

Last, the question of the rationale in audiences' classification of misinformation remains when considering information navigation holistically. Unlike beliefs in misinformation, this process centers on perceiving information as false – and thus taps into processes of (critical) evaluation, skepticism, and rejection. Normatively speaking, a democratic society should strive to employ strong skills of media literacy, referring to an informed citizenship that can critically and autonomously assess media content (Aufderheide, 2018). Yet, scrutinizing every piece of information is barely feasible in an information-abundant environment. First, considering that AI-generated content, source impersonation, and alternative media mimicking journalistic practices are increasing, traditional credibility indicators become increasingly difficult to identify. Second, theories of information processing suggest that the human default relies generally on simple heuristics as long as no obvious deception triggers are present (e.g., Levine, 2014; Petty & Cacioppo, 1984; Todorov et al., 2002). Also empirically, people tend to rely on social cues or affective responses rather than systematic scrutiny (e.g., So et al., 2023) or use specific heuristic cues to come to credibility judgments (Rieh, 2010). Tying this back to misinformation experiences, this raises the question of how audiences come to the conclusion that a specific piece of content encountered in a specific context is false. We argue that this subjective identification process is crucial for misinformation experiences, as it explains how decisions about misinformation are made when uncertainty is high.

RQ3: Which rationale do audiences provide for identifying content as misinformation?

Beyond existing literature and theory on perceptions of misinformation (e.g., Matthes et al., 2023), misinformation experiences offer an ecologically valid way of tapping into daily experienced encounters with misinformation, including the location, nature of claims, and process of verification. By exploring how misinformation is encountered, what content it entails, and how these judgments are justified in their rationale, we aim to offer a grounded, qualitative account of audience sense-making in times of informational uncertainty.

Methods

The Experience Sampling Method (ESM) was approved by the ethics board of [institution]. The preregistration of the data collection can be found on OSF.

Case Selection

We chose the Netherlands and Germany as two similar Western European countries with persistent misinformation concerns (van der Meer & Hameleers, 2024). At the same time, with relatively high media trust, strong public broadcasters, and relatively low levels of polarization, these countries are among the most resilient to misinformation (Humprecht et al., 2020). This tension between concerns and resilience makes these two countries well-suited for further exploring audiences' experiences with misinformation.

Design

The aim of this study is to capture how audiences perceive and experience misinformation in their everyday media use. Existing research on misinformation perceptions has largely relied on survey designs, which, while quantifying the phenomenon, offer limited insights into how perceived misinformation is encountered and evaluated in real time. Two shortcomings stand out in particular: first, providing hypothetical examples of misinformation undermines ecological validity, and second, enquiring about misinformation encounters in survey research risks introducing recall bias (Naab et al., 2019). To overcome these limitations, we employed a 7-day *Experience Sampling Method* (ESM) study via WhatsApp using the platform Bilendi Discuss in the last week of March 2025. With this method, participants could report on real examples of perceived encounters in situ. They were instructed to send screenshots of perceived misinformation in the context of exposure, which triggered a short subsequent questionnaire on the submission. Using the design on messenger apps comes closest to "mirror[ing] people's typical information sharing behavior" (Kümpel, 2022, p.197) and thus increases the likelihood of capturing accurate encounters. This approach was therefore well-suited to understand the content perceived to be false in practice, and to receive context information and rationales that unveil which factors shape these judgments.

Sample

The data collection took place in Germany (N = 404; 1,643 screenshots) and the Netherlands (N = 289; 1,119 screenshots). We recruited participants with an intake survey on Qualtrics using interlocked quotas on age, gender, and education. After this survey, 33% of participants agreed to participate in the ESM study. While gender and education are comparable to the population, the ultimate samples are slightly older than the average population in Germany (M = 48) and the Netherlands (M = 51).

Procedure

After filling in an initial intake survey on Qualtrics assessing relevant control variables and general misinformation perceptions, participants had the option to sign up for the study and were redirected to WhatsApp, where they received their instructions for the following seven days (see Appendix A for instructions and questionnaire). To avoid priming participants with specific definitions, we emphasized that they should submit content that they "think is misinformation/ fake news/ false or misleading information". We did so to understand where participants draw the line with regard to factual inaccuracy. Importantly, participants were instructed not to seek out misinformation and not to alter their usual media use. Still, we cannot exclude the possibility that they did so after all. Likewise, the tiered reward structure may have incentivized participants to submit screenshots they do not perceive to be inaccurate. This is why we restricted the number of submissions with subsequent questionnaires to three per day; and only between 06:00 and 12:59, 13:00 and 16:59, and 17:00-20:59 hours respectively, when participants also received reminders[3]. This, however, also entails that we are unable to estimate the extent to which submissions are representative of their actual exposure to misinformation.[4]

Measures and Analysis Strategy

Encounter Dynamics (RQ1)

With their submission, participants responded to open questions asking about the platform and the source of the encountered perceived misinformation. Additionally, we asked them whether the submitted information was sought out or incidentally encountered, and whether it was new to them (new, familiar, unsure). For all these variables, we offer descriptive statistics in the results.

Perceived Misinformation Content (RQ2)

We utilized the screenshot submissions to analyze the content features of perceived misinformation. As preregistered, we started with a random subsample of submissions of n = 100 to inductively identify and analyze message characteristics. We assigned open codes to all submissions using atlas.ti, but also paid attention to specific analytical foci that we deemed relevant based on the reviewed literature. First, we assigned open codes to basic information

[3] Participants could submit any additional screenshots in the context of a nightly survey (open 21:00 – 05:59) without any further questions so that we could still get an estimate of perceived encounters per participant. In these nightly surveys, 193 participants submitted between 1 and 22 additional screenshots across the week on top of their daily submissions (additional n = 420).

[4] While representativeness was not the aim of the study, we still asked participants at the end of each day to what extent they would say their reports that day had been an accurate representation of their actual perceived misinformation encounters on a seven-point scale (1 = not accurate at all - 7 = very accurate; M = 5.79; SD = 1.66), suggesting that they provided us with a relatively accurate picture of perceived misinformation exposure.

such as the topics and claims discussed in the submissions. Second, we coded the use of misinformation labels, visible manipulations, verifiability, and references to evidence or the lack thereof. When it comes to the verifiability of the submissions, we relied on indicators such as source references, information that goes against scientific consensus, or the reliance on opinions over facts. Additionally, we were interested in perceived inaccuracy. For this, we used both the rationale participants provided for identifying a message as false and the screenshot itself. For example, when the reasoning stated "he is wrong about this" and the submitted screenshot clearly showed an opinion-based statement ("In my opinion, not everyone should be allowed to vote"), we coded the perceived inaccuracy as a disagreement. Peer-debriefing sessions were implemented to strengthen procedural reliability in this open coding process. The many open codes (650) were merged and elevated to higher levels of abstraction in a second step. For example, codes related to Ukraine or Donald Trump were merged to "Politics" under the category "Topic". Because of the broad varieties in categories, we decided to code an additional 340 screenshots. This number was chosen because at that point, we were confident that saturation had been reached. With these additional screenshots, we also kept count of recurring categories in order to give broad estimations of the relative frequencies of types of claims and evidence.

Rationale for Misinformation Identification (RQ3)

We asked respondents an open question about why they believed the submitted piece was misinformation and inductively analyzed the responses. Hereby, we were interested in the extent to which explanations followed verification procedures compared to employing motivated reasoning or relying on heuristic cues, i.e., offering specific steps to come to the conclusion that a message is inaccurate. For example, a reasoning stating "this outlet always gets the facts wrong" was coded as "source distrust". Additionally, we looked for clues that suggest the specific perceived inaccuracy. We followed the same step-wise procedure in coding as for RQ2.

Results

Below, we start with the question of where and how people perceive to encounter misinformation (RQ1), followed by the content characteristics (RQ2), before we unveil the rationale audiences give in identifying misinformation (RQ3). Figure 2 displays an overview of categories for which we identified varieties that we will present in this section.

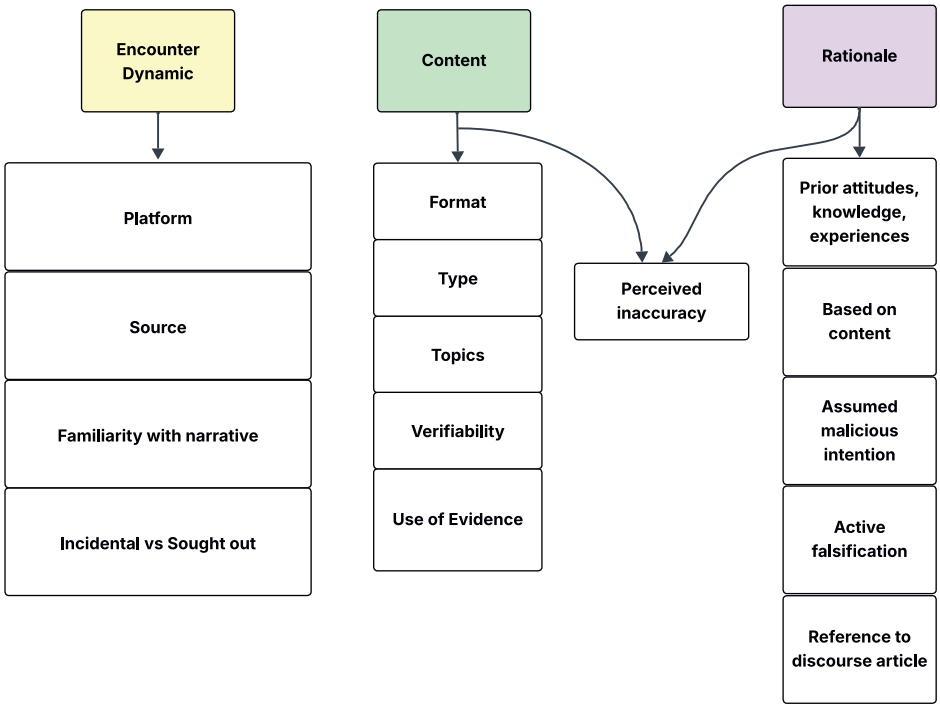


Figure 2: Overview of Identified Varieties in Misinformation Experiences

Encounter Dynamics: Where and How Perceived Misinformation is Encountered

Beyond the content itself, the dynamics of how and where people encounter perceived misinformation play a central role in misinformation experiences (see first column, figure 2). This dimension helps reveal the media ecologies in which misinformation is perceived to circulate and how structural and contextual factors influence its reach, perceived credibility, and amplification. Based on quantitative responses from participants, we can make descriptive claims about how audiences encounter supposed misinformation.

Frequencies of Perceived Encounters

Submissions ranged from 0-26 in the Netherlands and 0-28 in Germany across the week. In Germany, participants submitted on average 4.73 screenshots per week (SD = 5.73). In the Netherlands, the submission rate was slightly lower (M = 4.40; SD = 4.78). In Germany, 81

participants reported no encounters with perceived misinformation, making up 20% of the active sample. These participants still participated in nightly quality checks, suggesting their activity in the study. In the Netherlands, 47 active participants reported no encounters, making up 19% of the sample. This subsample seems not to have encountered misinformation during the study.

Platforms of Perceived Encounters

One of the clearest patterns emerging from our data is that platforms are clustered around participants. 50% of all participants in Germany and 44% of Dutch participants submitted screenshots from only one platform, and on average, people sent screenshots from only 2.06 different platforms in Germany (*SD* = 1.57) and 2.27 in the Netherlands (*SD* = 1.74). Additionally, the overall sample was heavily skewed toward particular platforms. Facebook stands out prominently, accounting for 875 submissions (31.68%) of the combined data set of both countries. Instagram takes the second place with 342 submissions (12.38%), and X comes third with 311 submissions (11.26%). The remaining submissions were distributed across a range of digital spaces, including TikTok, search engines, different news websites (most prominent in Germany: BILD, most prominent in the Netherlands: nu.nl), email provider newsfeeds, and messenger apps like WhatsApp.

Sources of Perceived Misinformation Encounters

Even within the same platform, the sources of supposed misinformation can vary widely. Taking Facebook as a case in point, participants indicated in 28.34% of cases that the post containing supposed misinformation originated from private users (i.e., people they follow, or are connected to on Facebook). The remaining posts were linked to other types of accounts, including political pages, meme pages, influencer accounts, news outlets, and other public figures. Additionally, in a number of cases, participants encountered perceived misinformation indirectly, through commentators or influencers who reposted and sometimes critiqued the original content (i.e., from a news website). Thus, perceived misinformation can travel within discursive layers, both as primary content, a subject of commentary, or as the commentary itself.

Incidental Exposure and Novelty

In over 90% of cases, participants said that they incidentally came across the encountered misinformation. Yet, the perceived misinformation was not always novel, being unfamiliar to participants in only 63.67% of cases. This suggests that, according to participants, specific narratives seem to circulate persistently, even when they are not actively sought out.

Content: What People Perceive to be Misinformation

We now present the features of the content that participants identified as misinformation (Figure 2, column 2). It is important to note that this content is highly diverse, covering a range of topics, claims, and verifiability. Drawing on the inductive analysis of 440 screenshots, we break this variety down and synthesize the most salient patterns in the categories we consider most important. Importantly, our analysis considers both the participants' perceptions of inaccuracy and the verifiability from a researcher's standpoint, allowing us to juxtapose subjective misinformation experiences with academic assessments.

Types and Formats of Encountered Content

Participants submitted a variety of information types. The majority (64% of the inductive sub-sample) were multimodal social media posts, including images, videos, memes, or short texts. Other submissions included article excerpts, news headlines, emails, and forwarded content from messaging apps. Notably, a subset included misinformation "discourse articles", referring to news content that discusses misinformation and its threats itself, such as investigations into disinformation campaigns. Approximately 10% of our sub-sample were advertisements, indicating that experiences of misinformation transcend the political domain. These ranged from overt promotional content to news-like articles mimicking journalistic reporting. In these cases, it was not always clear whether a post was perceived as an advertisement or editorial content.

Overall, submissions included a broad mixture of text, video, photo, and even audio. Interestingly, the photos and videos submitted were often easily digestible content with text directly placed on the visual. In some instances, participants referred to the caption below the visual. This indicates that not just the visual, but the multimodal context in which images are embedded can be experienced as part of wider misinformation experiences.

Topical Range and Politicization.

The screenshots revealed a broad range of topics. In the realm of politics and economics (45%), prevalent topics related to domestic issues, such as coalition formation (in Germany) or immigration policies (both countries). Additionally, we found international conflicts addressed, including "Signal gate" in the U.S., and the wars in Ukraine and Gaza. While this content was strictly political in nature, other submissions can be described as politicized issues - such as Gender and sexual identity, sex education, climate change, or health-related topics like vaccines (19%). In contrast, non-political topics included celebrity gossip, technology, movies and pop culture, animals, and nature.

Perceived Inaccuracy

Participants' understanding of inaccuracy spanned a continuum from objectively false claims to more subjective, interpretive judgments, also varying in the certainty of their evaluation. First, participants pointed to factual inaccuracy in different ways, ranging from "entirely fabricated stories" to pointing out individual false claims. Similarly, participants also pointed to visuals seeming "photoshopped" or "looking fake". Interestingly, some highlight nuanced distinctions between false claims, intentionally disseminated false information, false promises, conspiracy narratives, and pseudo-science. This suggests that the perceived intention of the source plays into inaccuracy perceptions, and that audiences make a clear differentiation between perceived mis- and disinformation. In these cases, perceptions of what constitutes misinformation align with conventional definitions used in research. Distinct from these accusations, but on the notion of factual inaccuracy, were comments of uncertainty. Participants point out "suspicious" or "speculative" content or content that "does not seem credible". Consequently, even when something is not clearly false, there are certain indicators raising suspicion with audiences.

Yet, participants also pointed out more nuanced gray areas of inaccuracy with the submitted content that cannot be clearly placed in a binary of true or false. Examples of this entail outdated content or references to misleading, decontextualized content: "The newspaper took this statement from an interview and put it in a new context […]. Tendentious reporting". Similarly, these accusations occurred when misleading clickbait headlines were debunked by the article body or when visuals did not match their caption. Additionally, in this realm, they criticize content that exaggerates, lacks contextualizing information, or presents an example that is not representative of an underlying issue. In favor of a nuanced assessment, participants also clearly highlighted when they perceived content to be partially true, suggesting that, for instance, specific claims within a great body of text were inaccurate. While more nuanced, this criticism still relates to factual inaccuracy.

However, a share of participants also submitted content based on a perceived inaccuracy that would not necessarily align with common academic definitions of false information. Participants flagged opinion pieces or even factual reporting as misinformation when they disagreed with the message, perceived bias, or considered the implication threatening or unethical, with comments such as "This is dangerous for democracy". Additionally, we received news articles reporting on politicians' behavior because audiences disapproved of the described event, as well as opposing opinions or messages of disagreement with commentary pieces. In other cases, spam emails were conflated with misinformation due to their intrusive nature.

The Facticity and Evidence of Perceived Misinformation

While it goes beyond the scope of this project to fact-check every single claim in the screenshots, there are two important indicators that give insights into the kind of truth claims that people perceive to be false *from the researcher's lens* and thus to what extent they could be a part of what is academically considered "misinformation". With the screenshot submissions, first, we can assess to what extent the claim is verifiable at all, reflecting a factual statement. Second, we analyzed the kind of evidence in the screenshots that further displays the verifiability of the content and shows what elements creators of (mis)information use to support their claims.

Verifiability of Submissions

Submissions greatly varied in the extent to which they are verifiable - that is, whether a given statement could be supported or debunked with empirical evidence or relevant expert knowledge. Table 1 presents the epistemology of claims we identified in the screenshots with examples from the sample, which we additionally contrast with the perceived inaccuracy from the participants. At one end of the spectrum, participants submitted clearly verifiable statements: for instance, assertions grounded in statistics or specific studies or events that can be verified with further research. Similarly, participants submitted information that was decontextualized. We found, for instance, screenshots of misleading headlines, which could be placed in the correct context by following up on the entire article. Additionally, on the notion of inaccuracy, we received AI-generated content that was labeled as such, making its synthetic nature obvious.

Yet, many submissions were less straightforward in terms of verifiability. A notable share of content included claims that rely on interpretation rather than definitive evidence. For example, journalistic pieces and political commentators draw concluding statements from a number of data points that support, but do not definitively prove, their interpretation. An example headline would be "Tesla is going downhill". While this statement was grounded in data in the article, it may invite subjective judgment. In cases like these, the perceived veracity of the statement depends less on whether the information is fabricated and more on whether the *interpretation of data* is deemed reasonable or manipulative. Consequently, in these cases, a statement may not be considered demonstrably false, but the resulting conclusions are being questioned. The same ambiguity extends to predictions, which are unverifiable at the time of posting but were often still grounded in evidence-based reasoning.

In contrast, some content was impossible to verify and would thus likely not fall under the umbrella of misinformation. For example, individual anecdotes and personal experience often lack sufficient detail to be debunked or confirmed and become increasingly problematic when used to make generalized statements. Finally, we identified opinion-based posts, sometimes

expressed as categorical judgments or identity-based attacks (e.g., "All left voters are communists"). Whereas opinions were sometimes disagreed with, the absolutist phrasing of some of the claims makes them appear as if they assert a general truth, making them more susceptible to misinformation perceptions. Aside from the other submissions, advertisement claims constitute a distinctive category. Satirical content should also be considered distinctively: While not meant to be taken literally, it may be perceived as misleading if the audience fails to recognize the satirical frame.

Evidence in Submissions

Beyond the structure of claims themselves, we also examined the evidence (or its absence) embedded in the submitted content experienced as misinformation. Most of the screenshots (59%) did not contain any evidence at all, possibly raising the suspicion of the audience. Beyond a few submissions that used anecdotal evidence to come to generalized conclusions, we also found empirical evidence and authority / expert references quoted in the submissions. For example, we observed the use of empirical evidence in the shape of contextualized specific statistics provided to back up a statement. Yet, some sources simply refer to "scientific research" when putting forward a claim, without clearly contextualizing this evidence and research. Second, screenshots mention various forms of authority, quoting official documents, expert opinion, other reliable media sources, or authorities like the police. Moreover, visuals played a prominent role as supposed evidence, for example, when claiming that a natural disaster occurred. Three crucial aspects need to be taken into account when contextualizing the provided evidence. First, in terms of statistics, many of the screenshots do not provide a source for their evidence. As such, some screenshots presented arbitrary percentages or "research" without further indication of a source. Consequently, a challenge with the verifiability of claims concerns not only whether evidence is present, but also how such evidence is sourced, contextualized, and considered verifiable in its own right. Second, even when expert opinions are shown in, for instance, interviews, the posts sometimes cherry-picked controversial experts who hold a relevant degree, but swim against the stream of scientific consensus, as observed, for instance, in the anti-vax community. Thus, scientific authority in misinformation can be created not only through fabricating data, but by strategically highlighting outlier views that seem authoritative to lay audiences. Third, it is not uncommon that visuals are AI-generated or decontextualized. Although we cannot fact-check every submission, these indicators suggest that numbers, visuals, and authority are used to create the illusion of evidence that would lack the robustness to pass the professional evaluation of fact-checkers. Yet, at least in the submitted cases, audiences were aware of the nature of the provided evidence.

Table 1

Facticity of Claims with Examples and Participant Evaluations

Kind of claim (as identified by researchers)	Example from the screenshot submissions	Participant evaluation
Falsifiable claim	"11 minutes ago it was confirmed that Dominic Thiem Buuren died".	"He did not die"
Decontextualized information	Image displaying men-made addition to co2 in atmosphere as a very small fraction to argue why no action from the EU would be required anymore	"They are trivializing climate problems"
Misleading headline	"Driving now allowed without license in Germany" (Article body explains that it doesn't need to be physically carried anymore)	"The headline suggests that driving without a license will soon be allowed in Germany. That's not credible. Why should it suddenly be allowed? If you read the article, you find out how facts were distorted with the headline."
Interpretation / implication of Data	Article stating that Tesla is going downhill financially, uses data to come to this conclusion	"That is exaggerated"
Speculation / Prediction	Selenskyj says "Putin will die soon" [and then the war will end]	"I doubt the relationship between him dying and the war stopping"
Conspiratorial	Social media post: So as long as it doesn't involve vaccines they [lareb; Dutch institute on the risks and side effects of drugs] do warn us after all? Surely only because it involves drugs that don't have a pharmaceutical lobby behind them?	"Deliberately put Lareb in a bad light. Deliberately put many side effects on vaccines"

Table 1 (continued)

Kind of claim (as identified by researchers)	Example from the screenshot submissions	Participant evaluation
Satire	AI generated image displaying a dilapidated Scholz "Olaf is done, only one weeks after the elections"	"The way it is presented is quite exaggerated, but it could still create a negative impression of the SPD for some people."
Opinion	"I think if you break the law you do not deserve due process"	"Due process serves to find out whether someone broke the law. In a normal, non-crazy society anyway."
Advertisement	You can lose 10kg in 8 weeks with shoe inserts	"False claim, Pseudoscience, Misleading advertising"
Anecdote	Interview on NOS "I buy my [Playstation] games online"	"You can just get a player [to play physical games on your ps] . Just do it yourself."
Discourse article	Discourse article Tagesschau: "Disinformation on X – Russian campaign uncovered"	"Russia is deliberately trying to stir up unrest"

Reasoning: The Identification Process of Perceived Inaccuracy

The third core dimension (Figure 2, column 3) of misinformation experiences lies in the rationale individuals provided after judging a piece of information as false. Our data highlights an array of reasoning styles and cognitive approaches that people employ when encountering a questionable piece of information. Broadly, we can distinguish four overarching identification logics: 1) reliance on pre-existing experiences, beliefs, and knowledge, 2) judgments based on the content, 3) a perception of bad-faith intentions, and 4) active verification steps. Importantly, though, some participants voiced no reasoning at all, simply stating that the submitted piece "is false".

Assessment Based on Pre-Existing Factors

A major pathway to perceived misinformation was rooted in prior attitudes, knowledge, and experiences, such as prior exposure to related news. Rather than evaluating each post on its own merit, participants filter content through an existing framework of what they believe to be trustworthy or true. This kind of reasoning accounted for over half (52%, n = 229) of qualitative answers in our inductive sub-sample in response to the screenshots.

When it comes to attitudes, this rationale relates to preconceived notions about the source itself or the content. For example, some people voice general anti-establishment tendencies and thus distrust positive evaluations of the government. Some also voiced a general distrust, stating that their awareness of AI, photoshop, and other tools has increased their general skepticism towards (visual) information. Last, these attitudes also revolve around *trust* in people or institutions that are negatively portrayed in the submitted piece. Thus, prior attitudes can evolve around general skepticism, distrust in the sources, and distrust in the target of the content, showing its connection to encounter dynamics.

More commonly, people relied on prior knowledge, both in terms of factual knowledge they already possessed or claims they had seen in other information sources, in the identification process. Some instances were specific, with participants claiming to know that the information is untrue or having seen conflicting evidence, offering an opposing truth claim. Conversely, the absence of prior exposure could also trigger doubt. Participants mentioned that if something seemed significant but had not been reported elsewhere, it was suspicious - implying that credibility perceptions depend on the presence of coverage from major news outlets. Consequently, when participants do not already know about the veracity of a claim, they suppose that either it must not be contested by other sources or it requires sufficient supporting attention from other sources.

Another line of reasoning refers to (the lack of) past experiences from the participants that shape their conclusions about falsehoods, especially in the context of advertisements or local news. In these cases, participants reported that they had not experienced the supposed effects or had direct encounters that contradicted the claim, making it implausible. As such, some claims require first-hand experience of the consequences in order to believe them.

Last, some participants submitted screenshots because of a disagreement with the post. That can be both an opposition to opinion-based posts, but also disagreement with the actions reported about or the conclusions drawn. As such, some people seem to conflate what they consider morally wrong or disagreeable with misinformation.

Assessment Based on the Content

The second broader category of rationales relates to conclusions drawn from the content of the submission itself. Very commonly, participants feel a first "hunch" when being exposed to information. These plausibility assessments refer to participants assuming that a claim "could not be true". In some instances, a claim is considered entirely implausible. However, there also seems to be a "cut-off" point to which the information is being accepted, for example when a claim in general is considered plausible, but not to the scale presented: "Our politicians are of course deceiving us. But the fact that they now want to invest 500 million a year in Mc Donalds... that must be a fake, totally unbelievable". Sometimes, this first suspicion led to further exploration, such as reading a full article after a clickbait headline or further research by the participants. Others, however, relied on and stayed with their intuition. In turn, some participants relied on message and source credibility characteristics over plausibility assessments, showing the connection to content characteristics and encounter dynamics. There seem to be specific quality standards people expect from sources and content in order for it to be considered believable. This entails journalistic quality standards such as the use of evidence and sources for claims, and a lack of sensationalism. The lack of these quality criteria, specifically in news formats, served as a criterion for perceived misinformation.

Participants also noted visual and multimodal inconsistencies, such as mismatches between image and caption, use of AI or suspicious-looking visuals, and platform-added labels or comments that marked the content as questionable. Yet, we also analyzed content with AI-labels that were not referenced by the participants.

Assumed Intention of Source

One crucial finding related to misinformation experiences is that an assumed malicious motivation played a role in supposed misinformation identification. Some participants labeled content as misinformation, not because they could prove that it was false, but because they believed it was intentionally created to mislead. These assumptions varied widely, from accusing sources of seeking attention to attempting to sway opinions or following a disinformation agenda, suggesting that actors purposefully try to attack another actor or push false narratives. Even when the submission itself is not facticity-based, this suggests that disliked content from a supposedly malicious source is equated with mis-, or more fittingly in this case, *dis*information, showing that judgments of motive and trustworthiness shape people's accuracy perceptions.

Active Verification Steps

Last, some engaged in critical processes of active falsification after encountering suspicious content. This could involve checking the claim on search engines, consulting other news sources,

or asking AI tools for clarification. In some cases, the decision was based on finding contradictory evidence; in others, it stemmed from the absence of confirmation from reliable outlets. Again, this suggests that for some, claims have to be widely reported to be trustworthy, or at least not denied by other sources. Additionally, individuals sometimes actively searched for hints *within* the source when suspicion was raised. This included reading through the whole article after seeing a preview/headline that was perceived as clickbait.

Discussion

This study served as an ecologically valid, data-driven approach to mapping out audiences' *Misinformation Experiences* embedded in the context of real-world encounter dynamics. We offered descriptives on the encounter dynamics and inductively analyzed perceived misinformation submissions as well as rationales in the identification process to explore the varieties of perceived misinformation of audiences in their real individual information environments. We discuss three major takeaways as well as methodological and theoretical implications thereof. We do so by taking into consideration the lessons and limitations of our data collection, which prioritized participant agency over researcher control.

First, audiences seem to understand and label misinformation in nuanced ways that far exceed conventional binary definitions of true versus false. Participants submitted and described not only fabricated or verifiably false claims, but also decontextualized visuals, sensationalist commentary, spam, and misleading headlines. They did so even when supposed evidence was presented. This perceived nuance points to a critical assessment of audiences that also overlaps with academic conceptualizations of a spectrum-based understanding of misinformation varying based on the degree of deception (e.g., Wardle, 2018). Yet, we also identified numerous examples that extended beyond the boundaries of what is academically considered misinformation (also see Nielsen & Graves, 2017; van der Linden et al., 2020). Participants pointed to supposed inaccuracies that could not (yet) be verified, such as predictions or interpretations of factual statements. Other patterns suggest that misinformation is not only perceived as factually inaccurate but also *illegitimate.* Audiences did not only point to factual standards, but sometimes to moral alignment, opinion-based disagreement, or perceived threats to democracy or identity. The tendency to reject information on grounds of disagreement resonates with theories of motivated reasoning (Clayton et al., 2019) and reflects a broader legitimacy crisis within factual relativism in which audiences negotiate not simply what is true, but what counts as acceptable information (Hameleers & van der Meer, 2025). Looking

at these results, it is important to remember that we kept the instructions relatively open to ensure that all participants were aware of the concept we were interested in. Yet, all of the terms we asked for (Disinformation, Fake News, false or misleading information) relate to factual inaccuracy. Considering that, our findings echo prior work suggesting that "misinformation" or "fake news" are sometimes used as catch-all terms for information with matters beyond facticity, such as incivility (van der Linden et al., 2020) or disagreement (Lee, 2022). This conceptual conflation reiterates prior concerns about misinformation. For instance, the expansive application of misinformation labels in the public and media discourse could result in fueling this boundary inflation, normalizing the term as an umbrella for a range of unwanted content in public perception (Budak et al., 2024). With growing information disorientation (Labarre, 2025), it is difficult and cognitively draining to distinguish between all kinds of threats, inaccuracies, negativity, and disagreements. Our study thus lends support to the idea that misinformation is not only perceived on a continuum of inaccuracy but also operates outside of these boundaries.

Second, misinformation experiences are mostly shaped by habitual media use and heuristic judgments. The majority of misinformation submissions we received were taken from social media platforms over other information sources, which is generally in line with common ideas about where misinformation flourishes (e.g., Suarez-Lledo & Alvarez-Galvez, 2021). Although some argue that misinformation seems to be active in small fringes (Budak et al., 2024), a considerable part (80%) of our sample found examples in their day-to-day (social) media use. While it is important to keep in mind that the study happened on a social messenger platform itself, participants were also explicitly encouraged to submit content from messenger apps, news websites, and other online sources. Yet, the clustering of submissions on particular platforms at the individual level suggests that perceived misinformation encounters are tied to habitual platform use and personalized media ecologies, meaning that people see or expect misinformation on specific sources. The persistence may reflect the dominance of these platforms in digital life, a lack of credible alternatives, or even the entertainment value found in perceived false content. At the same time, the participants' rationales show that the judgments of these encounters were not often based on systematic verification, and we asked them not to change their usual information habits. Whereas the critical verification steps come closest to the ideal of a media-literate, informed citizenry (e.g., Aufderheide, 2018), information scrutiny to this extent is barely feasible in everyday information exposure on high-speed platforms. Unsurprisingly, when encountering new information, our participants felt suspicious based on prior knowledge, attitudes, or content cues and relied on this feeling of suspicion without further investigation, which is in line with important theories of information processing

pointing to a default of heuristic processing (Todorov et al., 2002). Especially those who based their assessments on the content offered some interesting insights into the identification process of perceived misinformation. Whereas the academic literature often discusses the critical assessment of message credibility (Appelman & Sundar, 2016) and source credibility (Mang et al., 2024), we found that people rely more on a first hunch when it comes to the *plausibility* of the content. Put simply, plausibility describes that something "could be true" or its compatibility with "world-knowledge" (Wertgen & Richter, 2023). When implausible content raised suspicion, participants rejected it as misinformation, likely because plausibility influences how credible a source is perceived in the first place (Wertgen et al., 2021). Yet, generally, this superficial assessment does not have to be problematic. Plausibility assessments are also shaped by prior knowledge and beliefs (Wertgen et al., 2021). Thus, a second key takeaway is that, at least in this study, misinformation encounters happen in the context of quick, habitual media use, often social media, and participants rely mostly on heuristics and plausibility over critical credibility assessments or verification procedures.

Third, misinformation judgments are shaped by the integration of encounter contexts and content features. Audiences do not evaluate content in isolation but draw on contextual and source-specific cues when deciding that something constitutes misinformation, supporting the idea that context-based expectations shape judgments (Hameleers & van der Goot, 2025). For instance, participants pointed to a perceived bad intent of actors without providing further elaboration or evidence, even when it was opinion-based content. This finding highlights that some people distinguish between perceived mis- and disinformation in the sense that the intention of the sender matters (Baines & Elliott, 2020), and supports prior research that source cues could trump content characteristics, also outside of experimental settings (Ha et al., 2023). In the context of individuals with high distrust or strong anti-establishment attitudes, this assessment could be detrimental, as information from political or media authorities could be dismissed due to an assumption of bad faith (Mayo, 2024). Overall, our findings illustrate that audiences can reach conclusions of inaccuracy through different routes. Misinformation experiences are triggered by an ecology of cues that includes source reputation, prior observed information from other sources, platform context, and broad plausibility judgments. Some of these may enhance accuracy, while others increase the risk of dismissing legitimate information. Importantly, though, this variety confirms the need to understand misinformation as a lived experience: Perceived misinformation depends on who shares the information, *where* it appears, *what* it entails, and *how* it aligns with expectations.

These takeaways offer several implications. Theoretically, first, they underline the limits of binary definitions and support a spectrum-based approaches that recognize degrees of

inaccuracy (Wardle, 2018). Second, they show that misinformation is not just perceived as a factual category but also a normative one tied to legitimacy and threat perceptions (Lee, 2022; van der Linden et al., 2020), highlighting prior work on a general epistemic vulnerability (Labarre, 2025). Third, they emphasize that misinformation experiences are multi-dimensional and offer a fruitful avenue for further research on the interplay of platform affordances, content cues, and reasoning styles. Methodologically, our study highlights the potential and limitations of studying misinformation as a lived experience. By giving participants agency to submit in-situ examples, we had the possibility to capture authentic encounters that go beyond recall biases and pre-defined categories of misinformation (Naab et al., 2019). At the same time, we cannot verify whether the submissions accurately reflect exposure, nor can open-ended questions on the rationale replace in-depth interviews. Yet, our results offered relevant insights that have practical implications. First, because we observed that participants judged misinformation through heuristics and plausibility judgments rather than systematic verification, media literacy interventions could work with training these heuristic judgments rather than assuming critical credibility assessments of each claim. Similarly, developing and validating a plausibility scale could pose a fruitful alternative to often-used credibility measures. At the same time, research and interventions should also address epistemological boundaries, referring to the ability to distinguish factual inaccuracy from subjective disagreement, incivility, or perceived threat. Future research can build on these insights by combining ESM with complementary methods, such as web-tracking, to assess the alignment of experiences with actual exposure. Second, since our sample is comprised of a subsample of participants who self-selected into this study from the larger recruitment survey, future research could draw from representative surveys to further investigate the potential of audience-centered approaches across those who are less concerned with the topic of misinformation. Lastly, the results are not generalizable. Since we mainly relied on inductive analyses from a selective sample, there may be many more aspects that play into misinformation experiences, such as specific stylistic and rhetorical features of (perceived) misinformation (Carrasco-Farré, 2022). Future research could utilize similar designs with a representative sample and employ computational methods to assess the sources and content characteristics on a larger scale. To summarize, while this design tackles the limitations of recall-based or quantitative designs, it introduces different kinds of errors resulting from the lack of researcher control. At the same time, our contribution lies in the real-world examples that are not restricted by memory or prior definitions.

Ultimately, our study reveals that misinformation experiences depend not only on factually inaccurate content circulating online as defined by researchers or fact-checkers. Audiences navigate a spectrum of information types offering a variety of rationales, all embedded in

information environments that may encourage the broad suspicion of threatening content. Judging from these findings, we need to address misinformation not only as a binary and objectively defined informational phenomenon, but support audiences in confidently navigating the information ecology as a whole.

Chapter 3

Fueling Distrust or Supporting the Navigation of Falsehoods?

The Effects of Community Notes across Degrees of Deception on Credibility Perceptions and Content Engagement



Abstract

Amidst growing epistemic vulnerabilities in digital societies, major social media platforms have been gradually shifting from professional fact-checking to user-based community notes to help news users navigate the complex information environment. Yet, we know little about the effectiveness of such labels in reducing credibility and subsequent content engagement, especially when applied not only to false but also to misleading and true information. We conducted a preregistered experiment in Germany (N = 1018) using ecologically valid social media news items on two politicized topics (environment and immigration) to examine how the presence of community note misinformation labels affects credibility assessments and subsequent engagement intentions. Results show that the labels reduce perceived credibility, which in turn decreases content engagement for false, misleading, and true information alike. With that, we extend work on information processing by demonstrating that credibility can act as a cognitive pathway to reduced engagement even in highly affective issue contexts when labels are present. Practically, our findings underscore the opportunities of reliable crowd-sourced fact-checking but also highlight the threats of misinformation labels in eroding trust in accurate content when misapplied or strategically weaponized.

keywords: Community Notes, Misinformation, Fact-checking, Information Processing, Truth Default, Decontextualized Information

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Introduction

In today's fragmented information ecology, people face increasing difficulty in discerning truth from falsehoods (Newman et al., 2025). This epistemic vulnerability reflects a deeper erosion of trust in political information as well as a perceived increasing exposure to disinformation (Labarre, 2025). Discussions about misinformation and repeated threat frames of deception further prime audiences to expect dishonesty rather than trustworthy content in the information they encounter (van der Meer et al., 2023). In such a climate, tools that help audiences evaluate the veracity of information have become increasingly important.

One widely adopted approach is the use of misinformation labels, referring to labels annotated to content that flag potential inaccuracies. Alongside professional fact-checking, these labels can come in the shape of community notes, which are increasingly implemented to replace third-party fact-checking and content moderation on mainstream social media platforms. In theory, such misinformation labels should decrease the perceived credibility of false information and thereby prevent misperceptions and further engagement. If successful, this puts the uncritical dissemination of misinformation across social media feeds through algorithmic (likes, follows, comments) or direct (reposting, sharing with friends/family) user engagement to a stop.

However, unlike professional fact-checkers, whose legitimacy derives from established verification procedures, community notes are subject to a voting and algorithmic approval process that can vary in expertise, accuracy, and intent (Warden, 2024). As such, these labels could also serve to influence perceptions of and hinder engagement with true content by invalidating credible sources or content that is true or misleading, but not false (Bennett & Livingston, 2018; Egelhofer & Lecheler, 2019). Motivated reasoning – the tendency to assess information in line with pre-existing beliefs (Clayton et al., 2019) – suggests that users may not only label false content but also accurate content that contradicts their beliefs, as well as misleading content (i.e., decontextualized true information). This dual nature introduces a pressing concern: Instead of clarifying and fostering truth discernment, misinformation labels can also contribute to epistemic uncertainty and a loss of legitimacy for true information (Egelhofer et al., 2022).

A growing body of literature has investigated the effectiveness of professional fact-checks in decreasing engagement with misinformation (e.g., Brenes Peralta et al., 2022; Koch et al., 2023). Yet, we still know relatively little about how people respond when coming across misinformation labels from other ordinary users, and how these labels could backfire when applied inconsistently across true, misleading, and false content. We investigate the effectiveness

of user-driven labels with respect to stopping engagement with content that is labeled as false, and how this engagement is explained by the perceived credibility of information – something that the label tries to discredit. Whereas established mechanisms explaining information engagement mostly point to affective and heuristic explanations, such as social rewards (Globig & Sharot, 2024), novelty (So et al., 2023), and deficits in critical reasoning over critical assessments (Ceylan et al., 2023), we introduce credibility as a mechanism. Concretely, we test how the presence of misinformation labels in the shape of community notes can act as cues triggering critical credibility assessments and subsequently lower engagement.

How does the presence of misinformation labels in the shape of community notes affect the perceived credibility of true, misleading, and false information and subsequent intentions to engage with it?

Our contribution to the literature is threefold: First, we examine the causal mechanism underlying how misinformation labels influence content engagement. Second, we provide a direct comparison of the effects of labels responding to information with varying degrees of accuracy as a more realistic approach to the information ecology on social platforms. This includes often-overlooked misleading information with misinformation labels, and false labels that inherently become misinformation. Third, we extend models of information processing, such as the heuristic-systematic model of information processing, by testing the extent to which misinformation labels can override heuristic processing. We do so in the context of misinformation labels by ordinary users, who, unlike politicians or fact-checkers, do not provide immediate source credibility cues to better understand the chances and pitfalls of community notes in navigating epistemic uncertainty.

Theoretical Framework

Extending research on misinformation effects, we ask whether user-generated misinformation *labels* can affect the (a) perceived credibility of (mis)information and whether this subsequently affects (b) the intention to engage with content across (c) different conditions of factual (in)accuracy in which they can appear. We build on theories of information processing to state how the presence of misinformation labels could affect the processing of information and behavioral intentions.

The Effects of Misinformation Labels on Information Processing

Misinformation is information that cannot be supported by expert opinion or verifiable evidence (Hameleers & Minihold, 2020). *Misinformation labels*, in this study, are signals of

misinformation attached to information, irrespective of its veracity. This means that misinformation labels can become false in their own right when attached to true information. We postulate that community notes pointing out misinformation can change how information is processed and consequently affect the intention to engage with it irrespective of the accuracy of the information. In general, as proposed by both the elaboration likelihood model (ELM; Petty & Cacioppo, 1984) and the heuristic-systematic model of information processing (HSM; Todorov et al., 2002), people can process information through one of two distinct routes: Either through a heuristic (peripheral) route, relying on mental shortcuts and cues, or a systematic route, involving deliberate and effortful message processing. In an overburdened digital information ecology, individuals tend to rely on heuristic processing rather than systematically scrutinizing every piece of information unless a specific motivation for deep processing is present (e.g., Metzger et al., 2010).

A common and simple heuristic is, for instance, explained by the truth default theory (TDT), which suggests that individuals are naturally inclined to believe that what others communicate is truthful (Levine, 2022). This means that in general, engagement with content is likely based on heuristics and prior beliefs over a critical assessment of content (Morosoli et al., 2025). However, the TDT, although propounding the idea of a truth default, does not posit unconditional gullibility of audiences. Instead, it suggests that certain "triggers" can bring the thought of deception to mind (Levine, 2022). These triggers or cues could be apparent deceptive motives, logical flaws in the statement, or discrepancies with prior knowledge (Levine, 2022). Following this approach, we argue that community notes presented alongside (true or false) information could present such a trigger of deception, because they suggest the inaccuracy of the content provided.

Linking this idea to engagement with information, Globig and Sharot (2024) argue that engaging with information online is also a social signal that can lead to social gains, but also reputation losses and other social punishments. It is thus unsurprising that misinformation labels in general are effective in stopping the sharing intention of information as one indicator of engagement with it (Martel & Rand, 2023). Community notes, especially coming from other members of the platform, may offer an important cue for deception. Interacting with labeled content through liking, sharing, or commenting may in turn signal endorsement of content that other members deem inaccurate. To avoid social punishment, we thus propose that exposure to misinformation labels hinder the engagement with labeled content.

H1: The presence of misinformation labels alongside social media news items decreases the intention to engage with the item compared to exposure to the news item without a misinformation label.[5]

Broadening this argument, it is crucial to understand further how and why these labels could shape information engagement. We propose that misinformation labels decrease the perceived credibility as a cognitive mechanism that, in turn, explains content engagement. The perceived message credibility comprises the perceived "judgment of the veracity of the content of communication" (Appelman & Sundar, 2016, p. 64). Focusing on message credibility is particularly important in the context of social media, where source cues are often limited, making people rely on the message itself to form credibility perceptions (Ali et al., 2021; Christner, 2024). It is a critical factor in understanding outcomes of (mis)information exposure, as these judgments influence whether individuals take a statement as a fact and develop misperceptions (Christner, 2024; Wertgen et al., 2023).

The perceived credibility of information can be an important predictor for engagement with information in the sense that information perceived as credible is engaged with more (Pennycook et al., 2021). As misinformation labels function as deceptive cues (or "triggers") – suggesting inaccuracy of the message, they should also encourage deeper cognitive processing of the information and override the truth default. Put differently, while heuristic processing tends to dominate in the absence of deceptive cues, misinformation labels may function as a nudge towards deeper engagement with message credibility, overriding other automatic affective heuristics (Pennycook et al., 2021). Additionally, Anspach & Carlson (2020) argue that contradicting statements alongside information are interpreted as additional information that the individual does not already possess, even if no additional evidence is presented. Consequently, the truthfulness of a message becomes less certain, which reduces the intention to engage with it. Thus, in general, we argue that the presence of misinformation labels alongside social media news items should decrease their perceived credibility, regardless of their accuracy.

H2: The presence of misinformation labels alongside true, misleading, or false social media news items decreases the perceived credibility of the information compared to exposure to any type of social media news item without an accompanying label.

Additionally, based on the idea that misinformation labels serve as low-credibility indicators that should inhibit engagement with the information, we hypothesize an indirect effect: The

[5] The phrasing of some hypotheses has been improved from the preregistration for better readability. The hypothesized effects remain as preregistered.

presence of community notes negatively affects the engagement with information, and this is explained through decreased perceived credibility assessments irrespective of the veracity of the message they appear with.

H3: The perceived credibility of social media news items mediates the negative effect of misinformation labels on intention to engage with the item.

Misinformation Labels across False, True, and Misleading Information

In light of the inconsistent use of misinformation labels (for example, see Roy, 2024), we assess the effects of community notes beyond labeling false information. Information can take many shapes beyond being entirely correct or entirely false. Therefore, recent frameworks often categorize misinformation along a spectrum instead of relying on a restrictive binary approach (Wardle, 2018).

In this study, we distinguish between two types of deceptive content: outright false information and misleading information that is decontextualized. Unlike false claims, which can directly be refuted with evidence, misleading information uses true claims but omits context. For example, one of the articles in this study talks about deforestation in a German forest– a factually accurate statement - but omits that only a small fraction of the forest is being affected and that this area had already been damaged by weather and pests. Perhaps unsurprisingly, partially true but misleading information is more common in the information ecosystem (Brennen et al., 2020).

Importantly, the processing and effects of these kinds of misleading messages may differ from entirely false narratives. Going back to the TDT, it suggests that individuals are inclined to believe a message unless a trigger for deception prompts them to question the message. One part of the assessment of deception is the coherence of the message with prior knowledge and beliefs (Pennycook & Rand, 2019). Put differently, people will suspect deception when a message does not align with their prior expectations and information they encountered previously about a certain issue. Additionally, misleading and false information also often mimics the appearance and structure of legitimate journalism. If an article makes statements that clash with the readers' general expectations of news quality, it can also raise suspicion because of these stylistic elements.

Most individuals can tell apart high-quality from very low-quality news (Pennycook & Rand, 2019). However, decontextualized information, working with misleading interpretations of true statements, resembles the truth (and individuals' prior knowledge) much more than false statements (Wertgen & Richter, 2023). Put differently, discrepancies with reality (and thus, real

news articles) are less apparent. Consequently, this kind of information is a lot more likely not to trigger deception (Hameleers et al., 2023). Empirically, research suggests that the misleading use of the truth is effective in deceiving people (Hameleers et al., 2023; Tay et al., 2022). Additionally, prior research suggests that misleading information is perceived as more credible than outright falsehoods and also more likely to be engaged with compared to entirely false information (Vijaykumar et al., 2021). Consequently, people should be more inclined to engage with misleading information than with outright false information, because its inaccuracy is less apparent and therefore carries a lower perceived risk of reputational harm.

H4: Factually accurate social media news items are perceived as (a) more credible and (b) lead to a higher intention to engage with it than false and misleading information, irrespective of label presence.

H5: Misleading social media news items are perceived as (a) more credible and (b) lead to a higher intention to engage with them than entirely false information, irrespective of label presence.

Turning back to misinformation labels, their effects should also depend on the nature of the content they are applied to. While prior research has primarily focused on misinformation labels in the context of false information (van Erkel et al., 2024), they are also applied to more complex kinds of misleading information. Additionally, politically motivated misinformation labels could also be used to discredit true content.

In general, we argue that community notes act as inaccuracy cues, providing supposed additional information that diverts people from the heuristic truth default, decreasing perceived credibility and content engagement. For false content, a misinformation label suggests the greatest discrepancy between the truth and the article provided. Discrepancies with prior knowledge, both on the issues and the general idea about credible journalistic articles, implausible statements, or logical flaws, should become more apparent. In contrast, even upon closer analysis, this discrepancy is smaller for misleading decontextualized information that works with true statements. Thus, although the presence of the labels should generally decrease the perceived credibility and content engagement, this process should be gradual, depending on how apparent the claimed discrepancy between the truth and the item is.

H6: The negative effect of misinformation labels on (a) perceived credibility and (b) subsequent intention to engage with social media news items is strongest for false items, weaker for misleading items, and weakest for true items.

Methods

We conducted an online survey experiment (N = 1018) in May 2025. All hypotheses, measures, and the analysis strategy were preregistered on OSF before the start of the data collection.

Design

The experiment used a mixed between-within-factor design. After assessing relevant controls, participants were randomly exposed to one of six experimental conditions based on two factors: (1) the type of article (true, misleading, false) and (2) the presence or absence of a community note. As an additional within-subjects factor, each participant was assigned to this same combination of article type and label for two different topics: immigration and environment. The two topics were selected to represent both left- and right-wing ownership and to ensure ecological validity, as both topics are common subjects of political discourse and often picked up by fact-checking organizations (see e.g., correctiv.org). The order of the topics was randomized (49.3% saw environment first) and subsequently controlled for in the analysis. After reading each article, participants responded to questions measuring the mediator (perceived credibility) and outcome variable (intention to engage), as well as a manipulation check. In between the two articles, participants were asked about current common news topics as a distractive filler task to minimize spillover effects from the first article to the second (Transue et al., 2009).

Stimulus

Visual Design

The goal of the study is to show the effects of community note misinformation labels attached to true, misleading, and false news items as they would commonly be encountered on social media. To mimic information exposure on social platforms, the stimuli were presented as screenshots using the design of a Facebook interface (see Appendix A). To maintain ecological validity without risking bias due to a specific source cue, we invented a local newspaper from a fictional region in Germany (Homstedter Rundschau), as has been done by Meyer & Gattermann (2025). The articles were designed to resemble brief previews from news websites shared on Facebook by the newspaper. All stimuli were pilot-tested (N = 100) to ensure that the news item, source, and community note looked like real items the participants would encounter on social media.

News Items Accuracy

We designed social media news items with three levels of inaccuracy: true, misleading, and false. Table 1 shows an overview of definitions and examples of these categories. The full text with translations can be found in Appendix B.

Table 1

Example Manipulations and Explanations (Environment News Item)

	True	Decontextualized	False
Definition	Verifiable content supported by relevant evidence and/or expert knowledge [a]	Content that can be corrected through providing additional contextualizing information instead of falsification.	Fabricated claims that can be *falsified* through the presentation of opposing, verifiable facts.
Headline	Planned construction of wind turbines takes up 0.15% of the Reinhardswald forest	Deforestation of Reinhardswald for the construction of wind turbines planned despite opposition	250,000 trees simply gone- recreational area Reinhardswald must make way for the construction of wind turbines
Example Statement	After the endorsement of multiple parties, 0.15% of the total forest area will be used for the installation of 18 new wind turbines.	After the endorsement of multiple parties, the forest area will be used for the installation of new wind turbines.	After the endorsement of multiple parties, the entire forest area will be used for the installation of wind turbines.
Explanation	Use of verifiable numbers taken from official, credible sources.	Lack of contextualizing numbers gives the impression of a larger area than it is the case, although the statement that trees will be cut down is not inherently false.	Numbers were made up, the claim that the total forest area will be used for wind turbines can be falsified through consulting official sources.

Notes. [a] See Vraga and Bode (2020) for definitions of misinformation as information that lacks these features.

The articles were adapted from real examples of the German fact-checking platform *correctiv*. The starting point were real narratives that were picked up by the organization and labeled as "partially false" or "lacking context". We then designed the misleading stimuli based on these narratives, used the fact checks to create the true condition, and looked for fabricated statements of the narrative to use them to reflect falsifiable statements for the false condition. Consequently, although we designed the articles, many of the key statements can be found similarly in real examples. All articles were similar in length (92-95 words for deforestation; 77-95 for immigration) and sentence structure and covered local topics (deforestation of the Reinhardswald; waste separation in refugee accommodations in Ludwigsburg), unlikely to have been seen by most participants prior to the study. Additionally, due to ethical concerns and the selection of independent variables, we selected topics that have political relevance but are not too emotionally arousing or damaging in the case of the immigration topic.

The environment article focused on the topic of deforestation of the Reinhardswald in Hessen, Germany, for the construction of a wind park. The true condition states that only a small fraction of the forest is going to be used, mostly entailing trees that have already been affected by pests and weather (Kutzner, 2025). The misleading condition removes important context, suggesting deforestation of the entire area (Kutzner, 2025). The false condition claims the deforestation of a made-up number of healthy trees in the forest, as can also be found online (Bau, 2024). The immigration article discusses changes in waste separation policies in refugee accommodations in a German town. The true condition states that separation fails in a small percentage of accommodations, similar to other households. The misleading article is a summary of the fact-checked article on *correctiv*, removing contextualizing information addressing the small scale and reasons for the problem (Thom, 2024). The false condition claims that all 2500 refugees in all accommodations refuse to separate waste, which would force the town to implement new lenient policies. Participants were extensively debriefed in both cases and provided with resources on pro-democratic and anti-discriminatory behavior to limit a possible negative impact. The stimuli, including the debrief, can be found in Appendix B.

Label

The design of the misinformation label resembled the look of community notes as used on X and likely soon on meta, both in terms of the community icon used and the header "readers added context". Because the labels only vary by presence/absence, all labels state "This information does not correspond to the truth". Community notes tend to vary strongly in terms of seriousness, veracity, provided evidence, and arguments due to their voting system (Warden, 2024). Similar brief community notes simply denying or confirming information exist (see e.g.,

Roy, 2024). Yet, because many community notes link to other sources, we added parts of a link to our community notes that aims not to give any source cue association (*ForestsinGermany* for deforestation; *Ludwigsburgwaste* for immigration).

Measures

A translation of key measures can be found in Appendix C. Participants were asked a series of control questions (see OSF). In addition to age, gender, and education for our quotas, we assessed political left-right ideology on an 11-point scale (0 left – 10 right; M = 5.84, SD = 2.05). A media credibility scale (Gaziano & McGrath, 1986) with four items such as *"The news media in general can be trusted"* (1 = strongly disagree – 7 strongly agree; M = 4.25, SD = 1.51, Cronbach's = .95), and social media use of various platforms (0-7 days in the last week; M = 2.16, SD= 1.34; Van den Hoogen et al., 2024) were additionally assessed to ensure randomization along important factors in misinformation resilience (Rodríguez-Pérez & Canel, 2023).

After exposure to the first manipulated article (with/without label), we measured our mediator. *Message credibility* was assessed following a validated scale from Appelman & Sundar (2016) asking participants to rate the message using three opposing attribute pairs on seven-point scales (inaccurate-accurate, fake-authentic, unbelievable-believable; M = 4.13, SD = 1.56, Cronbach's = .94). This measure has been adopted in other studies on misinformation effects to reliably test message credibility because of its focus on facticity (e.g., Christner, 2024; So et al., 2023; Song et al., 2023).

Our dependent variable information engagement was assessed with five items asking participants how likely they would be to like, comment on or repost/share the article as well as follow the account posting it and talking to friends/family about the article (1 not likely at all – 7 very likely; M = 2.31, SD = 1.50). The first four items are common indicators of engagement that are relevant because they directly (sharing) or indirectly (through feedback loops) algorithmically boost the information (Trunfio & Rossi, 2021) and have been used in the past to assess engagement with misinformation (Morosoli et al., 2025).

Sample

Ethical approval was obtained from the University of Amsterdam Ethics Review Board [FMG-13404]. All participants provided informed consent before participating and were thoroughly debriefed afterwards (including thorough fact-checking of the false content they were exposed to). An a priori power analysis using the "paramtest" package in R (Hughes, 2017) suggested that for the moderated meditation, 1000 participants are sufficient to be able to detect an effect size of f^2 = .14 (= .80, = .05).

We relied on a diverse German sample from the panel company Bilendi with quotas on age, gender, and education. The final sample (N = 1018) is comparable to the German population in terms of these categories, although a bit older on average (M = 50.04). Before, 52 participants were screened out before randomization due to failing the attention check. Additionally, we excluded nine respondents with non-attentive responses (series of random characters) to our open question asking them to reflect on current common news topics. After excluding them, we did not end up with any speeders in the sample, likely because of the timers in the survey. We did not exclude participants based on measures after the randomization to not violate the assumption of random assignment. The distribution across conditions can be seen in Table 2.

Table 2

Distribution Across Conditions.

Condition	N	%
True item x Label	174	17.1
True item x No label	157	15.4
Misleading item x Label	168	16.5
Misleading item x No label	170	16.7
False item x Label	178	17.5
False item x No label	171	16.8
Total	**1018**	**100**

Analysis Strategy

We ran chi-square tests including categorical variables (Gender, education) and the assigned condition, as well as regressions regressing the condition on age, left-right ideology, media credibility, and social media use for our randomization checks. None of the tests showed significant associations between conditions and these controls, suggesting successful randomization (see Appendix D for full reporting).

We analyzed the hypotheses for the two articles separately. For H1 and H2, we ran ANCOVAS to compare articles with and without labels in terms of credibility and engagement, including topic order as a control. For the mediation hypothesis H3, we used PROCESS (Hayes, 2018) in R. For the relative effects of the article type on credibility (H4a & H5a) and engagement (H4b & H5b) we used ANCOVAs with post-hoc pairwise comparisons of the article types. For H6, we added the article type (true, misleading, false) as a moderator to the mediation model presented in H3 to see whether the strength of the mediation effect differs per information type.

Results

All tables with the full output can be found in Appendix E.

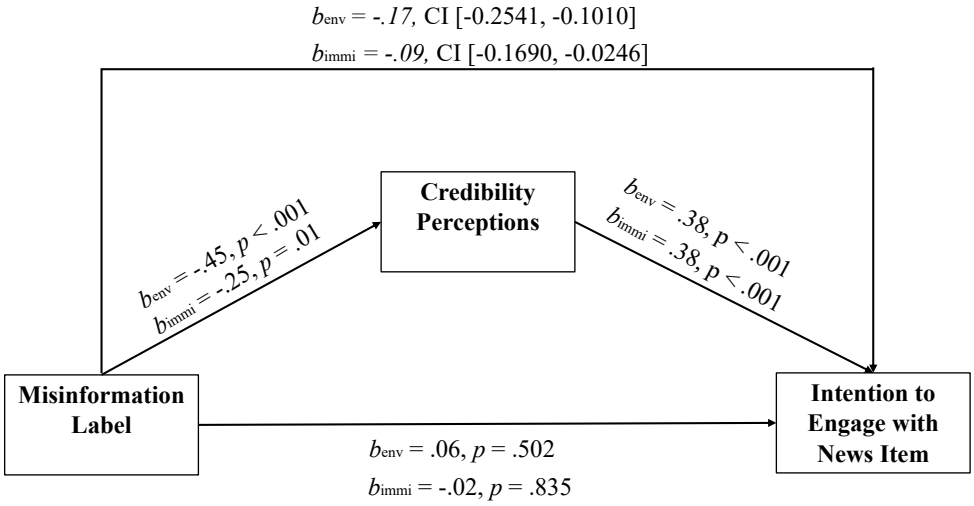
The Effect of Misinformation Labels

We start with testing hypothesis 1, which proposed that the intention to engage with social media news items would be lower when misinformation labels are present, compared to absent, alongside the news item. Both for the environment news item $F(1, 1015)_{\text{Env}} = 1.65$, $p = 0.192$, and the immigration news item $F(1, 1015)_{\text{Immi}} = 1.51$, $p = .22$, there are no significant differences in the intention to interact with the items for groups with and without a misinformation label. Thus, H1 is rejected: a misinformation label does not prevent respondents from engaging with the content.

Hypothesis 2 proposed that the presence of misinformation labels decreases the perceived credibility of news items, irrespective of their factual (in)accuracy, compared to the absence of such labels. The ANOVA controlling for topic order showed a significant difference between the groups with and without a misinformation label for the environment items $F(1, 1015)_{\text{Env}} = 22.40$, $p < .001$, $\eta^2 = .02$ and the immigration items $F(1, 1015)_{\text{Immi}} = 6.404$, $p = .012$, $\eta^2 = .01$. The mean for the perceived credibility of a news item when a misinformation label is attached ($M_{\text{Env}} = 3.91$, $M_{Immi} = 4.00$; $SD_{Env} = 1.61$, $SD_{\text{Immi}} = 1.57$) is significantly lower compared to news items with no misinformation label ($M_{\text{Env}} = 4.37$, $M_{Immi} = 4.24$; $SD_{Env} = 1.46$, $SD_{\text{Immi}} = 1.52$) across topics and controlling for topic order. Consequently, H2 is accepted: The effect is small, but it suggests that misinformation labels decreased the perceived credibility of our news items.

To test the mediation hypothesis 3, suggesting that the effect of misinformation label presence on information engagement is mediated by the perceived credibility of the news item, we ran separate mediation analyses for both topics using PROCESS in R (Model 4; Hayes & Little, 2022). The independent dummy variable indicates the presence ($N = 520$) vs the absence ($N = 498$) of a misinformation label (see Figure 1 for an overview of results). In line with our expectations, credibility perceptions are negatively affected by the presence of misinformation labels alongside the environment news item ($b = -.45$) and the immigration news item ($b = -.25$). Credibility perceptions, in turn, positively predict the intention to engage with the news item ($b_{Env} = .38$; $b_{\text{Immi}} = .38$), while there is no direct effect of the presence of misinformation labels on the intention to engage with the item for either topic. Yet, the overall indirect effect of exposure to a misinformation label alongside an environment news item on intention to engage

with it via credibility perceptions is significant and negative (b = -.17, 95% confidence intervals (CI) [-0.255, -0.10]). The same goes for the immigration news item, although with a smaller effect (b = -.09, 95% confidence intervals (CI) [-0.169, -0.025]). Consequently, H3 can be accepted: The presence of a community note predicts lower credibility perceptions, which in turn decreases the intention to engage with the content.



Note. Unstandardized coefficients. Indirect effect estimated using 10000 bootstrap samples.

Figure 1: *Results of the Mediation Analysis*

The Role of Degrees of (In)Accuracy in Credibility and Engagement

Turning to H4a and H4b, we hypothesized that true social media news items would be perceived as more credible and predict higher intention to engage with content compared to misleading and false news items, irrespective of label presence. Turning to credibility first, we find that there is a significant difference in credibility perceptions between information types for both the environment news items F(2, 1014) = 47.14, p < .001, η^2 = .09 and the immigration items F(2, 1014) = 33.88, p < .001, η^2 = .06. Post-hoc Bonferroni pair-wise comparisons with adjusted p-values reveal that the mean credibility perceptions of true news items (M_{Env} = 4.68, SD_{Env} = 1.27; M_{Immi} = 4.67, SD_{Immi} = 1.32) are significantly higher than those of misleading items (M_{Env} = 4.18, SD_{Env} = 1.49; M_{Immi} = 3.96, SD_{Immi} = 1.56) and false items (M_{Env} = 3.58, SD_{Env} = 1.67; M_{Immi} = 3.76, SD_{Immi} = 1.62) for both topics. Thus, H4a can be accepted: True news items were perceived as significantly more credible compared to misleading or false items, irrespective of label presence.

In terms of intention to engage with the news item, we again find significant group differences with our ANOVA across levels of (in)accuracy for the environment news items $F(2, 1014) = 9.402$, $p < .001$, $\eta^2 = .02$ as well as the immigration news items $F(2, 1014) = 6.693$, $p < .01$, $\eta^2 = .01$. Bonferroni pair-wise comparisons with adjusted p-values suggest that the intention to engage with an accurate news item ($M_{Env} = 2.62$, $SD_{Env} = 1.26$; $M_{Immi} = 2.50$, $SD_{Immi} = 1.59$) is significantly higher than the intention to engage with a misleading ($M_{Env} = 2.26$, $SD_{Env} = 1.49$; $M_{Immi} = 2.11$, $SD_{Immi} = 1.36$) or false item ($M_{Env} = 2.16$, $SD_{Env} = 1.67$; $M_{Immi} = 2.21$, $SD_{Immi} = 1.35$) for both topics. This lends support to H4b as the findings indicate that intended information engagement is significantly higher for those exposed to true information compared to misleading or false information.

H5a and H5b predicted that the perceived credibility and the intention to engage with the social media news item would be significantly higher for misleading news items compared to false news items. Turning to the same tests presented in H4, pair-wise comparisons with Bonferroni correction suggested that the perceived credibility is significantly higher for the misleading environment news item, but not for the immigration news item. Thus, H5a needs to be rejected. In terms of information engagement, there is no significant difference between misleading and false news items. Therefore, we reject H5b.

Last, H6 proposed that the indirect effect of the label decreasing credibility, which in turn decreases intention to engage with the news item, is strongest for false news items and weakest for true items. To test this hypothesis, we ran a moderated-mediation model with PROCESS using model 7 (Hayes & Little, 2022).

Just as stated in H3, the model for environment news items suggests that exposure to misinformation labels significantly decreases credibility perceptions, which in turn predicts lower intention to engage with the news item, albeit we lack a direct effect of label presence on the interaction. When looking at the moderator, we see that this mediation effects hold true across all levels of (in)accuracy, meaning that for true ($b = -.19$, 95% Confidence Intervals (CI) [-0.288, -0.094]), misleading ($b = -.18$, 95% Confidence Intervals (CI) [-0.253, -0.109]), and false ($b = -.17$, 95% Confidence Intervals (CI) [-0.295, -0.048]) news items credibility and subsequent intention to engage is decreased when a label is present. Yet, we find that there is no significant interaction of news item accuracy with label presence ($b = .03$, $p = .824$), meaning that this effect does *not* vary across degrees of accuracy.

The same applies to the immigration news items. Whereas the accuracy generally plays a role for credibility assessment insofar as false news items are perceived as less credible, there is no interaction effect with misinformation labels. This means that the labels can decrease perceived

credibility across degrees of accuracy with no significant differences between these information types. Thus, H6 needs to be rejected.

Discussion

With ongoing concerns about the ability to discern misinformation from trustworthy information in an oversaturated information environment (Newman et al., 2025), the replacement of professional fact-checkers with user-based community notes on major social media platforms leaves questions about their reliability in pointing out actual misinformation and their effectiveness in reducing credibility perceptions and engagement. This study set out to investigate whether the presence of misinformation labels in the shape of community notes affects the perceived credibility and the intention to engage with social media news content, as well as the causal mechanism between these effects across degrees of accuracy. We conducted an experiment with high ecological validity utilizing real and pilot-tested news item examples of two common politicized topics (environment and immigration). We formatted them to resemble authentic social media news items, with adapted versions of community notes acting as misinformation labels as implemented on the social platform X. Comparing the effects of the presence and absence of these misinformation labels across degrees of accuracy, we can judge the effectiveness of misinformation labels when applied appropriately, but also when targeted at true information.

First, our results show that the use of misinformation labels in the shape of community notes generally decreases the perceived credibility of news items across left- and right-wing issue ownership. Extending research on the effectiveness of journalistic fact-checks (Brenes Peralta et al., 2022; Nyhan et al., 2020), this finding suggests that crowd-sourced fact-checking can also be effective in decreasing credibility perceptions of (false) information, at least when integrated into the social platforms' affordances like community notes. At the same time, this result implies that false community notes can also decrease the credibility of true information - a concerning result considering that in order to combat misinformation, we also have to trust and promote truthful information (Southwell et al., 2017). Thus, while this result supports the argument that misinformation labels can serve as suspicion cues overriding the truth default when encountering new information (Levine, 2022), this also applies to information for which we normatively would not want to raise suspicion.

However, we also find that the presence of labels does not directly explain differences in the intention to interact with the news item for either topic. Hence, misinformation labels alone

could not stop the intention to interact with content. This may be due to the attention-grabbing nature of misinformation, which, also in our manipulations, tends to be a lot more negative and emotional in its language (Carrasco-Farré, 2022). Additionally, there could be various underlying motivations people have to engage with content online (i.e., warning others about false or dubious claims). Yet, our mediation analyses suggest that this intention – again, across topics – is *indirectly* affected through the perceived credibility insofar that label presence decreases the perceived credibility, which in turn predicts a lower intention to engage with the content. Thus, in order to be effective in hindering engagement, labels have to serve as a credibility signal to the reader. It also suggests that people take credibility assessments into account before interacting with a message, meaning that not only affective factors like emotional appeal, but also cognitive assessments play a role in engagement behavior (Song et al., 2023).

Having established this mechanism in the context of our study, the results are more nuanced when taking into account the degrees of inaccuracy of the news items participants were exposed to. First, a normatively desirable result we found is that perceived credibility of and engagement with true news items is significantly higher compared to those that are misleading or false. Whereas prior research points to the use of specific factors for assessing the accuracy of information, such as supporting evidence and source credibility (Schwarz et al., 2016), our stimuli did not provide these cues or held them constant. Instead, people seem to have a good "hunch" when it comes to the actual message presented, being able to assess the credibility of content in line with its actual accuracy. Additionally, participants intended to interact with true content significantly more than with misleading or false information. This supports the idea that the interaction with content can be understood as a social signal of endorsing specific messages, which, when being perceived as inaccurate, may lead to social punishment (Globig & Sharot, 2024). It also extends prior research suggesting that credibility assessments predict sharing intention (Ali et al., 2021; Christner, 2024; Song et al., 2023) with additional measures of engagement that can algorithmically amplify information, such as liking, commenting, and following the account posting the information.

At the same time, the differences between misleading and false content were not as stark. We found a significant difference between false and misleading information in the credibility assessments only for the environment news item, whereas intention to engage did not differ for either topic. This finding suggests that there seems to be a cut-off point for credibility: Once information is perceived as slightly wrong, it is perceived as not credible. At least for decontextualization – which was our operationalization of misleading information – people do not see much of a difference to fabricated information when deciding whether to interact with the information, and when assessing its credibility (in the context of immigration). The finding

of a less nuanced distinction between information types has also been found in research on COVID-19 misinformation (Hameleers et al., 2023).

Most importantly, when considering the role of misinformation labels across information types, we found that there were no significant differences in the effectiveness of misinformation labels between true, misleading, and false information. Whereas many of the results so far highlight the opportunities arising with crowd-sourced fact-checking tools, this result points to some of the risks associated with leaving the judgment of (in)accuracy to those who do not carry the training or ethical framework associated with professional fact-checking. Moreover, considering that the use of misinformation labels as a delegitimizing tool is common in political discourse to discredit accurate information as a means to gain discursive power (Egelhofer & Lecheler, 2019), community notes can be instrumentalized to sway opinions on credible news items and become disinformation in their own right. Specifically, our results suggest that misinformation labels can override the assessment of content, making people rely on the label as a shortcut instead of critically assessing the content when they cannot rely on prior knowledge. We argued that misinformation labels generally could serve as a suspicion cue (Levine, 2022) that could steer people away from heuristic and towards more critical, systematic processing. On the contrary, we do not find evidence of a more critical assessment of false information vs true information following the exposure to such a cue. One explanation is that misinformation labels themselves serve as a heuristic mental shortcut to evaluate the credibility of information. This would be in line with both the ELM and HSM (Petty & Cacioppo, 1984; Todorov et al., 2002) that propose that people look for heuristic cues by default, especially in an oversaturated digital information environment (Metzger et al., 2010).

In light of the algorithmic flaws of community note systems that require diverse ratings but do not specify the spectrum on which this diversity is assessed (Warden, 2024), community notes could also discredit true and misleading information without further context. It is also noteworthy to mention that the platforms curating these algorithms have economic and, as clearly demonstrated on X, political interests (Wilson, 2025). Whereas the importance and legitimacy of crowd-sourced fact-checking still need to be highlighted (Stafford, 2025), these results suggest practical implications. First, experts analyzing the algorithms behind these votes have come up with specific recommendations to increase the labels' reliability. This includes the use of multi-dimensional matrix factorization, meaning the account for multiple factors in the voting system, offering a more robust measure of the "common ground" (Warden, 2024). Consequently, further revisions on community notes algorithms may be one way of avoiding the display of false misinformation labels. Second, whereas professional fact-checks can be taken as reliable cues of inaccuracy, community notes might have to be interpreted more cautiously.

Media literacy interventions aiming to teach about content and source cues to spot misinformation could also focus on misinformation as a discursive phenomenon, extending a healthy skepticism not just towards information, but also accuracy judgments.

A last noteworthy result reflecting on the chosen topics is that the environment news items consistently showed bigger effect sizes than the immigration items, despite the topic order being random and controlled for. Whereas all significant effects found but one held for both topics, this may have interesting implications. Immigration is a strongly politicized and emotionalizing topic, often tied to prior attitudes (Dinesen et al., 2016). Consequently, credibility as a cognitive mechanism may play a smaller role with a topic like immigration compared to more affective mechanisms.

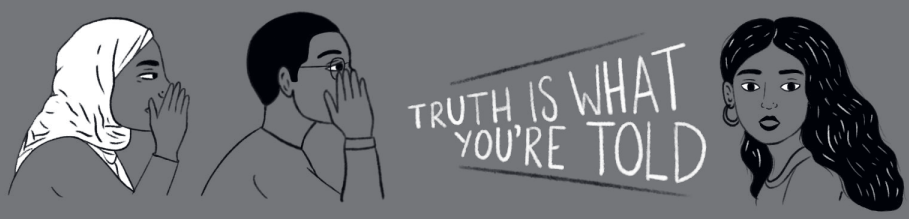
This also leads us to discussing some limitations of this study. Because we wanted to rely on real articles, the manipulations between the misinformation types may tap into more than just the facticity or accuracy dimension. Specifically, the fabricated news items could also manipulate emotions like anger that do not necessarily arise from the true condition. While we tried to keep the phrasing very similar between the conditions, future research could test manipulations using less politicized topics or measure and control for emotions arising during exposure. Additionally, while exposed to news items based on real articles, participants did so in the context of a survey experiment. This means that they are specifically instructed to closely inspect the information. It is unclear to what extent misinformation labels, which are placed below articles right above the interaction icons, as they are on X, would be seen and considered during organic information consumption. Similarly, our dependent variable is a measure of *intention* to engage rather than the actual behavior, which could overestimate actual behavior. We therefore recommend future studies using methods like tracking data (e.g., Stier et al., 2020) to understand more organic encounters with community notes and further engagement with information. Additionally, considering the variety of deceptive information beyond decontextualized and fabricated information in the information ecosystem (Wardle, 2018), we propose that further research tests other kinds of misleading information, including false conclusions or decontextualized visuals. Similarly, we did not vary the statements of the community notes. Considering their impact in the context of this study, it would be worthwhile to further assess how community notes affect information processing and subsequent behavior when varying in the degree of accused inaccuracy, emotionality, or endorsement from other users.

To conclude, our study suggests that community notes attached to social media news items of different topics are effective in reducing credibility and affecting intention to engage with content

indirectly through this assessment. Yet, this is also the case for true information, suggesting that they can inhibit not just the spread and credibility of false, but also true content, highlighting both the opportunities and threats of community notes. Considering that more platforms plan to implement crowd-sourced fact-checking, it is important to keep investigating the mechanisms and effectiveness of such labels.

Conclusion

Truth Be Told



Misinformation is undeniably a formative democratic and social challenge in the digital information era. Democracies face an *epistemic crisis* (e.g., Hameleers & van der Meer, 2025; Primig, 2025), characterized not only by exposure to misinformation, but also by delegitimizing accusations targeting epistemic authorities, broad misinformation concerns and perceptions from citizens, and a state of *factual relativism* marked by a growing inability to agree on facts (Van Aelst et al., 2017). Thus, misinformation operates not only as an informational genre but also as a discursive label and a perceptual phenomenon.

Against this backdrop, the title of this dissertation asks a provocative question: "Is truth only hearsay?". The question does not reduce truth to mere subjectivity. Instead, it highlights a seemingly fragile status of a shared factual ground amidst opposing and contested narratives. Already in 2005, the U.S.-American comedian Stephen Colbert coined the term *truthiness* to suggest that truth is simply what an individual *wants* to be true, not what can be verified. This concept captures the tension of interest in this dissertation: What is factually (in)accurate based on evidence is only one piece of a puzzle. To understand the full extent of the contemporary *epistemic crisis,* we must also consider how information is constructed through legitimization and delegitimization practices in public discourse, and how audiences *perceived* and navigate competing truth claims. In response, this dissertation set out to examine misinformation not only as an informational challenge involving false content, but also through its discursive dimension of how truth and misinformation are contested in public discourse, and through its perceptual dimension including how citizens evaluate and make sense of information.

Consequently, the empirical chapters in this dissertation investigated the intersection of misinformation as a complex informational genre, a discursive label, and a perceptual phenomenon to analyze how truth and falsehoods are referenced and understood. In doing so, I employed a variety of methodological approaches to provide a comprehensive understanding of misinformation discourse and perceptions, involving both the politicians' and the citizens' perspectives, the media as a target, and social media platforms as a setting in which misinformation discourse plays out and perceptions are shaped. Before explaining the implications resulting from these studies, I will offer a brief overview of how the chapters addressed the three dimensions of misinformation.

To better understand the *discursive* perspective, **Chapter 1** utilized an inductive analysis of 545 tweets of German politicians across the political spectrum and multiple years to map out the landscape of misinformation discourse targeted at the media. **Chapter 3**, in turn, used a survey experiment to test the effects of such accusations in the shape of community notes on credibility

perceptions and subsequent intention to engage with the labeled information, mimicking the setting of social media platforms.

Focusing on the *perceptual* perspective, **Chapter 2** took the center stage by coining and exploring the concept of *misinformation experiences*, an innovative approach to mapping the perceived encounter contexts, content features, and rationales in identifying perceived misinformation. This chapter utilized a longitudinal Experience Sampling Method (ESM) on the messenger app WhatsApp to collect screenshots of misinformation as they were encountered by citizens in their natural information consumption. The data includes context information on the encounter dynamics and justification processes in identifying the screenshots as misinformation. Additionally, **Chapter 3** added to the perceptual angle by investigating how credibility perceptions change across degrees of deception and in light of the presence of misinformation labels.

To account for misinformation as a *complex informational genre*, both **Chapter 1** and **Chapter 2** did not impose any specific definitional restrictions, but mapped out the varieties of discourse and perceptions as they exist. The survey experiment in **Chapter 3** added a third true, but decontextualized stimulus as an additional category that can be considered on the spectrum between true and false information.

In response to the overarching question using the findings of these three empirical chapters, it can be concluded that we do not only need to think of an epistemic crisis in terms of the *presence* of misinformation, but also as the *absence of an agreement on what constitutes truth*, both in terms of individual facts and as agreement on what constitutes and who can share verifiable facts in the first place. Put differently, beyond the circulation of falsehoods, the very process of establishing truth is under strain, and audiences struggle to confidently discern falsehoods. This discussion synthesizes two overarching findings across the chapters to support this conclusion about the current state of the information environment. Specifically, I will discuss (1) the fluid boundaries of the concept across the informational, discursive, and perceptual dimensions and (2) a wider legitimacy crisis that could be both a cause and consequence of the expansive use of "Misinformation". Further, I will contextualize the research in terms of its social media settings and geographical boundaries and provide an outlook on how current developments could shape the findings of this dissertation in the future. Last, I will offer theoretical and methodological implications emerging from the empirical work and address the question of how to use the misinformation terminology in light of the ambiguous claims found in discourse and perceptions. To conclude, I propose practical implications and claim that the responsibility for a healthy information environment needs to be taken on by several stakeholders by fostering collective epistemic resilience.

Main conclusions

The empirical chapters have shown how misinformation, beyond existing as a complex informational genre, unfolds in its discursive and perceptual elements. The results along these three dimensions are considerably interconnected, which is why I will discuss two overarching findings across the three dimensions, addressing first the broad and fluid conceptual boundaries and then a wider legitimacy crisis, eventually leading to a response to the question of the state of the information environment.

Misinformation as a Complex Genre in Discourse and Perception

A central finding across the empirical chapters is that misinformation operates as a far more complex and multifaceted phenomenon than what can be captured in conventional binary true/false applications (e.g., Murphy et al., 2023), and that this complexity is reflected in misinformation discourse (**Chapter 1**) and perceptions (**Chapter 2**). This dissertation extends existing literature and finds a spectrum-based genre that is characterized by fluid boundaries, gray areas, and expansive applications. Most importantly, this complexity manifests both within and outside of the boundaries of verifiable inaccuracy, pointing to tensions between academic conceptualization, political discourse, and public perceptions.

Through a discursive lens, **Chapter 1** analyzed media criticism discourse from politicians due to their immense discursive power (Jungherr et al., 2019), which could be used in an attempt to influence their followers' perceptions of information and the media (Egelhofer & Lecheler, 2019). That way, media criticism discourse could work as a cause for misinformation perceptions in the sense that it can affect how credible information is viewed (Egelhofer et al., 2022; Van Duyn & Collier, 2019). In accordance with prior research, the analysis reveals that good normative media criticism pointing out mistakes and individual quality flaws exists just like accusations accusing the media of spreading outright lies (Egelhofer et al., 2021). Yet, it also points to more accusations beyond the often researched *fake news* label (Farhall et al., 2019) that may be problematic in terms of verifiability:

First, the discourse utilizes accusations for content that violates moral, political, and representational expectations, rather than as a statement about factual inaccuracy. **Chapter 1** demonstrates that politicians do not only accuse the media of spreading falsehoods; they also denounce journalistic coverage as biased, incomplete, or distorted, even without any evidence for these accusations. The key issue in this category lies in its ambiguous verifiability. When politicians allege distortion through journalists on the basis of supposed bias, exaggeration, or disproportionate agenda-setting, they imply the existence of an objective reality that the media fail to capture. At the same time, they refer to phenomena that are interpretive and that can be

situated somewhere between fact and subjective perspective. Accusations like these cannot be verified in the same way as factual errors, but neither do they present merely subjective opinions. This tension between verifiability and perception positions this type of misinformation discourse within a gray area. The accusations appear empirically grounded, but depend on normative interpretations.

At the same time, the discourse analyzed also reveals moralized and subjective disagreement. Here, the criticism becomes a category of supposed morally wrong behavior, signaling perceived harm rather than factual inaccuracy. Consequently, media criticism discourse is deeply entangled with political identity, tapping into the representation of (in)appropriate opinions and people. While these opinions can be a legitimate part of media criticism discourse, they become problematic when framed as intentional deception or when they are perceived as facts and thus make audiences susceptible to gaining a false understanding of the accused outlet (Mettler & Mondak, 2024).

Thus, the discourse surrounding alleged mistakes in the media exists in broad varieties, and **Chapter 3** demonstrates that discursive labels in the shape of community notes can furthermore affect perceptions and subsequent behavioral intentions. Whereas prior research has mostly established the negative effects of discourse asserting intentional deception on trust in the accused media outlet, the identification of true information, and the accuracy of the labeled message (Egelhofer et al., 2022; Van Duyn & Collier, 2019), this chapter demonstrates the effect of a simple misinformation accusation in lowering credibility perceptions. This is the case for true, misleading, and false information alike, suggesting that misinformation labels in the shape of community notes can be corrective, but may also affect how true information is being perceived.

From a perceptual lens, similar challenges arise. Whereas audiences can relatively confidently distinguish between the credibility of true, misleading, and false information when they are presented without misinformation labels (**Chapter 3**), they also display an expansive understanding of what counts as misinformation. **Chapter 2** demonstrates that audiences experience misinformation as a broad informational phenomenon shaped by its encounter contexts and identified by a diverse set of evaluative judgments. Relying primarily on a range of quick judgments in assessing information, they submitted examples of misinformation entailing content characteristics that resemble those of the discursive varieties (**Chapter 1)**. Audiences differentiate between nuanced categories of perceived inaccuracies, including false conclusions, exaggerations, and misleading headlines. Similarly to the discourse, audiences seem to presuppose that "true" information should conform to more normative expectations of balance,

fairness, and alignment with personal norms. When these expectations are violated, even accurate claims may be dismissed as misinformation. The muddying of factual and subjective dimensions points to a wider challenge within the epistemic vulnerability of audiences when there is an inability to draw boundaries between interpretation and falsity as well as fact and opinion (Labarre, 2025; Mettler & Mondak, 2024).

Furthermore, **Chapter 2** highlights the importance of understanding misinformation perceptions as a complex, broader phenomenon shaped by source and context cues. Beyond the message of the content itself, audiences in this chapter rely on cues of the platform and the source, but also on prior knowledge and general attitudes. In light of prior research investigating the isolated influences of some of these contextual factors (e.g., Ha et al., 2023; Metzger et al., 2010; Sun & Xie, 2024), this study illustrates how they combine with prior experiences and attitudes to form a potentially highly individualized epistemic landscape and understanding of misinformation. Misinformation as a perceptual phenomenon cannot be reduced to bias or passive effects alone, but presents itself as a broader experience individuals have to make sense of in an unstable and contested information environment.

Taken together, the findings suggest that the complexity of perceived misinformation in many ways parallels that of misinformation discourse, and that discursive misinformation labels can affect misinformation perceptions insofar that they affect the perceived credibility of true, misleading, and false information. Both dimensions reveal gray areas where factual and affective boundaries blur. They also highlight that misinformation cannot only be understood through typologies of accuracy alone. Instead, it is co-constructed through political discourse, technological cues, and individual experiences.

Misinformation as a Wider Legitimacy Crisis

Another crucial implication to discuss is the wider erosion of the legitimacy of epistemic authorities that the empirical chapters point to. This legitimacy crisis can be considered both a potential cause, offering opportunities for alternative narratives to flourish and a vulnerability to attacks, and a consequence through intensified skepticism and a weakened foundation of shared verification of the informational complexities described above. The findings lend support to existing ideas about a wider epistemic crisis in which the stability of legitimacy, facts, and epistemic authority is shifting (e.g., Bennett & Livingston, 2018; Hameleers & van der Meer, 2025; Van Aelst et al., 2017; Wardle & Derakhshan, 2017). Growing legitimacy challenges are a key issue in the information environment because they undermine official and credible information and facilitate the spread of alternative narratives (Bennett & Livingston, 2018).

In the rhetoric used against the media, **Chapter 1** not only unveils a variety of accusations

transgressing factual boundaries, but also ways in which performance or entire outlets are being delegitimized beyond the often studied *fake news* label (Egelhofer & Lecheler, 2019; Farhall et al., 2019). Even when not suggesting deliberate deception by the media, accusations presupposing that there exists a singular, objective reality that the media fail to represent point to a broader discursive struggle. Specifically, it points to different accounts of reality and to the question of which institutions can claim epistemic authority in defining what reality looks like. Even more challenging, by implying strategic disinformation campaigns (**Chapter 1**), politicians attempt to strip the media of the very fundamental tasks that ensure their legitimacy, referring to their capacity to define and verify factual claims (Carlson, 2017). That is not to say that the media should not be open to criticism; in fact, it is one of the necessary conditions to retain authority (Carlson, 2017). Yet, when the criticism is weaponized to weaken the traditionally reliable media institutions by asserting malicious intentions or suggesting that the politician knows objective reality that the media does not, it shifts the crucial power balance between politicians and the media and weakens journalists' position as truth keepers (Van Dalen, 2021; Waisbord, 2018).

But also within the perceptual dimension, the dissertation offers some pointers to a legitimacy crisis. This is not only because the perceptions of accurate information seemed to be affected by false accusations (**Chapter 3;** also see Egelhofer et al., 2022) but also because of the audience's reliance on ideas about the intention of the source of a supposed false message in some instances (**Chapter 2**). Put differently, in assessing the supposed accuracy of information, some people rely on anecdotal evidence, perceived fairness, perceived harm, or ideas about a disruptive intent from the source. The dominance of heuristic processing is well-established (Todorov et al., 2002), but the reliance on skepticism or labels pointing to inaccuracy makes audiences vulnerable not only to misperceptions but also to potentially distrusting credible information (Hameleers, 2024; Pennycook et al., 2020).

Taken together, the legitimacy crisis and broad applications and perceptions of misinformation may emerge as a reinforcing cycle. Delegitimizing attacks and misinformation discourse amplify skepticism and distrust (**Chapter 3**; also see Egelhofer et al., 2022; Van Duyn & Collier, 2019), which in turn may validate and sustain those rhetorical attacks. Additionally, the more audiences come to view facts as subjective or situational, the easier it may be for actors with political interests to discredit true narratives as mere opinions or misinformation. At the same time, when legitimacy erodes, the media may not only lose the public's trust, but also their ground to define shared facts, leaving more space for " relative truths" set by other political actors .

Truth be told: The State of Facts and Misinformation

These two findings lead us back to the initial question in this dissertation: How do the informational, discursive, and perceptual dimensions of misinformation shape the content, experience, and evaluations of the contemporary information environment in democratic societies? The answer that emerges from the German and Dutch contexts is that these dimensions are deeply interconnected. The same piece of content can be put in radically different lights, depending on how it is framed in discourse and experienced by audiences. Experiences are shaped by the kind of claims individuals encounter, whether it is labeled as misinformation, and by the various prior experiences, attitudes, and knowledge. Evaluations of information can change in light of discursive labels, irrespective of its inaccuracy. Hence, the challenges to the contemporary information environment should not only be thought of in terms of the presence of misinformation as an informational genre, but equally as the absence of "truth", both as agreement on specific facts and as agreement of what constitutes verifiable knowledge and who gets to define it. Beyond worries about misperceptions resulting from exposure to false content, this dissertation sheds light on skepticism towards credible information and the perception of claims that cannot be placed on a spectrum of facticity. Across the three faces, misinformation as a broader phenomenon does not only demonstrate an issue of what is empirically false, but of what is disputable, and what is (not) perceived as verifiable. Even in the chosen countries that are considered to be relatively resilient to misinformation exposure and beliefs (Humprecht et al., 2020), false accusations can affect how information is perceived (**Chapter 3**), audiences draw on subjective judgments when identifying misinformation (**Chapter 2**), and political actors broaden media accusations into moralized criticism that contests epistemic authority (**Chapter 1**).

This leads to further challenges. Irrespective of whether a crisis of ubiquitous misinformation actually exists, the - in part - delegitimizing discourse (**Chapter 1**) perpetuates the idea of such a crisis (Farkas & Schou, 2020), and accusations like this can seed uncertainty (**Chapter 3**). In that sense, in the current information environment, the problem is not only that citizens are occasionally misled, but that they need to navigate an information environment in which truth claims are presented as more or less verifiable, are contested, and in which traditionally reliable information sources are undermined. Irrespective of the actual scale of misinformation, this dissertation shows that perceptions and discourse matter. Even in a hypothetical absence of misinformation, we require a common agreement on what can be considered a set of facts in order to be able to debate those facts.

Contextualizing the Findings

The findings and conclusions of this dissertation contribute to our understanding of misinformation as a multidimensional challenge of truth and legitimacy. Yet, the dynamics investigated in this dissertation must also be understood within the technological, geographical, and empirical contexts in which they unfold. The following section situates the findings in these contexts and assesses their generalizability.

The Technological Context

All three studies were conducted within the context of social media platforms as places in which algorithmic curation, emotional amplification, and the visibility of elite discourse shape what users see, perceive, and possibly contest. These platforms are not neutral mediators, but powerful infrastructures with influence on visibility and legitimacy. They possess what Helberger (2020) calls systemic opinion power. Not only do they reach large audiences and have the power to direct attention to specific information, but they also create dependencies for other political actors to make their message reach audiences.

For the discursive and informational dimension, these conditions are crucial, as social media provide a fertile ground for political actors to circulate delegitimizing narratives targeted at traditional media outlets (**Chapter 1**). Algorithms amplify emotionally charged and polarizing (i.e., engaging) content, which could support the visibility of strategic attacks and misinformation messages that are typically emotionally charged (Carrasco-Farré, 2022). In this sense, misinformation and strategic attacks are shaped by the incentive structures of social media platforms.

In terms of misinformation perceptions, platforms can also shape credibility judgments. In general, audience prior expectations of information credibility are lower on social media than other outlets (Hameleers & van der Goot, 2025), although specifically younger generations increasingly seek out information on these platforms (Newman et al., 2025). Notably, community notes (**Chapter 3**) and other crowd-sourced fact-checking efforts illustrate how these audiences can now participate in defining what counts as misinformation. This model can present an effective participatory way of moderating information (Stafford, 2025), but also reflects dependencies on algorithms that determine when these corrective notes appear. At this point in time, for instance, any member of the community note program on *X* can submit a note to any post, but it will only appear to all users after receiving supporting "diverse" votes from other members. However, Warden (2024) analyzed that this diversity of votes can also be along the lines of diversity of expertise (high-low), or perceived helpfulness, which can also be strategically attacked by individuals with sock puppet accounts. As **Chapter 3** demonstrated,

community notes could have detrimental effects on credibility perceptions when applied inappropriately. So far, the community note program seems to work beyond instances of manipulative intent (see e.g., Yao et al., 2024), and the future will tell whether its benefits outweigh its threats.

By conducting all three studies in the context of social media, they mainly highlight the problem of misinformation discourse and perceptions in the context of these platforms. However, research suggests that these are the spaces where most misinformation is encountered (e.g., Del Vicario et al., 2016; Suarez-Lledo & Alvarez-Galvez, 2021). Yet, misinformation on these platforms may play out and be perceived differently in comparison to public broadcasters and other news media outlets that have different regulations and expectations. Yet, even within the category of "social media", there exists a variety of different platforms with distinct affordances, users, and governance structures. For instance, Twitter/X was a useful platform to assess media criticism in **Chapter 1**, as it was used by many German politicians to reach wide audiences (e.g., Farhall et al., 2019). Yet, the conditions for how (perceived) misinformation is encountered may vary vastly from an encrypted messenger app such as WhatsApp, which is used for private messaging most of the time. Thus, the results always need to be interpreted in light of the platforms they are assessed on. While social media platforms provide an ideal site to study these processes, traditional media still dominate in news consumption, and trust in traditional news media remains low (Törnberg & Chueri, 2025). Nevertheless, audiences report that truth discernment is most challenging on platforms like Facebook, TikTok, and X specifically (Newman et al., 2025), which are the environments where the discourse and perceptions examined in this dissertation take shape. Yet, questions for future research on the nature of misinformation perception and discourse in more traditional news outlets remain. Future studies could examine how journalistic practices and trust in legacy media shape the audience's judgment of content in these outlets. Moreover, it could be valuable to explore how misinformation narratives and discourse addressed in traditional media outlets compared to social media, given the role expectations of journalists in these outlets.

The Geographical Context

Similarly, the findings must also be evaluated within their geographical and political context. In selecting Germany and the Netherlands for this dissertation, I have argued that these two countries are among the more resilient to misinformation and are thus among the least likely cases for a misinformation and legitimacy crisis, due to their relatively strong public broadcaster, diverse media market, high trust, and low polarization (Humprecht et al., 2020). A resilient country refers to a setting in which misinformation reaches fewer people and in which citizens

are less likely to believe it compared to less resilient countries (Humprecht et al., 2020).

The observations of delegitimizing discourse and broad understandings of misinformation in this dissertation point to the structural depths of the problem even under resilient conditions. Still, they may manifest differently elsewhere, and less resilient contexts may even provide an outlook to where the information landscape could head when polarized divides deepen and trust further declines. Many of the phenomena, such as broad ideas about what misinformation entails, are observed across countries (e.g., Nielsen & Graves, 2017; Osman et al., 2022). Yet, in more polarized democracies, these observations may be amplified. Hereby, the United States presents one of the most extreme examples. In the U.S., misinformation perceptions are often guided by partisan identity, meaning that misinformation is considered to be what the outgroup propagates (van der Linden et al., 2020). In these contexts, ties to politics are driven by emotional responses and thus produce stronger tendencies to reject stories coming from opposing viewpoints (Humprecht et al., 2020; Iyengar et al., 2012). This also provides a fertile ground for politicians to discredit disliked opposing narratives to strengthen ties with their followers (Egelhofer & Lecheler, 2019). Under these conditions, it is unsurprising that concerns about truth discernment are more prominent in North America (65%) than in Europe (53%). Somewhere in between this extreme case and Germany and the Netherlands are likely other European countries, such as Italy, Greece, and Spain. These countries have a pluralist yet polarized media system (Brüggemann et al., 2014) and experience considerable polarized conflict (Humprecht et al., 2020). The polarized tendencies, also in the media, likely amplify dynamics such as an identity-driven approach to perceiving misinformation. At the same time, being part of the European Union, these countries benefit from European initiatives and legal efforts taken against misinformation (e.g., European Commission, 2025)

In contrast, in authoritarian systems, where media pluralism is limited, *dis*information and the discourse surrounding it function as a state instrument of control (Sato et al., 2023). Research from Russia suggests that while many citizens can discern falsehoods, this ability depends largely on access to independent media (Shirikov, 2024). Hence, the discursive and perceptual patterns, but also the presence of disinformation in general, depend on the access to alternative media and the reliance on government-controlled information.

These contextual contrasts point to a possible dynamic for democracies. Delegitimizing discourse and biased perceptions may grow stronger as polarization increases and trust declines, just like the resilience model proposes it for misinformation as an informational genre (Humprecht et al., 2020). In this sense, one could hypothesize that less resilient cases like the U.S. do not merely differ from the German and Dutch context studied in this dissertation, but

in some aspects may offer a preview of where these contexts could drift if negative trends continue (see section: Looking Ahead).

The Generalizability of Qualitative Findings

Finally, the empirical scope of **Chapters 1** and **2** primarily captures the qualitative dimensions of misinformation discourse and perceptions, rather than their quantitative prevalence. The goal was to map the varieties and meanings rather than their prevalence. Consequently, although the studies reveal recurring patterns, I cannot assess how often they appear. Still, these insights align with prior research on broader global trends of delegitimizing rhetoric and blurred definitional boundaries between misinformation and other concepts. As such, the empirical contributions of this dissertation partly lie in exemplifying how these phenomena emerge and interact within a comparatively resilient environment.

Looking ahead: Current Developments Shaping the Future of Misinformation

Looking ahead, several current developments within the (online) information environment will likely further shape the challenges observed in this dissertation in the future in Western democracies. Specifically, I consider three trends to be consequential to the development of the three faces of misinformation: The growing sophistication and democratization of artificial intelligence, the rise and normalization of radical-right populism, and the growing politicization of institutions traditionally considered to be unbiased.

The Rise of Artificial Intelligence

First, artificial intelligence presents both a profound challenge and a remedy for misinformation across its informational, discursive, and perceptual aspects. On the one hand, AI systems can already relatively successfully be trained to identify misinformation messages based on common characteristics such as improper language, using the context of text, and also emotionality and polarizing potential (Saeidnia et al., 2025). This ability demonstrates only one way in which AI designed with journalistic fact-checkers and researchers can be a revolutionary assistive tool in defying misinformation by recognizing, flagging, and possibly correcting it on a large scale. Newer models are even being trained to spot more complex types of misleading information, such as decontextualized visuals, which are generally challenging to identify as misinformation (Zhang et al., 2024). Given that **Chapter 2** revealed the audiences' uncertainties in discerning falsehoods, AI tools that can detect such nuances could potentially support the navigation of the complex information landscape. Similarly, these tools could detect and correct false *accusations* when taking the context of the accused message into account.

When applied appropriately and trusted, tools like these could take away some of the perceived information uncertainty of audiences.

On the other hand, as part of a more disruptive outlook, AI offers a new potential to deceive and thus shape misinformation perceptions. Generative AI enables the large-scale creation of hyper-realistic but false content, from fabricated text to synthetic images and videos. This could vastly increase the volume of potentially misleading material on an informational scale, blurring the boundaries between artificial and authentic evidence for the perception of audiences. If the boundaries of misinformation and accurate information are already fluid in discourse (**Chapter 1**) and perceptions (**Chapter 2**), the proliferation of AI content could further destabilize these boundaries. This development could also play into the discursive and perceptual dimensions of misinformation. For instance, if people perceive AI to be deceptive, there may be a spillover skepticism to true AI-generated information or accurate corrective misinformation labels placed by AI, similarly to the effects **Chapter 3** identified with community notes. Put differently, how AI will be framed and perceived as an (il)legitimate actor in the context of misinformation could largely shape the opportunities and challenges coming from it. Second, AI models can be used to create and amplify a specific opinion climate, whether this was intended or not. When being trained with biased data, these AI systems become biased as well (Sinha et al., 2024). While this presents an extreme case, it becomes a challenge when public figures with political interests intervene. For instance, X's AI chatbot *Grok* caused public outrage after it started to endorse radical right-wing theories (Field, 2025). While this specific endorsement was not deliberate, the LLM had been instructed to "not shy away from being politically incorrect". Although only one example, in light of how misinformation (discourse) is utilized in heated political climates, it may be worth debating the accountability for those interventions in terms of the output that their systems create.

The Rise of Radical Right-Wing Populism

The second concern relates to the immense growth of the radical right and its populist rhetoric worldwide (Coi, 2024). As demonstrated in **Chapter 1**, this group almost exclusively fosters a delegitimizing rhetoric towards traditional media. It is long known that populism aims to antagonize the "ordinary people" against the "corrupt elites", and that a crucial part of this rhetoric is to destabilize entities considered to be part of the establishment (Hameleers, 2018). In this worldview, the media are a crucial part of the establishment, tailoring their reporting to the elite's interest, but not to the public's (Fawzi, 2020). In **Chapter 1**, I showed that these actors not only criticize and deny information coming from the media, but reiteratively highlight a supposed hidden agenda that entails the strategic spread of disinformation and aims

to undermine political opponents. With growing support for these parties, it is likely that this discourse will only be reinforced, further seeking distrust and uncertainty in the population (**Chapter 2**). Low trust and weak public broadcasters, in turn, can lead to a lower resilience to misinformation among citizens, harming the perceptual dimension of misinformation (Humprecht et al., 2020). Additionally, these actors could directly explain the amount of misinformation flourishing online. A multi-country analysis across six years finds that radical-right populist parties are the key source of political misinformation, postulating that it is used as a means to destabilize the political order and its institutions (Törnberg & Chueri, 2025). As a consequence, with the growing electoral importance of these actors and the technological affordances of social media platforms and artificial intelligence, the sheer amount of misinformation content may also grow.

The Increasing Politicization of Impartiality

Relatedly, a last concern for the state of epistemic vulnerability is the growing politicization of institutions that were traditionally considered relatively unbiased. Most importantly, this concerns public broadcasters in the United States and Europe, which are facing discursive misinformation attacks stating that they are favoring certain political ideologies, undermining their credibility and legitimacy (Gravesteijn et al., 2024). Similarly, in 2025, there was an uproar after the parliament failed to elect the new judges for the German federal constitutional court, with several right-wing actors suggesting that one of the candidates would implement a political agenda if they were appointed (Deutschlandfunk, 2025). Attacks on scientists' integrity are also growing and becoming seemingly effective in fostering the rejection of expert knowledge (Hameleers & van der Meer, 2021). As shown in this dissertation (**Chapter 1**), attacks towards the public broadcaster are heavily politicized. When, additionally, other institutions are increasingly accused of unintentional or even deliberate bias, their function as a shared epistemic reference point weakens. Additionally, in light of the finding that perceptions of misinformation are tied to (political) identity (**Chapter 2**), this politicization may further amplify partisan divides in what counts as credible and false information (Iyengar et al., 2012). Together, when institutions become politicized, audiences may also rely more on identity-based heuristics, which in turn makes them more susceptible to believing delegitimizing accusations, highlighting the cycle of misinformation accusations and perceptions.

Takeaways and Avenues for Future Research

Theoretical and Conceptual Takeaways

The findings of the three empirical chapters suggest several theoretical implications. Overarchingly, this dissertation contributes to the body of research that seeks to understand

misinformation not only as a matter of content but as an integrative epistemic challenge that entails how information is perceived, processed, and discussed. Yet, this broad approach raises questions about the conceptual boundaries of "misinformation" and all its facets.

First, a broader implication of this dissertation concerns the conceptualization and use of terms when it comes to misinformation and its surrounding phenomena. There is a long-standing debate about the boundaries of the phenomenon (Hameleers & van der Meer, 2025) and considerations in terms of operationalizations (Guess & Lyons, 2020). While, as a starting point, I also referred to *misinformation* as a discursive and perceptual phenomenon, the term (just like *dis*information) may be neither sufficient nor helpful to capture the full extent of how accuracy, legitimacy, and truth are contested in contemporary information environments.

Across the empirical chapters, two conceptual challenges emerged. The first challenge is informational and concerns content that can be empirically verified along a spectrum of inaccuracy but does not neatly fit into a binary categorization of true/false. This dynamic is already implicitly captured in definitions that speak of false and also *misleading* information or refer to the lack of verifiable evidence or expert opinion (see e.g., Hameleers & Minihold, 2020) and entails instances such as misleading ("clickbait") headlines and decontextualized text and images. Such a spectrum of misinformation, as proposed by, for instance, Wardle (2018), remains also in light of this dissertation analytically important because it recognizes the degree of inaccuracy while keeping *verifiability* as the central concept to define inaccuracy. Misinformation definitions could capture these nuanced, misleading, or decontextualized inaccuracies just like it is already sometimes suggested empirically (e.g., Wu et al., 2019). A definition that accounts not just for falsehoods but also misleading claims due to a lack of context could read:

Misinformation refers to false or misleading information that cannot be verified with evidence or expert opinion, and information whose misleading nature can be exposed with the presentation of additional, verifiable context.[6]

With that, a misleading headline, for instance, could fall under the header of misinformation, as the full article will expose its misleading nature.

The second conceptual challenge appeared in the discursive and perceptual dimensions and may require a different use of terms altogether. Here, the term misinformation becomes problematic when it is used to describe a rhetoric or perceptions that target *potentially accurate* information and conflates truth (or truthful sources) with misinformation. The empirical

[6]This definition disregards the distinction between mis- and disinformation and thus uses misinformation as an umbrella term disentangled from the intention.

chapters lend support to prior work that observes attempts to delegitimize institutions that are considered generally reliable (**Chapter 1;** Egelhofer et al., 2021; Ross & Rivers, 2018), and perceptions of threatening, implausible, or dissonant information as false (**Chapter 2;** Kyriakidou et al., 2023; Nielsen & Graves, 2017). Misinformation discourse exists (i.e., informational coverage or labels on the actual informational genre), but the terminology surrounding it should avoid obscuring the boundaries between falsehoods and attacks, similarly as it has been argued for the specific fake news label (e.g., Habgood-Coote, 2019).

Resulting from a learning process throughout the empirical studies, this dissertation therefore emphasizes the need for a conceptual differentiation between misinformation as verifiable informational inaccuracy and concepts that could be captured in technical terms, such as *epistemic contestation* (e.g., Valaskivi & Robertson, 2022) like disagreement and delegitimizing discourse. These reflect concepts in which facts and truth do not reflect a resemblance with reality but resonate with identity and ideology.

What remains are the discussed categories that are assuming an objective reality that is supposedly inaccurately depicted, such as exaggeration or bias. While this may not be a final or clear-cut answer, such claims cannot be dismissed as mere opinions, but also cannot be verified through evidence or fact-checking alone. Addressing this category requires a greater emphasis on justification and evidential grounding, but should not be conflated with claims that can be placed on a spectrum of misinformation defined by verifiability. Thus, while not solving the definitional debate surrounding misinformation and related concepts, this dissertation offers new pointers on the importance of the distinction between verifiable and non-verifiable claims.

Second, this dissertation advances a subjective conceptual orientation to misinformation research by developing an audience-centered framework that treats misinformation as an experience rather than merely an objective property of messages. Prior research has largely been conducted under the assumption of message effects on relatively passive audiences (Balog-Way & McComas, 2025). This dissertation offers a different angle by conceptualizing misinformation perceptions as an active process of meaning-making in the respective reception context. This angle does not contribute to conceptual conflation within the academic realm discussed in the first takeaway, but instead presents a distinctive analytical framework that centers how misinformation is socially constructed and navigated in practice. Thus, an important conceptual advance of this dissertation was the emphasis on an audience-centered approach to understanding misinformation as a multidimensional experience that is shaped by how it is encountered, its content features, and how it is classified as false.

With that, the chapter extends prior findings looking at the effects of specific contextual

features on accuracy assessments (e.g., Jahng et al., 2021; Luo et al., 2022; Susmann & Wegener, 2023) by examining these elements holistically in the context of their encounter. This conceptual perspective has important implications for how we can understand divergences between academic definitions and public perceptions of misinformation. When audiences employ broader conceptualizations of misinformation, it demonstrates one signal about how epistemic vulnerability manifests in practice (Labarre, 2025). Theoretically, this approach is *one* way of approaching misinformation perceptions by placing audiences as agents navigating complex information environments in the center. In future work, frameworks like these enable researchers to contrast audience-centered findings with academic definitions systematically and across different contexts of varying levels of polarization to understand how misinformation experiences vary under different structural conditions. With that, this dissertation encourages the further exploration audiences' misinformation perception as a distinctive subfield in misinformation research.

Third, this dissertation advances dual-process models of information processing by proposing that misinformation labels serve as heuristics rather than triggers for systematic processing. These models assume that individuals process information either systematically or heuristically, relying on mental shortcuts (Petty & Cacioppo, 1984; Todorov et al., 2002), arguing that heuristic processing is the default unless there is a motivation for deeper processing present. In terms of perceived misinformation as a genre, the results of **Chapter 2** highlight that, indeed, individuals employ a variety of shortcuts. They rely, for instance, on prior judgments of the source, its perceived intentions, or prior experiences in determining whether a piece of information could be false. This underscores the potential importance of prior attitudes like (source) trust or partisan alignment (Clayton et al., 2019) and their role in serving as heuristics for perceived accuracy assessments. When it comes to misinformation labels as credibility indicators, I originally argued that they could serve as cues that override this heuristic processing route. However, instead, **Chapter 3** found that these labels were used as low-credibility heuristics themselves that are accepted irrespective of the veracity of information. As mapped in **Chapter 1**, these discursive labels are plentiful and can take normatively problematic shapes. The empirical chapters have thus highlighted how information processing can play out in the realm of misinformation, and how discursive labels function as heuristics in their own right rather than sparking critical engagement.

Methodological Takeaways

The empirical chapters additionally offer methodological takeaways for future research. Because this dissertation, among other things, sought to understand how audiences perceive

misinformation, it also introduced an innovative methodological perspective, in which qualitative and quantitative methods are integrated to holistically understand how the different aspects of misinformation are reflected in a crisis of legitimacy. Chapter 2 demonstrated the value of *using messenger apps for data collection within ecologically valid methods like experience sampling (ESM).* This method allows capturing perceptions *in situ* and can thus circumvent recall effects (Naab et al., 2019). Against the backdrop that misinformation is a topic that raises a lot of uncertainties, approaches like these offer contextual reports and elaborations from participants. While exploratory, this approach illustrates the potential for methods that give audiences greater agency in documenting and interpreting their encounters with perceived questionable information. Furthermore, ESM studies and similar diary-based methods could serve as foundational tools for building automated tools detecting the kind of information perceived to be problematic at scale. Combining qualitative, ecologically valid data with large-scale quantitative approaches will offer a more nuanced account of misinformation experiences, supporting more targeted fact-checking and interventions.

In line with this, this dissertation highlights the need for *new tools and methodological frameworks that can identify gray areas of misinformation*. There exists a vast spectrum of misleading, decontextualized, and biased content that may be overlooked by fact-checking tools and research into misinformation effects. The results of the empirical chapters point both to an empirical exploration of the effects of these more nuanced categories and to the need for tools that will be able to detect the misleading kinds of information that dominate online spaces (Brennen et al., 2020). Specifically, experiments could assess participants' ability to discern not just fabricated messages from facts, but also decontextualized text and visuals (e.g, Hameleers et al., 2023), and different types of subjective assessments such as interpretations from verifiable claims (e.g., Mettler & Mondak, 2024)

Finally, a last methodological implication concerns *the measurement of cognitive processing under uncertainty.* As **Chapter 2** illustrated, it is unlikely that people have the capacity to scrutinize every new piece of information they encounter. Instead, I suggest that *plausibility* assessment may also play a crucial role, as it describes a first "hunch" based on prior knowledge and experiences, whether a given claim could be false (Wertgen & Richter, 2023). Plausibility assessments may be a valuable mediating or dependent variable to be employed in experimental work beyond the often-used concept of credibility, especially in instances when no obvious credibility indicators are present. Put differently, it remains an open question under what circumstances credibility indicators overrule, and when participants resort to plausibility assessments of the content. Yet, we still lack a validated scale that captures this way of assessing information. The literature would benefit from working on a valid and reliable measure of

plausibility assessments and from examining its correlation with credibility perceptions. That way, we can further work towards a possibly more realistic and ecologically valid measure to capture information judgment procedures in everyday life.

Practical Takeaways

Last, this dissertation offers practical takeaways for the media, scholars, developers of media literacy programs, and politicians and citizens engaging in political discourse. All these actors collectively shape and sustain the conditions for an informed public sphere and thus need to bear responsibility in creating a healthy information climate. In line with the argument that the challenges of misinformation are not merely related to individual misperceptions but a systemic epistemic challenge, responsibility for fostering resilience must be distributed across actors.

First, the media play a pivotal role not only in informing the public but also in shaping discourse around misinformation. Especially when it comes to terms like *Fake News*, academics have long been calling to stop its use, among other things, because the use of such terms legitimizes attacks on democracy (Habgood-Coote, 2019). While exposing falsehoods and holding power accountable remain core journalistic tasks under their watchdog role, excessive emphasis on *Fake News* rhetoric risks amplifying delegitimizing discourse and spreading the misinformation it aims to debunk. For instance, the much-discussed Fake News tweets from Donald Trump were consumed far more on TV than on his actual Twitter (now X) profile (Wardle, 2021).

Second, in light of attacks against their legitimacy, the media can employ strategies to take away the grounds of legitimacy and disinformation accusations. This is not to say that weaponized attacks are justified. However, facing the situation as is, some strategies beyond fact-checking could serve as a bulwark against delegitimization attempts. This includes the use of transparency measures that aim to display not just what the news is, but how it was selected and created (Dubèl et al., 2025). This procedural transparency can also entail highlighting limitations about the certainty of claims (Koliska & Assmann, 2021). Some journalists also already attempt to strengthen perceived transparency by increasingly engaging with critics and audiences (Koliska & Assmann, 2021). For consumers who are interested in or critical of a given piece of news, this may be an option to understand how journalists have come to facts and the conclusions they draw from them. As a different strategy, *The New York Times*, for instance, has dealt with Donald Trump's *fake news* accusations in a sarcastic manner, considering it a quality batch for the newspaper, but also attempted to fact-check the accusations made against them (Lischka, 2019). The latter strategy highlights the importance of the continuation of fact-checking, which can even be applied to the labels themselves. Furthermore, fact-checks

could be specifically tailored to the kind of inaccuracy they are facing (i.e., adding labels like "missing context", "misleading headline", "unvalidated statistic", etc.) to promote transparency and create sensitivity for the nuanced kinds of misinformation floating around in the information ecosystem.

Similarly, scholars must contextualize and relativize the threats and challenges of misinformation by testing dominant claims about its prevalence and consequences. This is the case for academic publications, but also in terms of outreach, which should communicate insights in an accessible and non-alarmist way to circumvent backslash effects such as general skepticism and distrust. Additionally, beyond focusing mostly on misinformation as an informational genre, scholars could benefit from quantifying the discursive labels of misinformation and what audiences perceive as misinformation (and why). Methodologically, communication scholars can further contribute by working in collaboration with computer scientists and scholars from related fields to build transparent detection tools to support the flagging of misleading gray area information and delegitimizing discourse. When proven reliable, tools like these could help identify misinformation on a larger scale and thus assist fact-checkers in finding and correcting false narratives online.

Next, there are several fruitful avenues for developers and implementers of media literacy interventions and educational programs. Meta-analyses suggest that media literacy interventions are successful in helping reduce beliefs in misinformation, inhibit the sharing of misinformation, and support truth discernment (Huang et al., 2024). Yet, as this dissertation has demonstrated, concerns surrounding misinformation and epistemic vulnerability extend beyond false messages. As such, additional interventions could be tailored to address some of the issues the empirical chapters have identified. This concerns, for instance, training in the differentiation of verifiable claims in contrast to opinion and subjective interpretations (Mettler & Mondak, 2024). Additionally, interventions could educate citizens on the role and use of strategic weaponization of media criticism and other attacks, rather than just focusing on false messages alone. Additionally, as the dissertation identified, audiences of perceived misinformation sometimes rely on a "hunch" based on prior experiences and knowledge rather than specific credibility indicators. Showing citizens examples of, for instance, visual AI content in contrast to real imagery or decontextualized content compared to the full context could be experimented with to see whether we can "train" the experiences that shape initial information assessment to provide a stronger foundation for this first "hunch". Experiments like these would allow us to work on new interventions suited to how new information is realistically evaluated in everyday life, offering more practical approaches than teaching only the critical verification of every suspicious piece of information encountered.

Last, public figures and private users alike need to refrain from uncivil and hostile language that may be rejected simply because of its emotional nature. Especially when it comes to influential public figures like politicians, hostility towards the outgroup could further contribute to polarization. Only civilized discourse can support a more unbiased assessment of information, and only civilized expressions of media criticism can actually support the institution rather than contribute to its erosion (W. N. Wyatt, 2007).

Closing Remarks: Moving Forward Towards Collective Epistemic Resilience and Responsibility

This dissertation shows that the strain on our shared factual ground is challenged not only by a quantity of false messages circulating online, but more generally by how truth, falsehoods, and everything in between are challenged and perceived. Contributing to the idea of epistemic vulnerability, it exemplifies how misinformation is a systemic problem by exploiting and reinforcing fragilities in institutional legitimacy, discursive norms, and perceptions. Yet, it also aims to demonstrate that an active and critical audience exists, but that its navigation skills are challenged by complex information types, negativity, and discourse surrounding the legitimacy of information and the institutions putting it forward.

This broad challenge implies that we cannot only rely on individual-level cognitive resilience. Instead, epistemic resilience should ideally be a collective process that requires strengthening the infrastructure that sustains public trust and weakens those aiming to disrupt the political order. This entails strong, independent journalism, transparency of social platforms, and a political discourse that remains within the boundaries of good-faith criticism aiming to improve rather than tear down. Instead of burdening citizens alone with truth discernment, all societal actors must foster information environments in which good-quality information can circulate.

If we fail to do so, the path ahead might not just be a multiplication of misinformation, but less "truth" in the sense of fewer facts that can be jointly verified and more room for relative truths that are assessed and dismissed based on ideological preferences. It may also lead to audiences withdrawing from political discourse and reliable information sources and turning to sources that validate prior beliefs. Yet, the same dynamics could also improve. When institutions earn and receive trust, when platforms reward context over popularity, and when public figures practice civility over hostility. The informational, discursive, and perceptual face of misinformation I have investigated can both work together to stabilize or to erode a consensus on what constitutes facts.

Turning back to the opening question, "truth" - in the sense of an intersubjective agreement

on shared sets of facts - is mediated through discourse and perceptions, but it does not have to be reduced to them. When society invests in the conditions that make truth identifiable and defendable, it can exist as a shared foundation for democratic deliberation that is not only hearsay.

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Author contributions

This page shows the contributions of authors to the respective empirical chapters. The authors' initials are: Lina Buttgereit (LB), dr. Michael Hameleers (MH), dr. Katjana Gattermann (KG), and dr. Andreas R.T. Schuck (AS).

Chapter 1 • Beyond Lügenpresse

Conceptualization: LB, MH, KG, AS
Methodology: LB, MH, KG, AS
Data collection: LB, KG
Data analysis: LB, MH
Drafting of manuscript: LB
Writing (review and editing): LB, MH, KG, AS

Chapter 2 • Misinformation Experiences

Conceptualization: LB, MH, KG, AS
Methodology: LB, MH, KG, AS
Data collection: LB
Data analysis: LB, MH
Drafting of manuscript: LB
Writing (review and editing): LB, MH, KG, AS

Chapter 3 • Fueling Distrust or Supporting the Navigation of Falsehoods?

Conceptualization: LB, MH, KG, AS
Methodology: LB, MH, KG, AS
Data collection: LB
Data analysis: LB
Drafting of manuscript: LB
Writing (review and editing): LB, MH, KG, AS

Summary

Summary

In the digital era, the foundations of shared facts in democracies seem increasingly fragile. Terms like *factual relativism* and *disinformation order* point to a growing prevalence of opposing narratives, false information, and an increasing reliance on political resonance and identity over evidence and verification. Yet, the challenge may not just lie in exposure to falsehoods. Citizens are additionally challenged with political disputes over what counts as true, who may legitimately establish factual claims, and with complex information types that cannot be neatly placed in a binary of true or false information. Beyond extensive research on the prevalence, effects, and corrections of misinformation as outright falsehoods, this dissertation argues that we need an integrated account of how misinformation content, misinformation as discourse over the legitimacy of information and sources, and perceptions of misinformation from everyday audiences interact to shape the state of the information environment. This dissertation addresses this intersection by examining misinformation as a three-dimensional phenomenon, including its informational, discursive, and perceptual elements to analyze how these faces intersect to shape the state of facts.

This dissertation includes an introductory chapter, a concluding chapter, and three cross-cutting empirical studies addressing the three faces of misinformation to give a comprehensive understanding of the complex informational genre in its discursive and perceptual dimension. In doing so, the chapters draw on different data sets. To map out the discursive dimension, I rely on Tweets of German politicians across the political spectrum and multiple years to understand the severity and facticity of media criticism. To better understand how audiences perceive misinformation, I conducted an experience sampling method (ESM) study on the messenger app WhatsApp in which participants sent screenshots of perceived misinformation *in situ* and responded to subsequent questions about the encounter dynamics and their misinformation identification rationale. Last, I conducted a survey experiment to understand how misinformation as a discursive label in the shape of community notes can affect judgments and behavioral intentions across true, misleading, and false social media news items.

In the **introduction**, I introduce the challenges of the current information landscape, and propose that misinformation discourse and perceptions could be equally important to understanding contemporary phenomena such as a perceived *factual relativism*. I discuss the state of the literature of the three dimensions and identify several blind spots that this

dissertation addresses. This includes a need to understand misinformation as a spectrum rather than a binary, to go beyond isolated message effects, and to dive deeper into the subjective nature of audience perceptions of misinformation.

Chapter 1 begins with a focus on the discursive element, utilizing media criticism as a case study. While media criticism is an important accountability tool, politicians also employ it strategically to dismiss disliked opposing narratives. This study set out to explore the nuances between the often studied *fake news* label and good-faith media criticism to better understand the boundaries between supportive and disruptive media criticism. The chapter analyzes how information and its sources are discursively referenced, challenged, and delegitimized, highlighting the role of the verifiability of criticism. The final typology reveal a nuanced understanding of how the media as an epistemic authority are referenced in political discourse, and the challenges journalism faces when these accusations transgress the boundaries of supportive criticism.

Chapter 2 emphasizes the perceptual angle of misinformation. Responding to the idea that audiences may employ a much broader conceptualization of misinformation than what is captured in academic definitions, this chapter coins and explores the concept of *misinformation experiences.* This three-dimensional concept entails the encounter dynamics, the perceived false content, and the judgments that led to the perception that the content is supposedly misinformation. With this approach, the chapter offers a first account of in-situ perceived encounters with misinformation, giving insights into the much broader boundaries audiences associate with the concept than misinformation definitions in the literature. Additionally, it offers novel insights into the many heuristic and systematic routes audiences take when encountering and assessing (mis)information, and maps out the prevalent spaces in which these encounters occur.

Chapter 3 combines the three faces by testing the effects of community notes misinformation labels attached to true, misleading, and false social media news items on credibility perceptions and subsequent behavioral intentions to engage with the item. Community notes are increasingly replacing professional fact-checking on big social media platforms, but their reliability is seemingly still mixed. The survey experiment reveals that community notes, both attached immigration and environment news items, successfully decreased the perceived credibility of the news items and subsequent intentions to engage with it. This is equally the case for true, misleading, and false information, suggesting that discursive labels of misinformation can indeed shape perceptions even when the news item is accurate.

The **concluding chapter** comes back to the question surrounding the state of facts in light of

misinformation as an informational, discursive, and perceptual challenge. I argue that the strain on a shared factual ground cannot be explained by the volume of misinformation as falsehoods alone, but by the interplay of the three dimensions. The content presents a broad range from outright falsehoods to more nuanced decontextualization and even transgresses the boundaries of verifiability in discourse and perceptions. Additionally, there exists a broad range of accusations challenging the legitimacy of traditionally reliable media outlets.

This dissertation offers novel insights into the many challenges different actors face beyond being exposed to falsehoods. It underscores the importance of strong, trusted media outlets and a civil and rational political discourse. If we want to sustain the ability to debate with the same set of facts, we need a shared accountability to strengthen public trust and to challenge those who aim to disrupt the political order.

Samenvatting

Nederlandse Samenvatting

In democratieën lijken de fundamenten van gedeelde feiten steeds kwetsbaarder. Termen als *factual relativism* en *disinformation order* wijzen op een groeiende prevalentie van tegengestelde narratieven, desinformatie, en een toenemende prominentie van politieke resonantie en identiteit boven bewijs en verificatie. Echter, de uitdaging ligt mogelijk niet enkel in de blootstelling aan onwaarheden. Burgers worden veel geconfronteerd met politieke geschillen over wat als waarheid geldt, wie op legitieme wijze feitelijke claims mag vaststellen, en met complexe informatietypen die niet netjes binnen een binaire tegenstelling zijn onder te brengen van wat waar of niet waar is. Voortbouwend op bestaand onderzoek naar de prevalentie, effecten, en correcties van desinformatie, betoogt dit proefschrift dat er behoefte is aan een geïntegreerde analyse van de wijze waarop (1) de inhoud van desinformatie, (2) desinformatie als discours over de legitimiteit van informatie en bronnen, en (3) percepties van desinformatie door burgers op elkaar inwerken en daarmee de kaders van de algehele informatieomgeving vorm geven. Dit proefschrift richt zich op deze intersectie door desinformatie te onderzoeken als een driedimensionaal fenomeen met informatieve, discursieve en perceptuele elementen, en te analyseren hoe deze facetten elkaar doorkruisen en informatie vormgeven.

Dit proefschrift omvat een inleidend hoofdstuk, een concluderend hoofdstuk, en drie empirische studies die de drie "gezichten" van desinformatie bestuderen om een alomvattend begrip te geven van het complexe informatiegenre in zijn discursieve en perceptuele dimensies. Daarbij maken de hoofdstukken gebruik van verschillende datasets. Om de discursieve dimensie in kaart te brengen, maak ik gebruik van tweets van Duitse politici over het gehele politieke spectrum en meerdere jaren om een typologie te maken van de inhoud en aard van mediakritiek. Om beter te begrijpen hoe burgers desinformatie waarnemen, heb ik een *experience sampling method (ESM)* studie uitgevoerd op de berichtenapp WhatsApp. Hierin stuurden deelnemers screenshots van waargenomen desinformatie *in situ* en beantwoordden vervolgens vragen over hoe ze de informatie tegenkomen en hun beredenering voor het identificeren van desinformatie. Tot slot heb ik een survey experiment uitgevoerd om te begrijpen hoe gedragsintenties beïnvloed kunnen worden door desinformatie als discursief label in de vorm van community notes bij ware, misleidende en onware nieuwsberichten op sociale media.

In de **inleiding** introduceer ik de uitdagingen van het huidige informatielandschap en stel ik dat het desinformatiediscours en desinformatie-percepties even belangrijk zouden kunnen zijn

voor het begrijpen van hedendaagse fenomenen zoals *factual relativism*. Ik bespreek de literatuur over de informatieve, discursieve en perceptuele dimensies en identificeer verschillende onderzoekslacunes die dit proefschrift behandelt.

Hoofdstuk 1 begint met een focus op het discursieve element, waarbij mediakritiek als casestudy wordt gebruikt. Hoewel mediakritiek een belangrijk verantwoordingsinstrument is, zetten politici het ook strategisch in om onwenselijke/contraire en tegengestelde narratieve te discrediteren. Deze studie had als doel om de nuances te verkennen tussen het veel bestudeerde *fake news* label en oprechte mediakritiek, om de grenzen tussen constructieve en delegitimerende kritiek te analyseren. Het hoofdstuk analyseert hoe er discursief wordt gerefereerd aan informatie en bronnen, hoe het wordt uitgedaagd, en hoe het wordt ondermijnd. Hierbij wordt de rol van verifieerbaarheid van kritiek benadrukt. De uiteindelijke typologie onthult een genuanceerd begrip van hoe de media als epistemische autoriteit worden aangehaald in politiek discours, en de uitdagingen waarmee de journalistiek wordt geconfronteerd wanneer deze beschuldigingen de grenzen van opbouwende kritiek overschrijden.

Hoofdstuk 2 legt de nadruk op de perceptuele invalshoek van desinformatie. Als reactie op het idee dat burgers mogelijk een veel bredere conceptualisering van desinformatie hanteren dan wat in academische definities wordt gesteld, introduceert en onderzoekt dit hoofdstuk het concept van *misinformation experiences*. Dit driedimensionale concept omvat de dynamiek hoe burgers desinformatie tegenkomen, de waargenomen onware inhoud, en het cognitieve proces dat leidde tot de perceptie dat de inhoud vermeende desinformatie is. Met deze benadering biedt het hoofdstuk een eerste beschouwing van *in situ* waargenomen desinformatie, wat inzicht geeft in de veel bredere interpretaties van desinformatie van het publiek ten opzichte van de conceptuele definities in de literatuur. Daarnaast biedt het nieuwe inzichten in de vele heuristische en systematische routes die burgers bewandelen bij de blootstelling en beoordeling van (des)informatie, en brengt het de platforms in kaart waarin burgers deze (des)informatie frequent tegenkomen.

Hoofstuk 3 combineert de drie gezichten door de effecten te testen van *community notes misinformation labels* die zijn toegevoegd aan ware, misleidende en onware nieuwsberichten op sociale media op geloofwaardigheidspercepties en daaropvolgende gedragsintenties om met het bericht te interacteren. Community notes vervangen in toenemende mate professionele *fact checking* op grote sociale mediaplatforms, maar hun betrouwbaarheid is nog steeds wisselend. Het experiment laat zien dat community notes, zowel bij nieuwsberichten over immigratie als het milieu, met succes de waargenomen geloofwaardigheid van de nieuwsberichten en de daaropvolgende intenties om ermee te interacteren verminderen. Dit geldt in gelijke mate voor

ware, misleidende en onware informatie, wat suggereert dat discursieve labels van desinformatie inderdaad percepties kunnen vormen, zelfs wanneer het nieuwsbericht waar is.

Het **afsluitende hoofdstuk** komt terug op de vraag rondom de staat van feiten in het licht van desinformatie als een informatieve, discursieve en perceptuele uitdaging. Ik betoog dat de afbreuk van een gedeelde feitelijkheid niet alleen kan worden verklaard door het volume aan desinformatie, maar door een samenspel van deze drie dimensies. De bevindingen van dit proefschrift laten een breed spectrum zien van regelrechte onwaarheden tot meer genuanceerde de-contextualisering die zelfs de grenzen van verifieerbaarheid in discours en percepties overschrijden. Daarnaast bestaat er een breed scala aan kritiek die de legitimiteit van traditioneel betrouwbare mediaorganisaties ter discussie stelt. Concluderend biedt dit proefschrift nieuwe inzichten in de vele uitdagingen die burgers in hun dagelijkse informatie-omgeving moeten navigeren, door alle drie de gezichten van desinformatie te behandelen.

Appendices

Chapter 1

Appendix A:
Sample Selection criteria

In order to identify suitable cases (see Table 1A), we checked the Twitter profiles of all party leaders of the major parties since 2015. Besides paying attention to followers and ensuring that the ideological spectrum is covered in its variety, we additionally used some media-related keywords to get an estimation of the quantity of media references for the respective politicians.

Table 1A

*List of Party Leaders between 2016 and 2022 – Sampling Justification (**bold: selected politicians, anonymized**)*

Case	Party	Ideology (Party)	Populist (Party)	Followers on X	Hits keywords[a]
1	LINKE	Left	Yes	38K	20
2	LINKE	Left	Yes	8.7 K	57
4	**SPD**	**Center-Left**	**No**	**149K**	**27**
5	**GRÜNE**	**Center-Left**	**No**	**124 K**	**39**
6	GRÜNE	Center-Left	No	52 K	37
7	**FDP**	**Center-right**	**No**	**662 K**	**82**
8	**CDU**	**Center-right**	**No**	**253 K**	**46**
9	**CSU**	**(Center)-right**	**No**	**393 K**	**26**
10	AfD	Right	Yes	31 K	25
11	**AfD**	**Right**	**Yes**	**189 K**	**24**
12	**DIE LINKE**	**Left**	**Yes**	**130K**	**53**
13	DIE LINKE	Left	Yes	41K	38
14	DIE LINKE	Left	Yes	29K	13
15	SPD	Center-Left	No	280K	6
16	SPD	Center-Left	No	660K	9
17	SPD	Center-Left	No	61K	71
18	GRÜNE	Center-Left	No	360K	67
19	GRÜNE	Center-Left	No	40K	122
20	GRÜNE	Center-Left	No	550 K	1
21	CDU	Center-Right	No	136K	8
22	CDU	Center-Right	No	190K	27
23	AfD	Right	Yes	56K	67
24	AfD	Right	Yes	77K	51

[a] "Medien, Presse, Journalismus, Nachrichten" + 5 big outlets since 2016

Additions to the sample for maximum variety:

25: As minister of health in the pandemic (where there was a lot of information uncertainty),

he shared and criticized a lot of information online, focus on journalistic reporting of facts on the pandemic, very large following (1.1M), evidence-based arguments.

26: Very controversial figure, known to push the boundaries of tolerable political communication, populist

27 : Popular politician from DIE LINKE compared to the party leaders, very large following on Twitter, very present in the media and vocal about media-related issues.

Appendix B:
Keywords extended from Lecheler & Egelhofer (2022)

Additions from the main author are *cursive*

1. **Media / Journalism**

medi	anzeiger
zeitung	rundschau
presse	tagblatt
boulevard	tageblatt
magazin	kreisanzeiger
journalis	kreisanzeiger
bericht	allgemeine
nachricht	kreisblatt
radio	rundfunk
tv	*funk*
fernseh	journal
sendung	gez
news	gis
wochen*t	talk
kurier	show
tagesblatt	talkshow
morgen*	studio
merkur	post
	ÖRR
	Öffentlich-rechtlich
	bote

2. **German outlets and formats** ***(each with also their twitter handle e.g. @welt)***

zeit	sixx	*Maischberger*
welt	tele 5	*Markus Lanz*
neues deutschland	vox	*Lanz und Precht*
sz	mdr	*Apokalypse und*
faz	comedy	*Filterkaffee*
tagesspiegel	central	*Lage der Nation*
spiegel	phoenix	*Was jetzt*
bild	swr	*Was die Woche*
express	deutschland	*wichtig war*
handelsblatt	funk	*Jung & naiv*
die welt	antenne*	ntv
kompakt	1 live	sat 1
b.z.	Energy	
taz	heute	
bayernkurier	tagesschau	
berliner morgenpost	tagesthemen	
junge welt	hart aber fair	
junge freiheit	monitor	
die tageszeitung	politbarometer	
ard / das erste	heuteshow	
zdf	schulz und	
3sat	böhmermann	
Arte	neo magazin royale	
rtl / rtl ii / super rtl	*zdf magazine royale*	
prosieben	tagespresse	
kabel eins	der postillon	
wdr	extra 3	
ndr	die anstalt	
br	*Anne Will*	
mdr	*Maybrit Illner*	

3. **German Journalists (+ Intendant/innen)**

ÖRR	Private	Other
Hassel (ARD)	**Kloeppel** (RTL)	**Seibert** (former government spokesperson)
Rakers (ARD)	**Meuser** (RTL)	**Überall** (Chairman German Journalism Association)
Hofer (ARD)	**Maihoff** (ARD / RTL/ more)	**Tolu** (detained in turkey)
Daubner (ARD)	**Koch** (ntv)	**Wallraff** (investigative, e.g. Anti-BILD)
Riewa (ARD)	**Newspaper**	***Fleischhauer*** *(Spiegel, Focus)*
Zervakis (ARD)	**Löwisch** (taz)	***Stein*** *(Junge Freiheit)*
Miosga (ARD)	**Kister** (SZ)	***Schneider*** *(WELT)*
Zamperoni (ARD)	**Krach** (SZ)	***Böhmermann*** *(ZDF)*
Maischberger- (ARD)	**Lorenzo** (Zeit, Tagesspiegel)	***Schlesinger*** *(RBB)*
Atalay (ARD)	**Klusmann** (Spiegel)	***Alexander*** *(WELT)*
Will (ARD)	**Relotius** (former Spiegel, fraud scandal)	***Knop*** *(faz)*
Plasberg (ARD)	**Augstein** (Spiegel-Verlag)	
Buhrow (ARD(WDR), post Schlesinger)	**Jakobs** (Handelsblatt)	
Seymour Mikich (ARD(WDR))	**Afhüppe** (Handelsblatt)	
Brinkbäumer (ARD(mdr), Spiegel)	**Aust** (Welt (n24))	
Frey (ARD / ZDF)	**Poschardt** (Welt)	
Bellut (ZDF)	**Yücel** (Welt)	
Kleber (ZDF)	**Reichelt** (BILD)	
Slomka (ZDF)	**Strunz** (BILD)	
Illner (ZDF)	**Horn** (BILD am S)	
Hayali (ZDF)	**Röbel** (Gladbecker Geiseldrama, BILD)	
Kleber (ZDF)		
Slomka (ZDF)		
Illner (ZDF)		
Hayali (ZDF)		
Gerster (ZDF)		
Hahlweg (ZDF) **Sievers** (ZDF)		

Appendix C:
Details on Coding Procedure

This document presents a collection of notes written up throughout the coding process. It contains arguments for decisions taken throughout the research process, preliminary data-driven observations, and the steps taken to ensure peer-agreement and the validity of any conclusions drawn. After the data analysis, no content was added to the notes, but the language was edited.

A more extensive document with notes and reasoning throughout the entire research process is publicly available on osf (OSF | Beyond Lügenpresse - How Politicians Criticize and Delegitimize the Media)

Open Coding (From 17.03.2023 on)

Open codes that summarize the tweets are often not useful (e.g. outlet takes climate change not seriously, takes Covid not seriously). Codes that are applied resemble a summary of that: e.g. Outlet does not take political issues seriously enough. In these first steps, we assign data-driven (i.e. summarizing based on text) and researcher-derived (i.e. interpretative, meaning and implications behind the text) to all 545 tweets, taking into account all linked sources such as linked images, responses to other tweets, hyperlinks etc.

With 700+ open codes, open codes are now assigned to the entire data set. The next step is focused coding. Before getting into that, open codes are tidied and those with same meanings merged (i.e. codes that meant the same but were assigned different phrasings.) There is also a list of in-vivo codes, which are mostly comprised of very particular, meaningful hashtags (e.g. #abolishZDF).

Inter-Coder-Agreement

As a qualitative alternative to inter-coder-agreement, a subsample of 16 translated tweets was coded by one of the co-authors of non-German nationality independently last week. The level of detail in the coding differed, meaning that the main coder had assigned more codes to the respective tweets and stayed closer to the data-driven aspects over researcher-derived interpretations. However, both captured the aspects relevant to the sensitizing concepts. For instance, the second coder noted “Some of the media deny empirical evidence. There is clear evidence that is allegedly not recognized by the media (some media as reference)”, in a tweet that was labeled “Frustration that scientific correlation is challenged in article besides the existence of scientific studies” by the main coder.

Research Memos

Research Memos were written to document the process of observations and arising analytic insights during the open coding process. They offer more depth than the open cold and should help with offering a transparent insight for the reader. These research memos can be found on OSF.

Focused Coding

The second step is to summarize the many open codes to higher levels of abstraction. Additionally, we look for similarities based on the sensitizing concepts that help us to summarize them into different themes that show the type and content of accusations. We do this while considering the extent to which the codes relate to the idea of constructive media criticism or to which the legitimacy of the media/journalism is challenged. Below is a collection of notes from this part of the research process.

Observations:

Facticity:

It is not necessarily about mis- / disinformation. Many harsh critiques do not fit the definitions of factual inaccuracy. Shows the need to guide people to which criticism they should be more critical of.
There is a difference when it comes to questioning legitimacy depending on the degree to which it is questioned as incorrect/correct or morally wrong/right.

Power:

One of the most interesting aspects in light of a desired power balance between politicians and the media is the implicit references to these power relations - To what extent do politicians make it seem as if there are (unbalanced) power relations between the media and between media and the people/politics?

Not just agenda-setting power - but power when it comes to epistemic authority and claiming factual correctness over other sources.

For example, politicians make references to the alleged illegitimate influences of media on people, media on politics, politics (powerful groups) on media, and the power of the 'popular opinion' on the media.

Explicitness:

- Implicit suggestions, such as: what others do good, instead of what our media do bad.

Opposing truth claims and evidence:

- Unverifiable opposing truth claim: One can observe the use of experiential claims in response to facts presented in the media: “But in reality, we...”

- Other sources / articles can sometimes be used as proof for specific number claims, but they are also sometimes used to back up / strengthen an argument. Consequently, sources are used both as hard evidence and supporting evidence.

Taking these sensitizing concepts into account, I combined the many unique open codes to 15 categories that capture the essence of the initial criticism. This process was supported by peer-debriefings with the entire research team, in which categories were renamed or split/summarized, and codes were redistributed in case of disagreement.

With the help of the sensitizing concepts, these categories differ e.g. in their references to facticity (normative vs. Inaccuracy claims), their assigned intention (mis- vs disinformation) or specificity (wrong article vs. General lack of criticism towards the government).

Even though one tweet might entail multiple accusations, these data-driven categories capture the varieties found in the data extensively and can, in a next step, be ordered and contextualized when it comes to constructive vs destructive criticism. Though detail is lost in open coding, we consider the variations in terms of the style, use of evidence, and assigned intentionality, to be able to order them in the following step against the backdrop of the literature on ‘good’ media criticism.

Axial Coding

With this analysis, we want to try to identify the boundaries between good criticism and disruptive attacks by considering the degree to which it is delegitimizing the profession. In simple terms, we explore the boundaries between ‘The media did a bad job here' and 'they are not fulfilling their democratic functions', that is where to draw the line from liberal to illiberal media accusations.

Within categories, there can be variation. For example: Just because a category is saying that all the codes in the category assign intention to the target, it does not mean that these accusations do not vary in explicitness, severity, and rhetoric. However, for our typology, we decided to focus on the content and its potential destabilizing and delegitimizing impact.

Of course, some categories were more severe than others, but severity can vary within categories. We thus consider the overarching data-driven ideas of the categories and, in light of the literature on media criticism and delegitimization, we consider the degree of delegitimization of these categories.

While ordering the categories, we also combine them into overarching themes whenever useful. When thinking of media delegitimization, it shows that different categories relate to similar overarching themes (such as: Mistake attributions and sloppy quality attributions can be summarized to accusations of incidental deviations from professional standards).

One distinctive aspect of the data was the explicit references to the PSM and (often) its funding structure, which is why we decided to present it separately in our article. This is also because expectations towards the PSM differ from private outlets.

Further peer debriefing sessions and literature-informed discussions formed the final typology.

Appendix D:
List of original tweets

Politician 1:

1A: „Wenn andere Parteien und Medien die Problembeschreibungen der AfD und von Pegdia übernehmen, macht man sie stark. @katjakipping #BTW17“ (DIE LINKE [@dieLinke], 2017)

1B: „Schon bemerkenswert, was die @BILD in Zeiten von wachsendem Rassismus/Rechtspopulismus so umtreibt:“ (Katja Kipping [@katjakipping], 2015)

Politician 2:

2A: “BZ bezeichnet diesjährige #Berlinale als ‘Berlinale der Frauen‘, weil 115 von 441 Filmen von Frauen stammen. #fail“ (Ricarda Lang [@Ricarda_Lang], 2015)

2B: “@RicardoLange4 @notruf_NRW Denn zu oft werden Pflegekräfte vor allem als passiv Leidende unter den Problemen im Gesundheitssystem wahrgenommen. Wenn sie sich aber organisieren, um daran etwas zu verändern, bekommt das auch medial noch viel zu wenig Aufmerksamkeit.“ (Ricarda Lang [@Ricarda_Lang], 2022)

Politician 4:

4A: “Sehr fair, liebe @PreislerKa. Der Text aus der ZEIT ist kein Zitat von mir, sondern nur eine missverstandene Darstellung des Autors. Meine Meinung ist klar: Care-Arbeit und Freizeitaktivitäten sind nicht dasselbe. CL“ (Christian Lindner [@c_lindner], 2022)

Politician 5:

5A: “ ‘Die #Schlesinger-Affäre hat das Potential, dem #ÖRR endgültig die Legitimationsgrundlage zu entziehen. Wer es wie ich gut meint mit dem ÖRR, erwartet jetzt

von den Verantwortlichen, dass sie sich mit den Ursachen des Vertrauensverlusts befassen.‘ (tm)“ (Friedrich Merz [@_FriedrichMerz], 2022)

Politician 7:

7A: “ ‘Gebt uns unser Leben zurück‘: Dass ausgerechnet die @BILD, die #Lauterbach|s Panikmache nur all zu gerne verbreitet, jetzt die Rückkehr in die Normalität fordert, entbehrt nicht einer gewissen Ironie. Dennoch ist die Forderung völlig richtig. #Bild #AfD #Lockerungen #Lockdown“ (Alice Weidel [@Alice_Weidel], 2022)

Politician 8:

8A: “ MerkelSchulzFestspiele in ARD/ZDF: #SPD & #Union erhielten in Wahlsendungen 10 x mehr Sendezeit als die LINKE #btw17“ (Sahra Wagenknecht [@SWagenknecht], 2017)

Politician 9:

9A: “Was weiß Faeser über die Finanzierung von Moscheevereinen aus #Katar? Anscheinend nichts, wie man den Medien entnehmen kann. @Beatrix_vStorch #Islamismus“ (AfD-Fraktion im Deutschen Bundestag [@AfDimBundestag], 2022)

9B: “ Welche öffentlich-rechtlichen Staatsfunker haben eigentlich über die antisemitische Demo in Berlin und das Verbrennen von Israelfahnen berichtet? Mit Internet ist man ja rundum informiert - aber wie ist das, wenn man nur ARD/ZDF hat? (Bitte Links in die Kommentare) #GEZabschaffen“ (Beatrix von Storch [@Beatrix_vStorch], 2017b)

9C: “Wer sich 1 Abend ZDF (#frontal21, #heutejournal, #dieanstalt, #heuteplus)-Propaganda gegen die #AfD angetan hat, weiß: GEZ muss weg! #btw17“ (Guido Reil, AfD [@GuidoReil], 2017)

9D: “ Verdammte Seuche!! Das sind keine Aktivisten!! Das sind Linksextremisten und Verbrecher!!! #fakenews“ (Beatrix von Storch [@Beatrix_vStorch], 2017a)

9E: “Seit 9 Monaten wurde kein AfD-Vertreter mehr in die großen Talkshows von ARD & ZDF eingeladen. Das ist ein #Medienkrieg gegen eine Oppositionspartei und 5 Millionen Wähler. Der öffentlich-rechtliche Rundfunk ist eine demokratiefeindliche staatliche Institution. 1/6“ (René Springer [@Rene_Springer], 2022)

9F: “ Böhmermann vergleicht Kinder mit Ratten. Nein, aufregen muss man sich über diesen Mann echt nicht mehr. Aber wie kann das ZDF bitte so jemanden von unserem Rundfunkbeitrag bezahlen? Rundfunkbeitrag abschaffen! #Boehmermann“ (Neverforgetniki [@nikitheblogger], 2022)

Politician 10

10A: " I think a lot of people need to hear this (including journalists): a disease with 1% mortality is not what we usually consider mild in medicine. #monkeypox #bettersafethansorry" (Isabella Eckerle [@EckerleIsabella], 2022)

10B: "Artikel ist 0 Cent wert. Paar Anekdötchen u Beleidigungen, null Recherche Hannelore Kraft i Porträt - SPIEGEL ONLINE" (Prof. Karl Lauterbach [@Karl_Lauterbach], 2017a)

10C: " Ganz ehrlich. Ich kann nur hoffen, dass @ulfposh dass nur sagt und nicht auch denkt. Schade. Eigentlich ein guter Journalist. Aber Verschwörungstheorien verhindern weder Coronatote noch Klimatote. Beides gibt es. Ganz ehrlich!" (Prof. Karl Lauterbach [@Karl_Lauterbach], 2022)

10D: "@BILD_Politik @ClausStrunz Es war Themenabend der AfD, das ist schade. Medien lassen sich v AfD Themen aufzwingen" (Prof. Karl Lauterbach [@Karl_Lauterbach], 2017b)

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Chapter 2

Appendix A:
ESM instructions and Measures

ESM Instructions

Please read the following instructions carefully. **Whenever you see disinformation / fake news / false or misleading information:**

- Take a screenshot or photo whenever you see something that you think is misinformation / fake news / false or misleading information (Dutch: desinformatie / nepnieuws / onjuiste of misleidende informatie; German: Desinformation / Fake News / Falsch- oder Fehlinformation) – whether you see it on blogs, news website, social media, messenger apps, etc. – and send it as soon as possible to WhatsApp. I will send reminders throughout the day
- Please do NOT search actively for disinformation / fake news / false or misleading information for this study, but pay attention to when you encounter it online
- Should you see the same piece of disinformation / fake news / false or misleading information I am still interested in that. Please send any information you see in this category
- I ask you to only verify / fact-check the information if this is what you would do naturally, too. If you are a bit uncertain, you will be able to indicate so in the survey.
- Please only send screenshots that are in German, English, or Dutch.

Every time you send a screenshot you will be asked to respond to a follow-up questionnaire. This will take around 3 minutes. **With every submission: Platform** *On which platform did you encounter the submitted information?*

Messenger app (Please specify:)
Social media (Please specify:)
Search engine (Please specify:)
News Website (Please specify:)
Blog (Please specify:)
Forum (Please specify:)
Other (Please specify:)

Source *Please indicate the specific source of your screenshot. The source refers to the specific name of the person, username, or outlet sharing it. Please only provide a name or username if the source is a* ***public figure*** *(e.g. a journalist, politician, influencer, etc.). Otherwise, please refer to a general description (e.g. "a friend", "a Facebook user", etc.)*
- Open response - *We are interested how you encountered the information you submitted. Would you say that you have encountered the piece of information accidentally, or did you actively look for it, for example because you were hoping to find reliable information, out of curiosity or for entertainment purposes ?*

- Accidentally found it
- Sought it out
- Unsure

Novelty Would you say that the screenshot you sent entails information that was new to you, or have you seen the same claim before?

- New
- Familiar
- Unsure

Reasons for identifying submissions as misinformation *In your own words, please elaborate why you identified this submitted piece as misinformation. There is no right or wrong answer. You can tell us for example why you thought it was misinformation, if there were any cues suggesting so, whether you could rely on your knowledge, whether it was something about the source, etc.*
- OPEN RESPONSE -

Chapter 3

Appendix A:
Example of the Stimulus Material

Figure A1: *Example Stimulus Environment Article (False) with Label*



Figure A2: *Example Stimulus Environment Article (False) without Label*



Appendix B:
Full Text of Stimulus Material with Translation

I. Environment

True News Item

Geplanter Bau von Windkraftanlagen nimmt 0.15% des Reinhardswalds in Beschlag

Deutschland setzt seine Bemühungen zur Erweiterung der Windenergie fort, wobei ein kleiner Teil des Reinhardswalds in Hessen für den Bau von Windkraftanlagen vorgesehen ist. Nach der Befürwortung mehrerer Parteien werden 0,15 % der Gesamtwaldfläche für die Installation von 18 neuen Windkraftanlagen genutzt.
Die ausgewählten Bereiche des Urlaubs- und Erholungsraumes bestehen größtenteils aus Fichten, die forstwirtschaftlich genutzt werden, oder aus Bäumen, die bereits von Stürmen und Schädlingen betroffen sind. Offizielle Stellen betonen, dass die Entscheidung für diese Standorte unter ökologischen Abwägungen getroffen wurde.

Planned construction of wind turbines takes up 0.15% of the Reinhardswald forest

Germany is continuing its efforts to expand wind energy, with a small part of the Reinhardswald forest in Hesse earmarked for the construction of wind turbines. Following the endorsement of several parties, 0.15% of the total forest area will be used for the installation of 18 new wind turbines. The selected areas of the vacation and recreation area consist largely of spruce trees that are used for forestry or trees that have already been affected by storms and pests. Officials emphasize that the decision for these sites was made on the basis of ecological considerations.

Misleading News Item

Abholzung Reinhardswald für den Bau von Windkraftanlagen geplant trotz Gegenwind

Deutschland setzt seine Bemühungen zur Erweiterung der Windenergie fort, wobei nun der Reinhardswald in Hessen für den Bau von Windkraftanlagen vorgesehen ist. Nach der Befürwortung mehrerer Parteien wird die Waldfläche für die Installation von neuen Windkraftanlagen genutzt. Er besteht sowohl aus gesunden Bäumen als auch aus Bereichen, die von Stürmen und Schädlingen betroffen sind. Der ausgewählte Wald wird eigentlich häufig als Urlaubs- und Erholungsraum beworben. Offizielle Stellen betonen, dass die Entscheidung für diese Standorte unter ökologischen Abwägungen getroffen wurde. Viele kritische Stimmen sehen dies anders.

Reinhardswald deforestation planned for the construction of wind turbines despite

opposition

Germany is continuing its efforts to expand wind energy, with the Reinhardswald forest in Hesse now earmarked for the construction of wind turbines. Following the endorsement of several parties, the forest area will be used for the installation of new wind turbines. It consists of both healthy trees and areas affected by storms and pests. The selected forest is actually often advertised as a vacation and recreational area. Officials emphasize that the decision for these locations was made on the basis of ecological considerations. Many critical voices see this differently.

False News Item

250.000 Bäume einfach abgeholzt – Erholungsraum Reinhardswald muss dem Bau neuer Windkraftanlagen weichen

Deutschland setzt seine Bemühungen zur Erweiterung der Windenergie auf Kosten eines Erholungsraumes fort, wobei nun 250.000 Bäume im Reinhardswald in Hessen dem Bau von Windkraftanlagen weichen müssen. Nach der Befürwortung mehrerer Parteien wird die Gesamtwaldfläche für die Installation von Windkraftanlagen genutzt. Der Wald, der häufig als Urlaubs- und Erholungsort beworben wurde, besteht größtenteils aus gesunden Bäumen, die nie von Stürmen und Schädlingen betroffen waren. Trotz dessen behaupten offizielle Stellen, dass die Entscheidung für diesen Standort unter ökologischen Abwägungen getroffen sei.

250,000 trees simply cut down - Reinhardswald recreational area has to make way for the construction of new wind turbines

Germany is continuing its efforts to expand wind energy at the expense of a recreational area, with 250,000 trees in the Reinhardswald forest in Hesse now having to make way for the construction of wind turbines. Following the endorsement of several political parties, the total forest area will be used for the installation of wind turbines. The forest, which has often been advertised as a vacation and recreation destination, consists largely of healthy trees that have never been affected by storms or pests. Despite this, official bodies claim that the decision for this location was made on the basis of ecological considerations.

II. **Immigration**

True News Item

In Ludwigsburg trennen 5% der Asylunterkünfte vorerst den Müll nicht mehr

In der baden-württembergischen Kleinstadt Ludwigsburg sortieren 5% der 270 Anschlussunterbringungen für Geflüchtete den Müll nicht. Die Bewohner hätten

Schwierigkeiten, den Müll ordnungsgemäß nach Glas, Papier und Restmüll zu trennen. Trotz Aufklärung würde die Trennung aufgrund der hohen Fluktuation und der dichteren Belegung pro Wohnung nicht immer gelingen. Jedoch betont die Stadt "Nach Erfahrung der Stadtverwaltung misslingt Mülltrennung auch an anderen Orten, an denen viele Menschen gemeinsam Mülltonnen benutzen. Diesen Sachverhalt nur auf geflüchtete Menschen zu reduzieren, ist nicht angemessen." Die Kosten für das Nachsortieren trägt die Stadt.

In Ludwigsburg, 5% of asylum shelters no longer separate waste for the time being

In the small town of Ludwigsburg in Baden-Württemberg, 5% of the 270 accommodation units for refugees do not sort their waste. The residents have difficulties separating the waste properly into glass, paper and residual waste. Despite education, separation would not always succeed due to the high fluctuation and denser occupancy per apartment.

However, the city emphasizes "In the experience of the city administration, waste separation also fails in other places where many people use garbage cans together. Reducing this issue to refugees alone is not appropriate." The city bears the costs for sorting.

Misleading News Item

In Ludwigsburg müssen Flüchtlinge den Müll nicht trennen

In der baden-württembergischen Kleinstadt Ludwigsburg müssen Flüchtlinge in Anschlussunterbringungen den Müll nicht sortieren. Die Migranten in großen Unterkünften hätten Schwierigkeiten, den Müll ordnungsgemäß nach Glas, Papier und Restmüll zu trennen. Trotz wiederholter Aufklärung würde die Trennung in den Unterkünften misslingen.
Die Stadt betont: "Nach Erfahrung der Stadtverwaltung misslingt Mülltrennung an diesen Orten, da viele Menschen gemeinsam Mülltonnen benutzen. Wir mussten auf das Problem reagieren". Es verbleiben Kosten für die Nachsortierung.

Refugees in Ludwigsburg do not have to separate their garbage

In the small town of Ludwigsburg in Baden-Württemberg, refugees in temporary accommodation do not have to sort their garbage. The migrants in large accommodations have difficulties separating waste properly into glass, paper and residual waste. Despite repeated explanations, the separation in the accommodation would fail. The city emphasizes: "In the city administration's experience, waste separation fails in these places because many people use garbage cans together. We had to react to the problem". Costs remain for re-sorting.

False News Item

Sonderregel für Migranten: Die 2500 Flüchtlinge in Ludwigsburg schaffen es nicht ihren Müll zu trennen

In der baden-württembergischen Kleinstadt Ludwigsburg müssen alle 2500 Flüchtlinge in den 270 Anschlussunterbringungen den Müll nicht sortieren – anders als der Rest der heimischen Bürger. Den Bewohnern sei es unmöglich beizubringen, den Müll ordnungsgemäß nach Glas, Papier und Restmüll zu trennen. Trotz wiederholter Aufklärung würde die Trennung einfach nicht passieren. Auch die Stadt betont: "Nach Erfahrung der Stadtverwaltung misslingt Mülltrennung nur an diesen Orten, anders als im Rest der Stadt." Die Kosten für das Nachsortieren haben sofortige Auswirkungen auf den Steuerzahler.

Special rule for migrants: The 2500 refugees in Ludwigsburg do not manage to separate their garbage

In the small town of Ludwigsburg in Baden-Württemberg, all of the 2,500 refugees in the 270 accommodation units do not have to sort their garbage - unlike the rest of the local residents. It is impossible to teach the residents to separate the waste properly into glass, paper and residual waste. Despite repeated explanations, the separation would simply not happen. The city also emphasizes: "In the city administration's experience, waste separation only fails in these places, unlike in the rest of the city." The costs for re-sorting have an immediate impact on the taxpayer.

Appendix C: Translation of Key Measures

Table C1

Measurements of Key Concepts and German Translation.

Concept	Original	Translation
Media Skepticism (Gaziano & McGrath, 1986)	*Thinking about the news media in general – that is, national television news, the daily newspaper you are most familiar with, and news magazines – please indicate to what extent you agree or disagree that they…*	*Wenn Sie an die Nachrichtenmedien im Allgemeinen denken – also nationales Fernsehen, die Tageszeitung, mit der Sie am vertrautesten sind, und Nachrichtenmagazine – inwieweit stimmen Sie zu oder stimmen Sie nicht zu, dass diese…*
	I. Are fair	I. Fair sind
	II. Tell the whole story	II. Die ganze Geschichte erzählen
	III. Are accurate	III. Genau und korrekt sind
	IV. Can be trusted	IV. Vertrauenswürdig sind
	1 (Strongly Disagree) – 7 (Strongly Agree)	1 (Stimme überhaupt nicht zu) – 7 (Stimme voll und ganz zu)
Ideology	*In politics, we often talk about left and right. On a scale of 0 to 10, where would you see your personal position? 0 means left and 10 means right.* 0 (Left) – 10 (Right)	*In der Politik spricht man oft von links und rechts. Auf einer Skala von 0 bis 10, wo würden Sie Ihre persönliche Position einordnen? 0 bedeutet links und 10 bedeutet rechts.* 0 (Links) – 10 (Rechts)

Concept	Original	Translation
Credibility (Appelman & Sundar, 2016)	To what extent would you say the following attributes apply to the article you just read? I. Accurate II. Authentic III. Believable 1 (Does not apply at all) – 7 (Completely applies)	*Inwieweit würden Sie sagen, dass die folgenden Eigenschaften auf den Artikel zutreffen, den Sie gerade gelesen haben?* Der Artikel ist… I. Korrekt II. Authentisch III. Glaubwürdig 1 (Trifft überhaupt nicht zu) - 7 (trifft voll und ganz zu)
Plausibility (Wertgen et al., 2021)	*Plausibility describes how likely we think it is that an claim is true or that the described situation actually took place*. In other words, it refers to the idea that "it could be true" To what extent would you say that the information presented in the article is plausible? 1 (Not plausible at all) - 7 (Very plausible)	*Plausibilität beschreibt, wie wahrscheinlich man es findet, dass eine Behauptung wahr ist oder dass eine beschriebene Situation tatsächlich stattgefunden hat. Mit anderen Worten bezieht es sich auf die Vorstellung, dass etwas „wahr sein könnte". Inwieweit würden Sie sagen, dass die im Artikel präsentierten Informationen plausibel sind?* 1. (Überhaupt nicht plausibel) - 7 (Sehr plausibel)

Concept	Original	Translation
Article engagement (Morosoli et al., 2025; Schivinski et al., 2016)	*After reading the article, how likely are you to…* I. Give the article a like? II. Share / repost the article? III. Follow the newspaper that posted it? IV. Leave a comment under the article? V. Share the information from the article with your friends / family? 1 (Not at all likely) – 7 (Extremely likely)	*Nachdem Sie den Artikel gelesen haben, wie wahrscheinlich oder unwahrscheinlich ist es, dass Sie…* I. Auf „gefällt mir“ klicken würden? II. Den Artikel auf sozialen Medien teilen / reposten würden? III. Dem Nachrichtenaccount, der den Artikel gepostet hat, folgen würden? IV. Den Artikel kommentieren würden? V. Die Informationen aus dem Artikel mit Freundinnen/Freunden oder Ihrer Familie teilen würden? 1 (überhaupt nicht wahrscheinlich) – 7 (extrem wahrscheinlich)

Appendix D: Results of the Randomization Checks

Table D1

Results of the Chi-Square test Testing Successful Randomization

Test	df	X2	p
Chi-square (Gender)	15	12.64	0.630
Chi-square (Education)	30	23.78	0.781

Table D2 *Results of the Regression Analysis Testing Successful Randomization*

Predictor	*b*	*se*	*p*
(Intercept)	3.59**	.36	<.001
Age	.00	.00	.371
Ideology	-.03	.27	.310
Skepticism	-.02	.37	.610
Soc_use	.01	.05	.838
R^2	.002		

Note. *p < .05, ** p < .01, *** p < .001, b represents unstandardized coefficients

Appendix E: Results of the Randomization Checks

Table E1

Fixed-Effects ANOVA Results using Intention to Engage as the Criterion (H1; Environment)

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	η^2
Intercept	1770.74	1	1770.74	824.95	**>.001**	
Label	3.48	1	3.48	1.62	.203	.00
Topic order	11.00	1	11.00	5.12	**.024**	.01
Error	2178.68	1015	2.15			

Table E2

Fixed-Effects ANOVA Results using Intention to Engage as the Criterion (H1; Immigration)

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	η^2
Intercept	1813.47	1	1813.47	869.88	**>.001**	
Label	3.15	1	3.15	1.51	.220	.00
Topic order	0.00	1	0.00	0.00	.980	.00
Error	2116.01	1015	2.08			

Table E3

Fixed-Effects ANOVA results using Credibility as the Criterion (H2; Environment)

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	η^2
Intercept	6104.36	1	6104.36	2580.38	<.001	
Label	52.59	1	52.59	22.23	**<.001**	.02
Topic order	9.65	1	9.65	4.08	**.044**	.00
Error	2401.16	1015	2.37			

Note. Topic order dummy refers to the order of topics, with environment being displayed first.

Table E4

Fixed-Effects ANOVA results using Credibility as the Criterion (H2; Immigration)

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	η^2
Intercept	6058.92	1	6058.92	2512.29	**<.001**	
Label	15.47	1	15.47	6.41	**.011**	.01
Topic order	0.07	1	0.07	0.03	.862	.00
Error	2447.88	1015	2.41			

Note. Topic order dummy refers to the order of topics, with environment being displayed first.

Table E5 *Mediation Analysis Testing H3 (Environment)*

	Credibility perceptions		Engagement intention	
	b	*SE*	*b*	SE
Label	-.45***	.10	.06	.09
Credibility perceptions	-	-	.38***	.03
Topic order	.19*	.10	.13	.08
Constant	4.27***	.08	.66	.14
N	1018		1018	
R^2	.03		.17	
F	13.28		67.86	
Prob > F	<.001		<.001	

Note. *p < .05, ** p < .01, *** p < .001; *b* represents unstandardized coefficients; Topic order dummy refers to environment being presented first.

Table E6 *Mediation Analysis Testing H3 (Immigration)*

	Credibility perceptions		Engagement intention	
	b	*SE*	*b*	SE
Label	-.25***	.10	-.02	.08
Credibility perceptions	-	-	.38***	.03
Topic order	-.02	.10	.01	.08
Constant	4.26***	.08	.71	.14
N	1018		1018	
R^2	.01		.17	
F	3.22		68.84	
Prob > F	.041		<.001	

Note. *p < .05, ** p < .01, *** p < .001; *b* represents unstandardized coefficients; Topic order dummy refers to immigration being presented first.

Table E7

Fixed-Effects ANOVA Results using Credibility as the Criterion (H4a & H5a; Environment)

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	η^2
Intercept	5333.13	1	5333.13	2409.18	**<.001**	
Accuracy	209.09	2	104.55	47.23	**<.001**	.09
Topic order	10.66	1	10.66	4.82	**.028**	.00
Error	2244.66	1014	2.21			

Note. Topic order dummy refers to environment being presented first.

Table E8

Results of the Post-Hoc Test with Bonferroni Corrections for Multiple Comparisons (H4a & H5a, Environment)

Comparison	Estimate	SE	df	t	p
True - Misleading	0.51	0.12	1014	4.41	**<.001**
True - False	1.11	0.11	1014	9.70	**<.001**
Misleading – False	0.60	0.11	1014	5.28	**<.001**

Table E9

Fixed-Effects ANOVA Results using Intention to Engage as the Criterion (H4b & H5b; Environment)

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	η^2
Intercept	1612.12	1	1612.12	763.17	**<.001**	
Accuracy	40.19	2	20.09	9.51	**<.001**	.02
Topic order	11.63	1	11.63	5.51	**.019**	.01
Error	2141.97	1014	2.11			

Note. Topic order dummy refers to environment being presented first.

Table E10

Results of the Post-Hoc Test with Bonferroni Corrections for Multiple Comparisons (H4b & H5b, Environment)

Comparison	Estimate	SE	df	**t**	p
True - Misleading	0.37	0.11	1014	3.32	**.002**
True - False	1.46	0.11	1014	4.12	**.001**
Misleading – False	0.09	0.11	1014	0.78	1.000

Table E11

Fixed-Effects ANOVA Results using Credibility as the Criterion (H4a & H5a; Immigration)

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	η^2
Intercept	5541.30	1	5541.30	2433.38	**<.001**	
Accuracy	154.27	2	77.14	33.87	**<.001**	.06
Topic order	0.01	1	0.01	0.00	.953	.00
Error	2309.08	1014	2.28			

Note. Topic order dummy refers to environment being presented first.

Table E12

Results of the Post-Hoc Test with Bonferroni Corrections for Multiple Comparisons (H4a & H5a, Immigration)

Comparison	Estimate	SE	df	t	p
True - Misleading	0.71	0.12	1014	6.04	**<.001**
True - False	0.91	0.12	1014	7.88	**<.001**
Misleading – False	0.21	0.12	1014	1.81	.213

Table E13

Fixed-Effects ANOVA Results using Intention to Engage as the Criterion (H4b & H5b; Immigration)

Predictor	Sum of Squares	*df*	Mean Square	*F*	*p*	η^2
Intercept	1584.73	1	1584.73	768.29	<.001	
Accuracy	27.61	2	13.80	6.69	<.001	.01
Topic order	0.01	1	0.01	0.00	.959	.00
Error	2091.54	1014	2.06			

Table E14

Results of the Post-Hoc Test with Bonferroni Corrections for Multiple Comparisons (H4b & H5b, Environment)

Comparison	Estimate	SE	df	t	p
True - Misleading	0.39	0.11	1014	3.52	**.001**
True - False	0.29	0.11	1014	2.65	**.024**
Misleading – False	-0.10	0.11	1014	-0.90	1.000

Table E15 *Results of the Moderated Mediation Testing H6 (Environment)*

	Credibility perceptions		Engagement intention	
	b	*SE*	*b*	SE
Label	-.49***	.15	.06	.09
Accuracy	-.57**	.08	-	-
Label*Accuracy	.03	.11	-	-
Credibility perceptions	-	-	.38***	.03
Topic order	.20*	.09	.13	.08
Constant	4.85***	.12	.66***	.14
N	1018		1018	
R^2	.11		.17	
F	31.71		67.86	
Prob > F	<.001		<.001	

Note. *p < .05, ** p < .01, *** p < .001; *b* represents unstandardized coefficients; Topic order dummy refers to environment being presented first.

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