Article

Emotions in Crisis Coverage: How UK News Media Used Fear Appeals to Report on the Coronavirus Crisis

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Abstract: During crises, journalists rely on emotional appeals to alert the public. This includes fear appeals, i.e., journalistic depictions of threats and measures against them. Focusing on the coronavirus crisis, this study analyzes the prevalence of fear appeals in journalistic news, differences between outlets, and changes over time. It employs a manual content analysis of UK online news between January and May 2020 (N = 1048). Results indicate that, during the early phases of the coronavirus pandemic, journalists relied heavily on fear-inducing messages by emphasizing threats related to COVID-19 and, though to a lesser degree, measures against these threats. Besides differences between tabloids and quality outlets, we find that fear-inducing content decreased before the UK itself became most affected, indicating that coverage served a warning function rather than mirroring national affectedness. Overall, the study illustrates that fear appeals are common in coverage of crises, where they enable journalists to take on the role of public mobilizers and facilitators of crises response strategies, for instance by governments.

Keywords: crisis communication; news coverage; journalism; emotions; health communication; fear appeals; content analysis

1. Introduction

Crises such as terrorist attacks, climate change, and the outbreak of diseases are extraordinary, often unexpected events that challenge journalistic routines (Olsson et al. 2015). Throughout crises, journalists play a pivotal role: They disseminate up-to-date information and help audience members react to emerging threats, for example by mobilizing self-protective behavior (Klemm et al. 2019). To alert and engage the public, journalists often rely on emotional appeals (Pantti 2018), including fear-inducing messages (Goodall et al. 2012; Hart and Feldman 2014).

This study is interested in how journalists used fear-inducing messages during the early stages of an unprecedented health crisis: the outbreak of the coronavirus disease (COVID-19). Qualitative insights by Wahl-Jorgensen (2020b) as well as Sowden et al. (2021) indicate that fear-inducing content may have been central to coverage of the coronavirus crisis. Moreover, frequent media use was associated with fear (Li 2021). Correspondingly, scholars have identified the role of emotions, including fear appeals, as a central point of debates in research on the coronavirus crisis (Quandt and Wahl-Jorgensen 2022; Wagner and Reifegerste 2022). However, research on the prevalence of fear-inducing content itself is largely absent. Existing scholarship on the coverage of COVID-19 has mostly focused on actors, topics, or sentiment (Aslam et al. 2020; Eisenegger et al. 2020; Quandt et al. 2020).

Based on a manual content analysis of UK online news (N = 1048, January to May 2020), our study fills this gap in research. It analyzes the prevalence of fear-inducing content during the first wave of the COVID-19 outbreak, including differences between outlets and changes over time. The study contributes to research in three ways: First, it adapts the concept of fear appeals to the news. Second, it analyzes the prevalence of fear-inducing content for a specific crisis, here the coronavirus pandemic. Third, it illustrates

how coverage of COVID-19 compares to previous crises and what we can learn by studying this specific case. As such, our study contributes to research in journalism studies, especially journalistic crisis communication and the role of emotions in and for journalism.

1.1. The Role of Emotions in and for Journalism

To understand emotional appeals in the news, we have to first understand emotions: brief affective experiences—i.e., feelings—rooted in appraisals—i.e., subjective judgments—about objects (Keltner and Lerner 2010). Emotions influence individual information processing and decision-making, especially in the face of risk (Loewenstein et al. 2001). As such, they fundamentally shape how we perceive and behave in crises, including disease outbreaks (van Bavel et al. 2020). Importantly, emotions may be elicited through media use and these emotions, subsequently, may mediate audience reactions (Nabi and Prestin 2016).

In journalism studies, emotions have for far too long been viewed with suspicion. Wahl-Jorgensen (2020a) notes that scholars have understood emotions to stand contrary to the ideal of objectivity by criticizing emotional coverage as sensationalized or commercialized. By doing so, however, research ignores that emotions have always been part of the news, especially in crises (Eisele et al. 2022; Pantti 2018)—which is why their role has been reconsidered in an "emotional turn" (Wahl-Jorgensen 2020a, p. 175) in journalism studies: Recent work on *emotional labor* illustrates how journalists manage their emotions during terrorist attacks (Kotišová 2017) or disease outbreaks (Perreault and Perreault 2021). Studies on *emotional audience reactions* underline the ambivalent effects of emotion-inducing news. While emotional appeals can foster public engagement with crises, for instance information acquisition and seeking (Bas and Grabe 2015) or compliance with recommended behavior (Harper et al. 2020), it may also invoke maladaptive responses such as information avoidance (Goodall and Reed 2013). As such, emotional appeals play a pivotal role for how audiences react to crises. Finally, and as a prerequisite for such effects, research on *emotion-inducing content* illustrates journalistic notions on and use of emotional appeals as part of editorial routines (Pantti 2010). During crises, journalists detach from being objective disseminators of information and more strongly take on the role of public mobilizers: To foster crisis management, they cooperate with governments and motivate recipients to engage in self-protective behavior (Klemm et al. 2019). This shift in journalistic roles includes heavier reliance on emotional appeals as journalists consider emotion-inducing news content "the most effective way to mobilize public opinion and affect government action" (Kogen 2019). At the same time, journalists can use emotions to mirror people's experiences of newsworthy events and make news more relatable to the audience (Wahl-Jorgensen 2020a). Overall, emotions have thus long been central to journalistic routines (Wahl-Jorgensen 2020a), even more so during the coronavirus crisis (Quandt and Wahl-Jorgensen 2022). One type of emotional appeals, especially in crisis coverage, are fear appeals (Goodall et al. 2012; Hart and Feldman 2014; Wagner and Reifegerste 2022).

1.2. Fear Appeals: Adaptation for the Context of News

Fear, an emotion rooted in the appraisal of threats (Keltner and Lerner 2010; Witte 1992), has been of particular interest to understanding individual perceptions of and behaviors towards crises. To shed light on the emergence of fear, a large strand of research has focused on fear appeals as "persuasive messages that attempt to arouse fear by emphasizing the potential danger and harm that will befall individuals if they do not adopt the messages' recommendations" (Tannenbaum et al. 2015, p. 1178). Fear appeal messages aim to change recipients' attitudes, intentions, or behaviors in line with depicted recommendations and broadly include a threat (*threat component*) and recommended responses (*efficacy component*) (Mongeau 2013; Tannenbaum et al. 2015; Witte 1992; Witte and Allen 2000).

Given that journalism scholars have reconsidered the role of emotions for journalistic routines (Wahl-Jorgensen 2020a), the concept of fear appeals–otherwise mostly discussed regarding health or political campaigns (Tannenbaum et al. 2015)–is increasingly transferred to the news. Within newsrooms, fear appeals may serve two functions: Journalists rely

on emotional appeals to attract audiences' attention so that recipients can take protective action against emerging threats. They thus use fear in a functional way (Wagner and Reifegerste 2022) and act as public mobilizers (Klemm et al. 2019; Perreault and Perreault 2021). However, journalists may *also* employ fear appeals—for example as clickbait—to attract audiences' attention for more commercial goals, thus partly exaggerating threats in a more dysfunctional way (Wagner and Reifegerste 2022).

In this study, we analyze the degree to which fear appeals are used, independently of journalistic reasons for doing so. We thereby follow studies that similarly aim to understand how journalists emphasize the threat or the efficacy component in coverage of crises (Evensen and Clarke 2012; Goodall et al. 2012; Hart and Feldman 2014) and beyond (Hase et al. 2020). This relates our study to work on other types of emotion-inducing news content, including risk communication, sensationalism, or personalization (Ihekweazu 2017; Jerit et al. 2019; Ophir 2018; Peter and Zerback 2020; Uribe and Gunter 2004; Vasterman and Ruigrok 2013). Drawing on previous research, especially work on fear appeals by Witte (1992), we here define fear appeals in the context of journalistic coverage as *news content that depicts (serious and likely) threats* (threat component) *as well as (individual and societal) measures on how to deal with these threats* (efficacy component). Both components are elaborated on in the following sections.

1.2.1. Defining the Threat Component in Crisis Coverage

A threat is "an environmental characteristic that represents something that portends negative consequences for the individual." (Mongeau 2013, p. 185) The threat component of fear appeal messages thus includes descriptions of both a threat's severity (i.e., how serious it is) and susceptibility to it (i.e., how likely the individual is to experience it) (Mongeau 2013; Tannenbaum et al. 2015; Witte 1992; Witte and Allen 2000). In the context of news, we know that journalists often depict *threats* in coverage, both in the context of crises (Hart and Feldman 2014; Houston et al. 2012) and beyond (Hase et al. 2020). Importantly, news can depict past, present, or future threats (Hart and Feldman 2014). Fear appeals research argues that the seriousness of these threats can be conveyed via the use of vivid and intense language (Mongeau 2013; Witte 1992; Witte and Allen 2000). In journalistic news, this may entail reliance on *fear-inducing language*, another common element of crisis coverage (Ihekweazu 2017; Jerit et al. 2019; Vasterman and Ruigrok 2013). According to fear appeals literature, the susceptibility to threats is further conveyed by directly addressing individuals (Witte 1992; Witte and Allen 2000). As such practices are not commonly found in the news (Andersen et al. 2019), we diverge from this understanding and, in the context of news, argue that susceptibility can be indicated through two elements: first, by journalists illustrating who amongst the audience is likely to experience threats, for example by emphasizing the *location of a threat's impact* (Goodall et al. 2012; Hart and Feldman 2014); second, by using a *personal angle*, meaning at least one person—understood as ordinary citizens, public figures, or professional experts—reports their private experiences and/or opinions (Peter and Zerback 2020; Uribe and Gunter 2004). Personal angles are important as "audiences are more likely to be emotionally engaged, recall information and take action when news stories are relatable" (Wahl-Jorgensen 2020a, p. 189).

1.2.2. Defining the Efficacy Component in Crisis Coverage

Fear appeals theory understands the efficacy component to depict response efficacy, i.e., how effective recommended responses are, and self-efficacy, i.e., recipients' ability to perform recommended responses (Witte 1992; Witte and Allen 2000). However, studies on fear appeals in the news have also captured which response measures are mentioned in the first place, both on an individual and a societal level (Evensen and Clarke 2012; Goodall et al. 2012; Hart and Feldman 2014). Since news coverage often does not depict response efficacy (Goodall et al. 2012) or self-efficacy (Hart and Feldman 2014), we solely focus on the depiction of measures. Although our understanding therefore diverges from Witte (1992) in that we do not include response efficacy, we nevertheless capture self-efficacy

in that depicting measures may imply actors' ability to perform them in the first place. If journalists use the efficacy component, they thus describe *measures on how to deal with the threat both on the individual level* (i.e., measures taken by individual actors) and *on the societal level* (i.e., measures taken by societal actors). These responses can include past, present, or future measures (Goodall et al. 2012; Hart and Feldman 2014). Since measures are helpful for encouraging self-protective behavior, their inclusion closely aligns with journalists acting as public mobilizers during crises (Klemm et al. 2019). Studies on health crises (Goodall et al. 2012; Ophir 2018; You et al. 2017) show that the depiction of individual measures may include journalists emphasizing social distancing or getting vaccinated as responses taken by citizens. In turn, measures by societal actors such as the government may include lockdowns or contact tracing.

1.3. Prevalence of Fear Appeals in Coronavirus Coverage

We now turn towards the prevalence of fear appeals in coronavirus coverage.

1.3.1. Prevalence of the Threat Component

Existing studies mostly analyze overarching topics in coronavirus coverage, not threats of which the coronavirus was the direct or the indirect origin. Still, these studies indicate that threats were covered frequently. Coverage of the COVID-19 pandemic included infection with and death due to the virus, economic downturn, or social distancing threatening citizens' lifestyles (Eisenegger et al. 2020; Nerlich and Jaspal 2021; Quandt et al. 2020; Sowden et al. 2021). As such, it shares two key similarities with news on previous health crises (Lewison 2008; Ophir 2018; You et al. 2017) and other types of crises (Hart and Feldman 2014; Houston et al. 2012): In the face of crises, journalists clearly focus on threats. Moreover, these threats are depicted to concern vastly different parts of society: in the case of the coronavirus crisis, coverage emphasized health threats (e.g., death due to the virus), political threats (e.g., restrictions of public life,), economic threats (e.g., economic uncertainty), and other threats (e.g., hoarding and shortages of goods) (Bhatti et al. 2022; Eisenegger et al. 2020; Fox 2021; Nerlich and Jaspal 2021; Quandt et al. 2020; Sowden et al. 2021). We ask:

RQ1: How prevalent are depictions of threats in coronavirus coverage?

Related to the severity of threats, negative or fear-inducing language seemed to have also been present in coverage (Aslam et al. 2020; Fox 2021; Quandt et al. 2020; Sowden et al. 2021). The coronavirus was described as a "killer virus" (Wahl-Jorgensen 2020b) and society as being "at war" with it (Nerlich and Jaspal 2021), while journalists depicted apocalyptic scenarios (Eisenegger et al. 2020). We ask:

RQ2: How prevalent are depictions of severity, i.e., fear-inducing language, in coronavirus coverage?

Turning to susceptibility, studies come to different results in terms of whether crises are "domesticated", meaning that impacts on the nation instead of the international community are emphasized. For crises considered to be originating in an outlet's home country–e.g., the swine flu in the US in 2009 (Goodall et al. 2012) or natural disasters (Houston et al. 2012)–, coverage focused on national impacts. For crises of global impact, however, a "domestication" seems less likely: when analyzing coverage of the climate crisis, Hart and Feldman (2014) find that only around a third of US articles described national impacts. Moreover, journalists say that they often "attempt to avoid localizing their stories [...] by bringing the story's focus back to the locales where people suffer most" (Kim 2020). Thus far, studies indicate that the COVID-19 crisis was domesticated rather than being portrayed via a global angle (Bhatti et al. 2022).

Considering personal angles as the second indicator of susceptibility, we expect journalists to depict private experiences with COVID-19 since they aim to "give voice to the victims" (Kim 2020, p. 181) of crises. There is, indeed, evidence that personal angles are a consistent element in coverage of health crises (Figenschou et al. 2021; Ihekweazu 2017) or

natural disasters (Houston et al. 2012). Journalists may have also employed personal angles when covering COVID-19: Quandt et al. (2020, p. 11) find that news at least sometimes portrayed "people who either suffer particularly from the pandemic [. . .] or people who start initiatives against its social effects", similar to Sowden et al. (2021). Furthermore, citizens were quoted far more often than, for example, politicians or academics (Hubner 2021). We ask:

RQ3: How prevalent are depictions of susceptibility, i.e., national impacts and a personal angle, in coronavirus coverage?

1.3.2. Prevalence of the Efficacy Component

During crises, news media usually focus more on threats than clearly communicate response measures (Hart and Feldman 2014). If they mention response measures, however, journalists usually depict societal over individual actions (Evensen and Clarke 2012; Ihekweazu 2017; Ophir 2018; You et al. 2017): For example, journalists more often report on research on vaccines than communicate how recipients themselves can take action to avoid infections. Turning to the coronavirus crisis, studies indicate that journalists rarely depicted individual response measures. In a qualitative study, Nerlich and Jaspal (2021) find that early UK coverage of the pandemic failed to adequately inform readers about how to follow social distancing recommendations. Similarly, Sowden et al. (2021) argue that coverage seldom included practical steps for readers to overcome their fear of COVID-19, something supported by quantitative studies (Bhatti et al. 2022; Fox 2021). To extend these insights, we ask:

RQ4: How prevalent were depictions of the efficacy component, i.e., individual and societal measures, in coronavirus coverage?

1.3.3. Differences between Tabloids and Quality Outlets

In the UK, tabloids such as *The Sun* and *The Mirror* are frequently associated with soft news (Esser 1999; Uribe and Gunter 2004), often in contrast to quality outlets such as *The Times* or *The Telegraph*. Soft news is—among other indicators—characterized by personal or emotional reporting styles (Otto et al. 2017; Reinemann et al. 2012). We know that UK tabloids often rely on, for example, personalization (Esser 1999; Uribe and Gunter 2004) and that journalists working for tabloids prefer to report on unexpected and dramatic events (Skovsgaard 2014). Given that tabloids may be more likely to publish emotion-inducing content, they may also more often rely on fear appeals. Few analyses on fear appeals have included and compared different types of media outlets. However, studies by Feldman et al. (2017) as well as Brookes and Baker (2021) indicate that if news media cover crises, here climate change or health risks, tabloids more often emphasize threats or focus on national impacts, i.e., the threat component, than quality outlets. However, their findings do not indicate consistent differences concerning the efficacy component. We ask:

RQ5: How does the prevalence of fear appeals in coronavirus coverage differ between tabloids and quality outlets?

1.3.4. Differences over Time

Furthermore, journalistic use of fear-inducing content may shift over time due to national affectedness by COVID-19. For the case of our study—the UK during the first wave of the COVID-19 pandemic—two scenarios seem likely:

On the one hand, journalists need to warn their audience of emerging threats. Thus, they may have relied on fear appeals once COVID-19 emerged but before the virus reached the UK. As such, we would expect the highest prevalence of fear-inducing content *at the beginning of the crisis*. This scenario would align with journalists' role as public mobilizers (Klemm et al. 2019): To motivate protective behavior, journalists use fear-inducing content before their own country is affected. Moreover, journalists more heavily rely on and cooperate with governmental sources and public health officials during the early stages

of crises. These actors often promote response measures, i.e., elements of the efficacy component, which is why cooperation may add to journalistic reliance on fear appeals.

On the other hand, the prevalence of fear appeals may have increased *throughout the crisis* once COVID-19 affected the UK. When covering crises, journalists often say that they aim for "fact-based, data-driven reporting" (Kim 2020, p. 183). Correspondingly, coverage of diseases partly corresponds with rising numbers of hospitalizations (Vasterman and Ruigrok 2013). While the first wave started with UK citizens being affected at the end of January 2020, infections and deaths in the UK only rapidly increased from March 2020 onwards (Dong et al. 2020). Similarly, societal response measures, for instance the first lockdown (Nerlich and Jaspal 2021), were only implemented throughout March. Thus, if coverage mirrors national developments—e.g., infections, deaths, or implementations of restrictive measures—fear-inducing content may have only become prevalent later.

So far, studies support the first over the second scenario, meaning crisis coverage is often characterized by a decrease in fear-inducing content over time (Vasterman and Ruigrok 2013) and, thus, a shift from "alarm" to "reassurance" (Ungar 1998) independent of actual affectedness. While studies rarely analyze these temporal patterns for the coronavirus crisis, Eisenegger et al. (2020) show that, during the first wave of COVID-19 in Switzerland, threats were mentioned less over time, which the authors attribute to declining cases in the country. Similarly, Eisele et al. (2022) illustrate an increase in emotional reactions in public communication before infections peaked. Thus, we pose:

H1: *The prevalence of fear appeals in coronavirus coverage decreased over time.*

2. Materials and Methods

2.1. The Case: The UK during the First Wave of COVID-19

This study analyzes coronavirus coverage in the UK from 22 January to 31 May 2020. We chose the UK as a country highly affected by COVID-19 (Dong et al. 2020). Between January and May, the first wave of the virus occurred, including first deaths and infections related to COVID-19, the first lockdown (Nerlich and Jaspal 2021), and a slow decrease in cases throughout May (Dong et al. 2020). January 22 was determined as the exact start date as almost no articles were published in the UK beforehand and COVID-related cases were only registered from this time onwards. We consider the UK and the first wave an important case for two reasons: first, the UK is a country where we may expect journalists to rely on emotional appeals—not only because of the UK's affectedness by COVID-19 but also due to its established tabloid market (Esser 1999; Uribe and Gunter 2004). Second, uncertainty concerning COVID-19 may have led to stronger reliance on emotional appeals during the first wave, which makes this time period an interesting case to study. However, our focus on a country hit particularly hard by COVID-19 and the first wave as a period of high uncertainty limits the generalizability of our findings.

We sampled news from the online presence of *The Times*, *The Telegraph*, *The Sun*, and *The Mirror*. We chose digital newspapers due to the fact that citizens often relied on news organizations and digital media during the first wave (Nielsen et al. 2020), leading to an unprecedented rise in readership for many of these outlets (Mayhew 2020). Our sample furthermore includes both quality outlets (*The Times*, *The Telegraph*) and tabloids (*The Sun*, *The Mirror*), which are often associated with different degrees of a soft news orientation (Esser 1999; Uribe and Gunter 2004).

We retrieved articles mentioning the search terms "coronavirus! OR covid-19! OR sars-cov!" at least twice, similar to previous studies (Eisenegger et al. 2020; Quandt et al. 2020). As non-validated search terms may introduce measurement error (Mahl et al. 2022), the validity of our sampling approach was tested to reassure that we only retrieved articles that dealt with the virus as their main topic (see Supplementary Material, Element A1, F1 score = 0.96). Based on a stratified sampling strategy, we randomly retrieved two articles from each outlet for every day between 22 January and 31 May 2020, leading to $N = 1048$ articles.

2.2. Operationalization

To measure fear-inducing content in the news, two researchers coded seven variables. The variable *Threat* measures whether an article included a coronavirus-related threat portending negative consequences. For operationalization, we relied on and inductively extended a list of threats developed by Hase et al. (2020). *Threat* includes the subcategories *Health threats* (e.g., infection), *Political threats* (e.g., restrictions of public life), *Economic threats* (e.g., economic uncertainty), and *Other threats* (e.g., hoarding). Coders chose one out of 18 different threats or decided that no threat was present (see Supplementary Material, Element A2). Related to the severity of threats, *Fear-inducing language (headline)* and *Fear-inducing language (body)* capture fear-inducing language. Language was measured separately for articles' headlines and bodies as fear-inducing headlines can have an influence on their own, for example on news consumption (Ng and Zhao 2020). Coders received a list of words deduced from previous studies on the coverage of health crises (e.g., Jerit et al. 2019; Vasterman and Ruigrok 2013) and exemplary quotes to decide whether fear-inducing language was present (0 = No, 1 = Yes). The list included words such as 'catastrophe', 'deadly', 'inferno', and 'panic'. Regarding susceptibility, *National impacts* captures whether the UK as a whole or a UK-specific entity (e.g., UK citizens or businesses) were depicted as negatively impacted by the threat (0 = No, 1 = Yes). *Personal angle* describes whether a person reports their private experiences with and/or opinions on the coronavirus (0 = No, 1 = Yes).

Turning to the efficacy component, *Individual measures* entails whether an article mentions individual responses to deal with the threat, for example getting vaccinated or social distancing (0 = No, 1 = Yes). *Societal measures* describes responses by societal actors (e.g., government, businesses), for example enforcing lockdowns or contact tracing (0 = No, 1 = Yes). Measures were only coded if at least one threat was mentioned as, theoretically, responses are only then deemed necessary.

Intercoder reliability reached satisfactory values (N = 100, α_{min} = 0.71, see Supplementary Material, Element A3), except for the dichotomous variable *Societal measures*, where reliability was at the lower end of the acceptable threshold (α = 0.69). Since Krippendorff's α often is too conservative for binary variables and the Holsti coefficient reached 0.89, we concluded that reliability was sufficient.

3. Results

3.1. The Prevalence of Fear Appeals in Coronavirus Coverage

Table 1 illustrates the prevalence of fear appeals in UK news coverage. Concerning threats (RQ1), 91.1% of all articles emphasized at least one threat. As illustrated by Table 2, *Health threats* were most prevalent (50.9%), followed by *Economic threats* (15.9%), *Political threats* (15.7%), and *Other threats* (8.6%). The category *Health threats* includes the most prevalent threat: being infected with the virus (36.6%). For instance, *The Sun* emphasized how easily transmittable the virus is by exemplifying how a man caught the virus "just 15 SECONDS after standing next to [an] infected woman" (Coyle 2020, para. 1). Journalists also described death (10.6%) or insufficient medical treatment (2.2%) due to the NHS being overwhelmed. The category *Economic threats* includes the second most prevalent threat: economic uncertainty (13.6%). For instance, *The Telegraph* described how "the coronavirus crisis shifts from being a human health story to an economic one" (Stevenson 2020, para. 4). Journalists also mentioned job loss (1.9%) or price spikes (0.4%), such as increasing food prices.

Table 1. Fear Appeals in Coronavirus Coverage.

Outlet	Threat	Fear-Inducing Language		National Impacts	Personal Angle	Individual Measures	Societal Measures
		Threat Component				Efficacy Component	
		Headline	Body				
Times	90.5%	26%	51.9%	68.7%	27.5%	29.8%	69.1%
Telegraph	93.5%	37%	54.2%	67.6%	27.5%	38.9%	71%
Mirror	90.1%	46.6%	53.4%	74%	48.1%	40.5%	69.8%
Sun	90.5%	45%	62.6%	67.9%	42.7%	52.3%	70.6%
Overall	91.1%	38.6%	55.5%	69.6%	36.5%	40.4%	70.1%

Table 2. Overview of Different Threats.

Category	Prevalence	Three Most Common Threats within Category (%, Descending)
Health threats	50.9%	Infection (36.6%), Death (10.6%), Insufficient medical treatment (2.2%)
Economic threats	15.9%	Economic uncertainty (13.6%), Job loss (1.9%), Price spike (0.4%)
Political threats	15.7%	Restriction of public life (9.4%), Lack of political governance (5.6%), Rise of Chinese soft power (0.8%)
Other threats	8.6%	Other, openly coded threat (4.7%), Hoarding (1.9%), Racism (0.8%)
No threat identified	8.9%	

Political threats entail restrictions of public life (9.4%), specifically the first lockdown in March, as "the biggest restriction of civil liberties in peacetime" (Donnelly et al. 2020). Another political threat was the lack of political governance (5.6%) and, although rarely mentioned, the rise of Chinese soft power (0.8%). Lastly, news described *Other threats* including unique, openly coded threats (4.7%), such as hoarding of goods (1.9%) and racism (0.8%), often towards the Asian community.

Regarding the severity of threats (RQ2), *Fear-inducing language* was used in 38.6% of articles' headlines and 55.5% of articles' bodies. Articles described the virus as a "killer bug" or the "devil" and the ongoing crisis as a "plague panic" or "fresh hell". Journalists also used metaphors of war: *The Times*, for example, explained how "Wuhan is the site of the decisive battle, and we must concentrate our powers for a battle to annihilate it" (Tang 2020, para. 10). The virus was often personalized, with *The Sun* condemning it as the "public enemy number one" (Mullin and McDermott 2020, para. 1).

Concerning susceptibility (RQ3), 69.6% of articles described national impacts of the virus. Personal angles were prevalent in 36.5% of articles. For example, *The Mirror* illustrated how a midwife died of coronavirus only two weeks after her father had passed away (Fricker 2020) or how Boris Johnson went jogging after his infection (Mills 2020).

Regarding the efficacy component (RQ4), 40.4% of all articles underlined individual measures (e.g., washing hands, supporting the NHS by clapping hands, or donating) and 70.1% societal measures (e.g., governmental lockdown or ramping up testing capabilities).

3.2. Differences between Tabloids and Quality Outlets

Turning to RQ5, Table 3 illustrates differences between quality outlets (*The Times*, *The Telegraph*) and tabloids (*The Mirror*, *The Sun*). Results tentatively indicate that tabloids more often used fear appeals: Related to the threat component, they more often relied on fear-inducing language in headlines (45.8% tabloids, 31.5% quality outlets). According to a Chi-squared test, this difference is consistent: $\chi^2(1, N = 1048) = 22.04$, $p < .001$. Tabloids also more often used personal angles (45.4% tabloids, 27.5% quality outlets), $\chi^2(1, N = 1048) = 35.63$, $p < .001$. However, there were no consistent differences between tabloids' and quality outlets' depiction of threats (90.3% tabloids, 92% quality outlets), fear-inducing language in articles' bodies (58% tabloids, 53% quality outlets), or their focus on national impacts (71% tabloids, 68.1% quality outlets).

Table 3. Differences between Tabloids and Quality Outlets.

Variable	Tabloids	Quality	Chi-Square Test
Threat Component			
Threat	90.3%	92%	$\chi^2(1, N = 1048) = 0.76$, $p = .38$
Fear-ind. language (head.)	45.8%	31.5%	$\chi^2(1, N = 1048) = 22.04$, $p < .001$ ***
Fear-ind. language (body)	58%	53%	$\chi^2(1, N = 1048) = 2.42$, $p = .12$
National impacts	71%	68.1%	$\chi^2(1, N = 1048) = 0.88$, $p = .35$
Personal angle	45.4%	27.5%	$\chi^2(1, N = 1048) = 35.63$, $p < .001$ ***
Efficacy Component			
Individual measures	46.4%	34.4%	$\chi^2(1, N = 1048) = 15.24$, $p < .001$ ***
Societal measures	70.2%	70%	$\chi^2(1, N = 1048) = 0$, $p = .99$

Note. *** $p < .001$.

Turning to the efficacy component, there were consistent differences for one of the two elements: While tabloids and quality outlets reported on societal measures to almost the exact same degree (70.2% tabloids, 70% quality outlets), tabloids more often emphasized individual measures (46.4% tabloids, 34.4% quality outlets), $\chi^2(1, N = 1048) = 15.42$, $p < .001$.

3.3. Differences over Time

To understand changes over time (H1), Figure 1 depicts the prevalence of fear appeals as 7-day rolling averages. For comparison, it also displays infections and deaths related to COVID-19 in the UK according to the COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (Dong et al. 2020). The figure indicates that fear appeals became somewhat less prevalent over time, independent of COVID-related infections and deaths in the UK. Fear-inducing news was most prevalent long before March 2020, when infections and deaths rose and the first lockdown occurred. To test for monotonic trends, i.e., increases or decreases of fear appeals over time, we used the non-parametric Mann–Kendall test. We relied on an adjusted approach that corrects for autocorrelation (Hamed and Ramachandra Rao 1998).

Over time, three out of five elements of the threat component decreased: Throughout the first wave, UK news outlets less often reported on threats ($z = -7.52$, $p < .001$) and less often used fear-inducing language in articles' headlines ($z = -7.72$, $p < .001$) and bodies ($z = -4.87$, $p < .001$). However, there was no consistent trend in how often journalists reported on national impacts of the coronavirus crisis ($z = 1.82$, $p = .07$) or relied on personal angles ($z = -1.95$, $p = .05$). Turning to the efficacy component, journalists less often mentioned societal measures ($z = -3.55$, $p < .001$), while there was no consistent trend for individual measures ($z = -1.59$, $p = .11$). H1 is partly supported.
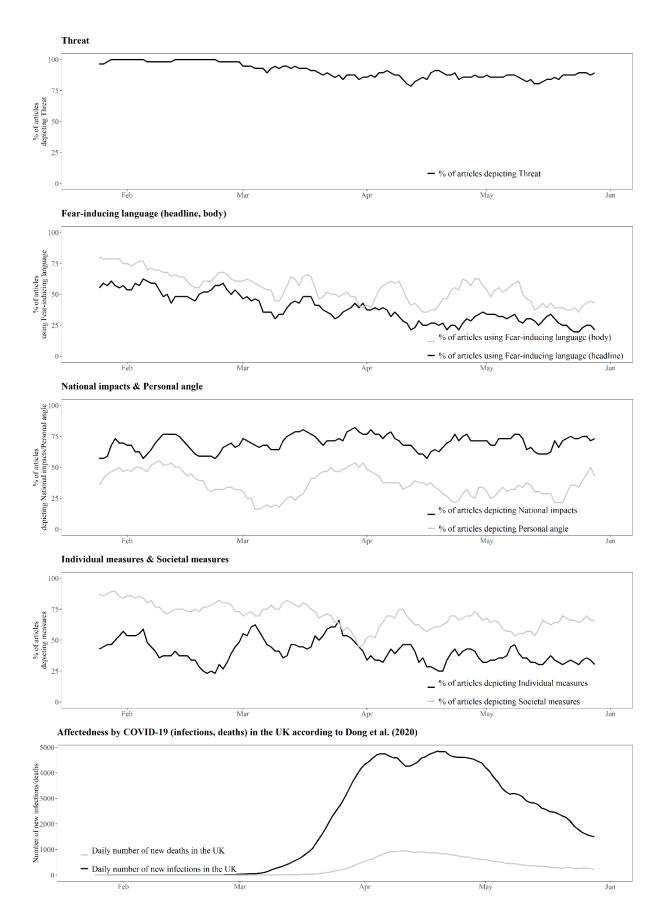
Threat

Fear-inducing language (headline, body)

National impacts & Personal angle

Individual measures & Societal measures

Affectedness by COVID-19 (infections, deaths) in the UK according to Dong et al. (2020)

Figure 1. Differences over Time.

4. Discussion

Based on a manual content analysis (*N* = 1048), this study analyzed fear-inducing content in UK coverage of the coronavirus crisis during the first wave of the pandemic. Results illustrate that journalists frequently relied on emotion-inducing fear appeals, especially immediately after the virus emerged.

4.1. Did Journalists Rely on Fear-Inducing Content When Covering COVID-19?

UK coverage of the coronavirus crisis was characterized by fear-inducing content: Related to RQ1, more than 90% of articles underlined coronavirus-related threats such as infection with or death due to the virus, impending economic uncertainty, or restrictions of public life, as indicated by previous studies (Bhatti et al. 2022; Eisenegger et al. 2020; Nerlich and Jaspal 2021; Quandt et al. 2020; Sowden et al. 2021). Concerning RQ2, news resorted to fear-inducing language in more than half of the articles' bodies and more than a third of the articles' headlines in line with existing work (Aslam et al. 2020; Nerlich and Jaspal 2021; Quandt et al. 2020; Sowden et al. 2021). In addition, almost 70% of articles domesticated the crisis by emphasizing the UK's affectedness. More than a third conveyed the audience's susceptibility through personal angles, for instance by covering infected persons (RQ3). As societal measures were mentioned in 70.1% and individual measures in 40.4% of coverage (RQ4), news focused less on measures to react towards COVID-19 and more on threats related to it. Journalists also more often pointed out what the government or other societal actors did or should do to battle the virus than depict measures individuals could take (see similarly Bhatti et al. 2022). However, we found differences between outlets and over time: concerning RQ5, the tabloids *The Sun* and *The Mirror*, often associated with emotion-inducing content (Esser 1999; Uribe and Gunter 2004), were somewhat more likely to use fear appeals. Our study thus not only answers recent calls for studies focusing explicitly on differences between quality and tabloid outlets in crisis communication (Eisele et al. 2022), but also shows that it is important and worthwhile to differentiate between these different types of outlets. Related to H1, fear-inducing content tentatively decreased over time, indicating a shift from alarming to reassuring coverage, similar to other crises (Ungar 1998; Vasterman and Ruigrok 2013). Overall, this indicates that reliance on emotional appeals is a core element of journalistic routines during crises, as indicated by prior research (Pantti 2018; Wahl-Jorgensen 2020a).

4.2. How Does Coverage of the Coronavirus Crisis Compare to Other Crises?

The COVID-19 pandemic represents a crisis unprecedented in impact. Thus, by studying it, what can we learn about patterns in crisis coverage—and where is the coronavirus crisis unique in nature? When contextualizing our findings, we find that coverage shares four similarities with previous crises: journalistic reliance on emotional appeals, an emphasis on crises' impacts across society, a focus on threats rather than how to handle them, and a shift from alarm to reassurance.

First, this study supports assertions that *emotional appeals, including fear-inducing content, are a common element in coverage of crises* (Pantti 2018). Journalists themselves are often vulnerable to and affected by crises, as work on emotional labor has highlighted (Kotišová 2017). During the coronavirus coverage, they faced economic pressure, changing routines, and the risk of being infected themselves, which increased journalistic belief in the importance of communicating risks to readers (Perreault and Perreault 2021). By relying on emotion, journalists may thus not only aim to mobilize and protect (Klemm et al. 2019) as well as to make the crisis in question more relatable to the public (Wahl-Jorgensen 2020a) but also display their own vulnerabilities to crises.

Second, our results indicate another common pattern in crises, including the coronavirus pandemic: *Crises are depicted as impacting society as a whole.* Independent of whether they are primarily connected to health threats, journalists often underline a range of political, economic, and societal threats (Houston et al. 2012; Lewison 2008; Ophir 2018; You et al. 2017). In a way, journalists constitute crises—and thus contribute to the societal

amplification of risk (Kasperson et al. 1988)—by presenting them as a threat to different parts of society.

Third, our results support assertions that *crisis coverage often concentrates more on what is wrong*, i.e., the threat component, *than on how recipients can deal with threats*, i.e., the efficacy component (Hart and Feldman 2014), something often criticized for the coronavirus crisis (Nerlich and Jaspal 2021; Sowden et al. 2021). Even when journalists include response measures during crises, they more often mention actions by societal actors than actions citizens can take to protect themselves (Ophir 2018; You et al. 2017).

Fourth and last, we find support for temporal patterns in crisis coverage (Lewison 2008; Ungar 1998; Vasterman and Ruigrok 2013): *Coverage shifts from an "alarm" mode where threats are exaggerated to more reassuring coverage*, something that holds for the coronavirus crisis. Thus, crises often become "old", even if their risks persist (Kitzinger 1999), potentially because, at some point, audiences feel fatigue (Groot Kormelink and Klein Gunnewiek 2021).

Overall, we conclude that even during crises as unprecedented as the coronavirus pandemic, journalists rely on similar routines. Coverage of the coronavirus was not entirely "new"—instead journalists, in many aspects, reported on the pandemic as could have been expected based on previous crises. However, readers should also note differences in how journalists covered the coronavirus pandemic compared to previous crises: We found a stronger emphasis both on threats in general (Hart and Feldman 2014) and on non-health threats than research indicated for previous outbreaks of diseases (Lewison 2008; You et al. 2017). In the UK, the crisis was also more strongly "domesticated" than expected given other global crises (Hart and Feldman 2014). We think these differences may be due to the unprecedented nature of the COVID-19 pandemic, which heavily impacted global routines, including those in newsrooms, and our focus on the UK, a country hit hard by COVID-19.

4.3. Perils and Pitfalls of Fear-Inducing Coverage in Crises

Across disciplines, authors have discussed how institutions, including the news media, *should* communicate crises and risks (Kitzinger 1999; Sorribes and Rovira 2011; Vasterman et al. 2008). This extends to the coronavirus crisis (Stolow et al. 2020; Wagner and Reifegerste 2022). Turning to the implications of our results, what are the potential effects of fear-inducing coverage and which functions did journalists fulfill (or neglect) when covering COVID-19?

On the one hand, emotion-inducing content may have had positive effects on managing the crisis: Negative emotional reactions such as fear, which was partly induced by coverage, correlated with information seeking about COVID-19 (Li 2021), belief in accurate information (Freiling et al. 2021), and compliance with recommended behavior (Harper et al. 2020). Thus, fear appeals may have enabled journalists to fulfill their role as *public mobilizers* who warn, educate, and mobilize citizens during crises, including the coronavirus crisis (Klemm et al. 2019; Perreault and Perreault 2021). Moreover, the fact that both societal and individual measures were mentioned, for instance via news on governmental recommendations concerning social distancing, indicates that, to some extent, journalists also acted as *facilitators*: They cooperated with authorities to facilitate crisis management. Some recommend for journalists to fulfill exactly these functions (Sorribes and Rovira 2011). Thus, fear-inducing content does not necessarily indicate systemic dysfunctionalities.

On the other hand, a large strand of research has underlined a lack of effectiveness or adverse consequences of fear appeals (Kok et al. 2018), also for the coronavirus pandemic (Stolow et al. 2020). Negative emotional reactions, including fear, may have amplified the perceived risk of COVID-19 (Breakwell and Jaspal 2020), belief in misinformation (Freiling et al. 2021), or out-group prejudice (van Bavel et al. 2020). Citizens sometimes perceived news media to negatively impact how they coped with the crisis, with some avoiding news in a "corona-fatigue" (Groot Kormelink and Klein Gunnewiek 2021). Thus, fear-inducing content may also have led the audience not to being aware and alerted but to being in a state of shock, which could hamper the implementations of protective measures. Without efficacy information, for example, fear appeals may engage people to do exactly the opposite of

what is advocated (Witte 1992). As such, the high prevalence of fear-inducing content, especially journalists' focus on threats over efficacy and their reliance on fear-inducing language, *also* indicates that journalists did not adhere to key recommendations for how to cover crises: Media should avoid dramatic coverage (Sorribes and Rovira 2011), for instance by not only mentioning threats but also recommendations on how individuals can cope with these to not contribute to the amplification of risk (Vasterman et al. 2008). Ophir (2019, p. 552) states "that the journalistic practice most damaging to crisis and risk communication efforts is communicating health risks without providing efficacy information". Journalists should also not capitalize on an increased reliance on news during crises, for instance by using emotional appeals as clickbait. By relying on fear over facts, journalists thus also partly neglected their role as *neutral disseminator of information*.

Overall, our study underlines that emotions play a pivotal role in crisis communication, including news coverage. However, emotional appeals—including fear-inducing news content—may emerge as a double-edged sword in that they both support and hinder how journalists fulfill key functions during crises (Wagner and Reifegerste 2022): While they enable journalists to mobilize the public and assist in governmental crisis management, they also decrease journalistic focus on facts, which can have detrimental effects on audience reactions. We thus agree with Ribeiro and Schwarzenegger (2022, p. 13) that "media and fear can sometimes be highly functional and beneficial, sometimes disastrous and toxic, but it is always and certainly an ongoing relationship." As such, journalists and authorities alike must carefully consider the degree to which emotional appeals can and should be implemented in crisis communication.

4.4. Limitations and the Road Ahead

Our results should be considered in light of several limitations. While we measured journalistic content assumed to elicit emotions, we did not analyze audience reactions induced by such content. Empirical research on the effectiveness of fear appeals has been inconclusive at best (Kok et al. 2018). While we assume that content we defined as fear-inducing may have elicited emotional reactions, we can neither confirm that this was the case nor which emotional reactions were elicited. Moreover, analyzing fear-inducing content during crises presented somewhat of a challenge: Fear appeals may signal *both* accurate journalistic representations of emerging threats as well as journalistic exaggerations of such threats for commercial goals. Our operationalization includes variables that may capture both (e.g., a focus on threats as a depiction of reality; a focus on fear-inducing language as exaggeration), limiting the degree to which we can evaluate whether journalists used fear in a functional or dysfunctional way. In addition, our sample is limited given that we did not include more left-leaning, highly used news outlets, which were evaluated positively during the crisis (Fletcher et al. 2020). Our results are therefore not generalizable beyond the outlets, the country, and the time we analyzed. Future studies should amplify existing research on emotion-inducing news (Nabi and Prestin 2016) to better understand the actual effects of fear-inducing news. Moreover, they could extend the observation period to understand how coverage changed with subsequent waves of the pandemic.

Despite these limitations, this study contributes to research on journalistic crisis communication and the role of emotional news content not only by providing insights into a specific crisis but also by discussing how this specific case resembles and differs from previous crises and what related coverage can mean for audiences. It thus helps researchers to gain a better understanding of journalistic routines during crises and can serve as a starting point for further research both on the coronavirus pandemic in particular and journalistic crisis communication more broadly.

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