

## **ARTICLE**

Open Access Journal **a** 

# Whom to Trust in Crises? The Influence of Communicator Characteristics in Governmental Crisis Communication

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Submitted: 29 March 2025 Accepted: 8 September 2025 Published: 8 October 2025

Issue: This article is part of the issue "Government Communication on Social Media: Balancing Platforms, Propaganda, and Public Service" edited by Maud Reveilhac (LUT University) and Nic DePaula (SUNY Polytechnic Institute), fully open access at https://doi.org/10.17645/mac.i496

#### **Abstract**

Public sentiment toward government communicators plays a critical role during crises, influencing societal resilience and potentially contributing to broader trust in government. Such sentiment is shaped not only by what is said, but also by who says it. While existing literature on political crisis communication has largely focused on the content of governmental messages, it has overlooked the importance of the messenger. This study addresses that gap by shifting attention from what is communicated to who is communicating. This research explores how the personal characteristics of government communicators relate to public sentiment toward them during crises. To do so, this study matches data on communicators present at government-held press conferences with social media discourse, examining how these communicators are referenced online. Social media platforms serve as vital spaces where citizens communicate about their government's crisis response and thus play an important role in building or undermining public responses. Given their role in shaping public perceptions of government performance, these digital platforms offer an ideal setting to observe sentiment toward communicators during crises. The study analyzes 744,000 posts on Twitter (now X) from six European countries during the early stages of the Covid-19 pandemic using advanced transformer-based classification models. Expressions of positive sentiment are identified through sentiment analysis, capturing affective reactions in user-generated content. The findings indicate that political actors are generally associated with less positive sentiment than experts, who tend to elicit more positive responses. Gender also emerges as a significant factor: During peak crisis periods, women communicators are more likely to be referenced positively on social media. This pattern aligns with prior research on a potential "trust advantage" for women in crisis communication, which has been linked to relational communication traits that are particularly valued in high-stress contexts.

#### **Keywords**

crisis communication; government communication; public perception; social media; sentiment



## 1. Introduction

Global trust in authorities has eroded, driven by widespread skepticism toward social institutions and the rise of an "infodemic"—the pervasive spread of misinformation and disinformation that weakens the credibility of official crisis communications (Ahern & Loh, 2021; Yousefinaghani et al., 2022). Effective leadership and communication are more important than ever as politicians face increasing challenges in conveying guidance during crises like climate change, migration, or pandemics. To foster collective action, communicators must secure positive public sentiment and promote a shared understanding of the situation. Positive sentiment may ultimately contribute to trust, not just as a belief in the reliability or integrity of leaders but as a relational dynamic between leaders and the public. Political leaders are only capable of acting if they hold the approval of the electorate, which is granted or denied not only through elections but also through affective responses such as public sentiment (Wagner-Olfermann, 2022). Against this backdrop, government communication has become both more visible and more vulnerable. In parallel with the digitalization of public life, governments now increasingly use social media as an essential tool for policy announcements, crisis responses, and public engagement. This shift raises critical questions about how governments can build and maintain trust in digital environments that are dynamic, participatory, and often polarized (Novotná et al., 2023).

Governments recognize the crucial role of communication in building and maintaining trust, particularly during crises. Accordingly, they strategically use press conferences and speeches, incorporating a range of actors—scientists, economists, and other experts—who bring diverse perspectives and expertise (Boin et al., 2005). Amid these dynamics, as audiences turn to political press conferences during crises, they increasingly seek additional information on social media, where public discourse shapes perceptions of both the message and the credibility of the messengers. These platforms provide a valuable opportunity to observe affective responses in real time, as individuals collectively interpret and respond to crisis communication and assess the performance of leaders and experts online (Huber et al., 2019). Expressions of sentiment offer insights into how people emotionally evaluate a communicator's credibility, intentions, and competence, which may influence broader perceptions of trust.

Public sentiment toward government communicators plays a key role in how crisis communication is received, yet little research has systematically examined how such sentiment is shaped. While extensive research explores communication strategies employed by governments through message content and delivery, little attention has been given to who delivers the message (Post et al., 2019; Renn & Levine, 1991; Yousefinaghani et al., 2022). However, considering the broader constellation of government communication, previous research suggests the need to expand the focus of crisis leadership from messages to messengers by observing public reactions to those delivering messages. Although the importance of the messenger is acknowledged, there remains a lack of systematic, large-scale empirical analysis focusing specifically on how characteristics such as institutional role and gender relate to public sentiment toward communicators. To address this gap, this study shifts the focus from message content to communicator characteristics. It explores how affective responses to government communicators are expressed during crises, focusing on political press conferences and simultaneous online discussions.

The article argues that individual characteristics, particularly communicators' roles and gender, play a significant role in shaping sentiment towards them. Previous research suggests that experts are generally more likely to elicit positive public reactions than politicians, as they are often viewed as providers of



objective and evidence-based information. In contrast, politicians may be seen as pursuing strategic or political goals, which can undermine how favorably their communication is received by the public (Yousefinaghani et al., 2022). Additionally, studies indicate that women communicators tend to be associated with more relational and empathetic communication styles, which are frequently linked to higher levels of perceived trustworthiness (Post et al., 2019). Accordingly, the study proposes three hypotheses: First, experts are generally expected to be more likely to receive positive sentiment than other communicators; second, politicians and elected officials are expected to be less likely to receive positive sentiment than other communicator types; and third, women communicators are expected to be more likely to be referenced positively than men communicators.

This research examines the composition of press conference panels and the subsequent reactions on social media to assess how online expressions of sentiment vary across different crisis communicators. It specifically investigates which communicator characteristics are associated with positive mentions in online discourse. By analyzing how users emotionally respond to different types of communicators, it offers insights into patterns of sentiment expression in digital discourse that can help inform our understanding of the dynamics underlying trust. Leveraging data from government communications in six European countries (Austria, France, Germany, Italy, Spain, and the United Kingdom) from Hayek et al. (2024) and an original dataset of concurrent online discourse from 744,441 public tweets (now X posts) during the Covid-19 pandemic, this study provides new insights into sentiment in crisis communication and leadership in real-world settings, insights that may help explain how public trust in government takes shape during crises. Using a combination of a dictionary approach and document classification, the research identifies when posts reference government communicators and whether they reference them expressing positive sentiment. This methodological framework enables a systematic assessment of the relationship of communicator roles and gender to affective responses expressed in online discourse.

The results demonstrate that the individual characteristics of communicators are significantly associated with the likelihood of positive references in social media discourse. Communicators in political roles are significantly less likely to elicit positive responses, while experts are more likely to do so. Gender also plays a role, with women communicators being significantly more likely to receive favorable responses, a trend that intensifies as the severity of the crisis increases. This research contributes to the study of sentiment formation toward governments in online discourse by systematically analyzing communicator characteristics and suggesting a shift in focus from messages to messengers, offering insights that may be relevant to understanding how public trust is formed during crises. Additionally, it introduces a methodological framework that matches real-time social media posts with large-scale real-life events, enabling the analysis of public reactions as they unfold.

# 2. Conceptual Framework and Literature Review

Public sentiment toward leaders is an important prerequisite for effectively addressing challenges and crises. Research finds that the resolving of crises hinges on coordinated collective efforts, often involving restrictive measures. Crisis leaders communicate such efforts and rely on public attention to their messages (Boin et al., 2005). Particularly in times of crisis, sentiment towards political actors shapes citizens' willingness to follow official recommendations and support government policies (Goovaerts & Marien, 2020). To that end, governments assemble key personnel from both within and outside the government to lead communication efforts. The composition of communicators in government crisis communication has been found to directly



influence the effectiveness and reception of the message. Research has thoroughly examined how emotional appeals and message framing shape public responses during crises (Lecheler et al., 2013; Tolochko et al., 2019; van Der Meer & Verhoeven, 2014), yet perception is not shaped solely by what is said—it is also shaped by who is saying it. Audience perceptions of a communicator's credibility, expertise, and authority have been found to affect how messages are received and whether they are accepted or rejected (Warren & Lofstedt, 2022; Wynne, 1991).

Research on the Covid-19 pandemic shows that compliance with policies and measures is shaped by perceptions of crisis communicators (Devine et al., 2021), and public support for countermeasures is often linked to trust in the leaders themselves (Ahern & Loh, 2021). The literature on leadership and crisis communication has found that communicators' gender and role influence how they are perceived (Freund & Shomer, 2024; Lehrer et al., 2024; Schnabel et al., 2024; Yarchi & Samuel-Azran, 2018). Importantly, these characteristics don't necessarily need to be reflected in the communicator's message. Rather, sentiment towards communicators often stems more from who they are than from what they say.

Recent research supports this, showing that individual characteristics do not significantly affect how communicators deliver their messages, thus making characteristics more relevant to audience perception (Dingler et al., 2024). During crises, the leadership typically consists of government officials and politicians responsible for managing the situation. Governments also frequently involve experts, such as researchers or practitioners, who provide specialized knowledge about the crisis. In addition, representatives from related organizations, the economy, or civil service are sometimes included. However, politicians and experts remain the most prominent communicators. In terms of the gender of communicators, research finds that women are underrepresented (Wegner, 2025). Understanding how communicators' characteristics shape sentiment is crucial for effective crisis leadership.

Sentiment plays a central role in crisis communication because affective reactions to communicators can influence how the public engages with government efforts. While sentiment is not equivalent to trust, it may contribute to the erosion of trust over time, especially in high-stakes contexts that demand public cooperation. Supportive and approving sentiment may suggest affective alignment with trust, while critical and hostile expressions may reflect orientations consistent with distrust (Mohammad & Turney, 2013). Understanding how these affective responses emerge is especially relevant in crisis situations, where emotional reactions can shape broader political perceptions.

Trust is a broader and more complex construct than sentiment. It involves expectations that political actors or institutions will behave in line with established norms and expectations (Goovaerts & Marien, 2020). Conceptually, trust is inherently relational; it requires a willingness to accept vulnerability towards another individual, group, or institution that has the capacity to either fulfill or betray that trust (Levi & Stoker, 2000). Political trust refers to a citizen's belief in the integrity, competence, and benevolence of political actors or institutions, whereas distrust reflects skepticism and the perception that these actors are self-serving or unreliable (Citrin & Stoker, 2018). Trust is rarely unconditional (Levi & Stoker, 2000); it is granted selectively and often within specific domains. For instance, citizens may trust their government to protect them during crises but remain skeptical of bureaucratic institutions in routine policymaking. Trust encompasses cognitive, behavioral, and affective components: While trust fosters cooperation and acceptance of political decisions, distrust can lead to vigilance, resistance, or disengagement from political processes (Levi & Stoker, 2000).



While this study does not directly measure trust, it focuses on the affective expressions of social media users responding to crisis communicators, as prior work shows that these expressions, captured through sentiment analysis, can shape perceptions of trustworthiness (Bertsou, 2019; Jennings et al., 2021).

Affective responses, such as expressions of sentiment, are particularly relevant in the context of social media discourse. Platforms like Twitter are designed to facilitate rapid, spontaneous expressions in social environments, making them well-suited to capturing emotional reactions (Calefato et al., 2015). In contrast, cognitive trust, based on evaluations of competence, reliability, or responsibility, involves more deliberative reasoning, which is less likely to be conveyed in short-form social media posts (Calefato et al., 2015; Granatyr et al., 2017).

These dynamics position sentiment as a meaningful lens through which to observe how government communicators are emotionally evaluated in online discourse. Expressions of positive sentiment can reflect support, appreciation, or confidence. Research has drawn connections between such affective expressions and broader evaluative attitudes. For example, Yousefinaghani et al. (2022) treat language of appreciation, empathy, or respect in tweets as indicative of favorable orientations toward public figures. Alsaid et al. (2023) further suggest that linguistic cues in text may more directly reflect emotional responses than behavioral signs, which can be strategic or ambiguous.

When crises strike, political leaders are at the forefront, making key decisions, communicating, and holding ultimate authority over government action. They are held accountable for the quality of these decisions (Schnabel et al., 2024). However, previous literature presents mixed findings on how that affects public evaluations. On the one hand, their exposed role is found to enhance public support (Wagner-Olfermann, 2022). A well-documented empirical pattern in the perception of political leadership is the "rally effect," whereby the public tends to unite behind the incumbent leadership during times of crisis as the sense of threat often boosts approval of the leader (Lehrer et al., 2024; Schnabel et al., 2024).

Yet, despite evidence that public sentiment toward politicians can improve during certain phases of a crisis, studies suggest this effect to be temporary (Eisele, Litvyak, et al., 2022) and reveal contrasting longer-term patterns. Politicians may face underlying public skepticism, as they are often seen as being driven by political motives rather than genuine concern for public safety, particularly in contrast to communicators in other roles (Yousefinaghani et al., 2022). Therefore, hypothesis 1 states:

H1: During times of crisis, public social media posts are less likely to express positive sentiment toward politicians compared to other communicators.

Research presents varied findings on public sentiment towards experts during crises, particularly in the context of social media use for information-seeking and discussion. On the one hand, social media news use has been positively associated with confidence in science, primarily by expanding and diversifying users' information networks (Huber et al., 2019). On the other hand, public debates around scientific issues such as climate change and the Covid-19 pandemic have also fueled skepticism towards scientists (Eberl et al., 2023). In this context, science-related populist attitudes, marked by distrust of a perceived immoral academic elite, have gained traction and are strongly associated with the broader rejection of science (Eberl et al., 2023; Mede et al., 2021). Individuals who hold these views are especially active on social media platforms (Mede et al., 2023).



Despite these trends, experts are generally evaluated more positively than political figures during crises, as their communication is seen as more accurate and effective in managing risks (Yousefinaghani et al., 2022). Unlike politicians, experts, such as scientists or bureaucrats, are expected to provide rational explanations and legitimize the inherent uncertainty of scientific assessments during crises. Their motivation is often perceived as rooted in objectivity and public service rather than strategic political gain (Dingler et al., 2024; Warren & Lofstedt, 2022). As a result, they are seen as objective and competent, two core dimensions of trust (Renn & Levine, 1991). Therefore, hypothesis 2 states:

H2: During times of crisis, public social media posts are more likely to express positive sentiment toward experts compared to politicians and other communicators.

A substantial body of literature also addresses gendered expectations in crisis communication and leadership. It finds that, based on societal expectations and gendered stereotypes, women are expected to exhibit communal and kind attributes, which are not regarded as stereotypically male. Because leadership is often associated with stereotypically male attributes, this misalignment can disadvantage women in leadership positions (Freund & Shomer, 2024; Koenig et al., 2011; Yarchi & Samuel-Azran, 2018). While these gendered stereotypes and associated expectations disadvantage women in leadership roles in non-crisis times, they might give women a trust advantage in times of crisis (Post et al., 2019). Women communicators are often associated with a relational style of communication, emphasizing compassion and empathy in delivering crisis-related information and instructions (Sergent & Stajkovic, 2020; Yousefinaghani et al., 2022). Such relational communication traits foster more positive evaluations and are associated with greater trust, which in turn can enhance compliance with rules and guidelines (Post et al., 2019). Research also shows that women enhance perceived effectiveness by optimizing team performance (Eagly & Johnson, 1990; Freund & Shomer, 2024) and use fewer appeals to threat in their messaging (Dingler et al., 2024). These characteristics may contribute to more positive affective reactions for women in crisis communication, including on social media. Indeed, studies show that posts by women on social media platforms create higher levels of engagement (McGregor & Mourão, 2016; Yarchi & Samuel-Azran, 2018), although others highlight gendered backlash when social media users reply to crisis communicators, with offensive language being used more frequently in replies to women (Yousefinaghani et al., 2022). Hypothesis 3a states as follows:

H3a: During times of crisis, public social media posts are more likely to express positive sentiment toward women communicators compared to men communicators.

Recent research links observed gendered leadership advantages during crises to the experience of crisis-related damages and the resulting demand for specific leadership traits. Building on this, research on crisis leadership argues that the gendered leadership effect is context-dependent and particularly salient during crises (Freund & Shomer, 2024; Yousefinaghani et al., 2022). Relational behavior, such as showing compassion and managing the emotions of others, is a critical mechanism for building and restoring positive sentiment in crises. This behavior constitutes a form of interpersonal emotion management that underlies the observed trust advantage associated with female leadership. Crises are emotionally intense events characterized by uncertainty and relational disruption, making the ability to anticipate and respond to others' emotional needs more salient, specifically when anticipating people's threat perceptions. As crisis severity and damages increase, so do perceived threats, which in turn amplify the relevance of relational leadership traits (Post et al., 2019).



Therefore, research suggests that this gendered leadership advantage may become more pronounced as crisis severity increases and damages become more pronounced. Findings suggest that while people generally expect assertiveness and decisiveness from their leaders, in times of crisis they also seek compassion, care, and support, qualities often associated with women due to gender stereotypes. While Windsor et al. (2020) find no significant differences in Covid-19 outcomes between male- and female-led countries, Freund and Shomer (2024) identified a performance gap favoring women under high-stakes conditions, attributing this to more favorable public perceptions female leaders receive in such contexts, leading to people being more willing to adhere to countermeasures. As damage accumulates and public needs for reassurance grow, the relational and compassionate traits stereotypically associated with women may become increasingly valuable. Accordingly, hypothesis 3b states:

H3b: As damages occurring from a crisis increase, public social media posts are more likely to express positive sentiment toward women communicators.

# 3. Study Design

#### 3.1. Document Selection

The Covid-19 pandemic has demonstrated its significance as an important context for investigating the relationship between government communication and online discourse during crises. With people resorting to digital communication channels, online platforms have become central for disseminating and receiving crisis-related information (London & Matthews, 2022; Perez-Cepeda & Arias-Bolzmann, 2022; Wang et al., 2021). The dynamic nature of the pandemic allows for a real-time analysis of government messaging and the corresponding online commentary it generates. Additionally, the scale of the pandemic provides an opportunity to comparatively examine variations in government communicators and their reception within diverse online communities (Eisele, Tolochko, & Boomgaarden, 2022).

Therefore, to test the hypotheses, this article investigates the constellation of communicators in government crisis communication and corresponding online discourse in six European countries: Austria, France, Germany, Italy, Spain, and the United Kingdom. The selection of countries is guided by both theoretical and empirical considerations. Limiting the sample to European countries ensures comparability in terms of institutional and socioeconomic structures, factors that shape both governmental crisis responses and patterns of public engagement. Moreover, focusing on a geographically contained region enhances the comparability of the crisis itself. While the Covid-19 pandemic was a global phenomenon, its timing and spread varied across regions. At the same time, the selected countries offer variation in dimensions central to this study, including the severity of the pandemic's impact and pre-existing levels of public trust in government and science. This combination of structural comparability and contextual diversity enables a robust examination of how characteristics of government communicators shape public perceptions during crises.

Two types of data were collected for this study: To analyze the communication setups of governments, this study looks into the communicators at press conferences delivered by governments during the initial phase of the Covid-19 pandemic, these being governments' preferred means of communication during times of crisis (Ekström & Eriksson, 2018). Leaders typically communicate their decisions through public statements like press releases and press conferences. In doing so, they demonstrate their grasp of the crisis and its societal impacts,



helping to shape the public's understanding of the situation and garner support for their policies (Boin et al., 2005). For each country, the sampling period extends from the first public address concerning Covid-19 to the announcement of the relaxation of restrictive measures implemented to curb the virus for the first time (see Table A9 in the Supplementary File).

Data on communicator information are derived from Hayek et al. (2024) and, after adaptation to the countries under study in this article, the data consist of a total of 285 press conferences and televised addresses that were conducted during the initial phase of the pandemic, spanning from January to July 2020. Each press conference is segmented according to the presence of different communicators. Each segment is attributed to its respective communicator, resulting in a total of 150 different actors delivering speeches who serve as identifiers for linking press conferences to social media references. Additionally, information was included in the final dataset for each day a press conference was held, such as the number of Covid-19-related deaths, the day of the week, and the number of days that had passed since the first press conference, as well as biographical data on the communicators, such as role and gender.

Politicians made up the largest group of communicators in all countries, typically ministers and heads of government, reflecting the political significance of the crisis. While most countries also included non-political figures, the composition of speaker groups varied. Austria featured the most diverse set of speakers, including not only politicians but also representatives from the economic sector, religious figures, and public administrators, with 53 individual communicators in total. In contrast, countries like Germany, France, and Italy relied on a smaller number of speakers, drawn mainly from politics and the civil service. The United Kingdom stood out for involving a nearly equal number of politicians and experts, many with public health or scientific backgrounds. Gender representation was generally imbalanced: Out of all 150 communicators, only 47 were women. Spain came closest to gender parity (17 out of 39), while Austria and Germany had notably low women's representation.

Secondly, to test how communicators are referenced in online discourse, an initial dataset of 744,441 public posts to the platform Twitter was collected. The data were extracted based on the mention of specific keywords for a specified time period that corresponds to the time frame of press conferences for each country, using the Twitter API via the OAuth 2.0 Bearer Token access in R. The data usage terms and conditions outlined by Twitter were carefully followed, and since the tweets collected for the study were from the public domain, no additional ethical approval was necessary.

The initial data consist of tweets posted by a total of 175,794 public accounts in all six countries under study across the first wave of the Covid-19 pandemic, that is, from January to July 2020. The criterion for including posts was the presence of at least one specified keyword. The keywords were selected individually for each country by gathering the most searched terms through Google's search engine at any given point in time and manually selecting those connected to the Covid-19 pandemic, which allows for a context-specific query of tweets for each country, taking into account country-specific terminology (the full list of search terms is provided in A12 in the Supplementary File). Health-related Google search data have proven to be a reliable predictor of people's experiences (Senecal et al., 2021; Yuan et al., 2021), making the data well-suited for generating meaningful keywords to identify related online discourse. Each extracted tweet was associated with a specific press conference based on the posting date and the country of origin. Tweets were composed mainly in English (47.7%), followed by Spanish (18.6%), French (15.7%), Italian (13.6%), and German (4.4%).



For the pre-processing of Twitter data, this article employs common methods used for handling social media data (Jain et al., 2021). The original tweets comprise various elements, including words, punctuation, URLs, and usernames. Before analyzing the tweets, the text data were cleansed by eliminating all components irrelevant to this study. The initial data cleansing involves removing URLs, hashtags, emoticons, punctuation marks, symbols, and numbers, as well as converting all text to lowercase.

# 3.2. Dependent Variable: Sentiment in Public Tweets

To construct the final dataset, tweets were filtered to identify those mentioning communicators present at the press conferences with a combination of automated and manual search, leaving a final dataset of 12,718 tweets. To this end, a dictionary was developed containing all names of communicators appearing at any of the press conferences held by governments. The detection of names based on the dictionary was conducted in multiple steps in order to increase accuracy. First, all last names were compiled and used as search terms. When certain last names were ambiguous—such as those also functioning as common words—these cases were manually reviewed. For these instances, supplementary lists of search terms were created, incorporating first names and the communicators' roles. To ensure that tweets mentioning communicators with ambiguous last names were correctly attributed, they had to include at least one of these additional search terms. Overall, 93 communicators were identified as being referenced in public tweets.

To examine how affective responses toward these communicators are expressed in tweets, this study employs an advanced text-as-data approach to analyze a large corpus of user-generated content. The analysis focuses on sentiment both as an observable indicator of how government communicators are evaluated in online discourse and as an attitudinal disposition with a strong emotional component that may speak to broader concepts such as trust (Bertsou, 2019; Jennings et al., 2021). While sentiment is not equivalent to trust, it may reflect the emotional orientations that often accompany trust in political and crisis contexts.

This study uses sentiment analysis to identify expressions of appreciation, support, or confidence that often align with positive orientations toward a communicator, while expressions of criticism or hostility reflect negative evaluations. For sentiment classification—categorizing tweets as positive, negative, or neutral—this research utilizes XLM-RoBERTa, a transformer-based model designed for multilingual text analysis (Conneau et al., 2019). XLM-RoBERTa is pre-trained on extensive unlabeled multilingual text, providing a robust syntactic and semantic understanding of language. Given its superior ability to grasp lexical context, XLM-RoBERTa consistently outperforms other machine-learning models in text classification tasks. This study relies on the XLM-RoBERTa model fine-tuned by Barbieri et al. (2022) and Camacho-Collados et al. (2022). Their version of the model was trained on a dataset of more than 24,000 tweets and is applied here to the unlabeled tweet data. This finetuned model classifies each tweet into one of the predefined sentiment categories: positive, negative, or neutral.

The sentiment probabilities generated by the model for each tweet are recorded. To quantify the overall sentiment, these probabilities are weighted by assigning -1 to negative, 0 to neutral, and +1 to positive classifications. This produces a continuous sentiment score ranging from -1 to +1, which reflects the tweet's overall position on the sentiment scale by integrating all three class probabilities. To construct the binary outcome used for the analysis, each tweet is classified as positive if the resulting score is greater than 0, and as non-positive otherwise (i.e., if the score is 0 or negative). The binary outcome thus captures



the likelihood that a tweet expresses a positive affective response toward a government communicator. To illustrate how sentiment was expressed in the analyzed tweets, Table A1 in the Supplementary File presents representative examples. To assess the validity of this operationalization, a validation procedure was conducted comparing model classifications to a manually annotated sample of tweets. The classifier performs well, particularly in distinguishing between positively and negatively valenced content (see Tables A2 and A3 in the Supplementary File).

The following tweet illustrates how a positive affective response is expressed toward speaker Rishi Sunak: "Rishi Sunak is seriously impressive in incredibly uncharted waters hes been unwavering composed and reassuring the next pm." This tweet conveys emotional approval and confidence in Sunak's leadership during a crisis. Terms such as "seriously impressive," "unwavering," "composed," and "reassuring" highlight perceived competence and calmness, signaling confidence in his ability to lead effectively. The sentiment is clearly directed at Rishi Sunak as an individual communicator. In contrast, tweets that are purely informative were coded as neutral and therefore not as containing affective responses. The following tweet illustrates this: "Miguel Ángel Villarroya, Chief of the Defense Staff, begins his speech by saying that today is Monday because in war, there are no Saturdays or weekends, every day is Monday." This message reports information without emotional evaluation or approval and was not classified as containing positive sentiment. For additional examples and detailed descriptions, see Table A13 in the Supplementary File.

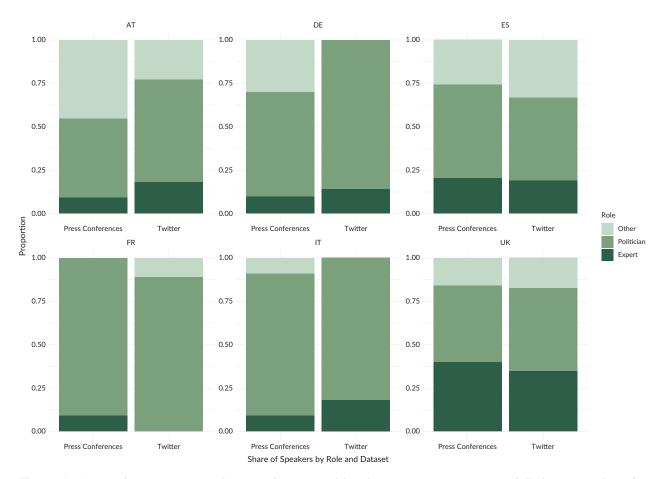
# 3.3. Independent Variables: Communicator Characteristics

The key independent variables are the role and gender of communicators involved in government press conferences. Each communicator was coded for gender (women or man) and role, as politician (for example, ministers), as expert (for example, virologists, nurses), or as other (for example, representatives of the companies related to the crisis, such as those providing communication infrastructure). While the "politician" and "expert" categories reflect consistently visible groups in crisis communication, the "other" category captures a more diverse set of communicators whose involvement varies by country and crisis. This group includes individuals who do not occupy formal political office or domain-specific expert roles but still contribute to the government communication events. This group of "other communicators" acts as the reference group in the models, allowing for the estimation of differences in responses to the communicator roles of "politician" and "expert." Thus, in the dataset, every tweet is associated with a communicator identified by gender (woman or man) and by role (politician, expert, other). Control variables include the number of weekly Covid-19 deaths per 100,000 in every country (World Health Organization, 2023), capturing the number of Covid-related deaths that occurred matched to the calendar week in which each tweet was posted. Additionally, controls include the share of citizens who expressed trust in scientists in 2020 (Wellcome, 2020), the share who trusted the government in 2019 in each country (Organisation for Economic Co-operation and Development, 2025, indicator: "Trust in government"), the number of days since the first press conference was held in each country, and the share of women in national parliaments in 2020 (Organisation for Economic Co-operation and Development, 2025, indicator: "Women in politics"). Some of these contextual indicators refer to periods prior to or slightly beyond the crisis onset and are used to approximate baseline attitudes and structural conditions.



## 4. Results

Before examining the relationship of gender and communicator roles to affective responses in social media posts, it is essential to analyze how these characteristics appear in both press conferences and social media posts. Descriptive statistics reveal that across all countries studied, politicians and experts are the most frequently referenced roles, indicating a strong public focus on these communicators. Politicians are overrepresented in social media posts when compared to their actual appearance in press conferences (see Figure 1 for a detailed overview of communicator constellations in press conferences and their references on Twitter). Notably, in Germany and Italy, only politicians and experts were referenced in tweets, despite their representation in press conferences being 60% and 18%, respectively. In most countries, both roles were referenced more frequently in tweets than their actual appearance in press conferences, although in France, tweets did not reference experts at all. The governments in both France and Italy had the lowest proportions of experts present at press conferences, at nearly 9%.

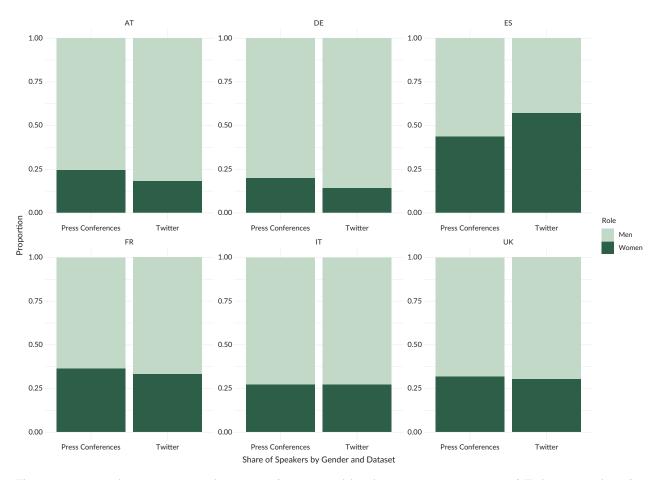


**Figure 1.** Comparison of communicator role composition in press conferences and Twitter mentions by country.

When examining the gender distribution of communicators in press conferences and their mentions in tweets, women communicators remain a minority across all countries in the sample. This is in line with recent findings on the representation of women in crisis leadership (Wegner, 2025). Women comprised approximately 32% of communicators at press conferences, a figure that mirrors their overall representation in referenced tweets (see Figure 2). In most countries, the share of women mentioned in tweets corresponds



closely to their presence at press conferences. However, Spain presents an interesting case: Although women made up 44% of communicators, they accounted for 57% of the references in tweets, indicating a higher visibility in social media discourse.



**Figure 2.** Comparison of communicator gender composition in press conferences and Twitter mentions by country.

A deeper analysis of the volume of speech delivered by men and women communicators reveals a more nuanced picture. In several countries, the share of women communicators does not correspond with the share of content they delivered, which is often higher. For instance, in Germany, women constituted 20% of communicators but were responsible for 48% of the content, while in France, they made up about 37% of communicators but accounted for 46% of content.

Addressing the hypotheses, Table 1 shows the results of two mixed-effects logistic regression models, with the outcome variable modeled as a binary response and random effects for countries of origin. The intra-cluster correlation (ICC) suggests that a multilevel mixed-effects model is more appropriate than a linear regression without random effects. In model 1, 23% of the variance is attributed to differences between countries, while the remaining 77% stems from individual-level variation or other unexplained factors. In model 2, the ICC is lower, with only 10% of the variance explained at the country level and the remaining 90% being due to individual-level variation or other unexplained factors. Despite the lower ICC in model 2, the main independent variables remain significant when estimated using a standard linear regression without random effects (see Table A4 in the Supplementary File). The dependent variable in both models is binary, indicating whether a



tweet was classified as expressing positive sentiment (1) or not (0). All continuous independent variables were standardized to a mean of zero and a standard deviation of 1. Both models include a random intercept for the communicator's country to account for unobserved country-level differences.

**Table 1.** Mixed-effects logistic regression models.

	Dependent variable: Positive sentiment			
	Model 1		Model 2	
	Odds Ratio	95% CI	Odds Ratio	95% CI
Role (politician)	0.586***	[0.407, 0.843]		
Role (expert)	1.523*	[0.994, 2.332]		
Trust in scientists	0.934	[0.807, 1.080]		
Gender (women)			1.520***	[1.227, 1.882]
Deaths weekly	1.134***	[1.049, 1.226]	1.085*	[0.999, 1.178]
Days since first presscon	1.022	[0.948, 1.102]	1.023	[0.948, 1.103]
Gender (women): Deaths weekly Trust in gov	1.076	[0.947, 1.222]	1.259** 1.016	[1.053, 1.505] [0.912, 1.130]
Women in parliament			0.886	[0.766, 1.024]
Constant	0.124***	[0.068, 0.222]	0.080***	[0.058, 0.110]
Observations	12,718		12,718	
Akaike Information Criterion	6,811.623		6,838.503	
ICC	0.2345503		0.09865835	

Notes: \* p < 0.1; \*\* p < 0.05; \*\*\* p < 0.01; both models significantly improve upon their respective null models (Model 1:  $\chi^2(6) = 68.33$ , p < 0.001; Model 2:  $\chi^2(6) = 41.44$ , p < 0.001).

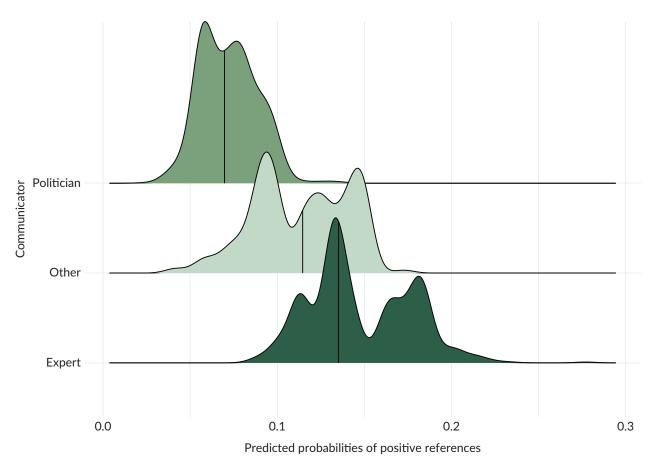
Model 1 focuses on the role of communicators, testing whether positive valence varies depending on whether the communicator is a politician, an expert, or another type of communicator. The key independent variable is the communicator's role (coded as 0 = other, 1 = politician, 2 = expert). Hypothesis 1 predicted that social media posts referencing communicators in political roles would be less likely to express positive sentiment compared to other communicators, based on prior findings that political actors may be perceived as driven by political motives rather than public concern. The results support this hypothesis: Tweets referencing politicians are significantly less likely to express positive sentiment compared to those referencing other types of communicators. Specifically, the odds of positive expressions are about 41% lower when the referenced communicator is a politician (odds ratio = 0.586, p < 0.01). Considering all the tweets in the sample, if one of these tweets names a speaker that is not a politician or expert and another tweet names a politician, the second tweet is substantially less likely to reference the speaker favorably.

Hypothesis 2 expected that social media posts referencing communicators in expert roles would be more likely to express positive sentiment, based on research suggesting that experts are perceived as more objective and competent. The results support this hypothesis: Social media posts referencing expert communicators are significantly more likely to express positive valence compared to those referencing other types of communicators. Specifically, the odds of positive sentiment are about 52% higher when the referenced communicator is an expert (odds ratio = 1.523, p < 0.1). Considering all the tweets in the sample, if one tweet mentions a speaker who is neither a politician nor an expert, and another tweet mentions an



expert, the latter is more likely to be favorable toward that speaker. This difference reflects a noticeable increase in the odds of positive expressions when the communicator is an expert.

Beyond communicator roles, the findings suggest that preexisting trust in government and in scientists are not significantly associated with affective expressions in social media posts. Neither is the number of days passed since the first press conference, indicating that there is no change over time. However, the severity of the crisis does play a role. The number of Covid-19-related deaths is positively and significantly associated with positive expressions towards communicators (odds ratio = 1.134, p < 0.01), indicating that as the crisis intensifies, people discussed them more favorably. Overall, tweets referencing politicians were less likely to contain favorable expressions compared to non-politician and non-expert communicators. Conversely, experts were more frequently associated with positive expressions. This finding supports hypotheses 1 and 2. Figure 3 illustrates the distribution of predicted probabilities that a tweet expresses positive sentiment, based on the logistic regression model. The plot compares these predicted probabilities across communicator roles: politician, expert, and other. The predicted probability of positive expressions is lowest in tweets referencing politicians, and highest for those referencing experts. Tweets mentioning other communicators occupy an intermediate position between these two groups.

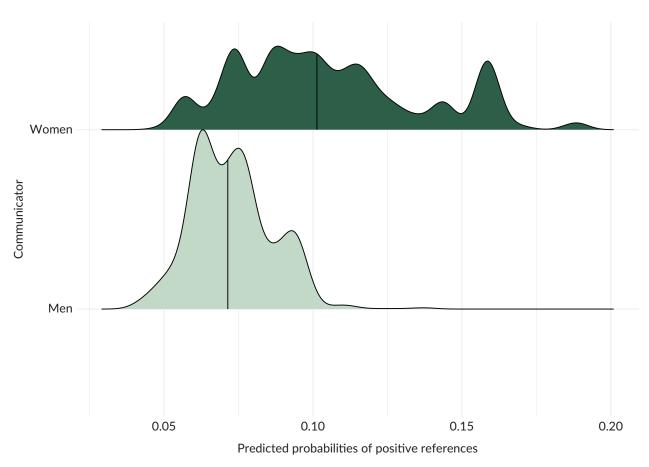


**Figure 3.** Likelihood of positive expressions in tweets towards communicator roles. Predicted probabilities are generated for each tweet using the estimates of model 1 and represent the likelihood, on a scale from 0 to 1, that a given tweet contains positive sentiment toward the speaker. Density curves illustrate how positive expressions are more or less likely depending on who communicates in the press conference. The x-axis reflects the predicted probability of positive expressions and the y-axis lists the communicator role categories.



Model 2 in Table 1 assesses the relationship between the communicator's gender and positive affective responses, including whether gender interacts with the severity of the crisis. The key independent variable is communicator gender (coded as 0 = man, 1 = woman). An interaction term between communicator gender and weekly deaths tests whether the effect of gender on positive sentiment toward the communicator varies with the severity of the crisis. Hypothesis 3a posits that posts referencing women communicators would be more likely to express positive sentiment compared to those referencing men communicators. The results support this hypothesis: Social media posts that mention women communicators are about 1.5 times more likely to express positive sentiment than those that mention men communicators (odds ratio = 1.52, p < 0.01). In other words, the odds of a post expressing positive sentiment are 52% higher when a woman communicator is referenced, holding other factors constant. Figure 4 presents the distribution of predicted probabilities that any tweet expresses positive sentiment by communicator gender.

Beyond this direct effect, hypothesis 3b draws on the notion of a gendered trust advantage, suggesting that favorable sentiment toward women communicators would increase as crisis severity intensified. To test this, the model includes an interaction between communicator gender and crisis severity, measured by weekly Covid-related deaths. The results show that as the severity of the crisis increases, the gender effect

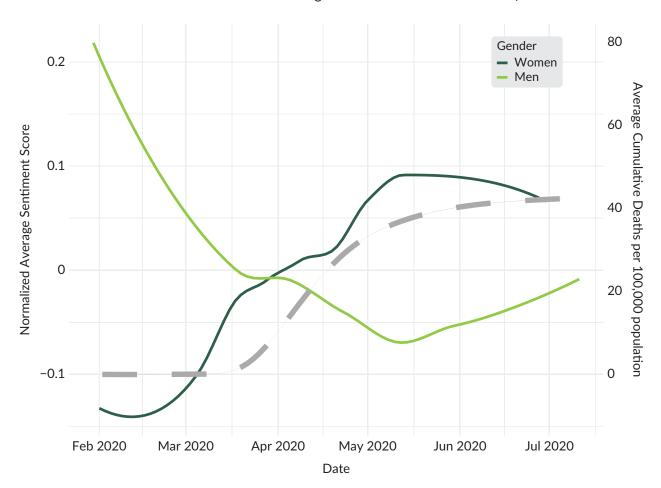


**Figure 4.** Likelihood of positive expressions in tweets towards communicator gender. The predicted probabilities are derived from the estimates of model 2 and represent the model-estimated likelihood that each tweet expresses positive sentiment, given the characteristics of the communicator and contextual controls. Density curves compare the distributions for men and women communicators. The x-axis shows the predicted probability of positive expressions, while the y-axis separates the distribution by gender.



becomes stronger: For each one standard deviation increase in weekly Covid-related deaths, the odds that a post referencing a woman expresses positive sentiment increase by 26% compared to a post referencing a man (odds ratio = 1.259, p < 0.01). The model also controls for the time elapsed since the first Covid-related press conference, which does not yield a significant effect. This suggests that the effect of crisis severity on favorable expressions is not merely a function of time progression. Additionally, the model includes the proportion of women in national parliaments as a control variable, which does not show a significant effect. When tested for the interaction of communicator role and gender, the models did not yield any significant effects and were therefore excluded from the final model (see Table A8 in the Supplementary File).

Observing trends over the course of the pandemic reveals that affective patterns in tweets shifted as the crisis progressed and its impacts became more evident. Initially, men communicators received stronger positive expressions while the public remained relatively unaffected, whereas women communicators faced more negative expressions. As damage reports, such as rising death rates, became apparent, positive sentiment towards women increased, while sentiment toward men steadily declined. During periods of peak mortality, tweets were more likely to express positive sentiment toward women than men. However, as the pandemic came under control and the initial wave subsided, the advantage for women did not persist, as discussions increasingly favored men again (see Figure 5 for a comparison of positive expression toward men and women communicators in contrast to increasing numbers of Covid-related deaths).



**Figure 5.** Average affective responses toward men and women communicators and cumulative Covid-related deaths.



## 5. Discussion and Conclusions

The findings of this study provide valuable insights into the role of communicators in shaping affective responses, which may inform our understanding of broader trust formation in government communication, particularly during crises. By focusing on expressions of sentiment in online discourse, the study examines how public evaluations, whether supportive or critical, are tied to the characteristics of those delivering crisis communication. Sentiment, understood here as an affective response expressed through language, plays a particularly important role in digital environments where communication is rapid, spontaneous, and often emotionally charged. While positive sentiment is not equivalent to trust, prior research suggests that such affective expressions may contribute to broader evaluations of communicators, including orientations that influence trust over time (Alsaid et al., 2023; Bertsou, 2019; Jennings et al., 2021).

During crises, social media platforms often serve as key arenas of discourse, where users rarely elaborate on the reason for their evaluations but instead respond spontaneously. This makes affective expressions a critical lens for understanding how communicator perceptions evolve during crises. This approach also enables a large-scale, real-time analysis of how citizens express favorable or skeptical orientations toward government communicators in everyday political discourse. While the Covid-19 pandemic serves as the focal case study, the results highlight broader patterns applicable to future crises, such as natural disasters, economic shocks, and public health emergencies.

First, the study reinforces the importance of combining expert and political communication during crises. The findings on affective expressions on Twitter are consistent with the longstanding view that experts, particularly scientists and health professionals, are more likely to be perceived favorably than politicians when speaking on behalf of a government, especially in times of crisis. One possible explanation, in line with earlier work, is that experts are often perceived as neutral and evidence-based, presenting information seen as objective and free from political motives. In contrast, research suggests that politicians may be perceived as less trustworthy due to assumptions about self-serving or politically strategic behavior (Yousefinaghani et al., 2022). This study therefore does not confirm what other scholars have termed the "rally effect" (Lehrer et al., 2024; Schnabel et al., 2024) when the public rallies behind the incumbent leaders. However, there is an ongoing debate on this effect and how long it lasts. Future research could explore more fine-grained phases of crises to better understand how sentiment toward politicians develops.

Second, the study suggests that gender relates to how communicators are discussed in social media contexts. Women communicators, though underrepresented at press conferences (Wegner, 2025), appear to be more likely to evoke positive affective responses as crises intensify. This is consistent with findings by prior research on broader societal expectations that associate women with empathy, care, and relational communication styles—traits that may be particularly valued in high-stress situations (Post et al., 2019; Sergent & Stajkovic, 2020). This trend is consistent with what some scholars have called a "trust advantage" for women in leadership, though this study captures affective responses rather than trust itself. This suggests that affective responses toward crisis communicators are shaped not only by the characteristics and stereotypes associated with gender but also by the evolving context of the crisis and the public's needs. Governments might consider diversifying speaker roles, particularly during critical phases, and expanding women communicators' roles to boost public support by leveraging relational qualities in times of uncertainty.



Third, as governments navigate future crises, managing public perceptions on social media is essential. Online platforms can both enhance and undermine confidence in authorities, making it critical for governments to monitor these platforms closely and engage with users proactively. Platforms like X provide real-time feedback loops that can amplify or erode confidence depending on how communicators are perceived, highlighting the need for adaptable messaging strategies. The public's immediate reaction to press conferences, as observed in this study, illustrate how social media reflects collective interpretations of government communication. This dynamic makes social media not only a strategic tool for governments but also a valuable resource for studying public sentiment patterns in real time, offering insights that can inform more effective crisis communication.

Trust in information sources is a cornerstone of democratic legitimacy, as democracies rely on informed and engaged citizens. Yet, this trust is increasingly challenged by transformations in media use: Digitalization, information abundance, and the proliferation of diverse media have reshaped how people access information (Shehata & Strömbäck, 2022; Splendore et al., 2024). In this shifting landscape, governments take on a dual role, not only as political actors but also as key sources of information, especially during challenging times that demand timely guidance. This study contributes to understanding what happens when governments step into this informational role, particularly on social media, and how public affective responses vary depending on who delivers the message.

That experts and women communicators tend to be referenced more positively, while politicians receive less favorable evaluations, underscores the importance of messenger characteristics in shaping perceptions of credibility. For governments, this highlights the importance of diversifying and strategically composing communication teams—not just what is said, but who says it matters. As routine communication increasingly blends with polarized contexts online, aligning messenger strategies with public expectations becomes crucial for maintaining democratic legitimacy. By understanding how expertise, political leadership, and gender dynamics intersect in government communication, governments can design more effective strategies to build and maintain support in challenging times.

Despite these contributions, the study has several limitations. First, while this study investigates sentiment as an affective expression, potentially related to broader trust formation, this operationalization captures only a narrow aspect of the complex trust construct. Although sentiment analysis enables scalable, real-time insights, it does not reflect the cognitive or behavioral components of trust. Nonetheless, the observed correlation between emotional expressions and trust (Bertsou, 2019; Jennings et al., 2021) supports this approach as a meaningful, though partial, window into public orientations. Future research could integrate survey, experiment, or interview-based methods to examine how emotional responses on social media relate to deeper trust orientations.

Second, the rapidly evolving nature of social media platforms suggests that future studies should examine how changes in platform algorithms and user behavior influence public sentiment and perceived communicator credibility. It is important to note that affective expressions on social media reflect the views of specific user groups rather than the general population, as social media platforms tend to attract particular demographics and may not provide a representative sample of the broader public.

Third, while this study focuses on roles and speaker characteristics, particularly political versus expert identity and gender, future work could explore in more detail how individual speakers, beyond their roles,



shape sentiment. The data examined in this study includes a wide variety of actors, from high-ranking politicians and public health officials to religious leaders and private-sector representatives. These distinctions suggest different symbolic functions that could yield further insights into how communicative authority is constructed during crises.

Lastly, future research could examine how the linguistic framing of crisis messages, both by governments and the public, interacts with messenger characteristics to influence sentiment and trust. Exploring how language, emotion, and perceived authority intersect may deepen the understanding of how trust is formed and maintained in digitally mediated crisis communication.

#### **Acknowledgments**

I want to thank the anonymous reviewers and the academic editors for their constructive and thoughtful feedback and their engagement in improving the article. I also thank my project team at the University of Innsbruck, as well as Fiona Nordone, for her support in coding.

# **Funding**

This research was funded in whole by the Austrian Science Fund (FWF) 10.55776/P34225. Publication of this article in open access was made possible through the institutional membership agreement between the University of Innsbruck and Cogitatio Press.

#### **Conflict of Interests**

The author declares no conflict of interests.

#### **Data Availability**

The data on press conferences are available at Hayek et al. (2024). Additional materials and replication data can be requested from the author.

#### **LLMs Disclosure**

ChatGPT was used for language editing purposes.

## **Supplementary Material**

Supplementary material for this article is available online in the format provided by the author (unedited).

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## **About the Author**



Christian Schwaderer is a PhD candidate in political science at the University of Innsbruck. In his research, he focuses on the intersection of government communication and online discourses during crises, with a focus on how government messages shape and are shaped by public narratives and information exchange on digital platforms.