

Communicating COVID-19 on Twitter at supranational and national levels: The European Union and Portugal with “the ball in their court”

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Abstract: This article focuses on COVID-19 communication on Twitter at supranational and national levels, namely by the president of the European Commission, Ursula von der Leyen, and the Portuguese prime minister, António Costa. A mixed-method approach, based on content, discourse, and rhetorical analysis, was employed. The results show that von der Leyen’s tweets focused on measures to combat COVID-19, while Costa’s tweets focused mainly on responsibility. In both cases, economic support and recovery was the second most frequently mentioned theme, while frames relating to solutions, causal relations, moral judgments, and problems were also emphasized. Von der Leyen tended to highlight the importance of vaccination, while Costa tended to highlight scientific expertise. Ethos was employed by the two leaders mainly through references to responsibility and fulfilment of duty. Pathos was employed to inspire mainly positive emotional responses—such as the impulse to action, feelings of support, desire for unity, and confidence, optimism, or calm—but also negative emotional responses, such as anxiety, apprehension, or concern and disappointment. Logos was employed mainly through reference to the numbers and science of COVID, use of stylistic devices, and exemplification.

Keywords: COVID-19, political communication, Ursula von der Leyen, António Costa, Twitter, government, European Union, Portugal

Introduction

The COVID-19 pandemic has generated a “tsunami” of negative effects in terms of lives lost and health and economic impacts, and these have in turn led to other crises (e.g., Santa Maria, Gambaro and Missanelli, 2021). The pandemic represents “a public health crisis without precedent in living memory, which is testing our collective capacity to respond” (Guría, n.d., p. 1). In such scenarios, effective political communication can be fundamental to an adequate response (Widmann, 2020).

Political communication, and more specifically, public health communication, assumes a Herculean role. “Being able to communicate your message is key in political social work”

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(Lane and Pritzker, 2017, p. 270), and political leaders and elites influence public health through the language they use in their health-related communication (Hatcher, 2019; Lezine and Reed, 2007).

This ability, and the persuasive-rhetorical techniques on which it is based (e.g., Aristotle, 384-322 BC/2005), form the focus of this article. Additionally, Widmann (2022) warns that a comprehensive analysis of emotional political rhetoric during the COVID-19 crisis is still missing. Therefore, this article seeks to make some contribution in that direction. As effective government communications also employ various technologies (Hyland-Wood et al., 2021), the article will specifically explore the government communication on COVID-19 on Twitter. The article also responds to the need for more robust studies on public health communication, since the effectiveness of such communication has implications for vaccine deployment and economic and social recovery (Dada et al., 2021, p. 11).

The European Union (EU) and Portugal represent pandemic-response case studies at a supranational and a national level, respectively. Decision-making challenges have arisen at both governmental levels during the pandemic, and the two cases therefore provide interesting possibilities for comparison in terms of performance. The EU is a unique economic and political union between 27 countries covering much of the European continent (European Union, 2021). This composite governmental entity has the potential to play a stronger role in coordinating member states' responses to the COVID-19 health crisis through an effective use of the competences established in the various EU treaties (European Movement International, 2021). Portugal was selected as case study for this article as it held the rotating EU Council presidency from January to June 2021, while in January of the same year, the country was dealing with the world's highest COVID-19 rate (Mathiesen, 2021).

The research focuses specifically on an analysis of the use of the Twitter social network and microblogging platform. This decision was based on two considerations. First, because of the opportunities provided by social media for effective communication, fast and efficient dissemination of vital messages, and appropriate tailoring of messages for different audiences (Hyland-Wood et al., 2021), and second, because Twitter is one of the main platforms used by political parties and candidates (Alonso-Muñoz, Marcos-García and Casero-Ripollés, 2016, p. 72). It was found that 64.8% of United Nations (UN) member states had a leader that tweeted about COVID-19 (Haman, 2020). For the EU case study, the Twitter account of the European Commission (EC)'s president, Ursula von der Leyen, is analyzed once the Commission coordinates the fight against COVID-19 across the EU member states. For the Portuguese government case study, the Twitter account of the Portuguese prime minister, António Costa is analysed. In defence of this option, the Portuguese government, headed by António Costa, represented the most relevant official institution as a news source in the Portuguese daily press during the pandemic period – 14.4% in the first pandemic wave and 13.4% in the second (Lopes, Araújo and Magalhães, 2021, p. 24). In prime time television information, Costa was the protagonist, among political sources, in the period between 2 March and 2 May 2020 (Cunha, Martins and Cabrera, 2021, pp. 42-44).

The research aims to explore the role of political communication by a supranational institution (EU) through its executive and governmental body (Verhofstadt, 2006, p. 69), the European Commission, and by a national government (the Portuguese government). More specifically, the research aims to perceive how the respective governmental leaders (namely, Ursula von der Leyen and António Costa) communicated the pandemic crisis, by observing how they acted and reacted when “the ball was in their court”, the challenges and responses associated with this, and the way they interacted with each other.

Based on the defined objectives, the theoretical anchor chosen for this article is composed of approaches of (1) agenda-setting, which focuses on the composition of the thematic agenda (themes) (e.g., Dearing and Rogers, 1996), (2) framing (Entman, 1993) and (3) rhetoric (e.g.,

Aristotle, 384-322 BC/2005; Mateus, 2018, 2021). The latter approach falls within digital rhetoric, which is concerned with the study of persuasion in digital environments, such as Twitter (Mateus, 2021, p. 12).

In sum, this article contributes to the understanding of Twitter messaging by governments at supranational and national levels of action during a pandemic health crisis from a triple perspective – substantive/thematic, formal/framing and rhetorical.

Literature review: *Unmasking governmental communication during the COVID-19 pandemic*

To compose a literature review on the thematic focus in approach – communication about COVID-19 on Twitter of governments –, a Boolean search was conducted on the academic database Communication and Mass Media Complete (EBSCOhost), “the leading provider of research database” (<https://www.ebsco.com/>), using the keywords “COVID-19” AND “political communication” AND “Twitter” AND “government”, in June 2022. The limiters “Academic (Peer-Reviewed) Journals” were applied, not opting for any temporal or linguistic restrictions. The search generated 32 results. After removing the duplicate articles, 22 articles remained. From this tally, a careful review of the content of each article was made, selecting those articles that dealt with the focus of the present article. This means that, for example, articles focused exclusively on the impact of political communication on COVID-19 or mere use of Twitter (e.g., evolution of the number of followers) by political actors, without reference to the message constructed, were excluded. Under these first conditions, eight articles were gathered, all with an empirical component. Searches were made in other databases and scientific journals. The articles from these sources were chosen taking into account their usefulness for the present study, specifically the subsidisation of the methodological options. When adding, to the search words previously mentioned, "António Costa" or "Portugal" or "Ursula von der Leyen", no result was obtained at EBSCO.

Methodologically, the studies that make up the literature review adopt diversified techniques. Among the quantitative techniques are: content analysis (e.g., Al Serhan, 2022; Drylie-Carey, Sánchez-Castillo and Galán-Cubillo, 2020; Haman, Školník and Čopík, 2022; López-García, 2020; Peña-Fernández, Larrondo-Ureta and Morales-i-Gras; Rufai and Bunce, 2020), word embeddings and neural network classifiers to measure feelings in Twitter and vector autoregression (VAR) analysis (Widmann, 2020, 2022), framing analysis (Tuñón-Navarro and López-Álvarez, 2022). Qualitatively, researchers opted for: triple qualitative approach based on discourse, content, and thematic analyses (Gesser-Edelsburg and Hijazi, 2020), critical narrative analysis (Lindqvist et al, 2020), thematic content analysis (Sanders, 2020), review (Hatcher, 2020), “qualitative approach with content analysis techniques” (Alnizar and Manshur, 2022).

In terms of literature review, the closest research to the current study is that of Drylie-Carey et al. (2020). Focusing on COVID-19 crisis communication of the leaders of the most affected European countries, Drylie-Carey et al. (2020) analysed communication by prime minister Boris Johnson (United Kingdom), president Emmanuel Macron (France), prime minister Pedro Sánchez (Spain), and prime minister Giuseppe Conte (Italy), in addition to that by Tedros Adhanom of the World Health Organization (WHO) and by Ursula von der Leyen. The differences between Drylie-Carey et al.’s (2020) study and the present study are the number and the actors analysed, given that in this study there are two cases, one of which coincides with one of those chosen by Drylie-Carey et al. (Ursula von der Leyen), and the type of content, since the former focused on visual content (images and videos) published on Twitter by the referred six leaders, while the present study explores textual content of the two selected leaders’

tweets. In terms of results, Drylie-Carey et al. (2020) found significant differences between the preventative measures recommended (e.g., social distancing, use of masks, and hand washing) and the public images projected by the leaders on their Twitter accounts. The saying “do as I say, not as I do” could legitimately be considered a leitmotif for the communication strategy of the leadership studied.

Another multi-case study is that of Tuñón-Navarro and López-Álvarez (2022). The authors observe, among other results, that the majority governing parties of Spain (Partido Socialista Obrero Español [PSOE]), France (En Marche! [EM]) and Germany (Christlich Demokratische Union Deutschlands [CDU]) show significant coincidences in the use of communicative frames on Twitter: the frames of morality and hope are the most present, followed by the frames of human interest and responsibility and, with a lesser presence, the frames of fear and conflict. The present study was inspired in some of these categories in the execution of the content analysis.

Offering informative content tended to be one of the intentions of government communication on Twitter, as evidenced by the literature. Castillo-Esparcia, Fernández-Souto and Puentes-Rivera (2020) note that, in the period analysed (50 days), Twitter was the platform that attracted the greatest online communicative activity from the Spanish government: 854 publications vs. 226 from Facebook. Information and full reproductions of press conferences are the clearly majority content on Twitter, equating to almost 90% of the content (89.4%). In terms of format, video is the most used resource, followed by photo. The researchers conduct a content analysis with three categories on online platforms: interaction, content topic, and format. These are categories that characterize the message, but do not allow to know in depth the content and strategy of the message. The same comment can be produced to the study of Rufai and Bunce (2020), focused only on the theme as a category and on three respective subcategories. Thus, exploring the role of Twitter as used by Group of Seven (G7) world leaders in response to COVID-19, the authors discover that most viral tweets are classified as “informative”, of which almost half had weblinks to government-based sources, while the rest were “morale-boosting” and “political”. Also the Colombian president Duque’s most popular tweets were primarily informative, with the term “prevención y acción” (prevention and action) dominating his tweets (Haman, Školník and Čopík, 2022). Haman et al. (2022) are inspired by the thematic classification of Rufai and Bunce (2020). In turn, Alnizar and Manshur (2022) do not specify, in the “Methods” section, the categories used nor the total number of tweets. It seems that the categories emerge inductively, despite the fact that there are already previous studies on their thematic proposal: Indonesian government communication during the COVID-19 crisis (e.g., Prayoga, 2020; Salahudin et al., 2020). The narrative developed by the government – like the phrase “new normal” and “enggak mudik” phrase (not going home) – is intended to create calm, even though it can endanger public health. With regard to informative communication about vaccination and immunisation processes, Peña-Fernández et al. (2022), focusing on five Ibero-American countries, Argentina, Brazil, Chile, Spain and Mexico, note that in six months, the official government Twitter accounts, compared to the health authorities’ and media accounts, published a smaller number of informative content, 130 tweets on average, ahead of the presidents’ accounts, which reached an average of 28, approximately one per week. However, political actors achieved much higher engagement.

Another study, but outside Twitter, that opts for a comparison between cases is that of Lindqvist et al. (2020). The authors focused on a comparison between the COVID-19 communication through the speeches of national governments of four European countries (Germany, Italy, Spain, and Sweden). Lindqvist et al. conclude that the actions taken by the four countries were built on metaphorical framings that contributed to the configuration of problems and solutions and on the establishment of an *assemblage* of different elements, and that the pandemic-related public health solutions “place the body” (p. 26). Additionally, they

observed how these solutions were strongly constituted and defined by epidemiological considerations through which health and well-being to a large extent have become antithetical.

Some studies explore rhetoric in political communication about COVID-19 (e.g., Al Serhan, 2022; Lilleker et al., 2021; Widmann, 2020; Widmann, 2022).

Al Serhan (2022) noted that the Jordanian government used more logical appeals and fear appeals rather than other types (p. 1622) in defence orders during COVID-19 pandemic. The same result about fear appeals was observed in Widmann's (2022) study: government parties emphasize the severity of the COVID-19 crisis by increasing the level of fear appeals and decreasing hope appeals in their messages. The studies by Widmann (2020, 2022) on four countries (Germany, Italy, the Netherlands, and Spain) found this governmental practice and the opposite trend adopted by populist radical parties, that communicated less about the pandemic and strategically downplayed its severity (Widmann, 2020) and decrease fear and increase hope appeals (Widmann, 2022) even while COVID-19 cases were rising. Widmann (2020; 2022) also discovered that increased diffusion of tweets consistently preceded changes in citizens' emotional expressions about the pandemic. This suggests that party communication mostly reach (and impact) individuals who are already supporters of the respective party (partisanship), reflecting the affective polarization among the population.

Gesser-Edelsburg and Hijazi (2020), in a study focused on offline resources, observed that Israeli prime minister Netanyahu and the director general of the Israeli health ministry opted for an apocalyptic narrative to communicate COVID-19 to the public. Key strategies included intimidation, lack of information transparency, giving the public conflicting instructions contrary to health and risk communication approaches, and using the health crisis to promote political intentions and actions. The authors concluded that these guidelines did not meet the criteria of risk communication approach. Not using empirical techniques, Hatcher (2020) also negatively assesses the communicational response of the United States president Donald Trump to COVID-19, arguing that Trump's denial of the pandemic problem and his efforts to shift blame away from him made his leadership a "political determinant" that adversely affected the nation's response to the crisis (p. 618). Hatcher (2020) shares the recommendation that, during a period of crisis, the president should help organize the country's response rather than aggravate understanding of the problem and create confusion among the public (p. 619). In another study focused on a unique political leader and in an evaluation of the response of the nation's leader, Sanders (2020) concludes that the British prime minister Boris Johnson's communication does not is aligned with the communicational characteristics of high reliability organizations (HROs), such as commitment to resilience, situational awareness and deference to experience, collective and individual consciousness of risk and failure, refusal to oversimplify the causes of errors, mindful leadership, and just culture. The results reveal that Johnson's initial approach to communication about the virus was marked by complacency regarding the country's preparedness and capacity to control the disease's spread, while there was no admission of the government having made mistakes in its handling of the pandemic. A study shows the relationship between the government leader's communication and its influence on the public: Mariani, Gagete-Miranda and Retzl (2020) found that, subsequent to the denial by Brazilian president Jair Bolsonaro of the need for non-pharmaceutical interventions, the epidemic spread faster and people complied less with non-pharmaceutical measures in pro-Bolsonaro municipalities.

Some research has focused on comparing communication between men and women (e.g., Dada et al., 2021; Garikipati and Kambhampati, 2020; Grebelsky-Lichtman and Katz, 2021), arguing that gender could explain differences in pandemic outcomes. Using a constructed dataset for 194 countries, Garikipati and Kambhampati (2020) observed that COVID-19 outcomes were systematically better in countries led by women, noting that this could be due to the female leaders' more proactive and coordinated policy responses. The German case is an

example of how crisis communication can be made more effective through the collective effort of the government and the scientific community (Krylova, 2020). Communication seems to have been most effective when based on a balance between science, rationality, and emotions (Burni and Domgörgen, 2021), a style mainly adopted by women. Dada et al. (2021) analyzed the speeches of 20 heads of government around the world, identifying five primary themes: economics and financial relief, social welfare and vulnerable populations, nationalism, responsibility, and emotional appeals. The authors observed that female leaders spoke more frequently about impacts on the individual level, and also tended to mention a wider range of social welfare issues, including mental health, substance abuse, and domestic violence. In contrast, male leaders largely used war metaphors to describe COVID-19 and the pandemic response – López García (2020), for example, noted that in 289 tweets, the president of the Spanish government, Pedro Chávez, used 15 war metaphors (p. 11), being a trend in his discourse. Also Grebelsky-Lichtman and Katz (2021) found that gender played a significant role in determining the types of nonverbal communicative structures used by ten western leaders (five male and five female) to deal with the pandemic situation: countries with a female leader expressing calm, empathic, and cooperative NCS had fewer and less severe COVID-19 cases.

On the Portuguese case, the research conducted was not fruitful in finding studies on part of the focus of the present study: the political communication on COVID-19 on Twitter of the Portuguese prime minister or the Portuguese government. The articles found tend, for example, to focus on news coverage of COVID-19, highlighting for example official sources (Lopes et al., 2021), and communication strategies in prime time television news (Cunha et al., 2021). The results obtained reflect the media prominence, among the political sources, of the Portuguese prime minister during the pandemic period and the visibility of themes related to the balance sheets, decisions and guidelines on prevention and containment measures, which confirms the prioritisation of the media in relation to governmental communication.

It should also be noted that some more general recommendations on communication practices have been made, such as that of Hyland-Wood et al. (2021) and that of the Organisation for Economic Cooperation and Development (OECD, 2020). Hyland-Wood et al. (2021) draw on key findings from scholarship in multiple social science disciplines to propose the following ten recommendations regarding communication strategies and the effective engendering of support and participation: (a) engage in clear communication; (b) strive for maximum credibility; (c) communicate with empathy; (d) communicate with openness, frankness, and honesty; (e) recognize that uncertainty is inevitable; (f) account for levels of health literacy and numeracy; (g) empower people to act; (h) appeal to social norms; (i) consider diverse community needs; and (j) be proactive in combating misinformation. Also in this direction, the OECD (2020) states that, in order to counteract disinformation that may undermine policy responses and amplify distrust and concern among citizens, and in order to build trust in public institutions, governments must ground their actions in principles of open government and transparency.

The literature review reveals that existing empirical studies on governmental COVID-19 communications are limited to cross-sectional cases analysis, usually from the early period of the outbreak, making use of no more than one type of analysis, rendering their validity and reliability suboptimal. To circumvent these limitations, this study applies a longitudinal approach and combines content, discourse, and rhetorical analyses of the Twitter communication of the Portuguese prime minister, António Costa, and the president of the European Commission, Ursula von der Leyen, on COVID-19, so far uncovered by the literature.

Methods

Thematic focus, research questions, and specific aims

The study opts for methodological plurality, as in the study by Gesser-Edelsburg and Hijazi (2020), and is thus based on an analysis of content (focusing on the substance), discourse (emphasizing form and framing, which involves selection and salience), and rhetoric (exploring persuasion proofs or means).

Three specific research questions were formulated for the study: 1. What is the thematic substance of the EU's and the Portuguese government's COVID-19 Twitter message? 2. What is the form, in the perspective of the frame, adopted by the EU and Portuguese government to present their COVID-19 Twitter message? 3. How do the EU and the Portuguese government rhetorically communicate COVID-19 on Twitter during the pandemic crisis?

These three questions respectively cover message substance/content, form, and persuasion proofs or means and require respectively three analysis techniques – content analysis, discourse analysis, and rhetoric analysis –, representing a complete message-centered triple analysis. The study does not explicitly address gender questions (as do some of the studies referred to in the literature review above), but as the two cases studied here represent a female and a male leader respectively, certain conclusions may be drawn from comparisons between the two.

The overall research question derived from the literature review that will guide our investigation is as follows: *How do the European Union and the Portuguese government communicate COVID-19 on their Twitter accounts in a crisis context?* The specific aims of the study are to identify the thematic substance of the EU's and the Portuguese government's COVID-19 Twitter message; to perceive the form, in the perspective of the frame, adopted by the EU and Portuguese government to present their COVID-19 Twitter message; and to understand the rhetorical approach used by the EU and the Portuguese government to communicate COVID-19 on Twitter during the pandemic crisis.

Content, discourse, and rhetorical analysis – a mixed methods approach

The study employs a mixed method approach, combining content, discourse, and rhetorical analysis to achieve respectively the three aims described above. The content analysis categories were created deductively (e.g., Dada et al., 2021) and inductively (associated with the specificities of the corpus). The thematic categories of Dada et al. (2021) were adopted and adapted because, within the scope of the literature review, they seemed to be the most illustrative and useful. For the content analysis, mutually exclusive and exhaustive categories were constructed and clear interpretation instructions were formulated (Bryman, 2012).

For the qualitative content analysis techniques (i.e., discourse and rhetorical analysis), the following procedures recommended by Altheide (2004) were adopted: a) generate a research question; b) become familiar with the context within which the documents (tweets) were/are generated; c) become familiar with a small number of documents; and d) generate some categories that will guide the collection of data.

Since the discourse analysis focuses on the *how*, a framing categorization was applied. To frame, according to Entman (1993), is “to select some aspects of a perceived reality and make them more salient in a communicating text” (p. 52) – in this case, in the analyzed tweets.

The framing categorization of Entman (1993) was adopted, namely problem definition, cause diagnosis, moral judgements, and solutions suggestion. This solution is “halfway” between the analysis of Lindqvist et al. (2020) and that of Tuñón-Navarro and López-Álvarez

(2022). The discourse analysis goes beyond that of Lindqvist et al. (2020) – that is, beyond understanding how strategies to halt the further spread of COVID-19 are communicated/framed – and includes as analysis categories the other two frames of Entman (1993), cause diagnosis and moral judgements. In comparison with Tuñón-Navarro and López-Álvarez’s option (2022), which aggregated the “general frames” of Semetko and Valkenburg-Valkenburg (2000) and those of Ogbodo et al. (2020) and the specific ones arising from the corpus, the present study opted for Entman’s frames because they are easier to handle and because there is no coincidence between frames and themes. For example, Tuñón-Navarro and López-Álvarez (2022) use “responsibility” and “patriotism” as frames and Dada et al. (2021) as themes.

To operationalize the rhetorical analysis, Aristotle’s (384-322 BC/2005) three rhetorical dimensions, ethos, pathos, and logos, were adopted. From these dimensions, categories were created, some coming from the Aristotelian proposal, others emerging from the specificities of the corpus (Table 1). In Aristotle’s rhetoric (384-322 BC/2005), three “proofs or means of persuasion” are identified: a) those derived from the moral character of the speaker, creating the impression that he is credible (ethos); b) those centred on the emotion that the speech stimulates in the audience (pathos) and c) those that focus on what the speech demonstrates (logos) (pp. 96-97). The matrix constructed for rhetorical analysis goes beyond Al Serhan’s (2022) proposal, that consists in quantifying the appeals to logic, the appeals to ethics, the appeals to emotion, and the appeals to fear. This option of Al Serhan (2022) does not break down the referred appeals into subcategories. The execution of the rhetorical analysis, in the present study, also goes beyond the analysis conducted by Widmann (2020, 2022), which focuses on the emotional appeals, while the proposed study aggregates the three appeals, in a qualitative approach.

Content analysis categories
<p>Categories created deductively (e.g., Dada et al., 2021; Tuñón-Navarro and López-Álvarez, 2022) and inductively (associated with the specificities of the corpus)</p> <p>Deductive categories: Economic and financial support and recovery : economics and financial relief; Social welfare and vulnerable populations: protection and promotion of the economic and social well-being of citizens, specifically the ones that are physically, mentally, or socially disadvantaged persons; Nationalism/patriotism: feeling of love or fidelity to the nation or homeland; Responsibility: quality of answering for the things entrusted, doing what is expected by the position held; and emotional appeals: contents that arouse feelings.</p> <p>Inductive categories: Unlocking: plans and decisions related to unlocking, including vaccination; Celebration and gratitude (e.g., thanks to frontline workers); European and international union; Foreign and EU support and EU measures.</p>
Discourse analysis categories
<p>Categories inspired by the framing categorization of Entman (1993):</p> <ol style="list-style-type: none"> 1. Problem definition: determine what a causal agent is doing, with what costs and benefits, generally measured in terms of common cultural values; 2. Cause diagnosis and causal relations: identify the forces that are causing the problem and the relation between cause and effect;

3. Moral judgements and interpretations: evaluate causal agents and their effects, reflecting cultural values that guide this evaluation;
4. Solution suggestion: offer and justify treatments for problems and prevent probable effects.

Rhetorical analysis categories

Three rhetorical dimensions proposed by Aristotle (384-322 BC/2005):

1. Ethos:

Credibility is previously present, given the government functions performed by the subjects under observation (European Commission president and Portuguese prime minister);
responsibility/fulfillment of duty

2. Pathos:

2.1. Positive emotions that can be aroused in the receiver:

Confidence/optimism/calm: the state of being full of hope, without worry, and emphasizing the good parts of a situation, or a belief that something good will happen. Aristotle (384-322 BC/2005) defines confidence as the opposite of fear (p. 176) and calm as “an appeasement and a pacification of anger” (p. 167);

Desire for unity: is “almost ineradicable in human nature” (Hems, 1976, p. 55), the strong feeling for being joined together or in agreement;

Feelings of support: an emotional state to help or encourage somebody;

Impulse to reflection and action: a strong wish to think of/about doing something and to do something;

Wish sharing: the common desire to have something or to do something;

2.2. Negative emotions that can be aroused in the receiver:

Anxiety/apprehension/concern: an uncomfortable feeling of nervousness or worry about something that is happening or might happen in the future;

Disappointment: the state of being unhappy because someone or something was not as good as hoped, or because something did not happen;

Fear: an unpleasant emotion or thought derived from frightened or worried by something dangerous, painful, or bad that is happening or might happen. Aristotle (384-322 BC/2005) defines fear as “a distressing situation or a disturbance caused by the representation of an imminent, ruinous or painful evil” (p. 174). Fear is accompanied by the presentiment that we are going to suffer some evil that will annihilate us (p. 175);

Pain and sadness: pain is the feeling associated with being hurt, a mental and emotional difficulty, the absence of joy. Aristotle (384-322 BC/2005) explains that human beings are indignant when they feel sadness (p. 163) and that fearful things seem to have the power to destroy or cause harm that leads to great sadness (p. 174). We also feel sadness for those who suffer undeserved evil (p. 187);

and 2.3. Neutral emotions that can be aroused in the receiver:

Expectation: a belief that something will happen because it is likely.

3. Logos (e.g., Belim and Lagido, 2021):

Exemplification: use of examples in order to make the message clearer, more understandable and closer. Example consists in speaking of previous facts or inventing them (Aristotle, 384-322 BC/2005, p. 206);

Interrogation (Aristotle, 384-322 BC/2005, p. 294): formulation of questions, which is a phatic argument;

Reference to numbers, reports, and scientific studies: objective and not opinionated arguments;

Stylistic devices (e.g., antithesis, hyperbole, metaphor): devices that allow to give the message an aesthetic and poetic dimension;

and truth and logic: a device that meets the maxim “against facts there are no arguments”, argument that allows the notorious extraction of inferences.

Table 1. Content, discourse, and rhetorical analysis categories

The analysis period is marked by the following key moments: announcement of the Pandemic Emergency Purchase Program (March 18, 2020); EU leaders’ decision to work on creating an EU recovery fund to mitigate the effects of the crisis (April 23, 2020); European Commission approval of the pandemic economic recovery plan (May 27, 2020); EU leaders’ agreement on the €750 billion recovery package and the EU 2021 budget (July 17-21, 2020); beginning of the two general lockdowns in Portugal (March 18, 2020; January 15, 2021). Periods of one week before and one week after the occurrence of each of these key moments were analysed. The periods under analysis are thus as follows: a) March 11-25, 2020; b) April 16-30, 2020; c) May 20 – June 3, 2020; d) July 10-28, 2020; and e) January 8-22, 2021. The corpus comprises a total of 159 tweets (32 from António Costa and 127 from Ursula von der Leyen).

Results

The presentation of results follows the order of the research questions. For clarity of presentation, the headings have been separated for the two cases throughout the results section.

Thematic substance of von der Leyen’s tweets

The substance of Ursula von der Leyen’s tweets mainly comprised mentions of the following thematic categories: *foreign and EU support and EU measures* (70.9%), *economic and financial support and recovery* (17.3%), and *European and international union* (6.3%). Less frequent mentions were also made of *responsibility* (2.4%), *celebration and gratitude* (2.4%), and *emotional appeals* (0.8%). These results are presented graphically in Figure 1.

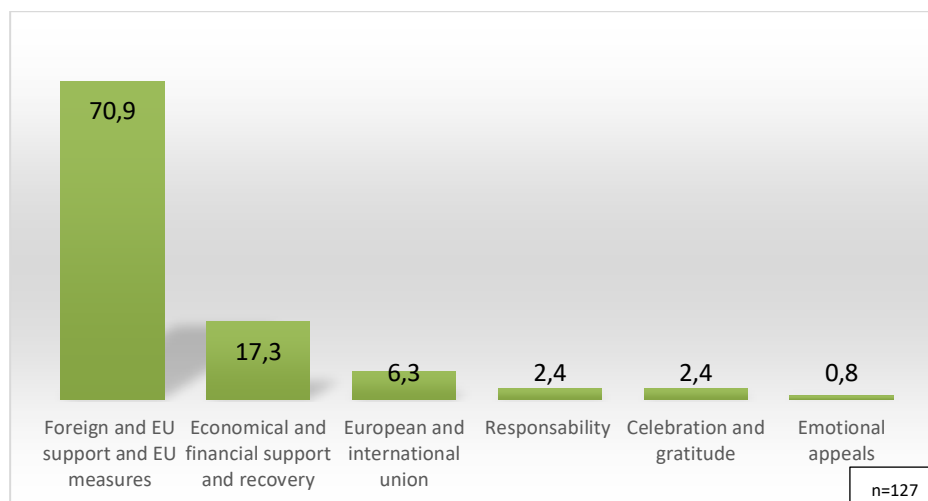


Figure 1. Thematic categories mentioned in Ursula von der Leyen’s tweets (%)

The number of tweets published by von der Leyen in each of the analysed two-week periods was greatest in the period of March 2020 (38 tweets; 33.9%), followed by those of January

2021 (35 tweets; 27.6%), April and July 2020 (each with 19 tweets; 15.0%), and May 2020 (11 tweets; 8.7%). The most commonly mentioned theme occurred mainly in the tweets of March (38 tweets; 29.9%) and January (31 tweets; 24.4%).

Thematic substance of Costa's tweets

The substance of António Costa's tweets mainly comprised mentions of the following thematic categories: *responsibility* (11 tweets; 34.4%), *economic and financial support and recovery* (9 tweets; 28.1%), *unlocking* (7 tweets; 21.9%). Less frequent mentions were also made of *social welfare and vulnerable populations* (2 tweets; 6.3%), *emotional appeals* (2 tweets; 6.3%), and *nationalism* (1 tweet; 3.1%). These results are presented graphically in Figure 2.

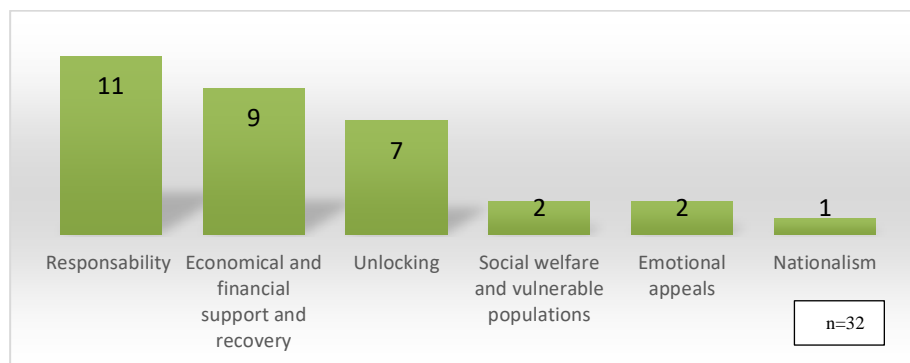


Figure 2. Thematic categories mentioned in António Costa's tweets (n¹)

The number of tweets published by Costa in each of the periods was greatest in the analysed two-week period of April 2020 (13 tweets), followed by those of March 2020 and of January 2021 (9 tweets for each). Costa tweeted the least in the period of July 2020 (1 tweet). The most commonly mentioned issue (*responsibility*) occurred mainly in the tweets of March 2020 (6 tweets), while the second and third most commonly mentioned issues (*economical and financial support and recovery* and *unlocking*) occurred mainly in the tweets of April 2020 (4 tweets for each).

Form/framing of von der Leyen's tweets

Von der Leyen's tweets highlight certain *problems* associated with the pandemic, such as “many Europeans are still unable to travel back home, carrying medicine and other goods are blocked” (March 21), “cybercrime & number of fake medicines are on the rise” (March 24), and “We all know that Europe is not out of the woods yet” (July 23).

Statements made by von der Leyen about *cause diagnosis* and *causal relations* include those relating to *vaccine and aid* (“Crucial to find asap the vaccine that will help the whole world” – March 16), *power and strength and social and economic improvements* (“We need all power and strength to make our economies, societies & way of life more sustainable & resilient” – April 16), *working together and discovery of the vaccine to fight the virus* (“By working together to improve testing+treatment & sharing expertise to develop a vaccine, we'll overcome this virus” – April 20), *global unity and defeat of COVID-19* (“Global solidarity, cooperation & multilateralism are needed more than ever to defeat the #coronavirus” – May 26), *scientific validation of vaccine and its authorization to use* (“Once the vaccine receives a

¹ We refer to absolute frequencies, not percentages, as total tweets are less than 100.

positive scientific opinion, we will work full speed to authorize its use in Europe” – January 12), *EU states and triumph* (“EU countries is key to our success” – January 13), and *vaccination and end of the pandemic* (“Vaccination will help us keep safe from COVID-19” – January 17; “This pandemic will only be over when everyone in the world has access to vaccines” – January 19).

Various *moral judgements* can also be identified in the value statements evident in von der Leyen’s tweets, such as *belonging to the EU and the right time for Europe* (“In times like this it’s good to be part of a strong community: our European Union!” – March 19; “This is Europe’s moment” – May 27), *solidarity and cooperation* (“Solidarity and cooperation are needed to tackle the #coronavirus pandemic” – March 23), *humanity and ingenuity* (“As I look around our Union – and I see all that humanity and that ingenuity – I know that we can and we will do just that” – April 16), *power and strength* (“We need all power and strength to make our economies, societies & way of life more sustainable & resilient” – April 16), *union and unity* (“It’s time to put behind old divisions, disputes, recriminations & be ready for this new world” – April 16), *vaccine discovery* (“The best news ... would be a vaccine found and deployed rapidly” – April 18), and *positive transformation* (“The #EUGreenDeal offers a chance to transform our societies and our planet for the better” – May 20).

Von der Leyen emphasizes the importance of discovering a vaccine as a *solution* (“Vaccination will help us keep safe from COVID-19” – January 17; “Vaccination is the lasting solution to the pandemic” – January 13; “We will establish a mechanism enabling EU countries to share some of our 2.3 billion doses of vaccines” – January 19). Other solutions associated with pandemic-related problems were also advanced (e.g., “@EU_Commission proposals on border measures, the economy, joint public procurement and research to fight the #coronavirus” – March 17; “We put in place the most flexible ever #StateAid rules to help people+companies. Today we trigger the clause to relax budget rules, enabling government to pump into the economy” – March 20; “We’ll keep dangerous counterfeit medicine out of your way” – March 24; “Our compass will remain the #EUGreenDeal” – April 28; “I proposed a global recovery initiative that links investment & debt relief to the SDGs” – May 28).

Form/framing of Costa’s tweets

Costa refers to two *problems*: the postponement of the Olympic Games, which represents “the postponement of a dream that affects everyone equally” (April 28) and the “great concern about the progress of the pandemic, in particular due to the so-called British variant” (January 21).

Regarding *cause diagnosis* and *causal relations*, Costa mentions *extension of credit lines and reduction of the impact caused by the COVID-19 pandemic* (“To reduce this impact, we will expand the credit lines already announced, to support in particular the trade sector” – March 21), *trust and maintenance of the spirit of national unity* (“In order to maintain the spirit of national unity with which all parties have faced this situation, the relationship of trust is fundamental” – March 24), *invitation to sovereign bodies and compliance of the duty of information and cooperation between these bodies* (“Fulfilling the duty of sharing information and cooperation between organs of sovereignty, I took the initiative of inviting the President of the Republic, the President of the Assembly of the Republic, the Parties and Social Partners” – March 23), *contribution from experts and adoption of more appropriate decisions* (“We will continue to rely on the contribution of our best experts to help us make the most appropriate decisions, with a technical basis” – March 24); *working together and searching for solutions* (“We will work together in the search for solutions that minimize the impacts of the crisis caused by #COVID19 in the sector” – April 28), *vaccine or treatment and normality* (“Normality, as we knew it until now, will only return when we have a vaccine or treatment for #COVID19” – April 28), “The update on the epidemiological situation of #COVID19 in

#Portugal is decisive for the decisions we have to take” (April 28), *global cooperation and eradication of the virus* (“We agreed on the need for international cooperation on access to the vaccine in the European neighborhood, Africa and Latin America to ensure eradication of the virus” – January 21), *reciprocal recognition of tests and confidence in mobility* (“The mutual recognition of tests decided today will help to build confidence in freedom of movement within the EU” – January 21), and *suspension of flights and reduction of the infection* (“has decided to suspend flights to/from UK ... in order to reduce the risk of contagion based on this variant” – January 21).

Regarding *moral judgments* and their related value statements evident in Costa’s tweets, there is a focus on values such as *transparency* (“I will always come here, for the sake of information transparency” – March 24), *trust* (“the relationship of trust, transparency and permanent disclosure of information about the pandemic outbreak and the decisions that are required is fundamental” – March 24), *refusal to create false expectations* (“Nothing worse than giving bad and wrong expectations to people” – April 28), *prudence* (“We cannot risk the health of athletes or supporters” – April 28; “As this, I believe, is our collective will, this decision cannot be emotional or made by impetus” – April 28), and *European coordination and union* (“The crisis caused by the COVID-19 pandemic requires a coordinated and united response from all at European level” – January 20).

In terms of the proposed *solutions*, Costa mentions *the approval of economic and social measures* (“We also approved the suspension of the expiry date of lease contracts that expire in the next three months, the automatic extension of #unemployment benefits in payment, the solidarity supplement for the elderly and social insertion income” – March 21; “Protecting #employment, guaranteeing the income of #families and preventing the destruction of #companies are objectives” – March 21; “It is essential that the strategy is shared by representatives of workers and companies” – April 29; “Report ‘A Strong Social Europe for Just Transitions’. An inspiration to the #Porto Social Summit, on May 7, dedicated to the implementation of the European Social Pillar” – January 20), *the importance of adopting positive values* (“the relationship of trust, transparency and permanent disclosure of information about the pandemic outbreak and the decisions that are required is fundamental” – March 24), and *clarification supported by scientific expertise* (“I decided to promote an initiative to clarify the state of the pandemic in #Portugal. It is a technical presentation on the ‘Epidemiological situation of #COVID19’, listening to epidemiologists and other public health experts” – March 23).

Rhetorical approach used in von der Leyen’s tweets

Ethos is employed by von der Leyen mainly through references to *responsibility/fulfilment of duty*: “More work ahead, the crisis requires it” (March 17), “@EU_Commission works around the clock to address the coronavirus” (March 17), “We promised we’ll do everything to support Europeans & companies through the crisis” (March 20), “I am closely following the situation and work with governments to solve the problem” (March 21), “I said we would do everything to support Europeans and businesses in this crisis. Word kept” (March 20), “Great result” (May 26), “We’ve taken a historic step, we all can be proud of” (July 21), “Our citizens expect us to deliver” (July 23), and “We have already secured enough vaccines for the entire population of the EU” (January 19).

In terms of pathos, von der Leyen’s tweets seek to generate the following positive emotions: *impulse to reflection and action* (“Follow the @WHO guidelines, wash your hands and protect yourself & others from the #coronavirus!” – March 22; “It’s time to put behind ... & be ready” – April 16; “I invite all researchers to join the EU data platform” – April 20, “If you need inspiration, look at the people of Europe” – April 20; “Join our campaign GLOBAL

GOAL” – May 29), *feelings of support* (“We need each other’s support in times of need” – March 18; “The #EU will support the @WHO global preparedness and response plan” – March 23; “Solidarity and cooperation are needed” – March 23), *Desire For Unity* (“We need each other’s support in times of need” – March 18; “It’s good to be part of a strong community” – March 19; “#StrongerTogether” – April 22; “Together” – May 27; “It unites us and I believe together, we will emerge stronger from this crisis” – July 16), *confidence/optimism/calm* (“We promise we’ll do everything to support Europeans & companies through the crisis” – March 20; “Good news on protective clothing & medical equipment” – March 24; “Stay strong! The EU stands by your side!” – March 22; “Word kept” – March 20; “Because this Union-of-ours will get us through” – April 16; “The EU is at the heart of coronavirus global response” – April 24; “A solution is possible” – July 17; “Promise of better days” – January 10, “We have already secured enough vaccines for the entire population of the EU” – January 19; “A turning point in our fight against this virus” – January 19).

Von der Leyen’s tweets sought to generate the following negative emotions: *anxiety/apprehension/concern* (“Our fear becomes the business opportunity of criminals” – March 24; “We all know that Europe is not out of the woods yet” – July 23; “[the pandemic] has been so devastating” – January 20), *pain and sadness* (“We share the same pain and grief” – July 16). Another category of pathos (neutral emotions) present is the *expectation*, that may be caused by the statement “The months ahead will be crucial for battling the pandemic” (January 20).

In terms of logos, the following categories stand out in von der Leyen’s tweets: *truth and logic* (“The material will soon provide considerable relief in 23 more member states. This is solidarity in action” – March 24; “We all know that Europe is not out of the woods yet” – July 23; “Here they are! Today doses of the @moderna tx vaccine have arrived in EU countries” – January 13; “We know it: biodiversity loss is closely linked to the emergence of pandemics” – January 11), *reference to numbers, reports, and scientific studies* (“China will provide 2,000 surgical masks, 200,000 N95 masks & 50,000 testing kits” – March 18; “more than 100,000 Europeans” – March 19; “€3 billion” – April 22; “for scientists/researchers to store, share & analyze #coronavirus data” – April 20; “2.3 billion doses of vaccines” – January 19), *metaphor* (“Europe has become the world’s beating heart of solidarity” – April 16; “The European budget will be the mothership of the recovery... This will kick-start our economies” – April 16; “Europe mourns with you” – July 16; “Europe can see now dawn turning into light” – July 23), *hyperbole* (“The whole world is watching us” – July 17), *antithesis* (“We all know that Europe is not out of the woods yet. But Europe can see now dawn turning into light” – July 23), and *exemplification* (“the Institute Pasteur Dakar” – March 23; “Spanish victims” – July 16; “frontline workers – doctors, nurses, care assistants, shop assistants, refuse collectors, teachers, cleaners” – July 16).

Rhetorical approach used in Costa’s tweets

In terms of ethos, the *responsibility/fulfilment of duty* category stands out, where credibility is attributed to Costa as the message issuer. This category is present in statements focusing on transparency, consideration for people and their concerns, listening to social partners, requirement, and prudence. Examples include “Doing the duty” (March 23), “... to provide all the clarifications and to present in detail the measures we have taken. Here I will always come, for the sake of information transparency” (March 24), “I registered with interest and democratic spirit the criticisms and concerns expressed” (April 29), “We are attentive and we all have to be very demanding in terms of hygiene, health and safety” (April 27), “Nothing worse than giving people bad and wrong expectations” (April 28), “Today we met again with social partners to hear their opinion on the reopening of the economy” (April 29), “This decision

cannot be emotional or impulse driven” (April 28), “... requires a coordinated and united response from all at the European level” (January 20), and “Portugal has already administered 202,150 vaccines and is prepared” (January 21).

In terms of pathos, Costa’s tweets sought to evoke the following positive emotions: *impulse to reflection and action* (“We must be irreproachable in containing the pandemic” – April 27; “You are welcome to spend a safe holiday in Algarve!” – July 3; “An inspiration” – January 20; “It is time to deliver, European institutions and Member States together, as a community of values and shared prosperity, for a fair, green and digital recovery” – January 20; “Close coordination in the response to the pandemic is essential” – January 21), *confidence/optimism/calm* (“I took note of the criticisms and concerns” – April 29; “Businesses are also adapting to this new #COVID19 context” – April 27; “Gold medals go to workers and entrepreneurs in companies like this ... victories in the battle of containing the pandemic and economic recovery” – April 27; “They are also gradually resuming work” – April 27; “regular and productive meetings” – April 29; “The resumption of competitions, when decided, will be supported on technical health grounds” – April 28; “Once again, this morning’s presentation on @INFARMED_IP was very useful” – April 28; “I welcome the ambitious proposal of the European Commission that rises to the challenge that Europe is facing” – May 27; “You are welcome to spend a safe holiday in Algarve!” – July 3; “Portugal is prepared to ensure vaccination at the planned rate” – January 21), *desire for unity* (“We must all be on the same side of the fight against the pandemic” – March 23, “economic and social convergence” – May 27; “This is a collective struggle” – April 27; “[The] strategy to be followed is shared” – April 29; “coordinated and united response of all at the European level” – January 20; “We agreed on the need for international cooperation” – January 21), *feelings of support* (“We are going to extend the credit lines already announced. We will also continue to support the social sector” – March 21; “We also approved” – March 21; “We listened to the concerns of the main promoters of events and shows” – April 28), and *wish sharing* (“The desire we feel to watch a live football game again and vibrate with the goals of our @selecaoportugal” – April 28). In terms of negative emotional reactions, Costa’s tweets sought to generate *anxiety/apprehension/concern* (“The next three months will certainly be very tough for everyone” – March 21; “fighting so hard and that it is expected to be long” – March 24; “great concerns about the progress of the pandemic, in particular due to the so called British variant” – January 21, “We all share the same anxiety to get back to ‘normality’” – April 28), and *disappointment* (“The postponement of the Olympic Games is the postponement of a dream that affects everyone equally” – April 28).

In terms of logos, Costa’s tweets employed *reference to numbers, reports and scientific studies* (“listening to epidemiologists and other public health specialists” – March 23; “public health specialists, physicians, scientists, epidemiologists, technicians and all who contributed their knowledge to make the session on #COVID19 so useful” – March 24, “rely on contributions from our best experts” – March 24; “supported by technical health fundamentals” – April 28; “has already administered 202,150 vaccines” – January 21), *metaphor* (“Gold medals go to workers and entrepreneurs... in the battle of containing the pandemic” – April 27; “Football is the king of sports” – April 28), *antithesis* (“Until only two or three months ago, we still believed that our flag would shine in Tokyo’s Olympic dream in 2020. The postponement of the Olympic Games is the postponement of a dream” – April 28), *exemplification* (“of companies like this one” – April 27; “a large export company, Continental Mabor” – April 27; “affects everyone equally: athletes, clubs, coaches, technical teams, sponsors, supporters” – April 28), and *interrogation* (“Which is the safest place to stay?” – July 3).

Discussion and conclusions

European Commission president von der Leyen and Portuguese prime minister Costa demonstrated their commitment to combating the COVID-19 pandemic through the Twitter publications they made during the analysis periods. The actions of Costa's government to deal with the COVID-19 pandemic, for example, were positively evaluated by 82% of the Portuguese (Markttest, 2020). The content analysis of tweets performed for this study shows that *foreign and EU support and EU measures* was the main focus of von der Leyen's tweets, while *responsibility* was the main focus Costa's tweets. The two thematic categories most present in the tweets of both government officials may show concern also with the commitment to inform, as verified by several investigations discussed in the literature review in relation to the political subjects analysed (e.g., Alnizar and Manshur, 2022; Castillo-Esparcia, 2020; Haman et al, 2022; Rufai and Bunce, 2020).

Both leaders tended to be proactive and positive towards the strategy and measures adopted (e.g., "I know that we can" – von der Leyen, April 16; "Here I will always come, for the sake of information transparency" – Costa, March 24) and to use an inspirational and confident style, while still manifesting awareness of the challenges posed by the pandemic.

The emphasis on economic recovery made by both leaders fulfils certain premises, such as "the economy is the start and end of everything" (Cameron, 2015) and "a strong economy is the source of national strength" (Suga, in Kameda, 2013). Statements referring to a causal relation between vaccination and the end of the pandemic and return to normality, as made by von der Leyen, may be supported by evidence that "countries that have been quick to vaccinate their population against COVID-19 are seeing their economies recover more quickly" (OECD, 2021).

The solutions referred to in the leaders' tweets tend to be related to vaccination (von der Leyen) and the use of expert knowledge (Costa). A responsabilization discourse, as verified by Lindqvist et al. (2020), in which the individual is conceptualized as a central agent, is less present. This may be merely a result of the periods selected for analysis, as these correspond to several periods around various key moments (representing a longitudinal perspective), while the study by Lindqvist et al. (2020) was limited to the initial period of the pandemic in March 2020, when there was a stronger focus on individual actions to avoid contagion. However, the strong presence of solutions based on epidemiological knowledge in Costa's tweets is in accordance with Lindqvist et al.'s (2020) findings on this dependency.

The style used in the tweets of the two leaders is generally in accordance with the recommendations of Hyland-Wood et al. (2021) regarding communication for effective generation of support and participation. There are no major differences in style depending on the gender, differently of the findings of Garikipati and Kambhampati (2020), Grebelsky-Lichtman and Katz (2021), and Dada et al. (2021). Both leaders tended to use a communication style that Burni and Domgörgen (2021) associate more with women, that is, a style demonstrating a balance between science, rationality, and emotions. For example, Costa (2022) declared that "the measures sought to have a rationale and that rationale, in essence, the population has always perceived".

Contrary to the examples of Donald Trump, who denied that there was a problem caused by the virus (Hatcher, 2020), Jair Bolsonaro, who denied the need for non-pharmaceutical interventions (Mariani et al. 2020), Boris Johnson, who refused to admit that his government had made mistakes (Sanders, 2020), and Israeli governmental actors, who built an apocalyptic narrative anchored in intimidation and lack of transparency (Gesser-Edelsburg and Hijazi, 2020), both von der Leyen and Costa assumed the existence of a pandemic problem and admitted/accepted that errors had been made in dealing with the problem. Costa clearly declares a focus on transparency, refusal to create false expectations, and permanent disclosure of

information, which are all values viewed positively by UK citizens according to the survey by Enria et al. (2021). In line with the findings of Mariani et al. (2020) regarding the relationship between Brazilian president Bolsonaro's denial of the need for non-pharmaceutical interventions, the lack of citizens' compliance with such interventions, and the rate of spread of the pandemic, the clear confirmation by von der Leyen and Costa of the pandemic problem may have helped slow down infection rates.

Both von der Leyen and Costa called for unity and coordination and demonstrated a spirit of solidarity and empathy. Examples from von der Leyen's tweets include "solidarity in action" (March 24), "Europe has become the world's beating heart of solidarity" (April 16), and "global solidarity, cooperation & multilateralism are needed more than ever to defeat the #coronavirus" (May 26). Such appeals are in line with Secretary-General of the United Nations António Guterres' (n.d.) statement, "Now is the time for unity". Brown (2020) notes that the "it takes a village" expression has never been timelier, since the COVID-19 pandemic represents a call to action for everyone to work together. The author adds that "when nations, leaders and everyday people unite, we can change the trajectory of COVID-19 by following the science and mobilizing a response" (Brown, 2020).

In terms of ethos, emphasis is placed on responsibility/fulfilment of duty. This is in line with Edelman's (2020) Trust Barometer, which suggests that people evaluate trustworthiness based on two attributes: ethical behaviour (adopting the right behaviour and working to improve society) and competence (delivering on promises). The competence criterion can be linked to the emphasis of both leaders on solutions (e.g., vaccination) and efforts to find and implement these solutions.

Concerning pathos, Murray-Johnson and Witte (2003) state that stimuli and cues to action – evident in the narratives of both leaders' tweets – prompt the public to pay attention to the content (p. 475). The positive emotions aroused by the leader's tweets can help reassure citizens in the pandemic situation characterized by uncertainty and anguish, while the negative emotions aroused can serve to activate identification mechanisms in citizens due to their feeling understood by the politicians. Through this negative-emotion tactic, politicians attempt to humanize their communication by showing their concerns and weaknesses, and thereby get closer to citizens by appealing to their more fragile, emotional aspects. The politicians under study practice a rhetoric based on the absence of appeals to fear. This result contradicts the tendencies of the governments studied by Al Serhan (2022) and Widmann (2022) and coincides with the practice of majority government parties in Spain (PSOE), France (EM) and Germany (CDU) (Tuñón-Navarro and López-Álvarez, 2022) and of populist radical parties (Widmann, 2022).

Concerning logos, Costa's frequent use of statistical and medical evidence is in accordance with O'Keefe's (2014) recommendation that messages should be evidence-based in order to be persuasive. Ting (2018) states that the use of data/evidence and examples is part of the substance of logical and rational discourse (p. 238). Stylistic devices such as metaphors can help make the communicator's thoughts concrete, thus contributing to a clearer and more effective communication (Corbett, 2004, p. 143). Being used to describe the spread of the coronavirus and the method for stopping the spread or mitigating its consequences, metaphors are also found by Lindqvist et al. (2020) and by López García (2020), confirming that these are a discursive device currently adopted. López García (2020), for example, observed that war metaphors were a regular presence in Pedro Chávez's tweets.

Both leaders refer to each other. For example, von der Leyen stated that she was "very happy to meet @antoniocostapm in Lisbon. I know I can count on your experience and dedication" (January 15), and Costa mentions the "requirement of a coordinated and united response from all at European level" (January 20).

With respect to the specific research questions, aims, and analysis categories, no substantial differences in von der Leyen's and Costa's Twitter communications are evident. Rather, there is great proximity between the two leader's tweets in terms of their thematic agenda (which tended to focus on solutions, measures to deal with and combat COVID-19, and on economic support and recovery) and style (which can be described as clear, straightforward, positive, proactive, empathic, responsible, concerned, focused on solutions, emotional, and frequently based on rhetorical devices). This proximity of communicational style may be due to the harmony (or striving for harmony) between European and national (in this case, Portuguese) identities. Or this proximity of style could represent a standard/ideal communication performance to be adopted by governments – that recognize the seriousness of COVID-19 or another virus and its pandemic and worrying effects – regardless of the level of performance (national or supranational) when managing a health crisis. Further study would be required, however, to validate these explanatory hypotheses.

To summarise the comparison between the communication of the two political actors under study, table 2 is presented.

	Ursula von der Leyen @vonderleyen 1.2 million followers	António Costa @antoniocostapm 270.8 thousand followers
Main thematic focuses	Foreign and EU support and EU measures; Economic support and recovery.	Responsibility; Economic support and recovery.
Problems	Clear confirmation of the pandemic problem and acceptance of errors made in dealing with the problem; emphasis on certain problems associated with pandemic, such as the impossibility for many Europeans to return home, cybercrime, fake medicines	Clear confirmation of the pandemic problem and acceptance of the errors made in dealing with the problem; the postponement of the Olympic Games
Cause diagnosis and causal relations	<ul style="list-style-type: none"> . Vaccine and aid; . Power and strength and social and economic improvements; . Working together and discovery of the vaccine to fight the virus; global unity and defeat of COVID-19; . Scientific validation of vaccine and its authorization to use; . EU states and triumph; . Vaccination and end of the pandemic. 	<ul style="list-style-type: none"> . Extension of credit lines and reduction of the impact caused by the COVID-19 pandemic; . Trust and maintenance of the spirit of national unity; . Invitation to sovereign bodies and compliance of the duty of information and cooperation between these bodies; . Contribution from experts and adoption of more appropriate decisions; . Working together and searching for solutions; . Vaccine or treatment and normality; . Global cooperation and eradication of the virus; . Reciprocal recognition of tests and confidence in mobility; . Suspension of flights and reduction of the infection.
Moral judgments	<ul style="list-style-type: none"> . Belonging to the EU and the right time for Europe; . Solidarity and cooperation; . Humanity and ingenuity; . Power and strength; 	<ul style="list-style-type: none"> . Transparency; . Refusal to create false expectations; . Prudence; . European coordination and union.

	. Union and unity; . Vaccine discovery; . Positive transformation.	
Solutions	Associated with vaccination and with pandemic-related problems	. Approval of economic and social measures; . The importance of adopting positive values; . Clarification supported by scientific expertise.
Ethos	Responsibility/fulfilment of duty	Responsibility/fulfilment of duty
Pathos	Positive emotions tend to be more present (e.g., impulse to reflection and action, feelings of support, confidence/optimism/calm), but there is also an attempt to generate negative emotions (e.g., anxiety/apprehension/concern, pain and sadness) and neutral emotions (e.g., expectation)	Positive emotions tend to be more present (e.g., impulse to reflection and action, confidence/optimism/calm, desire for unity, feelings of support, wish sharing but there is also the attempt to generate negative emotions (e.g., anxiety/apprehension/concern, disappointment)
Logos	Truth and logic, reference to numbers, reports, and scientific studies, hyperbole, antithesis, exemplification	Frequent use of statistical and medical evidence; use of metaphor, antithesis, exemplification, interrogation
Style	Clear, straightforward, positive, proactive, empathic, responsible, concerned, focused on solutions, emotional, and frequently based on rhetorical devices while still manifesting awareness of the challenges posed by the pandemic – a style associated more with women, demonstrating a balance between science, rationality, and emotions	Clear, straightforward, positive, proactive, empathic, responsible, concerned, focused on solutions, emotional, and frequently based on rhetorical devices while still manifesting awareness of the challenges posed by the pandemic – a style associated more with women, demonstrating a balance between science, rationality, and emotions

Table 2. Comparison between von der Leyen and Costa's communication on COVID-19 on Twitter in the pandemic period

To conclude, we can extract the following lessons relevant to future political communication in the context of health crises:

- Focus on the essential (this is somewhat enforced by the Twitter format, which limits message size).
- Strive for transparency, truth, and proximity to citizens, seeking to inform, clarify, convince, reassure, and comfort them.
- Construct a narrative that shows commitment to acting and adoption of reasoned solutions.
- Refer to experts when justifying decisions, in order to show that these are taken seriously.
- Focus on cure by means of vaccination.
- Show concern for economic recovery, as the economy is one of the first casualties of a pandemic.
- Appeal for unity.
- Adopt a clear, positive, proactive, empathetic, and humanized communication style.
- Share concerns and weaknesses in order to show transparency and humanity.

- Adopt values such as truth, prudence, refusal to create false expectations, hope, and national and international solidarity (thereby showing concern for the humanity in general and not just for national or European citizens).
- Combine rationality (emphasis on evidence, facts, statistical data, and science) and emotion.
- Use ethos, based on notions of ethical behaviour and competence.
- Use pathos, provoking both positive emotions to inspire, motivate, comfort, and impulse to action, and negative emotions to demonstrate the fullness of human nature, reveal the messenger's concerns and weaknesses, and awaken citizens' psychological identification mechanisms (as citizens share these same concerns and weaknesses).
- Use logos, by means of stylistic devices that facilitate understanding of the message and strengthen its persuasive and call-to-action effects.

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