



News consumption and risk perception of Covid-19 in Spain

Seguimiento informativo y percepción del riesgo ante la Covid-19 en España

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ABSTRACT

Spain is one of the countries that has been most severely affected by the Covid-19 pandemic. In times of uncertainty and stress, the media plays an important role in disseminating information. This study establishes which factors affected risk perception regarding the Coronavirus, which factors determined trust in the measures taken by the Government, and how the presentation of information influenced the spread of fake news. To answer these questions an online survey was created and was completed by 2,034 people from different autonomous communities in Spain, using two multiple linear regression models, as well as different bivariate techniques for parametric statistical analysis. The data shows increased risk perception among the sectors with greater exposure to news about the Coronavirus. A second conclusion refers to the role played by an individual's pre-existing political biases, such as ideology, and their effects on the trust placed in the measures adopted by the Government. In addition, the analysis conducted shows that sectors that follow the news more closely are not immune to the spread of fake news. This research highlights the importance of communication in risk perception and the need to conduct further research in this field, in terms of the psychological, social, and economic implications of this phenomenon.

RESUMEN

España ha sido uno de los países más azotados por la pandemia de la Covid-19. En un contexto de incertidumbre y estrés, los medios de comunicación desempeñan un papel relevante en la difusión de información. En esta investigación se determinan qué factores influyeron en la percepción del riesgo ante el Coronavirus, qué elementos condicionaron la confianza en las medidas adoptadas por el ejecutivo, y cómo influyó la exposición informativa a la propagación de fake news. Para responder a las cuestiones se realizó un cuestionario online en el que participaron 2.034 personas de diferentes comunidades autónomas de España, poniéndose a prueba dos modelos de regresión lineal múltiple, además de diferentes técnicas bivariadas de análisis estadístico paramétrico. Los datos evidencian una mayor percepción del riesgo entre los sectores con mayor exposición informativa a noticias sobre el Coronavirus. Una segunda conclusión referencia el papel que desempeñan las predisposiciones políticas previas del individuo, como la ideología, en la confianza que inspiran las medidas adoptadas por el Gobierno. Asimismo, los análisis realizados muestran que los sectores que realizan un mayor seguimiento informativo no son inmunes a la propagación de fake news. Esta investigación pone de manifiesto la importancia que desempeña la comunicación en la percepción del riesgo, y la necesidad de ahondar en este campo, por las implicaciones psicológicas, sociales y económicas que implica dicho fenómeno.

KEYWORDS | PALABRAS CLAVE

Risk communication, Covid-19, Internet use, communication and media, misinformation, information quality. Comunicación de riesgo, Covid-19, uso de Internet, comunicación y medios, desinformación, calidad informativa.

1. Introduction and state of the art

1.1. The case of Covid-19 in Spain

The Covid-19 disease, also known as the Coronavirus, first took hold in Spain on 31 January 2020 when the first case was detected on the island of La Gomera in the Canary Islands. Since then, the number of people affected by the virus has been increasing. The rise was slow at first, but later, both the number of infected people and the death toll increased sharply over less than a month and a half (Medina, 2020).

After the WHO officially declared the Coronavirus a pandemic because of its global reach (Sevillano, 2020), the Spanish Government took measures aimed at containing and controlling the virus. Those measures included enacting a state of alarm, which was declared on 14 March 2020, limiting activity, and confining the population to their homes, with further restrictions applied over the following days (Cruz, 2020). By the time of the Royal Decree (enacting the state of alarm), the number of cases had reached 5,753, with 136 deaths and 293 patients in intensive care (Department of National Security, 2020)

The Covid-19 pandemic has led to an unprecedented healthcare crisis and with it a sense of alarm, uncertainty, and chaos among the population, with the search for information acting as the daily antidote to these fears. In this context, this research aims to analyse the effect that news consumption has on risk perception and how ideology affects assessment of the actors involved, trust in the measures and the management of communication during the crisis.

1.2. Risk communication

In any crisis situation, institutions and political leaders attempt to deploy risk communication strategies to improve understanding about certain issues that may trigger risk, as well as reducing and minimising false information and distortions of reality. These communicative strategies make it possible to educate the populace about what the risks are and why, as well as to provide expert knowledge on the subject (Rosas-Rodríguez & Barrios-Puga, 2017). In a crisis as complex as this one, these communicative strategies involve many actors in different operations and strategies (Frandsen & Johansen, 2020).

Although interpersonal relationships and the media are transmitters of information and therefore risk generators (Muñiz, 2011; Morton & Duck, 2001), Rivera-Berrío (2011) further develops the concept of risk communication with what is described as communication 2.0 or interactive and situational communication through the Internet. These types of tools help the process of risk communication more than traditional media such as radio and press which have limited abilities to disseminate information (Gonzalo & Farré, 2011). Social networks and blogs, as well as different online tools, facilitate more effective and situational risk communication, which limits barriers to information and provides exposure to ideas and opinions, giving rise to citizen journalism (Rivera-Berrío, 2011). Ultimately, communication through such tools helps to focus risk communication on the Internet as a method of interaction and integration, creating a community where there is a constant flow of information.

In this new phase, social networks such as Facebook, Instagram, and Twitter, emerge as the main transmitters of information, regardless of the content they disseminate (Flores-Vivar, 2020). In any event, these new channels have certain limitations for media coverage, as a result of the ongoing digital divide associated with age (Rivera-Berrío, 2011). In this respect, older people rely on media such as press, radio and television, media that disseminates warnings and messages about risks to people who do not have access to the Internet or mobile technology (Intrieri et al., 2020). However, the technological divide is reduced in the case of instant messaging (Fernández-Campomanes & Fueyo-Gutierrez, 2014), via applications such as WhatsApp, with a more transversal use across different age groups, easing the receipt of messages and notifications, and fusing interpersonal communications and media coverage. This multi-platform landscape in a context of growing communicative interconnection leads to significant exposure to newsworthy events that may be associated with a certain amount of information saturation.

1.3. Assessment of leaders

In crisis management, which this study pertains to, political leaders take a leading role, not only from a purely managerial point of view, but also the extent to which they are suppliers of information, and even more so in a context of increasing personalisation of politics (Rico, 2009). Nevertheless, the public

perception of political leaders is influenced by the political biases of the populace (Rico, 2009). Ideology is a determining factor in the way in which citizens deal with political and social phenomena, it also continues to be the factor which best explains the electoral behaviour of Spaniards (Torcal & Medina, 2002; Torcal, 2011; Moreno & Mora, 2015). In this sense, the importance of ideology is greater in contexts of significant political polarisation (Justel, 1992), where ideological distance between the parties affects the disconnection between different sections of the media (Casero-Ripollés, 2012), as well as the one that exists between citizens with greater political sophistication, detracting from the explanatory powers of the elite (Rico, 2008). As a result, both variables, leadership and ideology, are factors which undoubtedly affect risk perception.

In a communication process during risk situations, it is technical experts, as well as political leaders, who acquire essential importance as sources of information. On the one hand, the public sector is charged with designing policies and explaining them to the media in a generalised manner, with an emphasis on idealism; while experts, who occupy a middle ground between political leaders and citizens, implement the policies, with their discourse showing greater knowledge of the problem as well as greater clarity in their messaging (González & Jaraíz, 2020).

In addition, the perception of technical experts is more immune to the effects of ideological bias, which is the opposite of what happens with political actors. For these reasons, the reputation of experts tends to be more positive than that of political leaders (Villoria, 2006). On the other hand, the confidence transmitted through the images that leaders project also constitutes a decisive factor when assessing political management of the crisis, which results in greater or lower risk perception.

1.4. Misinformation and fake news

Despite the work that the media, political actors and technical experts do to provide information, the uncertainty associated with any emergency situation, in a context of significant political polarisation, growing disaffection among citizens and a dealignment with elites and institutions, creates the conditions for misinformation in the form of fake news. This is more noticeable with political news (Flores-Vivar, 2020), given that the main objective is to spread deliberate misinformation for political gain (...) (Amorós-García, 2018: 35).

The spread of fake news is generated by media without rules or editorial processes, with negative consequences for the accuracy of the information (Lazer et al., 2018). Meanwhile, the form and style in which this news is produced give rise to misrepresentation and distortion (Field-Fote, 2019). However, the speed with which this type of misinformation is spread and viralised is amplified in technological settings such as those that prevail in modern societies (Shu et al., 2020). This process also involves the concept of news credibility, which may change due to interaction between the original source and the social contact that disseminates the news (Samuel-Azran & Hayat, 2019).

Similarly, the success of these practices is rooted in the mimicking of accurate news in a saturated news environment, making it difficult for the populace to distinguish between truthful and fraudulent information. This exercise in misleading the populace, appealing to the receiver's cognitive limitations, and avoiding data and arguments (Shu et al., 2020), is related to the concept of post-truth, given that its main value is not the objective nature of facts, but rather in emotions and the personal beliefs of public opinion. In other words, "fake news is the high-speed train that takes us directly to post-truth" (Amorós-García, 2018: 184).

In essence, it is a tool that gives rise to the manipulation of reality with content that leads to error and deceit (Romero-Rodríguez & Rodríguez-Hidalgo, 2019). And in that abuse of the populace's feelings and beliefs, it is clear that citizens, to a large extent, limit their exposure to news and media that are consistent with their political biases (Festinger, 1957). This is especially true with ideology in the case of Spain.

The challenge of this phenomenon is to identify and limit false information while analysing the behaviour of online fake news using fact-checkers that enable users to report hoaxes such as in the case of "Maldita", or educate the electorate and provide information as the "Newtral" fact-checker does (Paniagua-Rojano et al., 2020).

2. Material and methods

2.1. Questions and research hypotheses

As explained earlier, monitoring risk or crisis information is an essential process in order to minimise uncertainty. However, greater monitoring and knowledge of the basis for and evolution of a crisis does not necessarily result in a reduction of risk perception. Furthermore, the information saturation associated with complex situations, where a lack of competition combined with alternative information, can result in increased stress and a sense of crisis. In addition, the growth of misinformation and fake news can affect the process of risk perception, especially in those sectors more exposed to information about the crisis on channels with a greater presence and ability to disseminate, resulting in this misinformation. In addition, as happens with the perception of different political and social phenomena, the perception of the resolution of a crisis, the assessment of political leaders and experts, and ultimately, trust in the measures they take, may not respond to an unbiased process of rationalisation, but rather, this perception and assessment may be affected by pre-existing political biases. In this sense, this research aims to answer the three following questions:

- Q1: Which factors influence risk perception for the Coronavirus?
- Q2: Which factors encourage trust in the measures proposed by the Government to resolve the problem of the Coronavirus?
- Q3: How is exposure to and monitoring of information about Coronavirus related to fake news?
- These questions will be used to suggest three research hypotheses:
- H1: Greater exposure to news content about the Coronavirus increases risk perception.
- H2: The evaluation of actors in charge of managing the Coronavirus, and political biases, specifically ideology, affect trust in the measures proposed by the Government to resolve the problem of the Coronavirus.
- H3.1: Greater exposure to news content increases the tendency to share misinformation. H3.2. There is a greater tendency to share misinformation among participants who are on the right in ideological terms, which is related to H2.

To compare the working hypotheses H1 and H2, two multiple linear regression models were tested. Furthermore, there was a prior descriptive analysis of the variables included in the study and an analysis of the possible bivariate statistical association. The approach to H3.1 and H3.2 was to use a bivariate analysis with statistical inference. The configuration of the sample and its distribution regarding the questions about fake news, where participants showed a high level of exposure to misinformation and many acknowledged having been confused and sharing fraudulent information, make it difficult to test the binary logistic regression models as they present an especially low coefficient of determination.

2.2. Method and variables

For the purposes of this study, an online questionnaire was created and sent to professors at different universities in the country and the sample was configured through snowball sampling and sharing on social networks, which made it possible to obtain a representative sample in terms of sex, age and ideological positioning within Spanish society. However, the aim of this research is not to produce a representative picture of the opinions and attitudes of Spanish society, but to observe and analyse the relationships produced between the key variables in this study. A total of 2,034 people from different autonomous communities in Spain participated in the study. Of these people, 52% were women and 48% men, aged between 18 and 78 years old ($M=43.89$, $SD=15.01$).

Fieldwork was carried out between 25 and 31 March 2020, during the quarantine period and state of alarm declared by the Spanish government. A structured, closed questionnaire with few questions was used, adjusted to create a model that could be administered to a pre-test of 40 people in order to resolve problems of understanding as well as analysing the internal consistency of the indicators.

The study included the following variables, in response to the issues covered in the theoretical framework and the definition of the research hypothesis:

- Personal risk perception: The scale developed by Morton and Duck (2001) was used to measure the risk participants perceived of being affected by the Coronavirus. The measurement

instrument consisted of four items, relating to how important the problem was for the participants, how worried they were about being affected, what they believed the probability that they would be affected was and how much they felt at risk personally from the Coronavirus. All the items were measured on a Likert-type scale from 1 “very low” to 5 “very high”. The internal consistency of the indicator ($\alpha=0.700$) was calculated from the sum and average of the four variables.

- Exposure to news content: Participants in the study were asked to what extent they had watched the news on various different media channels with the aim of informing themselves about the Coronavirus. This provided information about their exposure to television, radio, press, the Internet (forums, blogs, YouTube, websites), social networks (Facebook, Twitter, Instagram) and WhatsApp, during the health emergency. The level of consumption of each type of media was measured on a Likert-type scale from 1 “not at all” to 5 “a great deal”. The internal consistency of the indicator ($\alpha=0.603$) was calculated from the sum and average of the four variables.
- Exposure to actors providing information: To complement the level of exposure to news content, the participants were asked to what extent they followed the information supplied by the president, ministers, and the team of technical experts. The items were measured on a Likert-type scale from 1 “not at all” to 5 “a great deal”. The internal consistency of the indicator ($\alpha=0.896$) was calculated from the sum and average of the three variables.
- Assessment of actors: Participants were asked how they would evaluate the president, Government spokespeople during the crisis, and Government technical experts. The study also included an assessment of the role played by the main opposition party, the Popular Party. Once again, a Likert-type scale was used, from 1 “very bad” to 5 “very good”.
- Trust in the measures implemented by the Spanish government to deal with the Coronavirus: All the items were measured on a Likert-type scale from 1 “not at all” to 5 “a great deal”.
- Fake news: The study included four dichotomous variables relating to 1) whether the participants knew that hoaxes and misinformation were circulating with regards to the Coronavirus; 2) whether the participants had received any hoaxes or misinformation referring to the Coronavirus in the previous weeks; 3) whether the participants believed information that they later discovered to be false; 4) whether the participants had shared information that they believed to be true but which they later discovered to be false.
- Ideology: Measured on a Likert-type scale from 1 “left” to 10 “right”.

3. Analysis and results

3.1. First approach: Descriptive analysis of the data

A descriptive analysis of the variables and scales subject to study allows us to describe the general characteristics that define the participants in the survey.

With regards to personal risk perception, the results show an elevated risk perception ($M=3.88$, $SD=0.73$), out of a maximum of 5. In addition, risk perception is greater in women ($M=3.95$) than in men ($M=3.81$), and this difference is a real statistical difference in terms of the results of the t-test for independent samples $t=-4.299$, $p<.05$. In terms of exposure to news content, an average of 2.89 ($SD=0.80$) out of 5 was recorded, without significant statistical differences between men and women. On the other hand, the study shows exposure to actors providing information greater than that registered for the media ($M=3.36$, $SD=1.20$), and greater among women ($M=3.46$) than among men ($M=3.25$), with a real difference in statistical terms, $t=-3.94$, $p<.05$. The information channels with the largest following are television ($M=3.42$, $SD=1.32$) and the press, both printed press and online ($M=3.41$, $SD=1.39$), followed by social networks ($M=2.91$, $SD=1.47$) and the Internet ($M=2.89$, $SD=1.41$). The least used information channels for finding information about the Coronavirus are WhatsApp ($M=2.53$, $SD=1.35$) and, in last place, radio ($M=2.21$, $SD=1.41$).

In terms of assessing the actors, technical experts score most highly ($M=3.18$, $SD=1.33$), with the president ($M=2.73$, $SD=1.40$) and the Government as a whole ($M=2.72$, $SD=1.36$) receiving similar assessments; and the Popular Party receiving the lowest score ($M=1.83$, $SD=1.02$). In the first three

cases women gave a slightly higher score than men, while men scored the Popular Party more positively than women. All sex differences, except in the case of assessment of the technical experts, are statistically significant with $p < .05$.

Trust in the measures implemented by the Spanish government to deal with the Coronavirus is relatively high ($M=3.28$, $SD=1.13$), with no recorded differences between the sexes, in terms of the t-test for independent samples. With regards to ideology, the average score across the sample is 4.29 ($SD=2.07$), with statistically significant differences between men ($M=4.45$, $SD=2.12$) and women ($M=4.13$, $SD=2.01$).

With regards to the variables on fake news, 93.7% of the sample recognised that they were being exposed to hoaxes and misinformation about the Coronavirus in Spain; 88% of the sample had seen manipulated news in the days before completing the survey; 49.1% stated they had believed information that they later discovered to be false; and 22.7% admitted they had shared information that they believed to be real and later discovered to be fraudulent.

3.2. Factors explaining personal risk perception of the crisis

In order to respond to H1, which suggested that greater exposure to news content about the Coronavirus increased risk perception, a multiple linear regression was used that, in addition to the independent variable in the hypothesis, included a series of control variables (Table 1). The resulting equation is statistically significant, $F(27.77)$, $p < .001$.

The results show that a greater exposure to news content increases personal risk perception with regards to the Coronavirus and is also the second most influential prescriptive variable recorded in the model ($\beta=0.168$, $p < 0.001$). With regards to socio-demographic variables, age has an important influence on risk perception ($\beta=0.214$, $p < 0.001$), which may be associated with higher levels of disease among older people and has been transmitted by the actors in charge of the crisis and the media since the beginning. On the other hand, sex constitutes another key variable for understanding risk perception, and is greater among women than among men. In general, this is a recurring trend in other research analysing perception of illnesses, traffic accidents, and drug addiction, among others. This may be a result of socialisation processes where women have played a larger role than men in caring for the family and others in general, as well as showing a greater predisposition to protective behaviours and a lower attraction to risky ones.

Table 1. Multiple linear regression, with personal risk perception as a dependent variable			
	B	ET	β
Exposure to actors	.060	.020	0.098*
Exposure to news content	.154	.023	0.168***
Sex	.173	.033	0.118***
Age	.010	.001	0.214***
Ideology	.033	.011	0.094*
Ass. of president	.030	.032	0.058
Ass. of Government as a whole	-.018	.034	-0.033
Ass. of technical experts	-.062	.023	-0.111*
Ass. of Popular Party	-.058	.018	-0.081*
Trust in the measures	-.053	.022	-0.081*

Note. $N=1772$. The sex variable of the participant was re-codified in a dummy variable, where 1 means being a woman. Significance level: * $p < .05$; *** $p < .001$

With regards to ideology and exposure to the actors in the crisis, although there is a statistically significant positive association, in that greater exposure to the actors and a more right-wing ideological stance on the part of the participant increases risk perception, the association remains relatively weak. With regards to the variables on assessment of actors, it is important to highlight the lack of a relationship to the president and the Government in the model, with the assessment of the technical experts presenting as the only significant one, and as expected: the higher the score for the technical experts, the lower the risk perception. This difference may be explained by a lower bivariate correlation of ideology and the assessment of experts. The assessment of the management by the Popular Party however is significant although with a comparatively much lower impact when compared to the rest of the significant variables

with a B and a similar degree of trust in the measures put in place by the Spanish government to deal with the Coronavirus.

In terms of the assessment of the Popular Party's response to the crisis, the variable is not statistically significant when included individually in the model, given that there are no significant statistical differences in the risk perception between those who view the PP's management most poorly (3.89 out of 5), and those who scored it most highly (risk perception is 3.96 out of 5).

3.3. Factors explaining trust in the measures proposed by the Government to resolve the problem of the Coronavirus

To determine the effect of the assessment of the actors responsible for managing the Coronavirus crisis and the role of ideology in the trust placed in the measures proposed by the Government to resolve the crisis (H2), the study used a multiple linear regression model which included, along with the hypothesis variables, a group of control variables (Table 2). The equation tested was statistically significant, $F(213.902)$, $p < .001$, explaining the 54.8% of trust in the measures.

The equation confirms the suggested hypothesis. In this respect, the assessment of the actors plays a central role in explaining trust in the measures adopted by the Government and is especially relevant when evaluating the president ($\beta = 0.287$, $p < 0.001$) and the Government as a whole ($\beta = 0.278$, $p < 0.001$). For its part, ideology is another essential indicator to understand trust in the measures ($\beta = 0.111$, $p < 0.001$), showing, as was expected, an inverse relationship. This suggests that the further to the right participants described themselves, the less trust they placed in the measures. A possible explanation for this phenomenon and one that supports the suggested hypothesis is that trust in the measures reflects a simple ex-post rationalisation of pre-existing political biases, suggesting an adaptation of the empirical evidence found on the influence of the economic context on electoral behaviour (Maravall & Przewoski, 2001; Mora, 2017), or on the evaluation of public institutions (Uslaner, 2018). From the communication perspective and reconsidering the concept of selective bias, it is also expected that the media consumption of those further to the right in ideological terms would include editorial positions that are particularly critical of the (left-wing coalition) Government's management of the crisis, with this news content acting to reinforce the populace's ideological bias.

Finally, although with less relative strength if we compare with the previously mentioned variables, the model also shows that the more exposure to news content there is, the less the measures are trusted and the greater the risk perception on the part of the participant, which, on the other hand, is consistent with the evidence collected in the contrast to H1.

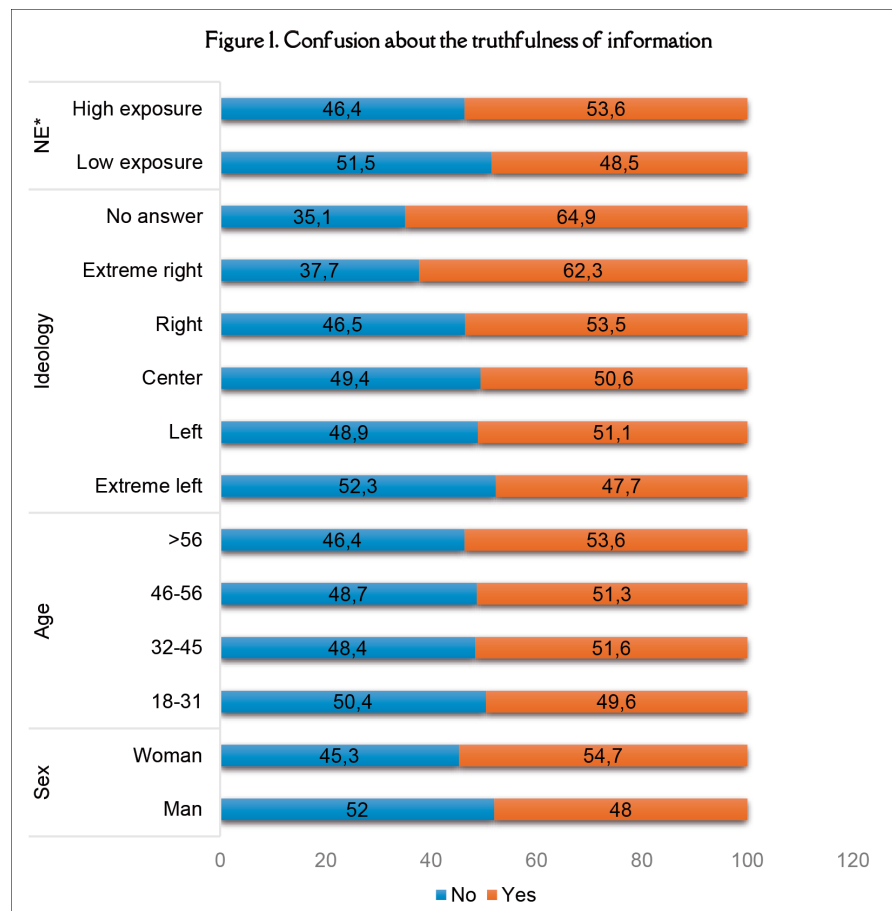
	B	ET	β
Exposure to actors	.002	.022	0.003
Exposure to news content	-.091	.025	-0.065***
Personal risk perception	-0.063	0.026	-0.041*
Sex	-.060	.037	-0.027
Age	.007	.001	0.090***
Ideology	-.060	.012	0.111***
Ass. of president	.230	.034	0.287***
Ass. of Government as a whole	.231	.036	0.278***
Ass. of technical experts	.092	.025	0.107***
Ass. of Popular Party	-.081	.020	-0.074***

Note. The sex variable of the participant was re-codified in a dummy variable, where 1 means being a woman. Significance level: * $p < .05$; *** $p < .001$

3.4. Fake news and monitoring of Coronavirus-related information

As discussed in the theoretical presentation, in situations of uncertainty such as those surrounding the context of a crisis, news about the issue multiply, and these scenarios are used to create and spread misinformation and fake news. This context of information saturation across multiple channels makes it difficult to tell real news apart from fake news. Not even those closely monitoring the news are immune to fake news. The fact that half of those interviewed said that news they initially believed to be true had later

been discovered to be misinformation, alerts us to a worrying situation (Study no.3279-Special Poll April 2020- by the Sociological Research Centre highlights this with the fact that 66.7% of those interviewed thought that news should be restricted and controlled and that there should only be one official source of information). This confusion between real and fraudulent news is reproduced in the different segments of the sample, although there are some slight differences (Graphic 1). Therefore, at the beginning of the results section of the study, women admit to being confused by misinformation to a greater extent than men ($\Phi = -0.067$, $p < .01$). This confusion about the truthfulness of information also seems to be reproduced to a greater extent among older people, although the differences are not statistically significant.



Note: A new dichotomous variable for News Exposure (NE) was created from the rate of exposure to news content. The categories were defined using the 50th percentile of the original variable.

On the other hand, and in accordance with H3.1, people exposed to more news content tend to share this misinformation to a greater extent ($\Phi = -0.052$, $p < .05$). Finally, in terms of ideology, the study shows that more of those who believed information that they later discovered to be false are those who lean towards the right of the political spectrum and those who did not place themselves on the spectrum, resulting in these statistically significant differences ($\Phi = -0.076$, $p < .05$), which confirms H3.2. If we analyse the percentage differences between the extreme categories of each variable, we can see that the one presenting the greatest difference is the variable relating to ideology. If we accept the prevalence of political intent in the use of misinformation and fake news, it is reasonable to conclude that a large part of these pseudo-news items is opposed to the Government, which in a process of selective exposure and cognitive alignment with individuals, would have a greater effect on right-wing voters, given the parties that make up the Government.

4. Discussion and conclusions

From the analysis carried out it is possible to draw different conclusions that enrich the debate about the influence of news consumption on risk perception, in this case linked to the crisis provoked by Covid-19 in the Spanish population. In this respect, the results allow us to confirm the existence of a positive relationship between exposure to news content and risk perception. The news channels used most often to obtain information are television, followed by press, both online and printed, social networks and the Internet, while the two least used are WhatsApp and the radio. The data for news monitoring is supported by the Association for Media Research (AIMC) study on media use in Spain, where newspapers reach 42.5% of readers and television has an even greater following, with 85.4% of the population obtaining its information through this channel (AIMC, 2020). Muñiz (2011) presents similar results in a study conducted in Mexico, which also concluded that the effect produced by television was decisive among individuals for risk prediction.

As has been suggested, digital media allows for effective risk communication, with a high degree of citizen participation because of the free exchange of opinions. To this end, previous studies show that older people, although they do not use social networks or online platforms to find information, use other easily accessible media such as television or radio (Intrieri, et al., 2020) and have higher risk perception than younger people. On this occasion the results have been similar, older people perceive the risk of contracting the Coronavirus as higher than the rest of the population. It shows the influence of the media on public opinion in times of crisis (Ball-Rokeach & DeFleur, 1976), such as this research into the Coronavirus. Although online media such as WhatsApp, Facebook, Instagram, and Twitter are the main ways information is disseminated (Intrieri et al., 2020), television takes on an essential role in times of crisis (Muñiz, 2011).

With respect to the second research question, the data suggests that assessment of the actors involved, and trust in the measures implemented by the Spanish government to deal with the Coronavirus cannot be understood without studying the role which political bias plays, specifically ideology, in the rationalisation of these opinions. In this respect, the further to the right the interviewer describes themselves ideologically, the less trust they place in the measures and the lower they score the actors. A possible explanation of this phenomenon, and one that constitutes a justification for the hypothesis suggested by this research, is that trust in the measures implemented respond to a simple ex-post rationalisation of pre-existing political biases (Maravall & Przewoski, 2001; Mora, 2017), that is to say, trust in the measures adopted is greater amongst participants who are more left-wing because of the political parties in Government. In addition, and in a way that is consistent with the previous point, a positive assessment of the President, Pedro Sanchez, and the Government as a whole translated to greater trust that the measures adopted to contain the Coronavirus would be effective. It is also worth highlighting that in this study, assessment of the technical experts is less affected by political bias. These actors inspire greater confidence in comparison with the assessment of political leaders and significantly help to minimise risk perception, which suggests their usefulness in managing communication in the crisis.

On the other hand, with respect to the third and last question of the study, people with greater exposure to news media are not immune to the power of misinformation and fake news, both in terms of its reception, the confusion created by analysing its veracity, and its spread. The analysis suggests that people who follow the news more closely, across the different media channels, can become overwhelmed with news, reducing their critical ability to efficiently evaluate the veracity of the information to which they are being exposed. In this hypothetical relationship between news exposure and misinformation, the ideological biases of the individual and the extent to which the exposure is selective can increase the magnitude of this relationship between variables.

As with any research based on public opinion, it is important to emphasise the limits of this study: the period in which the research was carried out, one of growing stress on society, a crisis in its initial stages, but that would continue for some time, a crisis that gave rise to events with extensive media coverage, the effects of which are not captured in this study. However, the findings support a line of research that is ongoing, relating to the role of media and the management of crisis communication, not only in constructing reality, but also the mood of a society when it is subjected to a highly stressful situation and its freedoms

and lifestyles are restricted. On the other hand, the analysis carried out also has practical implications, showing the importance that technical actors acquire in managing crisis communication as a strategy for creating trust and credibility, as well as highlighting the need for both public institutions and journalists to develop strategies to allow society to discern the truth of the information to which it is exposed.

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References

- Amorós-García, M. (2018). *Fake News. La verdad de las noticias falsas*. Plataforma Actual.
- Asociación para la Investigación de Medios de Comunicación (Ed.) (2020). *Marco General de los Medios en España 2020*. <https://bit.ly/3ciGzfu>
- Ball-Rokeach, S.J., & DeFleur, M.L. (1976). A dependency model of mass-media effects. *Communication Research*, 3(1), 3-21. <https://doi.org/10.1177/009365027600300101>
- Casero-Ripollés, A. (2012). El periodismo político en España: Algunas características definitorias. In A. Casero-Ripollés (Ed.), *Periodismo político en España: Concepciones, tensiones y elecciones* (pp. 19-46). Cuadernos Artesanos de Latina. <https://bit.ly/2yEcCIE>
- Centro de Investigaciones Sociológicas (Ed.) (2020). *Barómetro especial de abril. Estudio nº 3279*. CIS. <https://bit.ly/2yr0Row>
- Cruz, M. (2020). *Pedro Sánchez echa el cierre 11 días a toda actividad no imprescindible*. El Mundo. <https://bit.ly/2ydqhVWx>
- Departamento de Seguridad Nacional (Ed.) (2020). *Coronavirus (COVID-19) – 14 de marzo 2020*. Gabinete de la Presidencia del Gobierno de España. <https://bit.ly/2XJfNr5>
- Fernández-Campomanes, M., & Fueyo-Gutiérrez, A. (2014). Redes sociales y mujeres mayores: Estudio sobre la influencia de las redes sociales en la calidad de vida. *Revista Mediterránea de Comunicación*, 5(1), 157-177. <https://doi.org/10.14198/medcom2014.5.1.11>
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford University Press.
- Field-Fote, E. (2019). Fake News in Science. *Journal of Neurologic Physical Therapy*, 43(3), 139-140. <https://doi.org/10.1097/npt.0000000000000285>
- Flores-Vivar, J. (2020). Datos masivos, algoritmización y nuevos medios frente a desinformación y fake news. Bots para minimizar el impacto en las organizaciones. *Comunicación y Hombre*, 16(16), 101-114. <https://doi.org/10.32466/eufv-cyh.2020.16.601.101-114>
- Frandsen, F., & Johansen, VV. (2020). Public sector communication: Risk and crisis communication. In V. Luoma-Aho, & M. J. Canel (Eds.), *The Handbook of Public Sector Communication* (pp. 229-244). Wiley-Blackwell. <https://doi.org/10.1002/9781119263203.ch15>
- González, A., & Jaraíz, G. (2020). Las políticas de inclusión social en Andalucía desde la perspectiva discursiva y lexicométrica. Un análisis comparativo del discurso técnico-político. *Empiria*, 45, 75-111. <https://doi.org/10.5944/empiria.45.2020.26305>
- Gonzalo, J.L., & Farré, J. (2011). *Teoría de la comunicación del riesgo*. UOC.
- Intrieri, E., Dotta, G., Fontanelli, K., Bianchini, C., Bardi, F., Campatelli, F., & Casagli, N. (2020). Operational framework for flood risk communication. *International Journal of Disaster Risk Reduction*, 46, 101510-101510. <https://doi.org/10.1016/j.ijdr.2020.101510>
- Justel, M. (1992). *El líder como factor de decisión y explicación del voto*. Universidad Complutense de Madrid. Working Paper. <https://bit.ly/2ydc385>
- Lazer, D.M.J., Baum, M.A., Benkler, Y., Berinsky, A.J., Greenhill, K.M., Menczer, F., Metzger, M.J., Nyhan, B., Pennycook, G., Rothschild, D., Schudson, M., Sloman, S.A., Sunstein, C.R., Thorson, E.A., Watts, D.J., & Zittrain, J.L. (2018). The science of fake news. *Science*, 359(6380), 1094-1096. <https://doi.org/10.1126/science.aao2998>
- Maravall, J.M., & Przewoski, A. (2001). Reacciones políticas a la economía. *Reis*, 89, 11-52. <https://doi.org/10.2307/40184172>
- Medina, M.A. (2020). *Cronología de la epidemia de coronavirus en España en tan solo mes y medio*. El País. <https://bit.ly/2K30zGH>
- Mora, A. (2000). *El voto económico y estudio de agendas en España: Aproximación a sus efectos en las Elecciones Generales del 2000 y 2011*. [Unpublished doctoral dissertation]. Universidad de Murcia.
- Moreno, C., & Mora, A. (2015). Los efectos de la ideología en el comportamiento electoral de los españoles. In A. Martínez, & F. Villaplana (Eds.), *La influencia de la ideología en las campañas electorales. El caso de España* (pp. 15-46). Fragua.
- Morton, T., & Duck, J. (2001). Communication and health beliefs. Mass and Interpersonal Influences on Perceptions of Risk to Self and Others. *Communication Research*, 28(5), 602-626. <https://doi.org/10.1177/009365001028005002>
- Muñiz, C. (2011). Búsqueda de información durante tiempos de crisis. Efectos de la comunicación interpersonal y masiva en la percepción de riesgo personal ante la gripe AH1N1. *Revista de Ciencias Sociales*, 17(1), 9-21. <https://bit.ly/3eoFjlu>
- Paniagua-Rojano, F., Seane-Pérez, F., Magallón-Rosa, R., & and (2020). Anatomía del bulo electoral: La desinformación política durante la campaña del 28-A en España. *Revista CIDOB d'Afers Internacionals*, 124(124), 123-146. <https://doi.org/10.24241/rcai.2020.124.1.123>
- Rico, G. (2008). *La construcción política del carisma: las imágenes de los líderes y su impacto electoral en España*. [Unpublished doctoral dissertation]. Universidad Autónoma de Barcelona.
- Rico, G. (2009). *Líderes políticos, opinión pública y comportamiento electoral en España*. Centro de Investigaciones Sociológicas (CIS).

- Rivera-Berrío, J. (2011). Hacia un nuevo modelo de comunicación del riesgo. *trilogía Ciencia Tecnología Sociedad*, 3(4), 45-45. <https://doi.org/10.22430/21457778.137>
- Romero-Rodríguez, L.M., & Rodríguez-Hidalgo, C. (2019). Desinformación y posverdad en los medios digitales: del astroturfing al click baiting. In L. M. Romero-Rodríguez, & D. E. Rivera-Rogel (Eds.), *La comunicación en el escenario digital. Actualidad, retos y prospectivas* (pp. 379-407). Pearson. <https://doi.org/10.16921/chasqui.v0i140.4033>
- Rosas-Rodríguez, M.E., & Barrios-Puga, A. (2017). Comunicación de riesgo, cambio climático y crisis ambientales. *Chasqui*, 136, 179-194. <https://doi.org/10.16921/chasqui.v0i136.3294>
- Samuel-Azran, T., & Hayat, T. (2019). Online news recommendations credibility: The tie is mightier than the sources. [La credibilidad de las noticias digitales: El vínculo es más importante que la fuente]. *Comunicar*, 60, 71-80. <https://doi.org/10.3916/C60-2019-07>
- Sevillano, E.G. (2020). *La OMS declara el brote del coronavirus pandemia global*. El País. <https://bit.ly/3a2N9Fb>
- Shu, K., Wang, S., Lee, D., & Liu, H. (2020). Mining disinformation and fake news: Concepts, methods, and recent advancements. *ArXiv*. https://doi.org/10.1007/978-3-030-42699-6_1
- Torcal, M. (2011). *El significado y contenido del Centro Ideológico de España*. Fundación Alternativas. <https://bit.ly/2RLsJKG>
- Torcal, M., & Medina, L. (1977). Ideología y voto en España 1977-2000: Los procesos de reconstrucción racional de la identificación ideológica. *Revista Española de Ciencia Política*, 6, 57-96. <https://bit.ly/3cs82LH>
- Uslaner, E. (2018). *The Oxford handbook of social and political trust*. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780190274801.001.0001>
- Villoria, M. (2006). ¿Por qué desconfiamos de los políticos? Una teoría sobre la corrupción política. *Revista del CLAD Reforma y Democracia*, 34, 1-21. <https://bit.ly/2A8FybZ>