Contentious Responses to the Crises in Spain: Emphasis Frames and Public Support for Protest on Twitter and the Press

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This research analyzes how different types of frames adopted by news organizations and social media affected the support for protests against austerity measures in Spain. We pay special attention to the individual understandings of the crises based on materialistic grievances and nonmaterialistic accounts of the economic crises. We identified frames using a supervised approach and a data set of 2 million tweets gathered during the major demonstrations of the Indignados Movement between 2011 and 2013. Our second data set included the news-related content published by the top Spanish newspapers, in terms of circulation, during those demonstrations. We found that support for antiausterity protests was conditioned by understandings of the crisis. Frames addressing the political system were negatively related to the support for protests against austerity measures, as compared with those referring to the crisis as an economic matter. In addition, more challenging and controversial frames generated lower acceptance of the protests among the population than those that primed social problems.

Keywords: protest, attitudes, news media, social networks, Twitter, contentious politics

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In 2008, the economic crisis hit Spain with unprecedented social consequences and brought massive reactions of citizens contending with anti-austerity policies. It also raised public concern about the responsiveness of the political system and its closeness to corporate interests. A wide variety of groups of citizens affected by the economic crisis, as well as those who wished to express their solidarity or question the political system for its responsibility in the crisis, expressed their dissent and took action outside the electoral arena throughout Spain. The Indignados Movement was a central player in anti-austerity protests. Not only did it question the political system itself, but it also provided spaces for citizen involvement as well as innovative action repertoires.

The success of the Indignados Movement has been explained by its reliance on a broad identity, which involved organized group interests, such as the right to housing movement and emerging organizations tied to those mostly affected by the economic crisis. The Indignados started its actions in May 2011 and continued them throughout the recession period. Its action involved materialistic grievances such as opposing rising unemployment, house evictions, and cuts to social services, mainly health and education. It drew on recent movements contesting youth precariousness and expanded on traditional claims of the left. Its opposition to unions enabled it to expand and adapt critics of inequality and material deprivation (Anduiza, Cristancho, & Sabucedo, 2014). Yet, the issue that opened a new space in the political arena for the Indignados was its critique of the political system. As such, it also included nonmaterialistic grievances by contesting corruption, deficits in political representation, improper influence of corporations in politics, and a general call to popular sovereignty on decisions regarding austerity policy. The movement frames consequently dealt with the two types of grievances, which were strategically combined. Its repertoire of actions took many forms and evolved in its level of innovation and contentiousness during the last years of the crisis. This, in turn, led to changing levels of public support for anti-austerity demonstrators.

Against this background, this article describes perceptions of anti-austerity protests and their relation to attitudes toward demonstrators and their grievances. Our central aim was to study public support for the anti-austerity protests by considering how social media users adopted frames proposed by the Indignados and the organizations staging the protest events such as the 25S platform (Rodea el Congreso [Occupy Congress]) and the Platform of People Affected by Mortgages (Plataforma de Afectados por la Hipoteca [PAH]). We also assessed the media effects on support for anti-austerity protests by identifying frame resonance in the press. In sum, we analyzed the extent to which different types of frames adopted by social media users and news media were related to support for demonstrators, grievances, and repertoires. Overall, we aimed to provide valuable evidence for understanding social perceptions of the crisis.

The article proceeds as follows. We start with a brief introduction to the literature on attitudes toward protest and their relationship with media accounts of protest. In the second section, we discuss our approach to support for contentious politics and present the aims of our analysis and hypotheses. In the third part, we describe the data and methods. We continue with the description of findings and the discussion of the results of the multivariate analysis. We close with the conclusions and plans for future research.
Support for Social Movements and Framing by Social Movement Organizations

One of the final aims of political protest is changing the perception of public opinion, which implies that social movements depend on obtaining public support. However, attitudes toward protest not only compose perceptions of the demonstrators or the social movement actors themselves, but also their actions and their claims in particular moments (Klandermans & Oegema, 1987). Previous research has considered nonviolent protest to be a legitimate way to voice concerns in established democracies (Norris, Walgrave, & Van Aelst, 2006). Yet, public support for protest varies widely depending on the issue contexts, protest actions, and government responses (Cristancho, Uba, & Zamponi, 2019).

In the context of the economic crisis in Spain, the first reactions by the Indignados Movement had broad support in its initial claims targeting the political system and austerity policy. Polls reflected sympathy toward popular response and collective compromise in the first occupation of public squares, which questioned the political system. This changed thought as time passed. The concentrations and encampments led to police clashes and more contentious confrontations. As a result, the protesters’ repertoires were perceived as threatening and violent, and their public support diminished. These variations might have signaled attitude changes toward protestors and their repertoires, but they also might have involved multiple understandings of the crisis.

Polls provide snapshots of public support toward particular dimensions of protest in a given moment, but they may hide how individuals perceive the underlying conflicts. In this study, we argue that a more detailed account of attitude objects and the process of public opinion formation are relevant to understand public responses to contentious politics. The closest line of research to this question is the study of media representations of politics, which deals with the legitimacy of social movements as a problem of media representation (McLeod, 1995; McLeod & Detenber, 1999) or as a media selection mechanism that affects the diffusion chances of contentious messages (Koopmans, 2004).

Also, a long tradition of public opinion research has been concerned with tapping sympathy toward groups that challenge the status quo and their forms of action. This research has studied the formation of public opinion on divisive issues by focusing on the salience of the conflict and on how publics position themselves on the divide (Stimson, 2015) and on whether social movements have an impact on public opinion (Amenta, Caren, Chiarello, & Su, 2010). The first empirical studies in this regard sought to explain public perceptions of contentious actors, their claims, and their repertoires of action for the civil rights movement in the United States (Olsen, 1968; Turner, 1969). They found that social acceptance of various forms of nonviolent protest varied depending on individual factors and context, as well as on the groups in question.

Research on attitudes toward conventional and unconventional forms of political participation was carried on later through survey studies of political behavior in Western democracies (Kaase & Barnes, 1979). From these early empirical approaches, broader studies dealt with the acceptance of contentious actors as

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2 Sympathy toward the Indignados reached 77.1% on May 23, 2011, dropped to 66% on June 1, 2011, and further to 51% on May 10, 2012 (Ferrándiz, 2014).
adversaries who formally represent legitimate interests (Gamson, 1975); in addition, they dealt with how the state co-opts or recognizes challengers (Amenta et al., 2010); and finally, with how contentious actors can generate changes in social values regarding politics (Rochon & Mazmanian, 1993).

Perceptions of protest follow the logics of public opinion and are consequently related to issue accounts in the media and to unstable support as expressed in public approval rates (Kriner & Schwartz, 2009). Research on issue evolution has studied conflict salience and public opinion divisiveness considering the relevance of issue publics and their potential for changing support toward particular issues (Hutchings, 2005). This explains an important part of issue politics and its relation with electoral processes (Stokes, 1963), party positions, and government responses. However, identifying issue publics and following the evolution of their stances are challenging endeavors for not only for methodological reasons, but also for the complexity involved in understanding multiple issue dimensions, actors, and behaviors. In addition, and despite the political and social debates around the legitimacy of protest actions, we have little knowledge about how people perceive those actions and the evaluative attitudes toward participation modes. We argue that filling this gap is important because people’s perceptions contribute to explaining the potential of protest and participation as well as the perceived costs and benefits associated with participation modes; also, it contributes to assessing the ability of the system to cope with conflict and the reactions of public opinion when it faces challenges beyond electoral politics.

Social movement scholars have provided a detailed account about how social movements organizations use frames for providing particular understandings of the issue at hand and emphasizing common values and motives (Snow, Benford, Klandermans, Kriesi, & Tarrow, 1988). These frames have a broader effect on collective identity formation by establishing group boundaries (Melucci, 1995). Through framing, movements aim to promote their perspectives among individuals who are expected to adopt their particular understanding of issues (Snow et al., 1988).

Movements not only need the media to reach public opinion, but also depend on media accounts of issues (Gamson & Wolfsfeld, 1993; Vliegenthart & Walgrave, 2012). Media frames have been found to have a direct impact on issue attitudes (Scheufele, 1999; Shen, 2004) and on public support of social movements through experimental designs (McLeod, 1995; McLeod & Detenber, 1999; Terkildsen, Schnell, & Ling, 1998) and qualitative analyses (Micó & Casero-Ripollés, 2014). Yet, the reverse has also been found (see, e.g., Muñoz & Casero-Ripollés, 2016). In this sense, it is relevant to investigate how the acceptance and adoption of frames by individuals or by media sources may result in the endorsement of movement positions or social support.

The adoption of movement frames by the media has been considered a major outcome of social movements. It implies the recognition of the movements’ particular understanding of issues by opinion leaders and, more important, its diffusion in a crucial space for public opinion formation (Gamson & Wolfsfeld, 1993; Polletta & Kai Ho, 2006). However, the relation between the adoption of movement frames by the media and by issue publics in Twitter and public support may be dependent on the type of frames and the particular dimensions involved in the concept of movement support (i.e., attitudes toward actors, their grievances, and repertoires).
For this reason, we investigated how the support for antiausterity demonstrators may be conditioned by their emphasis on materialistic (i.e., economic grievances) versus nonmaterialistic accounts of the crisis (i.e., system-challenging frames). The Indignados Movement combined a broad range of claims that questioned democracy in Spain by making reference to deficits in political representation, corruption, and corporate interests in politics, with grievances related to youth precariousness. These overlapped partly with more traditional leftist claims in reaction to the financial crisis and were widely contested by the conservative government and a broad part of the mainstream media close to the socialist party.

This variety of framing the crisis in the Spanish public opinion provides a unique opportunity to question the extent to which attitudes toward antiausterity protest are related with the framing of the crisis by social media users and by the press. Drawing on the previous literature discussing consensus values (Calzada & del Pino, 2011), we expected that materialistic accounts of the crisis, which revolve around values such as solidarity and justice, would produce higher levels of approval for antiausterity contenders than system-challenging frames. We expected the latter, which are diagnosis frames and contain blame attribution, to generate partisan division because of their expected ideological charge. This led us to our first hypothesis:

H1: Nonmaterialistic understandings of the crisis are negatively related to movement support as compared with materialistic accounts.

When providing particular understandings of the crisis, movement organizations refer to either material or political dimensions (materialistic vs. nonmaterialistic frames) with different purposes. They combine five types of frames (Snow et al., 1988): (1) diagnostic frames with retrospective explanations on the causes of the crisis, (2) blame attribution frames in which they make a statement about the responsibility of particular actors, (3) prognostic frames that are used to propose a solution to their grievances, (4) motivational frames that intend to engage their supporters into action through the expression of motives for acting, and (5) identity frames that highlight the shared belonging between movement supporters and a wider public affected by the crisis. The first two types of frames provide explanations and blame attributions, which are usually ideologically biased or, at least, generate controversy between movement supporters and their targets. This highlights political disagreement and generates public rejection of movements and their grievances.

Movements may be perceived in these contexts as transgressing social norms to preserve harmony and courtesy, especially under conditions of divided positions and partisan heterogeneity (Eveland & Hively, 2009; Klofstad, Sokhey, & McClurg, 2013). Conversely, the general public may identify with prognostic frames that provide solutions to the crisis and hope for a better future. And even if they do not identify with the movement or their motives for action, they may perceive them as more internal beliefs of the movement but not as frames that challenge their own beliefs. Consequently, we expected that

H2: Blame attribution and diagnosis frames are negatively related to movement support.

Finally, we expected that differences between frames in the media, which respond to editorial lines, would also affect support for antiausterity protests. News coverage of the protest events was expected to
contain important ideological charges following editorial lines, as well as their reference to elite responses. More precisely, right-wing media is expected to reject grievances challenging the status quo, and these should undermine movement support. We should then expect that movement frames that appear in the right-wing media would be used to criticize the movement, its grievances, or its actions and would therefore undermine support. More formally, we expected that

\( H3: \) The use of movement frames by left-wing media is positively related to movement support when compared with that of right-wing media.

**Method**

**Case Studies**

Table 1 shows the four case studies we considered here. They are all antiausterity demonstrations that took place in Spain between 2011 and 2013.

<table>
<thead>
<tr>
<th>Cases</th>
<th>Challenger</th>
<th>Demonstration date</th>
<th>Period under study</th>
<th>Tweets (n)</th>
<th>News items (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15M</td>
<td>Indignados</td>
<td>May 15–June 12, 2011</td>
<td>May 1–December 1, 2011</td>
<td>239,361</td>
<td>4,528</td>
</tr>
<tr>
<td>25S (Rodea el Congreso [Occupy Congress])</td>
<td>Indignados</td>
<td>September 25–29, 2012</td>
<td>September 18–October 6, 2016</td>
<td>766,486</td>
<td>143</td>
</tr>
<tr>
<td>Escraches</td>
<td>Platform of People Affected by Mortgages</td>
<td>March–October 2013</td>
<td>February 1–October 1, 2013</td>
<td>88,067</td>
<td>1,767</td>
</tr>
</tbody>
</table>

The first events involved a set of kick-off events including 50 simultaneous demonstrations and encampments in public squares all over Spain from May 15 to June 12, 2011. They were known as the 15M Movement and were promoted by the Indignados group. Those protests were operated mainly through online social media platforms and used the shared motto “Real Democracy Now,” a clear reference to their main demand: the reform of the Spanish political system and the adoption of measures for fostering transparency, accountability, and participation. More than 400 organizations were involved in these activities.

The Indignados took the streets again to celebrate the second anniversary of the 15M Movement. On May 12, 2012, 20 simultaneous demonstrations took place in different Spanish cities under the name
It was a new set of demonstrations that questioned the austerity measures. Participants questioned the quality of democracy and again appealed for measures similar to those demanded by the Occupy Congress demonstrators in the United States in October 2011.

Our third case study starts with the massive concentration that surrounded the Spanish Congress in Madrid on September 25, 2012. This demonstration had an estimated turnout of 6,000 participants and resulted in an unprecedented and controversial police intervention, which was contested by additional concentrations from September 26 to September 29. Then, a new major demonstration was organized with an estimated turnout of 60,000 people, which we also include in our third case.

Finally, we also studied multiple smaller events related to housing rights from February to October 2013. These were direct actions targeting members of the parliament and government officials. Those actions were known as Escraches and consisted of concentrations at the doorsteps of politicians’ homes and the ruling party’s (the Popular Party) offices. They resulted in furious responses by members of the ruling party, both in Madrid and at the national level. Escraches were organized by the PAH, which represented people affected by house evictions. It emerged in Barcelona during 2009, was supported by the 15M assemblies, and quickly expanded all over Spain. This platform raised 1.5 million signatures in an unprecedented popular legislative initiative (note that only 500,000 signatures are necessary in Spain to submit this type of initiative) to amend the Spanish mortgage law. The goal was a revision of the law to allow retroactive payment, the suspension of evictions, and the promotion of social rent. However, a completely different version of the law was passed by the Spanish Congress, in November 2012, leading the PAH to organize Escraches.

Data

Our analyses are based on two different data sets. First, we collected data from the social media platform Twitter, which was largely used by protesters to organize and promote their activities and demands. We identified public attitudes toward the antiausterity movement by analyzing tweets posted on this social platform. Then, we also collected the news media pieces covering the antiausterity measures activities by the four major newspapers in Spain. We used these corpora to identify media frames.

Twitter Data

We analyzed a unique data set, which included a convenience sample of 1,155,074 Twitter messages that were filtered using issue-specific keywords and tags. As detailed above, our sample included tweets published regarding our four case studies (see Table 1) and the diverse set of events that took place during a 40-month period. Thus, our sample covered an important part of contentious political action in Spain during the economic crisis. We focused our analysis on retweets \((N = 2\) million) as this guaranteed that we captured the most reliable content. Retweets have been validated for topic relevance and signaled as having content worthy enough to endorse.

Social media users are not representative of the population and the fact that we follow the traces of followers of contentious politics brings additional biases from self-selection to issue-specific contents.
Studies that characterize Twitter users in Spain have found that they are younger and have above-average education levels than the entire Spanish population. The percentage of men and women tends to equalize and territorial distribution is concentrated in large towns and cities. This limits the ability to generalize the results for the entire Spanish population. Yet, our substantive interest is studying attitude dynamics in issue publics and electoral elites. The prevalence of opinion leaders in social media and the issue-specific publics poses a valuable sample to follow those who are most concerned about public affairs and have strong positions, knowledge, and interest for expressing them (Stimson, 2015).

The selection of the periods of study was based on the assumption that organizations use social media platforms for mobilization to raise issue attention within a short timeframe and ahead of events. However, as studies predicting voting direction with Twitter data have already pointed out, the potential impact of the period selection on the results is not clear.

**News Media Data**

Besides Twitter data, we analyzed the news content produced by the four major Spanish newspapers, in terms of circulation as audited by the Estudio General de Medios, during the events under study. We collected news from *El País*, *El Mundo*, *La Vanguardia*, and *El Periódico*, which are all legacy media outlets that preceded the advent of the Web. Through analysis of their content, we obtained a representation of the Spanish polarized pluralist model (Hallin & Mancini, 2004). These sources represent distinct political orientations and provide some variety in mobilizing their readers to support different causes (Chaqués-Bonafont & Baumgartner, 2013). Overall, we identified media frames of 6,855 unique news pieces published before, during, and after the antiausterity activities took place (see breakdown by event in Table 1). The time window for each case varies and is shown in Table 1. We used the Factiva database to collect news content matching a set of search queries detailed in Appendix Table A1. Figure 1 presents a descriptive account of media attention for each case across time. Notably, *La Vanguardia* followed by *El País* devoted the highest amount of attention to the most covered event in our study (i.e., the demonstrations promoted under the name of the 15M Movement). Media attention followed a similar pattern across cases, which consisted of sharp peaks near the days of central events and prominent drops right afterward. This pattern was also mirrored in the Twitter data.

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3 Observatory of Social Networks 2012: Observatorio.iti.upv.es/list/report/. See also the Digital News Report 2017 (Newman, Fletcher, Kalogeropoulos, Levy, & Nielsen, 2017) for further information on social media use for following political information.

4 For more information, see http://reporting.aimc.es/index.html#/main/diarios.
Procedure

To identify public attitudes in our retweets data set, we used a supervised approach based on dictionary coding techniques to identify keywords and phrases in each tweet (Matthes & Kohring, 2008). We classified tweets by identifying keywords that signaled explicit and direct attitudes toward protests, named opinionated tweets, as compared with tweets with no value charge, called nonopinionated tweets that, instead, provide information related to the issues or events without taking a position or expressing an attitude. They are usually intended to share factual or logistical information about events such as how the police are reacting, calls to action, or media accounts on the events. Regarding the latter, endorsing news contents by including links to issue-related content may be a form of expressing an attitude; however, we argue that opinionated tweets in which positions and compromises are explicit reveal more intense attitudes than providing news media references or factual data on an issue. Therefore, we excluded nonopinionated tweets and strictly looked for textual interpretations to avoid latent meaning or nontextual interpretations.

We first identified attitudes toward protests against austerity measures in Spain. To this end, we manually coded two subsamples of 1,000 tweets for each event, containing a random selection of tweets and the top retweets. A second group of two coders was trained for a second round of human coding. They
classified the top retweets for the four cases, up to a total of 2,200 tweets. Intercoder reliability for pairs of coders working on the similar data sets reached 87% agreement for content polarity and 76% agreement when identifying attitude objects. As a result, a codebook was defined with a coding procedure shown in Appendix Figure A1. From this initial process, we constructed keyword dictionaries for each event and used a simple matching identification of substrings in strings protocols to automatically code retweets.

The automatic process was iterative, with an initial test of the performance of dictionary coding compared with that of human coding. This produced matches above 66% for tweets containing a single keyword for each category of polarity. It reached more than 90% reliability in the identification of delegitimation, which was one attitude type under study. Overall, scores for attitude objects (i.e., challenger, repertoire, grievance, and defender) and attitude polarity (i.e., the aggregate values of delegitimation, support, legal, and moral) were more than 60%. Special attention was devoted to those tweets that expressed irony or reversed meaning as this has been established as one of the main challenges in text mining tweets (Maynard & Funk, 2011).

A second iteration of the process involved the revision of keywords for the unmatched results of the first dictionary- and human-coding processes. This process aimed to refine the automatic classification and achieve the highest level of reliability.

We operationalized attitudes toward protests against austerity measures in Spain as the expression of positive attitudes as compared with negative attitudes. Therefore, as mentioned before, this implies focusing exclusively on opinionated retweets. Table 2 shows the distribution of positive and negative attitudes in opinionated and nonopinionated tweets by case.

<table>
<thead>
<tr>
<th>Case</th>
<th>Positive attitudes</th>
<th>Negative attitudes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>15M</td>
<td>18,431</td>
<td>8</td>
</tr>
<tr>
<td>12M15M</td>
<td>2,722</td>
<td>4</td>
</tr>
<tr>
<td>25S</td>
<td>39,556</td>
<td>5</td>
</tr>
<tr>
<td>Escraches</td>
<td>74</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>60,783</td>
<td>6</td>
</tr>
</tbody>
</table>

Nonopinionated tweets accounted for 77% of our sample, and there were wide differences between positive and negative attitudes between cases. In addition, we identified that almost 40% of opinionated tweets in our sample were expressions of attitudes toward objects, different from those toward challengers, grievances, or repertoires. Attitude expression during contentious events was largely directed at defenders of the status quo or police action. Yet, our interest in this study was on responses to contestation. Hence,

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5 During the manual labeling, we identified keywords and hashtags that clearly expressed negation or irony and considered this in the dictionary coding to avoid identification errors.
we decided to keep the subsample of opinionated tweets directed at challengers, grievances, or repertoires and those that contained movement frames.

A similar coding process was used for identifying frames in retweets and in news media content. We identified social movement frames from event manifestos as provided by staging organizations and used the central concepts in their wording to build keyword and phrase dictionaries. This process, used in previous research, allowed for the automatic identification of frames in social media content and in the four major newspapers (Casas, Davesa, & Congosto, 2016). This type of coding provided an approximation of frame adoption in a broad sense.

To assess individual understandings of the crisis, we identified whether individuals used movement frames in their tweets and coded them according to the type of frame. We built a dichotomous variable taking the value 1 if the type of frames was present and 0 otherwise. We included a dummy variable to account for “motivation,” “blame attribution,” “diagnosis,” “prognosis,” or “identity.” We also accounted for the emphasis regarding the crisis: nonmaterialistic frames = 1, materialistic frames = 0. We distinguished tweets posted by organizational users (e.g., Democracia Real Ya) vis-à-vis nonorganizational users to control for organizational and individual activity.

The operationalization of frames in the media followed a similar procedure. We also included dummy variables for each type of frame and for distinguishing between materialistic and nonmaterialistic frames. As we aimed to test whether ideological orientation of the press had a relation with movement support and potential frame effects, we classified our media sources into left-wing and right-wing press. We included a dummy variable taking the value of 1 for news content coming from El País or El Periódico signaling left-wing media orientation and 0 for content produced by El Mundo or La Vanguardia, which signals right-wing media orientation (Baumgartner & Chaqués-Bonafont, 2015; Newman, Fletcher, Kalogeropoulos, Levy, & Nielsen, 2018). Finally, we included in our model an indicator to account for daily attention. This measure controlled for the mean word count in articles in each outlet on a daily basis. Tweets were then marked by the relative daily presence of media accounts of protest.

To further study perceptions toward antiausterity protests as a function of frames in Twitter and news media, we delved into the role of Twitter users. We looked at the relative role of actors within the conversations on Twitter in relation to their own activity. We adopted the model proposed by González-

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6 Event manifestos include public statements made by staging organizations regarding the protest event. These were extracted as quasiphrases and keywords from documents on the websites of movement organizations, for example, from the famous declaration of Democracia Real Ya translated into multiple languages and broadcast on multiple outlets: “We are ordinary people. We are like you: People, who get up every morning to study, work or find a job, people who have family and friends.” A systematic retrieval of documents was made following the procedures of the Caught in the Act of Protest: Contextualizing Contestation Project (http://www.protestsurvey.eu/). This resulted in 240 statements (81 for the 25S case, 89 for the 15M in both cases, and 70 for the Escraches case).

7 Identifying organizational accounts involves a high level of uncertainty as it is based on users’ profiles with no verification.
Bailón, Borge-Holthoefer, and Moreno (2013), which is a four-fold category. The basic idea here is that users’ influence can be mapped along two dimensions: the ratio between how many accounts it follows and how many followers it has; and second, the ratio between how often an account tweets (messages sent) and how often it is mentioned or receives replies and retweets by others (messages received). This model provided a parsimonious indicator of potential influence by Twitter users resulting from the distribution of followers in the allocation of targeted messages (see Figure 2).

<table>
<thead>
<tr>
<th>Received messages / Sent messages</th>
<th>Influentials</th>
<th>Hidden influentials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Following / Followers</td>
<td>Broadcasters</td>
<td>Common users</td>
</tr>
</tbody>
</table>

Figure 2. Types of users by role in potential influence.

In this model, **influentials** are the most visible users as they act as hubs and are followed by many other users. They receive the highest level of attention as related to the number of posts they sent (e.g., celebrities or high-ranked public figures). **Hidden influentials** have below-average values for network centrality, which means that they have much fewer shared connections with other users; yet, they receive a high volume of messages. Therefore, they are likely to start long cascades of information and activate processes of diffusion even though they are not the most visible actors in issue-specific networks (González-Bailón et al., 2013). **Broadcasters** are relevant as they are the most visible users in the stream of information flow. They have large numbers of followers and thus the potential to influence a larger number of users. However, they are not recognized as important issue-related actors and, therefore, do not receive issue-specific messages. Finally, **common users** receive low levels of attention and have the lowest influence potential. This characterization provided a straightforward account of influence potential by simplifying centrality and visibility attributes into categorical measures, which we included in our model.

Finally, and once the contents of the tweets were convincingly coded in the categories of interest, we adopted a simple modeling strategy to describe the correlation between movement frames on Twitter and the media, and the expression of positive attitudes toward protest.

## Findings

We found large differences regarding the number of frames in tweets for each event (see Table 3), as well as a great diversity in the types of frames (see Figure 3). Our results for frame adoption reflect how movement frames change in time according to protest cycles and the nature of issues.
Table 3. Frames in Tweets by Case.

<table>
<thead>
<tr>
<th>Case</th>
<th>Frames</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>15M</td>
<td></td>
<td>43,315</td>
<td>12.61</td>
</tr>
<tr>
<td>12M15M</td>
<td></td>
<td>36,504</td>
<td>37.89</td>
</tr>
<tr>
<td>25S</td>
<td></td>
<td>71,157</td>
<td>14.17</td>
</tr>
<tr>
<td>Escraches</td>
<td></td>
<td>5,984</td>
<td>5.04</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>156,960</td>
<td>14.80</td>
</tr>
</tbody>
</table>

Note. The percentages indicate the proportion of tweets that contain frames from the sample.

The large proportion of frames in the 12M15M tweets may reflect the nature of the large number of events that took place under this broad label. It included the celebration and commemoration of the Indignados Movement and aimed to revive its central ideas. At the other extreme of the distribution, we found a very low number of frames in relation to the Escraches movement. This might be explained by a more instrumental approach to the use of social media. Those who participated and promoted Escraches might have been more focused on operational communications and the logistics of their innovative actions.

Figure 3 reports the differences between the frames adopted by Twitter users across our four cases. We found that they addressed antiausterity policy actions according to particular issues. This was the case of the tweets related to the Indignados Movement, which gave great importance to motivation frames with materialistic emphasis. In other words, they made reference to the need to change the current economic and social situation as well as on prognostic frames centered on political claims. The messages related to the Indignados Movement recurrently blamed political figures and the system. Our findings suggest that these frames lost importance only one year later during the 12M15M events. As shown in Figure 3, the frames emerging from tweets from the 25S event focused on attributing blame to banks and corporatism. Therefore, we considered them materialistic frames for their implications in everyday economic issues. They also included potential solutions centered on political matters. As for the Escraches case, blame attribution followed a similar pattern by combining corporatism and political responsibility. Messages emerging from these activities focused mostly on the diffusion of PAH’s interpretation of evictions processes and the problems in housing policies.
Figure 3. Frames in tweets by type and emphasis. Note. Bar heights signal the distribution of frame types. In each case, they add to more than 100% as multiple types of frames may appear together in a single tweet. Only tweets that contained a single type of frame were included in the regression model.

Figure 4 reports the adoption of movement frames by media outlets. We found important differences both between and within events, as well as differences with frame adoption in Twitter. Media accounts provided a different picture than social media by adopting different types of movement frames. A large share of news content was focused on diagnostic and prognostic frames. Yet, the most interesting differences lay in how news media gave the most importance to the motivation of 25S as compared with other cases, the identity in the Indignados cases, and the blame attribution in the case of Escraches.
First, media accounts of the 25S events were mostly focused on its challenging nature and especially on its mobilization strategy with an open call to disobedience. Long discussions on the legality of the actions and on controversial police interventions can probably explain the prominence of motivation frames. Press coverage for the Indignados Movement might have focused on identity frames as a reaction to an unprecedented and unexpected actor that disrupted political life. Moreover, the Indignados cracked the usual profile of anti-austerity demonstrators by avoiding partisan identities. As for Escraches, blame attribution on political elites was very prominent, following PAH’s claims, which were centered on highlighting that political elites could but did not want to stop evictions. This movement was also very innovative in terms of its activity repertoire and signaling particular MPs toward whom it directed its attention and that of the public.

The wide variety regarding the adoption of movement frames by social media users and the media provide a great opportunity to move forward our understanding of movement support. Up to this point, we have presented descriptive results for each of the potential factors that explain public support for contentious politics. We move on to analyze the combined effect of media attention, elite responses, and potential influence. We regressed support for protest on the use of movement frames on Twitter (Model 1), movement frames in the press (Model 2), and the ideological orientation of the media (Model 3). Table 4 presents the marginal effects for explaining positive attitudes that signal support for contentious politics. The unit of analysis was the tweet, and the media data were aggregated to daily counts.
## Table 4. Marginal Effects for Support of Contentious Politics After Logistic Regression

*(1 = positive attitudes, 0 = negative attitudes)*.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Twitter content</th>
<th>Issue coverage in the press</th>
<th>Newspapers + political orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>dy/dx</td>
<td>SE</td>
<td>dy/dx</td>
</tr>
<tr>
<td>Movement frames in Twitter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonmaterialistic frames</td>
<td>-.146***</td>
<td>.006</td>
<td>-.129***</td>
</tr>
<tr>
<td>Motivation frames</td>
<td>.016*</td>
<td>.008</td>
<td>-.095***</td>
</tr>
<tr>
<td>Blame frames</td>
<td>-.048***</td>
<td>.006</td>
<td>-.142***</td>
</tr>
<tr>
<td>Diagnostic frames</td>
<td>.033***</td>
<td>.006</td>
<td>.109***</td>
</tr>
<tr>
<td>Prognostic frames</td>
<td>.071***</td>
<td>.007</td>
<td>.011</td>
</tr>
<tr>
<td>Identity frames</td>
<td>.123***</td>
<td>.008</td>
<td>.073***</td>
</tr>
<tr>
<td>Staging organization tweeter</td>
<td>.020</td>
<td>.015</td>
<td>.023</td>
</tr>
<tr>
<td>Case fixed effects (Base = Escraches)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12M15M</td>
<td>.005</td>
<td>.005</td>
<td>-.022**</td>
</tr>
<tr>
<td>15M</td>
<td>.002</td>
<td>.006</td>
<td>-.119***</td>
</tr>
<tr>
<td>25S</td>
<td>-.137***</td>
<td>.007</td>
<td>-.020</td>
</tr>
<tr>
<td>Attitude object (Base = no attitude object)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Challenger</td>
<td>.005***</td>
<td>.001</td>
<td>-.010***</td>
</tr>
<tr>
<td>Repertoire</td>
<td>-.003*</td>
<td>.001</td>
<td>-.028***</td>
</tr>
<tr>
<td>Grievance</td>
<td>.013***</td>
<td>.002</td>
<td>.033***</td>
</tr>
<tr>
<td>Potential influence (Base = Common user)</td>
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<td></td>
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<tr>
<td>Influential</td>
<td>.004</td>
<td>.004</td>
<td>-.006</td>
</tr>
<tr>
<td>Hidden influential</td>
<td>.013***</td>
<td>.004</td>
<td>-.004</td>
</tr>
<tr>
<td>Broadcaster</td>
<td>-.001</td>
<td>.004</td>
<td>.004</td>
</tr>
<tr>
<td>Movement frames in the press</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Nonmaterialistic frames</td>
<td>-.012</td>
<td>.007</td>
<td>-.055***</td>
</tr>
<tr>
<td>Motivation frames</td>
<td>.063***</td>
<td>.005</td>
<td>.100***</td>
</tr>
<tr>
<td>Blame frames</td>
<td>-.137***</td>
<td>.023</td>
<td>-.093***</td>
</tr>
<tr>
<td>Diagnostic frames</td>
<td>-.024***</td>
<td>.006</td>
<td>-.004</td>
</tr>
<tr>
<td>Prognostic frames</td>
<td>.035***</td>
<td>.005</td>
<td>.089***</td>
</tr>
<tr>
<td>Identity frames</td>
<td>.012*</td>
<td>.005</td>
<td>.027***</td>
</tr>
<tr>
<td>Daily attention</td>
<td>.000***</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Ideological orientation (left wing)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>140,420</td>
<td>56,758</td>
<td>56,758</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>.0102</td>
<td>.0242</td>
<td>.0296</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.*
The first model explored frames in tweets and included controls for attitude objects, potential user influence, and fixed effects for the events. Using event fixed effects allowed controlling for potential biases arising from the differences in the sample size and the different nature of the case studies.

By establishing the object of the positive or negative attitude, it was possible to identify differences among support for actors, grievances, or repertoires. We found support for our first hypothesis as nonmaterialistic frames were negatively and significantly related to movement support. We also found that tweets that had blame attribution frames were negatively related to support for social movements. This result provides partial substantiation for our second hypothesis as diagnostic frames had a positive and significant relationship with social movement support.

A second model introduced frames in the media. The results varied slightly as we found complete support for our first hypothesis: Nonmaterialistic frames were negatively and significantly related to movement support in both the media and tweets. Regarding our second hypothesis, both diagnostic frames in the media and blame attribution had the expected negative relation with movement support. However, introducing media effects in the model changed the potential effect of social media frames as both blame attribution and motivational frames turned out to undermine support. Motivational frames may have included consensus values, which had a wide appeal, but they also may have included competing values. Thus, they generated value conflicts, which in turn diminished movement support.

We finally introduced a third model in which we tested for ideological orientation of the press and control for media attention to the issues. We found that news accounts of movements and issues by left-wing media were positively related to movement support in contrast to the right-wing media. The effect of the ideological orientation of the media had a considerably stronger weight than the use of movement frames, except for motivational frames.

Discussion

This study provides evidence to understand movement support to antiausterity measures in Spain. It brings to center stage multiple factors that may explain attitudes toward the actors, grievances, and repertoires in antiausterity policy. It describes multiple understandings of the economic crisis and the conflicts it generated by looking into individual and media adoption of movement frames. Furthermore, it looks into potential consequences of frame adoption and media effects as factors that explain movement support.

We found evidence that frames addressing the political system, democracy, and sovereignty when referring to the economic crisis were negatively related to movement support compared with frames referring to the crisis as an economic matter or bread-and-butter issue. This evidence signals how more challenging and controversial frames, such as those referring to political issues, generate less acceptance than those that prime social problems. It is difficult to differentiate economic outcomes from political decisions in instances such as demands for equality, social justice, or social rights, but establishing these differences in framing emphasis have important implications for movement support and, possibly, for their outcomes.
We also found partial support for our claim that emphasizing blame attribution and diagnosis frames would undermine movement support. We expected that presenting public grievances and identifying responsibility for perceived conflicts in policy decisions and government responses to the crisis would generate controversy. This, in turn, would raise attention to the challenging nature of movements. In this situation, individuals did react negatively to social movements, in contrast to their support when movements proposed alternative solutions to antiausterity policy or generated a sense of belonging through identity frames.

Regarding our third claim of potential effects of media accounts on movement support, the use of movement frames by left-wing media turned out be positively related to movement support when compared with right-wing media. This confirms our expectation of ideological affinity between support for the status quo and challenging actors and perspectives, and it may also signal alternative understandings of austerity policy.

The most important contribution of this study in explaining public support for social movements is to look into a potential mechanism of network effects by considering frame adoption. It thus moves forward the research on public attitudes by looking at the diffusion and adoption of movement-specific contents. The study also provides an alternative approach to the study of framing effects by investigating the effects of media framing, which has relied mainly on experimental settings (McLeod, 1995; McLeod & Detenber, 1999; Terkildsen et al., 1998). Our design complements experimental research as it is based on issue publics with higher levels of issue interest and knowledge than the general population. In addition, considering attention to the issues in protest cycles before and after contentious events provides the opportunity to study frames in a longer timeframe than when using survey-based approaches, as frame effects have been shown to be rather unstable over time (Tewksbury, Jones, Peske, Raymond, & Vig, 2000).

This research provides new evidence to study support for contentious politics with rich data from social media. Tracing public expressions on social media provides a great opportunity to deal with vast amounts of data and to identify multiple dimensions of support and influence dynamics. However, social media data also bring important challenges and shortcomings. The most important qualification to our research approach is the limitation imposed by coding decisions. The analysis of large volumes of tweets makes the coding process more prone to errors that escape random supervision. This implies sacrificing reliability in order to have a richer account of contentious politics through the study of Twitter (Hopkins & King, 2010).

In this study of media accounts of social movements in conjunction with social media contents, we combined the data based on the dates on which the tweets were posted and the news stories that appeared in the press. This implies that we were assuming that the potential effects of frames on tweeter’s attitudes toward social movements are taking place on a daily basis. As mentioned before, considering the dynamics of information flows in social media and the press, and especially the nature of news cycles within particular issue contexts, will provide a more nuanced description of information processing and attitude expression.

Another important limitation of our approach is the fact that we ignored media references in tweets. As tweeters may have been linking media content that included movement frames, we were not accounting for potential media hybridity phenomena. Future research might tackle this by studying the URLs in tweets. In addition, this study can be extended to identify the way in which media sources use movement frames to disentangle frame effects from other types of media content such as accounts of the events or reports on elite
responses. Finally, the way in which frames are contextualized may have an additional effect than the use of the frames in itself.

References


### Appendix

#### Table A1. Search Queries Factiva and Twitter.

<table>
<thead>
<tr>
<th>Cases</th>
<th>Search queries</th>
</tr>
</thead>
<tbody>
<tr>
<td>15M</td>
<td>15M OR Indignados OR acampadas OR “El 15-M” OR “Democracia real ya” OR “15-M” OR “Movimiento 15-M”</td>
</tr>
<tr>
<td>12M15M</td>
<td>15M OR Indignados OR acampadas OR “El 15-M” OR “Democracia real ya” OR “15-M” OR “Movimiento 15-M” OR (manifestacion) AND (“primer aniversario” AND “15M”) OR (manifestacion) AND (“segundo aniversario” AND “15M”) OR “Paremos el genocidio financier, juntos podemos” OR “Més indignats que mai” OR “de la indignación a la rebellion” OR “Escrache al sistema”</td>
</tr>
<tr>
<td>25S (Rodea el Congreso [Occupy Congress])</td>
<td>25S OR “rodea el congreso” OR “lo llaman democracia y no lo es”</td>
</tr>
<tr>
<td>Escraches</td>
<td>Escrache OR PAH OR (ILP AND hipoteca) OR desahucios OR “Stop desahucios” OR “Obra social la PAH”</td>
</tr>
</tbody>
</table>
Figure A1. Coding scheme.