

Sustaining Participation in the Ecological Movement During the Global Pandemic: The Case of Fridays for Future (Spain)

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Supplementary Materials: Materials [see [Index of Supplementary Materials](#)]



Abstract

This article analyses the impact of the COVID-19 pandemic and lockdown on the Spanish wing of Fridays for Future, an emerging, youth-oriented environmental and social movement. Specifically, it examines the effect of reductions in physical social interaction during the pandemic on FfF's dynamics through analysis of movement's cognitive frameworks, internal organisation, mobilisations, identity processes, internal relationships, group efficacy, intention to remain involved in the movement, and members' emotions. The study was carried out in Spain between September 2019 and October 2020 and employed a mixed-methods design, including ethnography (observations of assemblies and mobilisations, analysis of internal documents and social media chats, personal interviews and focus groups, involving in total more than 50 activists) and a survey of the movement's activists (68 participants). The results show that the use of digital media permitted the movement to adapt its internal organisation to counteract the impact of the pandemic and lockdown. This was evident in the findings in relation to the activists' identification with the movement, their perception of efficacy, and intention to stay involved, which all remained relatively high. On the other hand, the study participants perceived the impact of lockdown on mobilisations to have been predominantly negative, pointing to adverse long-term effects. The pandemic also had a significant influence on the movements' interpretive framework as discourses of social commitment and equality became increasingly influential and integrated into its worldview. Both qualitative and quantitative analyses points to the importance of social, affective, technological, and organisational dimensions in the movement's continued survival.

Keywords

social movements, COVID-19, environmental movement, digital media, Spain

Resumen

Este artículo analiza el impacto de la pandemia de COVID-19 y el confinamiento en Fridays for Future en España, un emergente movimiento juvenil ambiental. Específicamente, examina el efecto de las reducciones en la interacción social en la dinámica de FfF a través del análisis de los marcos cognitivos del movimiento, la organización interna, las movilizaciones, los procesos de identidad, las relaciones internas, la eficacia colectiva, la intención de permanecer en el movimiento y las emociones de sus miembros. El estudio se llevó a cabo en España entre septiembre de 2019 y octubre de 2020 y empleó un diseño metodológico mixto, incluyendo etnografía (observaciones de asambleas y movilizaciones, análisis de documentos internos y chats de redes sociales, entrevistas personales y grupos focales) y una encuesta a los activistas del movimiento (68 participantes). Los resultados muestran que el uso de medios



digitales permitió al movimiento adaptar su organización interna para contrarrestar el efecto de la pandemia. Esto impactó positivamente en la identificación de los activistas, su percepción de eficacia y su intención de seguir involucrados, que se mantuvieron relativamente altos. El impacto del confinamiento en las movilizaciones se percibió como predominantemente negativo, lo que apunta a efectos adversos a largo plazo. La pandemia también tuvo una influencia significativa en los marcos interpretativos del movimiento: los discursos de compromiso social e igualdad se integraron en su visión del mundo y se volvieron más importantes. Todo esto indica la importancia de las dimensiones sociales, afectivas, tecnológicas y organizativas en la continuidad del movimiento.

Palabras Clave

movimientos sociales, COVID-19, movimiento ecologista, medios digitales, España

Non-Technical Summary

Background

Fridays for Future is an international movement led by young activists advocating for urgent action to address the climate crisis and demanding stronger environmental and sustainability policies. It began in August 2018 and since then young people and students around the world have joined their protests globally to urge world leaders to take meaningful action for the environment.

Why was this study done?

Social interaction is a fundamental element for cohesion, visibility, and mobilization of social movements, but also for the participation of activists. The COVID-19 pandemic and lockdown significantly limited interpersonal contacts. We wondered whether and how the COVID-19 pandemic and the lockdowns were a major disruption to the dynamics of the movement's functioning and actions, and to what extent the movement's survival was threatened by this situation.

What did the researchers do and find?

The study employed a mixed-methods design, that included ethnographic observation of assemblies and mobilizations, analysis of internal documents and social media chats, personal interviews and focus groups, as well as a survey with FfF activists. The results showed that the pandemic and lockdown had a significant influence on the movement, but the use of digital media permitted the movement to counteract its impact. It also had an impact on the movements' interpretive framework

What do these findings mean?

The analyses points to the importance of the interaction of social, affective, technological, and organisational dimensions in the movement's continued survival. In this case, the pre-existing strength of relationships between activists and identification with FfF points to the fact that intervention strategies to deal with situations that limit social interaction in social movements, at least for young people, should focus on fostering subjective links with the cause and among members.

COVID-19 had a serious impact on important aspects of protest movements' activities. It curtailed the public performative dimension of their actions such as the occupation of urban spaces. The growth and predominance of online social interaction during lockdown instituted significant changes to their organisation and operation (Romanos et al., 2022). This article explores how the reduction of in-person social interaction and the shift to virtual relationships affected Fridays for Future (FfF) in Spain, an emerging, youth-oriented social and climate movement. In many countries, FfF's mobilisations achieved considerable social and media impact during its brief history. It brought together thousands of young people around the world, raising awareness of the climate crisis and affecting political agendas (Marris, 2019). However, the headway it had been building was undermined by the shift in society's and the media's attention to health and the economy as well as the restrictions imposed by lockdown measures. Nevertheless, the disruption would have been far greater had it occurred before the introduction of the Internet and the possibilities afforded by new information and communication technologies.

The aim of this study was to analyse the impact of the pandemic and lockdown on the Spanish branch of FfF and the possibilities of sustaining participation. This research complements existing studies on how internet-mediated virtual interactions are part and parcel of today's social movements and how they affect participation in activism over time (Bennett & Segerberg, 2012; Razquin, 2015; Treré, 2015). It also aligns with studies on sustained participation and/or commitment (Downton & Wehr, 1998; Driscoll, 2018; Thomas et al., 2009; Verhulst & Van Laer, 2008) that try to understand the factors that influence sustained activists' participation over time. This sustained participation can render possible to achieve social and/or political changes that will last over time (Meyer & Whittier, 1994; Passy & Giugni, 2000) and is more prone to produce psychological changes in activists (Vestergren et al., 2019).

Social Movements and Internet-Based Technologies

Technological innovations have impacted diverse aspects of social movements activities and operations. New technological tools, particularly digital social media (DSM), provide an alternative means of disseminating interpretative frameworks to conventional media (Candón, 2016; Robles et al., 2015). Furthermore, the feelings of indignation, outrage, and emotional connection that fuel social movements can be enhanced through online interactions (Castells, 2012).

These technologies enable contact between like-minded people, even those weakly connected (Cristancho, 2015), and can facilitate the emergence and development of horizontal and decentralised communication networks (Castells, 2012; Pavan, 2014). This new logic of connective action (Bennett & Segerberg, 2012) means a shift towards a more individualised and fragmented political agenda that may also have more benefits for the self-expression of the young middle classes (Porto & Brant, 2015).

Digital communication infrastructure has rendered easier to coordinate collective action (Candón, 2016; Castells, 2012; Razquin, 2015; Robles et al., 2015). Treré (2015) stresses the importance of the internal communicative dynamics that develop in the backstage of DSM, where a new and expressive 'communicative resistance grammar' can emerge. Virtual tools can also be used to persuade people that a movement's strategies and actions are the most effective way to achieve change (Candón, 2016) and to facilitate event announcements, boost support, and messages of solidarity, amplifying their effect (Bennett & Segerberg, 2012).

The use of DSM by social movement organisations (SMOs) is an adaptation of the technology and, therefore, an unforeseen 'affordance' (Schäfer, 2011). Thus, the use of technology by social movements (Della Porta, 2013) allows the activists to act in creative ways expressing their views and concerns. The emergence of these new possibilities has made it easier to come together and resist the efforts of repressive regimes that seek to prevent dissent and social mobilization (McGarty et al., 2014).

These technologies have inherent restrictions that limit the possibilities for action and reinforce social control (Haunss, 2015). Social media companies are actively governing and regulating social protest (Hintz, 2015; Redden, 2015). On this basis, some authors have questioned whether mainstream DSM can adjust to an antiauthoritarian, horizontal, and self-managed political praxis (Galis & Neumayer, 2016).

Virtual technologies, however, would not seem to have the potential to render in-person encounters and relationships redundant: without prior in-person interactions, the symbols that later facilitate the viral dissemination of messages and mobilisations could not exist (Razquin, 2015). Remote interactions convey a defective sense of participation because they lack the embodied emotional energy of rituals and collective gatherings (Pizarro et al., 2022). Social movements currently have a hybrid character (Pavan, 2014), whereby in-person interaction serves to create the common texts and codes of the collective, while social media plays a supporting role (Kavada, 2015).

The use of DSM in FfF was fundamental since its appearance and took the form of hundreds of Twitter and Instagram accounts created under its name in many countries around the world (see Revilla et al., 2023), what was key to obtain visibility and social notoriety. FfF Spain extensively used chats (Whatsapp and Telegram) to facilitate internal organization processes, beyond assemblies and small group face-to-face meetings. The arrival of the pandemic reduced the use of DSM, in line with the reduction of its social impact. Group chats maintained their importance, complemented by the appearance of video calling applications (Zoom, Jitsi, Meet, etc.), which made it possible to hold assemblies and group meetings with synchronous presence.

The COVID-19 Pandemic and Sustaining Participation in Social Movements

The pandemic was bound to have a significant impact on sustaining the participation of activists. It may have had a negative effect on identification, emotional involvement, or perceived efficacy, due to changes in availability or lockdown restrictions. These are all variables that have been linked to sustained participation or commitment (Downton & Wehr, 1998; Driscoll, 2018; Thomas et al., 2009).

The dramatic restrictions on interpersonal relationships and changes to social interaction have compromised the capacity of SMOs to sustain social ties with activists. Participation in activism is higher when there is greater commitment to an organization's internal network of relations, and stronger ties with other SMO members (Barkan et al., 1995), and the broader activist community (Downton & Wehr, 1998; Nepstad, 2004). The social and collective dimension of SMOs is also evident in the effort activists make to reinforce internal social ties and shape the possibilities of engagement with the cause (Driscoll, 2018; Fillieule, 2001).

This reduction of social interaction inevitably compromised social networks, which are the means by which activists communicate meanings that shape and reinforce identities (Passy, 2003; Somers, 1992). Each social movement elaborates a specific shared collective identity that represents a group-level phenomenon of continuous elaboration of the group definition (Van Stekelenburg, 2013). Collective identity facilitates the creation of the common meanings and interpretative frameworks underpinning collective action (Passy, 2003; Tindall, 2002).

The stronger an individual's identification with a specific SMO group, the more likely they are to actively participate or to support a social movement (Simon et al., 2008; Turner-Zwinkels & van Zomeren, 2021). Thus, while it is possible to feel part of a movement without identifying with any specific organisation (Della Porta & Diani, 2006), identification with a specific entity motivates broader collective action. In the opposite sense, the reduction of participation due to restrictions in social interactions could lead to weaker collective identities.

DSM multiply and continuously activate interactions that reinforce collective identity (Cristancho, 2015; Milan, 2015). An analysis of FfF Instagram communications showed how activists expressed and reinforced group identity, cohesion, and action through social media messaging (Brünker et al., 2019). However, some researchers argue that interaction through virtual media may be less efficacious for promoting a sense of collective identity and identity building processes than in-person communication (Flanagin et al., 2006; Lomicky & Hogg, 2010). It could be posited that the pandemic and the evolution of collective action in a specific context produces and encourages continuous redefinitions of identity (Della Porta & Diani, 2006).

The reduction of social interaction and public attention may have had an impact on the collective's sense of efficacy – the belief that a movement's goals can be achieved through collective action (Drury & Reicher, 2005), which is crucial to sustained collective participation (van Zomeren, 2015). Anything that threatens members' identification with the movement and their perception of its efficacy could be detrimental to the survival of a group like FfF, which must attract and retain members (Corrigan-Brown, 2013; Edwards & McCarthy, 2004; Fillieule, 2015).

Regarding emotions and affective ties, perceptions of inequality, or relative deprivation, are thought to generate the sense of indignation and anger that drive social movements (van Zomeren et al., 2008). Fear in many cases prevent from acting and engaging, and can only be overcome collectively and through the type of communicative action conducive to producing collective identity (Castells, 2012). Some positive emotions also sustain social movements, such as feelings of hope and the joy and satisfaction derived from social relationships and interactive processes of cooperation and trust (Belli & Aceros, 2020).

FfF's key message is that young people's future is in jeopardy, which may explain why the activists feel frustrated, anxious, and fearful, what is countered by the collective activity they are engaged in (de Moor et al., 2021). These emotions have consequences when it comes to defining social reality and facing uncertainty.

The pandemic may have generated solidarity and hope by bringing people together and encouraging physical and emotional support (Matthewman & Huppertz, 2020). Social movements had to rely exclusively on social media to sustain the emotional bonds that contribute to feelings of solidarity (Flesher Fominaya, 2010) and emotional support (Kavada, 2015). Nevertheless, virtual interaction may lead to weaker emotional ties (Flanagin et al., 2006; Lomicky & Hogg, 2010).

The New Climate Cycle of Protest and Activists' Biographies

Sustained participation in activism is also shaped by “local action” and “macromobilisation” contexts (Downton & Wehr, 1998) and by cycles of protest (Tarrow, 1989). Local, national, and global events influence activists and SMOs' perceptions of the possibilities and opportunities for political mobilisation (McAdam et al., 2001). FfF emerged in a social climate of widespread concern for climate change that has been described as a climate cycle of activism (de Moor et al., 2021). FfF's fight for a sustainable future is based on a critique of the social organisation of power and responsibility (Jacobsson, 2021). The movement maintains that radical action is necessary to prevent disastrous climate change (Hagedorn et al., 2019; Maier, 2019).

In the wake of the international activism inspired by Greta Thunberg's protests, various student-led environmental groups were set up in many cities around Spain, and this cycle of climate protest gained momentum with the establishment on March 15, 2019 of the Spanish branch of FfF. On September 27, 2019, a new global school strike was called that brought more than 100,000 people on to the streets of Madrid alone. A demonstration on December 6, after the U.N. Climate Change Conference (COP-25), held in Madrid in December 2019, was the largest climate demonstration ever in Madrid (Remacha et al., 2019). This propelled the movement and the activists to the forefront of the political debate.

During 2019, FfF had mobilised many young people all over the world to demand more aggressive evidence-based policies to tackle the climate crisis (Han & Ahn, 2020; Zulianello & Ceccobelli, 2020). However, by February 2020, media focus had pivoted to the pandemic, making it difficult for activists to keep attention to the climate crisis. The lockdowns that began in March 2020 prevented in-person and street-based action, forcing FfF to rely solely on social media.

On the other hand, collective action is strongly influenced by activists' personal biographies, and life circumstances, as they determine their situational availability to commit to a cause (Downton & Wehr, 1998). As situational availability largely depends on a person's life stage and, therefore, age, it may be easier for younger people to engage more actively in social movements. A processual understanding of involvement in activism as a trajectory or career (Fillieule, 2001) permits us to observe the changes in commitment to activism, disengagement, and displacements between different SMOs, as well as adaptations in activist's personal lives arising from their commitment to a movement (Downton & Wehr, 1998).

The majority of FfF members were young people. FfF was often their first experience of activism, meaning that they approached it with enthusiasm and willingness and without the baggage of past experience. However, the COVID-19 pandemic dramatically changed the lives of young people (Colombo, 2021), as the limitations in physical contact, social relationships, and activities held in public spaces were especially grievous for them.

The aim of this study was, therefore, to analyse the impact of the pandemic and lockdown on the Spanish branch of FfF and the possibilities of sustaining their members' participation. The article analyses how the conditions imposed by the pandemic affected the movement's internal organisation, group mobilisation, identity processes, internal relationships, group efficacy, members' intentions to remain involved, their emotional engagement, as well as the effect of the pandemic on activists' personal biographies or situational availability.

Method

The study employed a mixed-methods design, including an ethnographic study and a survey study, both directed to FfF activists.

Ethnographic Methods and Materials

Initial contact with FfF was made by one of the authors following its establishment in March 2019, which helped to build trust with the principal activists. Subsequently, a proposal was put to the Spanish national node and to Madrid and Zaragoza local nodes to conduct ethnographic research at FfF meetings and other events. During Madrid and Zaragoza assemblies, members were given information on the identity of the researchers, the study objectives, the proposed methods, and data treatment (guarantees of confidentiality and anonymity). The proposal was approved unanimously and one or two researchers attended each meeting from September 2019 onwards. To avoid reactivity in the participant

observation, the researchers were selected on account of their relative similarity to the FfF activists: they were also young, middle-class and acquainted with climate activism. The researchers could establish from the start a symmetrical relationship with the activists and be considered members of the collective.

The ethnographic materials collected included: a) field observations during six assemblies and various mobilisations prior to the pandemic and a further 15 assemblies (online and offline) and various mobilisations either during or following lockdowns; b) all internal documents generated by FfF between 2019 and 2020: meeting and assembly minutes, weekly bulletins, and press releases; c) internal social media chats; d) 20 personal interviews with FfF activists; and e) two triadic focus groups with FfF activists (Ruiz Ruiz, 2012). These triadic focus groups differ to larger conventional focus groups in that they allow for a direct contrast between the experiences and views of the three participants, thus complementing the personal interviews.

The guides for the personal interviews and the triadic focus groups (see Revilla et al., 2024S) were similar, addressing the following themes: a) personal background (details on family, friends, education, interests); b) how the participant became interested and involved in environmentalism; c) the experience of environmentalism, specifically the participants' network of friends and acquaintances; d) personal views on the FfF collective and its functioning. The interviewer used general and open-ended questions to begin the discussion and specific questions to seek clarity or detail.

The personal interview and triadic focus group participants were recruited during participant observation in Madrid and Zaragoza assemblies. This approach permitted the selection of a diverse sample based on three key criteria: a) socio-demographic profile (a similar distribution by age and gender); b) active and sustained participation in the collective; c) roles in the organisation and overall experiences with the collective. Eleven interview participants identified as female, eight as male and one as non-binary; six were aged 15–20, ten were aged 21–25, and four were aged 26–30. In the triadic focus groups, four participants identified as male and two as female.

All personal interviews and triadic groups participants provided informed consent prior to participating, under the guarantee of confidentiality and anonymity. In the case of minors (aged under 18), consent was provided by their guardians. Pseudonyms are used to protect participants' identity.

The interviews and focus groups were transcribed, anonymised, and analysed along with the ethnographic field notes from the participant observation using the Atlas.ti software programme. The analysis focused on two key questions: how FfF was affected and adapted to the pandemic and how lockdown affected the movement's mobilisations. Before coding, an analytic framework was developed during the theoretical phase of the research, similar to what Morse and Mitcham (2002) describe as the deconstruction stage, which implies a critical analysis of the relevant literature to provide a kind of structure to the analysis. The result can be thought as a skeletal framework (Morse & Mitcham, 2002) and included the following themes: internal (online and offline) activity of the collective, mobilisations, social relations between activists, personal biographical and contextual changes, and subjective connections to the collective (identification, emotional ties, and perceived efficacy). This thematic structure served as an overarching scheme for coding and would facilitate comparison of results with the survey study. Coding itself was carried out in a lower degree of abstraction, and in a more open, inductive, way to better account for the complexity of meaning and experiences that were found in the materials. Thus, a multilevel structure of coding was created, a top abstract level somehow deduced from theory and a down specific level rather induced from data. The coding and subsequent analyses were participated by all the authors in different degrees, as much as they participated in the discussions to assure the quality of interpretations.

Survey of Activists

We conducted a survey of activists which aimed to analyse the impact of digital media, identification with FfF and environmentalism in general, emotional frames, relationships with colleagues, opinions on group efficacy, and intentions to continue participating in FfF.

Participants

71 FfF members responded to the survey. Three were eliminated because the respondents were too young (aged 12 and 14) or too old (aged 38), leaving 68 validly completed questionnaires. At the time the survey was conducted, the active

membership of Fff was approximately 400: between May and June 2020 there were around 50 active Fff's social media accounts; each of which had, on average, eight components. Given this population size, around 17% of the activists participated in the survey.

Responses were received from 24 Spanish provinces (out of a total of 52), mostly in those where the social movement was most active. The largest group of survey respondents was based in Madrid (29.4%). Respondents ranged from 15 to 28 years old, with a mean age of 19.28 years ($SD = 3.05$). Thirty-four respondents identified as female (50%), thirty-three as male (48.5%), and one (1.5%) as non-binary.

Survey Instrument and Procedure

The variables included in the questionnaire (see [Revilla et al., 2024S](#)) were based on those used in other social movement studies, particularly the SIMCA model (e.g., [van Zomeren et al., 2008](#)), which emphasises the role of perceived group efficacy and group identity as key factors for sustaining collective action. It also focuses on the role of indignation as an affective reaction to perceived injustice that incites mobilisation. However, we have gathered data on the wide range of emotions that Fff activists experienced during the fieldwork.

The survey was administered through an online questionnaire that was open from May 25, 2020 to July 1, 2020. It was distributed throughout the Fff organisation in Spain by means of their internal chat system, along with a request that it only be completed by active Fff members. The study objectives were explained in the questionnaire introduction, including a link to further information on the study website. Respondents were also informed that their participation was anonymous and that the data would be processed in accordance with European data protection laws.

The questionnaire included closed-ended (Likert scale and multiple choice) and open-ended questions. Single item scales were preferred in order to reduce fatigue and maximise response rates.

The questionnaire collected information on the following variables:

Technology use: in a multiple response question, participants were asked to specify the applications and technological tools they had used to 'connect with other members' and 'participate in demonstrations'; the response options were: Whatsapp, Telegram, Videoconferencing software, Other technological tools, I have not used any technological tools.

Working with new members: in an open-ended question, respondents were asked to indicate the number of new members they had worked with during lockdown.

Impact of COVID and lockdown: at an individual level, participants were asked to rate the extent to which they had felt negatively affected by the pandemic and lockdowns on a five-point Likert scale ranging from "Not or only slightly affected" (1) to "Very affected" (5).

Emotional impact of pandemic and lockdowns: respondents were asked to state, in an open-ended question, at least one and a maximum of five emotions they had experienced. To categorize the responses, two procedures were used. Firstly, two of the authors (2 and 3) acted as independent raters and classified emotions as negative (-1), ambivalent (0), or positive (1). Inter-rater agreement was 91%; disagreements were resolved by a third rater. Subsequently, a composite variable expressing "affective tone" during lockdown was created (range from -1 to 1). Secondly, the same two independent raters undertook a semantic coding of the first three responses from each respondent using categories previously agreed by the research team. This permitted the construction of nine nominal variables based on the emotions experienced and a descriptive analysis of these variables (see [Revilla et al., 2024S](#)).

Functioning of the social movement during lockdown: it was measured on a four-item 5-point Likert scale that ranged from "Completely disagree" (1) to "Completely agree" (5). Activists were asked to agree or disagree if lockdown had a) undermined the impact of the movement; b) undermined the internal operation of the movement; c) made it more difficult to reach agreement between members; d) weakened peer relationships. A factor analysis was conducted on these items that revealed the existence of only one factor (negative impact of the COVID pandemic on Fff), which explained 52.6% of variance (principal components method). A composite variable was created that had good reliability: Cronbach's alpha coefficient was 0.70.

Group efficacy: this was assessed with a single-item 5-point Likert scale measuring activists' confidence in the continued efficacy of the movement.

Identification with FfF and environmental activism: it was measured on a three-item 5-point Likert scale. Two of the items measured identification with FfF before and after lockdown, and the third focused on environmental activism, in general, following lockdown.

Respondent's intention to remain involved in the movement: it was measured on a single-item 5-point Likert scale, ranging from “Definitely will not” (1) to “Definitely will” (5).

Descriptive and correlation analyses were performed on the data. Due to the small sample size and the non-normal distribution of the variables, Spearman's correlation test was used.

Results

Results From Ethnographic Study

The qualitative analysis centres on two key questions: how the FfF movement was affected and adapted to the pandemic and how lockdown affected the movement's mobilisations. Together we examined the changes experienced by the collective in relation to a number of important dimensions of the analytic framework: personal relationships and social ties, identity, the role of emotion, perceived efficacy, and biographical or situational availability.

Changes in the Structure and Functioning of the Movement and the Resulting Impact on Activists' Participation

During lockdown, FfF shifted its main activities to online platforms, using apps for group videoconferencing. Attendance did not appear to suffer: in Madrid, between 30 and 60 people participated in the group's meetings, which was close to, or even higher, than in-person gatherings; in Zaragoza, the numbers attending – around a dozen people – remained the same.

In pre-lockdown face-to-face assemblies, it had been observed that the collective had developed rules and roles for managing in-person assemblies. The figure of the facilitator had been developed, whose function was to manage a series of dynamics that participants must respect to express themselves, following a framework of standards and using a series of visual signs. Following the move to virtual meetings, the sign system became largely dysfunctional, which required the activists to develop new skills and new forms of communication. The way that these new virtual tools were adopted and the evolution in their use in negotiating and decision-making processes manifested how the movement transitioned from an analogue to a new digital context.

In the early days of lockdown, participants took turns to act as the moderator, and the chat app became increasingly used as a back channel (Goffman, 1974), a short intervention that is interpolated by one recipient into the other's turn, to streamline contact or, for example, to highlight and resolve connectivity issues. As the quarantine progressed, the chat application acquired more prominence as overlapping, alternative communication channels that sustained, enriched or transformed the message of the main channel. Participants used it to ask each other questions, to provide technical advice, to express likes and dislikes, and to share links with information to support particular viewpoints. It was also used to access online note pads that acted as ‘vote thermometers’, where activists could express their feelings and cast non-binding votes. The physical sign system, meanwhile, was replaced by keyboard symbols. For instance, during the April 10, 2020 assembly in Madrid,

- (1) *Juan [the moderator] put the time allowed to discuss the point in the Zoom chat, as well as the symbols that could be used during the assembly. Later, Juan pastes the link to a shared note pad in the chat. Given the results, Juan asks the two people who think they do not have enough information to speak out or to write their opinion on the pad. (During this debate, Julia texts me through private chat and WhatsApp to explain that certain profiles of people do not attend the debates and that is why they encourage the expression of disagreement)¹*

[Ethnographic journal fieldnotes, Madrid assembly, April 10, 2020]

This adaptation appeared to elevate the role of the moderators, who were given greater powers to assign speaking turns, set time-limits and the order of the meeting. In the previous fieldwork observation, Juan chose when, how, and what categories to be used in the thermometer, as well as deciding to ask a direct question of the dissenting individuals. The digital environment also seemed to facilitate concealed sharing of information via online chats or social media, that are then used as concealment channels (Goffman, 1974).

The modes of interacting during meetings prompted some significant changes in activists' relationship with FfF, causing some to leave and others, in contrast, to become more involved. Some young activists stated in their interviews that they had previously been unable to participate as much as they wished. Thus, they found that online assemblies allowed a more active role. Lockdown freed up time spent on other activities, while connecting from home made participation easier. Likewise, virtual platforms facilitated the re-engagement of activists who had lost contact with the movement. For example, some students who lived on the outskirts of Madrid found it difficult to travel to the city centre:

- (2) *I live far from the university and I spend at least three hours every day on public transport to get to my classes [...], so I have much more time to devote to Fridays.*

[Triadic focus group, Madrid-based activists, June 29, 2020]

However, some activists stopped or reduced their participation following the switch to online meetings, most notably because of lockdown-induced apathy and connectivity issues or as a culmination of disengagement that had begun before the pandemic. Those activists who had not established bonds with other members of the movement seemed to find the dynamics of virtual interactions boring and tedious, and started to skip them. After missing a few assemblies, it became increasingly difficult to keep up to date:

- (3) *...everything is done by Telegram, by email, by video-conference, and the people who are involved, are very involved, and those who aren't disconnect quickly.*

[Sergio, Madrid-based activist, April 15, 2020, transcribed WhatsApp audio]

Thus, there is a tendency in the assemblies for those who are more active in the working groups, and who also take on a greater workload, to dominate proceedings. Conversely, those who have not taken part in the working groups can end-up taking a more passive and almost invisible role. The dynamics of virtual meetings permit a certain passive or piecemeal participation – something that is impossible during in-person assemblies. The online modality appears to facilitate work in small groups, but it can also be an obstacle to broader participation and cause the disengagement of peripheral activists from the everyday work of the collective.

- (4) *At the end of the meeting a participant comments that the attention is lost to other screens, it happens to him all the time.*

[Ethnographic journal field notes, Zaragoza assembly, September 4, 2020]

To counteract this, FfF made a conscious effort to provide its members with psychosocial support during the adaptation to the online environment. The Madrid ethnographic material showed how they attempted to reinforce the emotional bond and support within the collective by making the online meetings as sociable and friendly as possible. This was based on pre-existing relationships and on the use of an explicit discourse of “care” or “being caring”. During rounds of “sharing feelings”, participants often praised the emphasis on “caring” and stated that it was a reason to continue participating:

1) See complete selected interview verbatims and ethnographic fieldnotes in Revilla et al., 2024S.

- (5) *Towards the end of the assembly, Javier, Pedro, and Soraya disrupt the dynamic, they turn off their cameras and reappear dressed-up as undercover police officers and a playful moment of theatricalisation begins. [...] This type of activity was started by the group of friends already in the collective, and continued as a decision of the assembly.*

[Ethnographic journal field notes, Madrid assembly, April 20, 2020]

This type of activity seemed to help the collective to manage the effects of lockdown. It even attracted people to the movement and built up feelings of trust and fraternity.

Thus, the provision of mutual support was one of the main factors that sustained participation and engagement during the pandemic. This finding converges with the quantitative data, indicating that relationships with other members helped withstand the effects of the pandemic and reduce disengagement. As such, these social activities strengthened feelings of belonging and reinforced collective identity.

The Difficult Adaptation of Mobilisations to Lockdown and its Reduced Social Impact

During lockdown, the Fff movement staged two major demonstrations. The first protest on April 24 had been organised before the COVID-19, but had to switch to a virtual demonstration that also occupied analogue spaces: stencils placed in the windows of activists' homes. Participation in the demonstration was low and most of the attendees were Fff activists. The main outcome, therefore, was to bolster the collective's self-identification:

- (6) *Pedro says that “there wasn't much of a response on social media [Marta and David add “++++” in the chat] and at national level they weren't too happy either”.*

[Ethnographic journal fieldnotes, Zaragoza assembly, May 8, 2020]

The second demonstration, on June 5, 2020, had virtual and in-person components. According to field notes, more than 100 people participated in the preparation of the demonstration. This figure included participants from a slightly smaller number of local and national organisations than pre-pandemic events. During the preparations, we observed debates on the feasibility of implementing pandemic related safety measures and the threat posed by reduced turnout and the possibility of being seen by the public as a group of “irresponsible children” (fieldnotes, online assembly, May 16, 2020). Two main arguments convinced the group to go ahead: the fact that right-wing political parties had recently staged in-person protests and that public participation at in-person mobilisations tended to be low.

In in-person demonstrations, the collective implemented low-participation models – only a few hundred activists at most –, with highly organised preventative actions to reduce the risks of contagion. In this respect, creating a photo opportunity for the media took precedence over more conventional protest activities. However, many local groups failed to respond to the call for action: it would seem that inter-group organisation can be a burden on mobilisation, and is only compensated by large demonstrations.

In Zaragoza, it was decided to separate into groups, with activists creating long human chains over the city's bridges while maintaining a distance. The number of participants was limited, and those interested in taking part had to fill out a form, which increased the organisers' workload.

- (7) *Each row stretches across one of the city's five bridges. Each person in each row is separated by two to three metres. Any comments, jokes, observations or even orders and changes to the plan can only be made to one of the two people on either side. [...] there is no dancing, jumping, or “squats”. The length of the line also makes it difficult to hear the loudspeakers and announcements.*

[Ethnographic journal fieldnotes, Zaragoza street protest, May 6, 2020]

The main problem seemed to be a failure to generate a common experience and some collective emotions, derived from the mobilization, that would unite and energise the participants. It was also observed that there had been a loss of the spontaneity that had characterised Fff. This was attributed to excessive social distancing. In this sense, the in-person

actions during the pandemic had a certain demobilising effect that highlights the importance of ritualism. Moreover, the absence of a newsworthy event and the artificiality of the setup meant that the demonstration received little media coverage.

The difficulties of carrying out successful protest actions during the pandemic seemed to lead to a loss of perceived efficacy for FfF members, who believed they were having no real impact and not even meeting basic ritual functions of reinforcing the collective.

In summary, these results show that the adaptation of FfF dynamics to the pandemic and lockdown was key to its continuity as a collective. However, it challenged the horizontal functioning of meetings and assemblies by reinforcing the role of the moderator and by compromising the engagement of some less committed participants, which could have an effect on emotions, identification and participation. Furthermore, the reduced impact of mobilisations could reduce the perceived group efficacy. These consequences will be explored in the results of the survey study.

Survey of Activists

The results of the descriptive analyses (Table 1) found that, on average, FfF respondents used two or more technological tools ($M = 2.5$, $SD = .85$) to connect with other members of the movement, but that the diversity of tools used for organising mobilisations was lower ($M = 1.89$, $SD = 1.16$).

Table 1

Descriptive Statistics of the Study Variables

Variable	<i>M</i>	<i>SD</i>	Min.-Max.
Technology used	2.50	0.85	1-4
Technology for mobilisations	1.89	1.16	0-4
New contacts	3.18	4.85	0-20
Impact of COVID and lockdown	3.03	1.08	1-5
Affective tone	-0.21	0.70	(-1)-(+1)
Negative impact of COVID pandemic on FfF	2.86	0.91	1-5
Group efficacy	3.99	0.89	2-5
Previous identification with FfF	4.25	0.89	1-5
Current identification with FfF	4.13	1.03	2-5
Identification with environmentalism	4.45	0.84	2-5
Intent to stay in FfF	4.12	1.01	1-5

On average, each respondent contacted three new members, with a fairly large standard deviation ($M = 3.18$, $SD = 4.85$), indicating that a small group of FfF members was responsible for a disproportionate number of interactions.

Respondents' rating of how much they felt they had been affected by the pandemic was at the midpoint of the scale ($M = 3.03$, $SD = 1.08$), meaning that the personal impact of the pandemic was moderate. This response was supported by a predominantly negative "affective tone" (-0.21), although with considerable variation between cases ($SD = 0.70$).

Respondents rated perceived negative impact of the pandemic on the functioning of the movement just below the mid-point of the scale ($M = 2.86$, $SD = 0.91$), indicating a moderate perception of negative impact. The perceived group efficacy was rated relatively high ($M = 3.99$, $SD = 0.89$).

No statistically significant differences (Wilcoxon test: $Z = -1.13$; $p > .05$) were found between identification with the movement before ($M = 4.25$, $SD = 0.89$) and after lockdown ($M = 4.13$, $SD = 1.03$). These responses were consistent with a very high identification with environmental activism in general ($M = 4.45$, $SD = 0.84$) and that a significant majority of respondents expressed an intention to remain involved ($M = 4.12$, $SD = 1.01$).

The analyses confirmed the predominance of negative emotions (36.8%) during the pandemic, which centred around feelings of impotence (39.7%), demotivation (27.9%), and disorientation (7.4%; see Revilla et al., 2024S). Conversely,

positive emotions (33.8%) were expressed as hope (13.2%), feeling motivated to participate (13.2%), efficacy (10.3%), or social emotions, such as bonds with others (10.3%).

We used Spearman's correlation test to explore bivariate associations between the main study variables (see Table 2). This analysis found that a number of variables had a positive correlation with negative personal effects of the pandemic and lockdown: higher diversity digital media use, more intense communication with other activists, and higher participation in online mobilisations. This finding may indicate that increased emotional suffering during the pandemic led respondents to make more intense use of these media due to a greater need to connect with others.

Table 2

Correlations (Spearman) Between the Study Variables

Variable	1	2	3	4	5	6	7	8	9
1. Impact of COVID and lockdown	–								
2. Technology used	.334**	–							
3. Technology for mobilisations	.421**	.258*	–						
4. New contacts	.016	.227	.196	–					
5. Negative impact of COVID pandemic on Fff	.299*	-.022	-.184	-.220	–				
6. Collective efficacy	-.101	.110	.108	.324**	-.212	–			
7. Intention to remain in Fff	.057	.182	.163	.264*	-.318**	.363**	–		
8. Affective tone	-.151	.031	.220	.396**	-.494**	.440**	.140	–	
9. Current identification with Fff	-.194	.048	.243*	.195	-.487**	.502**	.444**	.429**	–
10. Identification with environmentalism	-.095	-.054	-.192	-.080	-.108	.157	.055	.220	.282*

* $p < .05$. ** $p < .01$.

The average number of new members contacted was significantly associated with a more optimistic outlook for the movement, correlating strongly with feelings of group efficacy and positive affective tone. Lower expression of negative feelings related to Fff during lockdown was also associated with a stronger identification with the movement.

Perception of group efficacy was not significantly correlated with activists' negative experience of lockdown, which seems to suggest that faith in the future of the movement was independent of activists' personal experiences during the pandemic. A higher rating of the movement's group efficacy was significantly associated with a more positive affective tone, stronger identification with the movement, and a higher intention to remain involved.

Current identification with Fff, during pandemic and lockdown, was associated with greater group efficacy, a more positive affective tone, higher intention to remain involved, and a weaker perception that the movement had been significantly affected. However, it was not associated with the degree to which activists had been personally impacted by the pandemic. With regard to identification with environmental activism in general, this was only positively correlated with activists' own identification with Fff.

A stronger intention to remain involved correlated positively with a higher rating of the functioning of the movement during the pandemic, a stronger belief in collective efficacy, and higher current identification.

Discussion and Conclusions

Fff's Internet-mediated activities made a key contribution to the movement's survival during the pandemic. The capacity of these technologies to allow a migration to virtual spaces helped to sustain the movement's internal operation and led to a new assembly format adapted to the online context. Virtual meetings and online interaction increased the participation of some activists as well as sustained existing networks and facilitated new relationships, all of which are crucial to sustaining participation in SMOs (Barkan et al., 1995; Downton & Wehr, 1998; Fillieule, 2001). Similarly, many Fff activists believed that the activity and internal dynamics of the movement were not significantly affected by the pandemic. However, online interaction has limitations (Razquin, 2015), and it cannot substitute "the space of places"

(Castells, 2012). In the ethnographic study findings, this is evident in the relative disengagement of some activists and the more passive participation of others during online meetings. On the whole, though, the activists were of the view that the pandemic only had a moderately negative impact on the functioning of the collective.

Online interaction permitted the young FfF activists to take advantage of the possibilities it offers for agency and creativity (Della Porta, 2013). The negative aspects of online interaction, such as social control through DSM (Haunss, 2015), took a backseat to the more pressing concerns of the pandemic. Thus, our results indicate that online interaction is important for ensuring sustained participation by members. However, positive identification with FfF during the pandemic could also be related to the pre-existing strength of relationships, as well as shared youth identity (Crossley, 2008) and an easier identification with FfF as a digitally active emergent group (Akfirat et al., 2022).

On the other hand, the pandemic induced more negative than positive feelings. The high correlation between affective tone and identification, perceived efficacy, and functioning of the movement during the pandemic, reinforces how important emotions are to sustaining participation in activism (see also Flesher Fominaya, 2007). Furthermore, our research identified that efforts to provide mutual support and “care” for each other contributed to the creation of positive affect. The absence of any significant correlation between affective tone and the survey respondents’ intention to remain involved with FfF, however, may have two explanations. One, it may be an outcome of the methodology used to gather data on emotional experiences. Two, changes in emotional experiences may have affected all FfF activists in general, regardless of their intention to remain involved. This second explanation would be in line with van Zomeren’s (2015) own observation that activists’ engagement seems less affected (than non-activists) by their emotions. Activism could thus be opening the way to a common, collective experiencing of emotions, much like Schmid’s (2009) we-mode.

Lockdown had a negative impact on mobilisations due to the curtailment of street-based protests and low efficacy of online actions. It made extremely difficult to organise effective protests, which also lost their ritualistic component – so important to the collective experience (Pizarro et al., 2022). It is also relevant that media attention shifted from the climate crisis.

In this context, it is surprising that activists’ perception of group efficacy remained quite high. This may be because at the time the pandemic was still perceived as something of limited duration and that it would be possible to resume previous modes of organisation and activism once it finished.

It is also surprising that the impact of the pandemic at the personal level, a variable related to the biographical dimension of activism, did not have any significant correlations with the main variables or intention to remain involved, but it was associated with the perception that the pandemic had negatively affected the functioning of FfF. In this case, the significance of biographical factors and activist careers (Fillieule, 2001) may relate to transformations in the participants’ daily life patterns caused by the pandemic as well as the fact that for most of them it was their first experience of activism (Revilla et al., 2023). This may also have influenced higher expressions of optimism – seen in positive affect – and a heightened perception of group efficacy. These unexpected findings may be related to the exceptional circumstances of the pandemic, a one-time event of enormous societal impact.

Finally, the absence of a significant correlation with the number of communication technologies employed by respondents may be due to the fact that technological uses were quite similar across the sample. It could also indicate that the adaptations to virtual interaction were successful in sustaining the participation of even those worst affected by COVID.

The ethnographic study has similar limitations as other case study approaches. It can be debated the extent to which the results would be similar in other countries. However, as global phenomena, FfF and the COVID-19 pandemic are shown to have similar manifestations around the world, not without specificities. de Moor et al. (2020) have analysed the spread and common characteristics of FfF activists and many others (i.e., Colombo, 2021) have commented how the pandemic affected societies around the world. But the impact of the pandemic has not been the same everywhere in the world: Shokoohi et al. (2020) has shown how Spain was one of the most affected countries by the pandemic and how their reaction was relatively late. Likewise, FfF Spain have certain specific characteristics in its functioning as a collective, mainly its assembly-like organisation and the input it received due to the celebration of the COP25 in Madrid (Revilla et al., 2023). All these specific circumstances must be taken into account when comparing our results to other cases.

The survey study has in the reduced size of the sample its main limitation. The relatively small number of participants advise against certain more powerful analyses. However, the sample represents a significant percentage of the whole population, what could be an indicator of some reliability of the results. Certainly, the survey results may be conditioned by the moment in which the questionnaires were collected, in the midst of lockdown.

In conclusion, as identification, perceived group efficacy, and intention to remain involved with FfF was relatively high, the use of digital media meant that COVID-19 and lockdown affected members less than expected. This appeared to be linked to activists' allegiance to the organisation and a series of factors that favoured the survival of the movement, including: the use of a variety of digital media to facilitate the involvement of activists in the movement (Crossley, 2008); the optimisation of the internal management of the organisation; positive relationships between members, contact with new members, along with optimism and a positive affective tone in peer relationships. Furthermore, the finding that greater identification with FfF had greater informational value, and possibly greater impact, than a more general identification with environmental activism is consistent with research showing that politicised identities are more consequential for sustained collective action (Stürmer & Simon, 2004; van Zomeren et al., 2008). It appears that FfF members with a stronger politicised identity feel a greater obligation to participate in the movement and have a deeper commitment to it. This suggests that efforts to strengthen the movement should be aimed at fostering subjective ties with the cause and with other members.

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Data Availability: The data that support the findings of this study are available on request to the corresponding author. The data are not publicly available due to privacy restrictions.

Supplementary Materials

The Supplementary Materials file contains the following items (for access, see Revilla et al., 2024S):

- Triadic focus groups interview guide;
- Original questionnaire;
- Selected interview verbatims and ethnographic fieldnotes;
- Summary of the statistically significant correlations between the study variables; and
- Categories of emotions experienced by respondents during the pandemic (multiple responses permitted).

Index of Supplementary Materials

Revilla, J. C., Dávila, M. C., Zlobina, A., Belli, S., Gonzalo-Puyod, A., & Sánchez-Díez, S. (2024S). *Supplementary materials to "Sustaining participation in the ecological movement during the global pandemic: The case of Fridays for Future (Spain)"* [Additional information]. PsychOpen GOLD. <https://doi.org/10.23668/psycharchives.15752>

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