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Bil-Jaruzelska, Anna; Monzer, Cristina

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All About Feelings? Emotional Appeals as Drivers of User Engagement With Facebook Posts

Anna Bil-Jaruzelska * and Cristina Monzer

Norwegian University of Science and Technology, Norway

* Corresponding author (anna.bil-jaruzelska@ntnu.no)

Abstract
Political campaigns routinely appeal to citizens' emotions, and there is evidence that such appeals influence political behaviour. Social media, an important arena through which political actors communicate with voters, provide a rich source of data for investigating not only which communication strategies they use but also which of these engage followers. Building on political psychology and political communication literature, the present study investigates the relationship between appeals to specific emotions (fear, anger, enthusiasm, and pride) and the engagement that such posts generate on Facebook. We created an engagement index sensitive to the Facebook page follower count and employed multilevel modelling techniques. We conducted a manual content analysis of posts by British political parties and their leaders (N = 1,203) during the Brexit referendum debate on Facebook. We found that engagement with a post substantially increases when appeals to anger, enthusiasm, and pride are present. Conversely, there is no relationship between appeals to fear and engagement. Thus, the results indicate with observational data what we know about the effects of emotions from experimental research in political psychology. Emotions of the same valence (e.g., fear and anger) have a different relationship with user engagement and, by extension, political behaviour and participation online. This indicates that to fully understand the role of emotions in generating user engagement on Facebook, we must go beyond the positive and negative dichotomy and look at discrete emotions. Lastly, British political actors used Facebook communication to generate online political participation during the Brexit debate.

Keywords
Brexit; emotional appeals; Facebook; manual content analysis; political communication strategies; user engagement

1. Introduction

Social media have become an important channel through which political actors communicate with the voters and an arena for political participation in which citizens can respond to political messages (Keller & Kleinen-von Königslöw, 2018). On Facebook, these responses can take the form of "likes," "comments," "shares," and "reactions." Based on the logic of virality (Klinger & Svensson, 2015), when users engage with content through any of the above means of interaction, political actors' posts are spread to wider audiences. The more interactions with a post, the more visible it becomes, not only to political actors' followers but also to their respective networks (Bene, 2017; Keller & Kleinen-von Königslöw, 2018). This increased visibility, in turn, has the potential to attract new voters (Bene, 2018), party members (Gibson et al., 2017), media attention (Bene, 2018; Chadwick, 2017), and even contribute to the electoral success (Bene, 2018). Triggering engagement from followers is thus an

important goal of effective political communication on Facebook (Bene, 2017).

Reflecting the growing consensus about the centrality of emotions in politics, the presence of emotions has been included in the analytical frameworks of several studies investigating what generates user engagement on Facebook (e.g., Bene, 2017; Blassing et al., 2021; Gerodimos & Justinussen, 2015; Heiss et al., 2019; Jost et al., 2020; Martella & Bracciale, 2021; Metz et al., 2020). All the aforementioned studies find that the presence of emotion in a post leads to greater user engagement. However, the results are less conclusive when it comes to the role of positive and negative emotions. While some find that only negative emotion significantly increases user engagement (Bene, 2017), others find that the effect of positive emotion on engagement is stronger than negative (Heiss et al., 2019).

This study aims to shed more light on the role of emotion-eliciting message content in generating user engagement on Facebook and zoom in on appeals to discrete emotions. By appealing to emotion, campaigns can influence citizens' political behaviour (Brader, 2006). Research from political communication and political psychology further shows that to understand how emotions influence behaviour, we must consider the role of specific emotions (Brader, 2006; Weber, 2012). Today we know that even emotions of the same valence, for example, fear and anger, have different behavioural consequences. While anger is a powerful driver of political participation (Brader, 2006; Valentino et al., 2011), fear can, in many cases, encourage withdrawal (Brader, 2006; Weber, 2012). Building on the existing body of research, the present study explores further and clarifies the role of emotion in generating user engagement with Facebook posts. We draw on political psychology and political communication literature and investigate the role of appeals to fear, anger, pride, and enthusiasm—four emotions considered most relevant in a political context (Brader, 2006; Ridout & Searles, 2011), in generating user engagement with political Facebook posts.

We conducted a manual content analysis of posts by British political parties and their leaders (N = 1,203) during the Brexit referendum debate on Facebook. We investigated the relationship between appeals to fear, anger, pride, and enthusiasm, and their respective levels of user engagement with the Facebook posts. We measured engagement by the total amount of interactions ("likes," "comments," "shares," and "reactions") a post received. While these represent different qualities of interaction, they all increase the visibility of Facebook posts and can be used as an indicator of how successful communication on Facebook is (e.g., Boulianne & Larsson, 2021; Gerbaudo et al., 2019; Keller & Kleinen-von Königslöw, 2018). Further, interactions with posts can be used as metrics of civic engagement and political participation online (Gerodimos & Justinussen, 2015). We thus assume that the more interactions a post generates, the more successful its content is at mobilizing citizens to engage in political participation online.

We found that appeals to anger, enthusiasm, and pride are strong predictors of engagement, while appeals to fear had no effect. These results not only indicate that it is important to look at the influence of appeals to discrete emotions, going beyond the positive and negative dichotomy, but also that behavioural effects of emotions that we know mostly from experiments can also be detected using observational Facebook data. Beyond the substantive contribution of this article, our study strengthens the investigation of emotion and its effect on user engagement in two ways: First, employing a multilevel modelling technique accounts for clustering of the data at the Facebook profile level, which means that we correct for the similarities that posts from a political actor might share in terms of content and presence of emotional appeals. Second, by computing an engagement index that is sensitive to the number of followers of each political actor, we correct for the expected increased interaction count associated with having a larger follower base. The two approaches better account for the existing data structure of social media political communication.

2. Interactions on Social Media

Social media have become essential tools in political campaigning, allowing politicians to not only communicate with those who follow them but also reach secondary audiences when their followers engage with content (Vaccari & Valeriani, 2015). By interacting with politicians' posts, followers and their networks contribute to the circulation of posts, spreading them to a wider audience. User interactions can thus be considered a currency of social media (Klinger & Svensson, 2015). They are indicators of how successful politicians' communication is, and crafting messages that followers will interact with is one of the main aims of political actors who communicate on Facebook (Bene, 2017). Based on the interactions that their posts receive, politicians can understand what type of content generates engagement and use such insight in future communication (Jost et al., 2020).

For users, Facebook provides an opportunity to express their opinions and reactions to politicians' posts through different means of interaction. On Facebook, citizens can interact with politicians' posts by "liking," "commenting," "sharing," or "reacting" to them. Even though these interactions differ in quality and are considered distinct modes of expression (for an overview, see Larsson, 2018, p. 329), their aggregated number can be used to measure the overall engagement generated by content (Keller & Kleinen-von Königslöw, 2018). Further, user interactions on Facebook can be used as metrics of civic engagement and political participation online (Gerodimos & Justinussen, 2015) and consequently allow us to investigate which communication strategies are successful at stimulating online political participation.

In this study, we investigate the relationship between appeals to specific emotions and user behaviour in the form of interactions with Facebook posts. The underlying assumption is that the more successful the post's content is at mobilizing users to engage in political participation, the more interactions it will generate. More specifically, we investigate whether appeals to anger, pride, and enthusiasm (emotions that we know from political psychology stimulate political engagement and participation; e.g., Brader, 2006; Valentino et al., 2011), increase the overall engagement with Facebook content—and whether appeals to emotions such as fear (known to decrease political participation in various forms; Valentino et al., 2011; Weber, 2012) decrease it. Our dependent variable is thus the total amount of interactions that posts receive, which is also a known practice in the existing literature (e.g., Boulianne & Larsson, 2021; Gerbaudo et al., 2019; Keller & Kleinen-von Königslöw, 2018).

Because emotions are at the centre of our study, an alternative approach could be to use Facebook's emotional reactions as dependent variables. While "haha" and "wow" are considered very ambiguous, "love" and "angry" reactions are positive and negative expressions of emotional states, respectively (Jost et al., 2020). However, Zerback and Wirz (2021) find that while posts eliciting anger trigger "angry" reactions and posts eliciting sadness trigger more "sad" reactions, they also unexpectedly found that "angry" reactions are, in fact, driven more strongly by the sad theme in posts. Consequently, while research on Facebook's emotional Reactions as expressions of users' emotions is growing and already providing useful insight, we cannot yet be sure of the extent to which the different emotional reactions can, in fact, be treated as valid expressions of specific emotions, especially beyond the positive–negative dichotomy. Further, out of the emotional reactions available on Facebook, only the "angry" reaction corresponds to one of the four emotions of interest in this study. Because of the above, and because what is of importance in this study is not finding out whether appeals to specific emotions make people experience those emotions, but the role that appeals to specific emotions play in the manifest behaviour of users, we have chosen overall engagement with posts as the dependent variable.

3. Emotional Appeals in Political Communication

Emotional appeals, understood as attempts to "stir the feelings of the audience when delivering a political message" (Brader, 2006, p. 4), are a widely used campaign communication strategy (Brader, 2006; Ridout & Searles, 2011). Research has further shown that political campaigns appeal to citizens' emotions deliberately and strategically (Brader, 2006; Crabtree et al., 2020; Ridout & Searles, 2011). By doing so, campaigns can affect voters' behaviour, shaping it in predictable ways (Brader, 2006; Crabtree et al., 2020). There also seems to be no

doubt today that emotions play a crucial role in political behaviour (e.g., Brader, 2006; Marcus, 2002; Marcus & MacKuen, 1993). The political significance of emotions has been empirically linked to, among others, political participation (Valentino et al., 2011; Weber, 2012) and political learning and decision making (Brader, 2006; Marcus & MacKuen, 1993).

When investigating political communication strategies on social media and their role in generating user engagement, several studies have included emotion in their frameworks. They have all found that emotional content increases user engagement (e.g., Bene, 2017; Blassing et al., 2021; Heiss et al., 2019; Jost et al., 2020; Martella & Bracciale, 2021; Metz et al., 2020). However, the results regarding the effect of positive and negative emotions are less conclusive. Bene (2017) found that positive emotions have no significant effect on user engagement but that negative emotions do. Similarly, Martella and Bracciale (2021) found that especially negative emotional appeals successfully increase user interactions. On the other hand, Heiss et al. (2019) and Gerbaudo et al. (2019) found that the effect of positive emotions on user engagement is stronger than that of negative ones. We believe that two measures need to be taken to clarify further the role of emotions in generating user engagement: Taking a discrete, as opposed to a dimensional approach to emotions; and investigating emotional appeals instead of emotions expressed.

3.1. Dimensional and Discrete Approaches to Emotion

Research on emotion in politics has often focused on two dimensions of affect, positive versus negative (e.g., Marcus, 2002; Marcus et al., 2000), and most studies investigating the role of emotion in generating user engagement have followed this path (but see for example Blassing et al., 2021; Zerback & Wirz, 2021). However, we know that even emotions of the same valence differ from each other. For example, while fear and anger are both negatively valenced emotions, they have very different behavioural effects (e.g., Brader, 2006; Lerner & Keltner, 2001; Weber, 2012). Fear is, among others, equated with risk avoidance and decreased willingness to engage in many forms of political participation, while anger is a powerful motivator of participation in politics and often tied to risky action (Lerner & Keltner, 2001; Valentino et al., 2011). Consequently, distinguishing between emotions of the same valence, instead of considering them as a single entity, can provide a more nuanced and accurate understanding of their influence. In the present study, we thus measure appeals to fear, anger, pride, and enthusiasm and investigate their relationship with user engagement.

3.2. Emotional Appeals and Emotionality

There are two main ways in which we can conceptualize the presence of emotion in campaign communication.

First, messages can be considered emotional when they contain emotional expressions. Second, messages can have characteristics or contain cues that make them likely to elicit certain emotional responses (Brader, 2006; Ridout & Searles, 2011). To date, most studies investigating the effects of emotion on user engagement have taken the first approach. Employing either content analysis, or tools such as sentiment analysis, the authors classified posts as containing positive or negative emotional language and expressions (for exceptions, see Martella & Bracciale, 2021; Zerback & Wirz, 2021).

We argue that operationalizing emotion in political communication as emotional appeals, understood as attempts to "stir the feelings of the audience when delivering a political message" (Brader, 2006, p. 4), can be a step toward further clarifying the role of emotion in generating engagement with Facebook content. Various message cues are likely to elicit specific emotions, and campaigns can use these cues strategically and deliberately to appeal to the emotions they want to elicit, thereby shaping the behaviour of voters in predictable ways (Brader, 2006; Crabtree et al., 2020). Messages aiming to elicit specific emotions can thus affect user behaviour and lead to different levels of user engagement. To investigate this further, we map the presence of emotional appeals in Facebook posts, and then investigate their role in generating user engagement. We draw inspiration from the approach taken by Brader (2006) and Ridout and Searles (2011) by translating the ideas of appraisal theories and Affective Intelligence Theory (AIT) into indicators of emotional appeals and expectations about their influence on the engagement.

4. Behavioural Consequences of Emotions and the Impact of Emotional Appeals on Engagement With Facebook Posts

This study examines the influence of appeals to fear, anger, pride, and enthusiasm on engagement with Facebook posts. In this section, we provide an overview of the behavioural consequences of the emotions of interest, drawing on AIT (Marcus, 2002; Marcus et al., 2000), appraisal theories (Lerner & Keltner, 2001; Smith & Ellsworth, 1985), and empirical research applying these (Brader, 2006; Valentino et al., 2011; Weber, 2012). We then use these to formulate hypotheses. Both AIT and appraisal theories examine the role of emotion in information processing and political behaviour. Despite differences between the theories, they largely agree on the behavioural consequences of the four emotions in this study and the circumstances under which they arise (although fear is a somewhat more complex case; for a brief discussion, see Brader, 2006, pp. 58–59).

Appeals to anger can be used to mobilize citizens to engage in the political process. Anger produces action (Lerner & Keltner, 2001), causes people to engage with politics (Brader, 2006; Valentino et al., 2011), and reinforces existing partisan habits (Brader, 2006). It has been linked to increased mobilization and willingness to engage in various forms of political participation (Valentino et al., 2011; Weber, 2012). Consequently, we hypothesize:

> H1: Appeals to anger are positively associated with increased user engagement.

While of the same valence as anger, fear produces different behavioural outcomes. While anger is linked to action and less careful processing of events, fear is related to avoidance and more systematic information processing (Brader, 2006; Marcus et al., 2000; Valentino et al., 2011). Compared to anger, fear can cause withdrawal and lessen political engagement (Weber, 2012). While fear can increase the desire to participate politically in certain ways, it also encourages withdrawal from activities (Brader, 2006) and, overall, decreases willingness to participate in politics in various forms (e.g., Marcus et al., 2000; Weber, 2012). We thus hypothesize:

> H2: Appeals to fear are negatively associated with increased user engagement.

Enthusiasm involves an increased sense of being personally in control and facilitates approach over withdrawal (Weber, 2012). Further, it reinforces the desire to continue current actions and stay involved in the successful activity while reinforcing existing partisan habits (Brader, 2006). It increases political participation by transforming stimuli into political action; thus, it has been linked to increased political mobilization, including greater interest in campaigns, higher inclination to vote, and desire to volunteer (Brader, 2006; Valentino et al., 2011). We hypothesize:

> H3: Appeals to enthusiasm are positively associated with increased user engagement.

According to AIT, pride indicates the enthusiasm dimension of the disposition system and thus has similar mobilizing effects on political behaviour (Marcus et al., 2000). Appraisal theorists, however, treat pride as distinct from enthusiasm because of its retrospective, as opposed to enthusiasm's prospective character (Lazarus, 2001). Further, pride has a unique influence on collective identities, and since these are important in campaign contexts, some empirical studies have also looked at pride separately from enthusiasm (Brader, 2006; Ridout & Searles, 2011). We hypothesize:

> H4: Appeals to pride are positively associated with increased user engagement.

5. Method

We employed a manual quantitative content analysis of communication by the four largest political parties

in the British Parliament in 2016, as well as the UK Independence Party (UKIP) due to their important role in Brexit. We analysed messages posted by the official party's Facebook profiles and pages of their leaders two months before and one month after the referendum. The Brexit debate had "strong emotional overtones" (Degerman, 2019, p. 829), and various scholars have emphasized the central role of emotion in Brexit (e.g., Degerman, 2019; Moss et al., 2020). Further, a number of researchers and commentators emphasize the importance of social media in this context (e.g., Brändle et al., 2021). Consequently, the Brexit referendum debate on Facebook makes a suitable case study to investigate the use and role of emotional appeals.

5.1. Sample

The dataset consists of posts published on the official pages of the Conservative Party, the Labour Party, the Liberal Democrats, the Scottish National Party (SNP), and the UKIP, as well as their respective leaders David Cameron, Jeremy Corbyn, Tim Farron, Nicola Sturgeon, and Nigel Farage. We also included Boris Johnson in the sample, as he played an important role in the Brexit referendum campaign despite not being the official party leader at that point. Both party and individual politicians' profiles were included because user interactions can differ depending on the type of Facebook profile (see Heiss et al., 2019). Responding to calls for more research on political communication on social media outside of strictly campaign communication (e.g., Blassing et al., 2021), we looked at posts from 23 April 2016 to 23 July 2016, representing two months before and one month after the Brexit vote. This timeframe allowed us to investigate the role of emotions in engagement with political communication both during the contentious Brexit campaign and its aftermath. All Facebook posts and interactions with them were downloaded using Facepager (Jünger & Keyling, 2018) in August 2020. From a total of 1,260 posts, 57 were removed because of missing data and text (N = 1203).

5.2. Engagement as Dependent Variable

We created an overall engagement index that sums up all interactions. The underlying assumption is that the higher the number of interactions with a post, the more successful the content is at mobilizing users to engage in online political participation. We are particularly interested in whether user interactions are decreased by appeals to fear and increased by appeals to anger, enthusiasm, and pride. Consequently, we consider the dependent variable, which combines all popularity cues a post received as a suitable measure. Additionally, our engagement measure accounts for the number of followers each Facebook profile had, as these impact the total amount of interactions that posts on different Facebook profiles generate. Because it is not possible to retrospec-

tively find out the exact number of followers a page had at a given moment in the past, the number of followers was recorded during the data collection process in August 2020. We propose that the count obtained during data collection is useful and sufficient. Statistically, the relationship between emotional appeal and engagement (without accounting for follower count) is as strong as in the model presented in the article (see Appendix C in the Supplementary File). However, the engagement formula presented here fits the data better.

$$\text{Engagement} = \frac{\text{''Reactions'' + ''Comments'' + ''Shares''}}{\text{Followers}}$$

5.3. Independent and Control Variables

Variables were coded binary for each post (1 = presence, 0 = absence). We conducted two rounds of inter-coder reliability with the researcher coder and a non-expert coder. The second round of testing yielded Krippendorf's alpha scores on a 10% sample of posts ranging from 0.695 to 1. All variables of interest were reliable (see Appendix A in the Supplementary File).

Independent variables: Emotional appeals. The coding scheme of emotional appeals is an extension of AIT and appraisal theories to the field of political communication, based on the notion that specific message cues elicit different emotions (Brader, 2006). We only coded emotional appeals in text. Because we are not interested in tapping into the emotional reactions of the coders, the coding question was, following Brader (2006) and Ridout and Searles (2011), "which emotion did the author of the post aim to evoke?" Further, to ensure theoretical precision, for the appeal to any of the four emotions of interest in this study to be coded as present, a post had to contain theoretically derived indicators. Appeals to fear, for example, featured content associated with threat, an uncertain future, or uncontrollability (Brader, 2006; Lazarus, 1991; Marcus et al., 2000). The coding scheme can be found in Appendix E in the Supplementary File. Multiple emotional appeals could be coded as present in a post. 61.2% of posts contained no appeal to emotion, 32.4% at least one emotional appeal, 6.0% two emotional appeals in one post, and just under 1% contained three or more emotional appeals.

Control variables. The following variables were included as controls: (a) Populist content: Several studies (e.g., Bobba, 2019; Jost et al., 2020) found that populist messages drive user engagement (but see Martella & Bracciale, 2021). Consequently, and because populism is thought to have played a central role in Brexit (e.g., Clarke & Newman, 2017), we control for the presence of populist content, understood as communicatively expressing people-centrism, anti-elitism, and ostracizing "the Others" (Jagers & Walgrave, 2007). (b) Party vs. individual politician profile, as this could impact engagement (Heiss et al., 2019). (c) Because political actors can communicate differently in pre- and post-election

periods (Schmuck & Hameleers, 2020), we control for communication before the referendum vote and after. (d) The frequency of posts, because the more often a profile posts, the fewer reactions a specific post might receive (Bene, 2017). (e) The presence of immigration, sovereignty, and economy as topics in the post, as these were the most important issues of the Brexit referendum campaign (Hobolt, 2016). And (f) Length of the post (e.g., Heiss et al., 2019).

6. Results and Analysis

6.1. Descriptive Analysis

Before discussing the association of emotional appeals with engagement, we present some descriptive results. Table 1 focuses on the political Facebook profiles.

Considering the number of followers and the mean engagement for each political actor, Nigel Farage has the highest engagement with his posts of 0.10 (followers = 1,002,437). He is followed by Nicola Sturgeon (0.09), UKIP (0.07), and Tim Farron (0.06), all of whom have significantly lower numbers of followers. However, from the high follower accounts, Jeremy Corbyn (followers = 1,641,689) has a high engagement score of 0.05. The engagement scores are, to a great extent, specific to the different political actors. Perhaps both Nigel Farage and Jeremy Corbyn have high engagement with their messages because they have an established political member base. Given the increasing personalization of politics, particularly on social media (e.g., Metz et al., 2020), it is perhaps not surprising that four out of five party profiles generate less user engagement than profiles of individual politicians.

Turning to the content, Table 2 shows that 39% of the posts contained an appeal to at least one of the emotions of interest in this study. Appeals to anger and enthusiasm were most prevalent, each present in 17%

of posts. Appeals to pride and fear were significantly less frequent, appearing in 7% and 5% of the posts, respectively. Looking at the control variables, populist content was not very prominent in our data. Fifteen percent of the posts contained people-centrism, 17% anti-elitism, and 3% ostracizing "the Others." Lastly, 25% of the posts contained at least one of these elements. The distribution of posts between individual politicians and party profiles was fairly even, with 48% being by a politician and 52% by a party profile. Further, 75% of the posts were created before the Brexit referendum vote, which was expected since the data was collected for two months before the vote and only one month after.

Table 3 shows that enthusiasm and anger were the emotions that were appealed to most frequently. These were followed by pride, while fear was the least prevalent emotional appeal. Nigel Farage, UKIP, and Boris Johnson used appeals to emotion most frequently (appeals to at least one emotion in 61%, 56%, and 43% of their Facebook posts, respectively). Appeals to enthusiasm made up a considerable part of their communication—featuring in 43%, 28%, and 28% of their posts, respectively. A post by Boris Johnson is a good example of an appeal to enthusiasm:

> We have less than ten days until we get the chance to take back control of our country and crucially our democracy, and Vote Leave. In these remaining days we need to do all we can to keep banging the drum about why it is time for us to believe in ourselves, to believe in Britain and what we can do.

This post featured content associated with potential success and the achievement of one's goals (in this case leaving the EU) and strengthening commitment to achieving this goal by emphasizing the audience's role in making it come true. While fear was overall the least used emotional appeal in the political Facebook posts, David

Table 1. Profile-level variables and mean engagement scores for political actors.

Facebook profile	Frequency of posts	Followers	M engagement	SD engagement
Nigel Farage	142	1,002,437	0.10	0.12
Nicola Sturgeon	33	409,672	0.09	0.14
UKIP	132	515,912	0.07	0.06
Tim Farron	48	36,321	0.06	0.09
Jeremy Corbyn	163	1,641,689	0.05	0.09
David Cameron	104	1,147,033	0.04	0.04
SNP	138	325,702	0.04	0.10
Boris Johnson	86	1,811,737	0.02	0.03
Conservatives	37	751,561	0.01	0.02
Labour	174	1,096,195	0.01	0.02
Liberal Democrats	146	204,371	0.01	0.02

Notes: Engagement scores were normalized for ease of interpretation; the values range between *min* = 0 and *max* = 1 (*M* = 0.04, *SD* = 0.08).

Table 2. Number of posts and percentage of post-level variables (*N* = 1,203).

Variable	N	%
Emotional appeals		
Anger	203	17
Fear	57	5
Pride	83	7
Enthusiasm	207	17
Total	467	39
Populist content		
People-centrism	175	15
Anti-elitism	203	17
Ostracizing "the Others"	37	3
Total	297	25
Politician/party profile	576	48
Brexit campaign	905	75
Topics		
Immigration	110	9
Sovereignty	118	10
Economy	105	9
Brexit referendum	719	60
EU	45	4
Tradition & values	114	9
Labour & welfare policy	201	17
Security & foreign politics	144	12
Party politics & elections	259	22
Environment	27	2
Other	57	5
Purpose of post		
Mobilization	495	41
Self-promotion	185	15
Information	476	40
Other/Unclear	2	0.2

Table 3. Percentage of emotional appeals for each political actor.

Profile	Anger	Fear	Pride	Enthusiasm	Total
Boris Johnson	18	2	17	28	43
Conservatives	11	0	0	8	19
David Cameron	6	17	13	8	40
Jeremy Corbyn	28	2	6	8	39
Labour	22	9	2	7	37
Liberal Democrats	9	3	5	25	38
Nicola Sturgeon	15	3	0	3	18
Nigel Farage	16	3	13	43	61
SNP	9	0	1	4	14
Tim Farron	10	0	6	10	25
UKIP	27	7	11	28	56

Cameron used it most frequently out of all investigated political actors (17%). Advocates of Britain leaving the EU often referred to the Remain campaign as "Project Fear," and the findings of this study seem to indicate that there was some truth to the Leave campaign's accusation.

Overall, the appeals to emotions that are known to mobilize people to participate in politics have been employed much more frequently than appeals to fear. As the next section shows, appeals to enthusiasm, pride, and anger seem to have worked as intended and significantly increased user interaction.

6.2. Predicting Engagement With Facebook Posts

To analyse the influence of emotional appeals on engagement, we fitted several mixed-effects models with random intercept (Table 4), thus accounting for the clustering of the data at the political actor level.

Focusing on how the models were built, Model 0 represents the null model containing just the random intercept, namely the political actor variable. The intraclass correlation coefficient = 0.34, which means that 34% of the variance in engagement is explained at level 2 (political actor) of the model, therefore justifying the need for a multilevel modelling technique. Model 1 introduces the predictors = different emotional appeals, the fixed effects explaining 8% of the variance. The variables were introduced successively in different models to observe the degree of model improvement with each step. Model 2 is considered the full model, introducing the controls (elements of populist content and other relevant profile and post-level variables). Model 2 is a statistically significant improvement over model 1, explaining 25% of the variance with the variables in the fixed effects part of the model and 45% of the variance in total.

The dependent variable was positively skewed, which means that there are more observations with lower engagement scores on the left side of the distribution than on the right side with higher scores (see histograms in Appendix D of the Supplementary File). To be able to fit a linear regression model, we took the natural logarithm of the engagement variable to manage the normal distribution assumption. This changed the interpretation of the regression coefficients as follows: They represent the estimated percentage change in outcome with one increased unit in the predictor. All three models were fitted with the logged outcome variable.

$$Y_i = \left(\exp(\beta_i) - 1 \right) \times 100$$

To test our hypotheses, we fitted a mixed-effects model (model 2) with a random intercept linear model predicting engagement from appeals to emotions present in text and elements of populist content, as well as political variables and topic issues included as controls, Pseudo R^2 = 0.45. Three out of the four emotional appeal variables have a significant positive effect on engagement. The presence of anger is associated with increased engagement by 58%, pride with increased engagement

by 59%, and enthusiasm by 83%. Thus, hypotheses H1, H3, and H4 are supported. However, the presence of fear does not decrease engagement significantly. Therefore, H2 is not supported.

Additionally, while the three emotional appeals are associated with a substantial increase in engagement with Facebook posts, the engagement increase occurs at different rates: anger elicits the least strong increase in engagement of just over half. Contrastingly, enthusiasm is associated with the highest increase in engagement of 83%, surpassing the effect size of appeals to pride (59%). Positive emotions, specifically appeals to enthusiasm, are associated with the greatest increases in users' engagement with political posts.

Further, from the included control variables, whether the post was from the Brexit campaign period or after had a significant effect on engagement. Posts after the Brexit vote generated more engagement (M = 0.07) than those during the Brexit campaign (M = 0.03). Neither elements of populist communication, relevant Brexit topics, whether the post originated from a party or politician, how often the accounts posted, or the length of the post were significantly related to users' engagement.

6.3. Appeals to Emotions as Part of Populist Content

One potential area of concern was that due to the often-posited emotionality of populism and populism's "extra emotional ingredient" (Canovan, 1999, p. 6), the measurements of appeals to emotion and populist content would tap into the same concept. Figure 1 shows that while there is one strong correlation (r = 0.5 between appeals to anger and attacking the elites), all other correlation coefficients indicate moderate or small correlations. Furthermore, the variance inflation factor (VIF) values for the appeals to emotion and populist content showed no evidence of multicollinearity in the mixed-effects model predicting engagement. VIF values ranged between 1.10–1.55 (see Appendix B in the Supplementary File). Statistically, emotional appeals and populist content variables do not measure the same concept.

7. Conclusions

Our study aimed to shed more light on the relationship between emotions and user engagement with political Facebook posts during the Brexit referendum debate. The strengths of our study are both theoretical (coding manually for appeals to discrete emotions instead of positive and negative emotional expressions in text) and methodological (employing multilevel modelling techniques and a weighted engagement index to account for the particularities of social media data). Below we present the extent to which political actors used different emotional appeals in their Facebook communication, then we discuss the strong positive relationship between appeals to specific emotions and increasing user engagement.

Table 4. Estimates for mixed-effects models with random intercept predicting user engagement.

	M0 Engagement	M1 Engagement	M2 Engagement
(Intercept)	−99.58***	−99.66***	−99.71***
	(27.06)	(25.63)	(77.59)
Emotions			
Fear		−8.23	−5.13
		(15.54)	(15.60)
Anger		71.98***	57.52***
		(8.58)	(9.58)
Pride		88.16***	59.00***
		(13.17)	(12.87)
Enthusiasm		96.27***	82.65***
		(9.17)	(9.10)
Controls			
People#			17.86+
			(9.91)
Elites#			−4.88
			(10.51)
Others#			10.09
			(22.76)
Politician/party profile			136.78+
			(47.39)
Brexit campaign			−50.85***
			(7.27)
Freq. post			0.15
			(0.40)
Length post			−0.00
			(0.00)
Immigration			13.43
			(12.92)
Sovereignty			17.53
			(12.56)
Economy			9.83
			(11.29)
N	1,203	1,203	1,203
Pseudo *R2* (fixed effects)	0.00	0.08	0.25
Pseudo *R2* (total)	0.34	0.39	0.45
Random effects			
Var (level 2)	0.78	0.74	0.60
Var (level 1)	1.09	1.03	0.98
AIC	3665.55	3542.34	3447.82
BIC	3680.82	3577.99	3534.39
ANOVA model improvement		***	***

Notes: # = elements of populist content, + $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$; coefficients and standard errors were transformed with this formula for ease of interpretation: $Y_i = \left(\exp(\beta_i) - 1 \right) \times 100$.
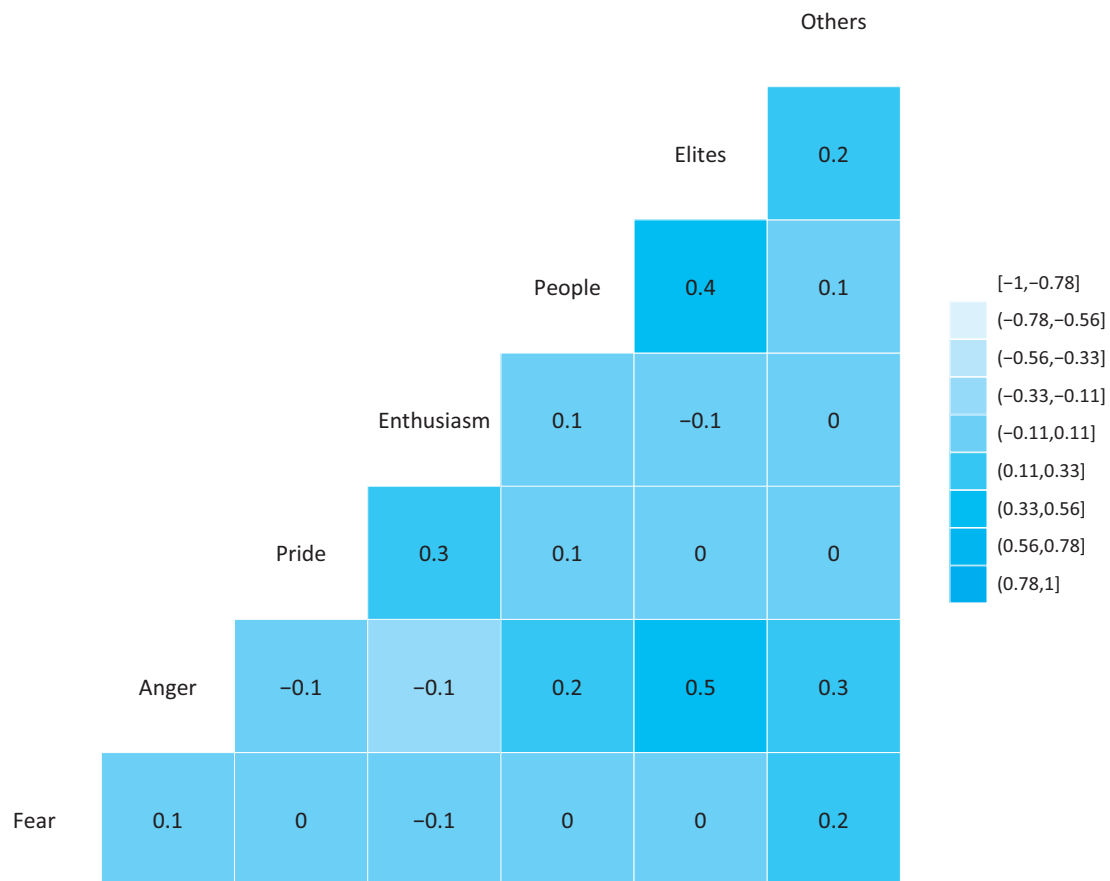
Figure 1. Correlation matrix between appeal to emotions and populist content.

7.1. Use of Emotional Appeals in Political Communication on Facebook

The majority of the political actors under scrutiny appealed to anger, enthusiasm, and pride much more frequently than fear. Reflecting existing research (Brader, 2006; Ridout & Searles, 2011), this finding suggests that political actors strategically appealed to citizens' emotions. It also indicates that political actors have a good understanding of how to communicate with voters on Facebook effectively. On Facebook, the follower base of politicians largely consists of those who already support them, and the "strategic value of this friendly audience lies in mobilization…rather than convincing them of policy propositions" (Stier et al., 2018, p. 55). Since appealing to anger, enthusiasm and pride can not only stimulate political mobilization but also reinforce existing partisan habits (e.g., Brader, 2006), it makes sense that political campaigns appeal to these emotions when they "preach to the converted" on Facebook (Stier et al., 2018, p. 55). Appeals to fear were not used frequently by any political actors considered in this study, except for David Cameron. Fear appeals can be used to persuade undecided voters and make the opponent's supporters reevaluate their decisions while placing less weight on prior convictions (e.g., Brader, 2006). If the main aims of political campaigns are to persuade and mobilize voters, the

majority of political actors considered in this study used Facebook for the latter purpose. Consequently, while our findings on the use of appeals to different emotions on Facebook might not be very surprising, they indicate that how political actors communicate with their followers on Facebook might not be entirely unproblematic from a normative perspective. Even appeals to enthusiasm, which at face value are not negative, are likely to make citizens rely more strongly on prior convictions and stick to their choice of candidate, which can further polarize voters (Brader, 2006).

7.2. Relationship Between Emotional Appeals and User Engagement on Facebook

In line with three of our theoretically derived hypotheses, the results indicate that specific emotional appeals have a strong and distinct positive association with user engagement. Facebook posts containing appeals to anger, enthusiasm, and pride—emotions that have been linked to increased mobilization and willingness to engage in various forms of political participation (e.g., Brader, 2006; Valentino et al., 2011)—generate significantly more user engagement than posts without. Further, our results show that appeals to fear are not negatively associated with increased engagement with Facebook posts, as we initially expected. While the

literature proposes that fear causes withdrawal rather than mobilization and participation in various political activities (e.g., Valentino et al., 2011; Weber, 2012), our data did not exhibit any relationship between appeals to fear and engagement.

We cannot be certain that anger appeals used by political actors on Facebook do make people angry, enthusiasm appeals make people feel enthusiastic, or pride appeals make people proud. However, the manifest behaviour of users seems to support the notion that by appealing to specific emotions, campaigns can shape voter behaviour in predictable ways (Brader, 2006; Crabtree et al., 2020). This, in turn, shows that the different behavioural mechanisms we know of mostly from experiments can partially be detected with unobtrusive, observational data. Overall, the fact that appeals to fear and anger, two emotions of the same valence, show such different relationships with user engagement underscores the importance of considering discrete emotions in future research on the role of emotions in political campaigning and engagement on social media.

Another important finding of this study is that populist communication (understood as expressing people-centrism, anti-elitism, and ostracizing "the Others"; Jagers & Walgrave, 2007) does not increase user engagement. This holds both for the three elements separately and when the different elements are aggregated. This contradicts the findings of some previous studies but is in line with the results of a recent study by Martella and Bracciale (2021). While populism has an "extra emotional ingredient" (Canovan, 1999, p. 6) and is often associated with especially negative emotions, our findings show that when we systematically disentangle populism and emotional appeals, it is the latter that drive engagement. We believe this observation should be factored into future studies on the effects of populist communication on user interaction.

7.3. Limitations

The limitations of our study open up avenues for further research. First, we only coded emotional appeals in textual communication. However, emotional cues can be much more than what is expressed in text, including colours, objects, symbols, and music (Brader, 2006). Consequently, to get an even more thorough picture of the use of emotional appeals and the role they play in generating engagement, more research should factor in emotional appeals on social media originating from other modalities than text (e.g., pictures, videos). Related to the above, not controlling for the format (picture, video, link) of the post, which we were not able to retrieve due to technical reasons, is a limitation of this study. Second, from a theoretical perspective, both positive emotions included in this study, namely enthusiasm and pride, have the same mobilizing effect on political participation. Future studies should also look at the role of positive emotions that do not stimulate politi-

cal participation (e.g., compassion), although these have been proven difficult to code reliably with manual content analysis (Ridout & Searles, 2011), which was the main reason we did not include it in this study. Third, engagement could also have been affected by both variables we did not control for and factors that we could not control, such as paid content and Facebook recommendation algorithms.

Despite these limitations, our study contributes to knowledge about political communication and citizen engagement on social media. The overarching implication of our findings is not only that appeals to emotion are a successful campaign strategy on Facebook, but also that to fully understand their distinct effects on engagement, we need to differentiate between appeals to specific emotions instead of grouping them along the positive–negative axis. In addition, studying citizen engagement with politics with social media data poses particular challenges: (a) In dealing with observational data, we lack insight into how algorithms promote content and thus influence engagement, which limits our ability to control for confounding factors that drive engagement; and (b) analysing ready-made, existing political communication and responses to it, we necessarily make assumptions about the intentions and meaning of both political communication and citizen engagement. Therefore, our choices about the variables of interest (e.g., appeals to emotions as opposed to emotions present in text) or calculations for engagement indices are consequential for the theoretical conclusions we draw.

Conflict of Interests

The authors declare no conflict of interest.

Conflict of Interests

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

References

Bene, M. (2017). Go viral on the Facebook! Interactions between candidates and followers on Facebook during the Hungarian general election campaign of

2014. *Information, Communication & Society*, *20*(4), 513–529.

Bene, M. (2018). Post shared, vote shared: Investigating the link between Facebook performance and electoral success during the Hungarian general election campaign of 2014. *Journalism & Mass Communication Quarterly*, *95*(2), 363–380.

Blassing, S., Udris, L., Staender, A., & Vogler, D. (2021). Popularity on Facebook during election campaigns: An analysis of issues and emotions in parties' online communication. *International Journal of Communication*, *15*, 4399–4419.

Bobba, G. (2019). Social media populism: Features and "likeability" of Lega Nord communication on Facebook. *European Political Science Review*, *18*(1), 11–23.

Boulianne, S., & Larsson, A. O. (2021). Engagement with candidate posts on Twitter, Instagram, and Facebook during the 2019 election. *New Media & Society*. Advance online publication. https://doi.org/10.1177%2F14614448211009504

Brader, T. (2006). *Campaigning for hearts and minds: How emotional appeals in political ads work*. University of Chicago Press.

Brändle, V. K., Galpin, C., & Trenz, H.-J. (2021). Brexit as "politics of division": Social media campaigning after the referendum. *Social Movement Studies*. Advance online publication. https://doi.org/10.1080/14742837.2021.1928484

Canovan, M. (1999). Trust the people! Populism and the two faces of democracy. *Political Studies*, *47*(1), 2–16.

Chadwick, A. (2017). *The hybrid media system: Politics and power*. Oxford University Press.

Clarke, J., & Newman, J. (2017). "People in this country have had enough of experts": Brexit and the paradoxes of populism. *Critical Policy Studies*, *11*(1), 101–116.

Crabtree, C., Golder, M., Gschwend, T., & Indriðason, U. H. (2020). It is not only what you say, it is also how you say it: The strategic use of campaign sentiment. *The Journal of Politics*, *82*(3), 1044–1060.

Degerman, D. (2019). Brexit anxiety: A case study in the medicalization of dissent. *Critical Review of International Social and Political Philosophy*, *22*(7), 823–840.

Gerbaudo, P., Marogna, F., & Alzetta, C. (2019). When "positive posting" attracts voters: User engagement and emotions in the 2017 UK election campaign on Facebook. *Social Media + Society*, *5*(4). https://doi.org/10.1177/2056305119881695

Gerodimos, R., & Justinussen, J. (2015). Obama's 2012 Facebook campaign: Political communication in the age of the like button. *Journal of Information Technology & Politics*, *12*(2), 113–132.

Gibson, R., Greffet, F., & Cantijoch, M. (2017). Friend or foe? Digital technologies and the changing nature of party membership. *Political Communication*, *34*(1), 89–111.

Heiss, R., Schmuck, D., & Matthes, J. (2019). What drives interaction in political actors' Facebook posts? Profile and content predictors of user engagement and political actors' reactions. *Information, Communication & Society*, *22*(10), 1497–1513.

Hobolt, S. B. (2016). The Brexit vote: A divided nation, a divided continent. *Journal of European Public Policy*, *23*(9), 1259–1277.

Jagers, J., & Walgrave, S. (2007). Populism as political communication style: An empirical study of political parties' discourse in Belgium. *European Journal of Political Research*, *46*(3), 319–345.

Jost, P., Maurer, M., & Hassler, J. (2020). Populism fuels love and anger: The impact of message features on users' reactions on Facebook. *International Journal of Communication*, *14*(22), 2081–2102.

Jünger, J., & Keyling, T. (2018). *Facepager. An application for generic data retrieval through APIs.* Github. https://github.com/strohne/Facepager

Keller, T. R., & Kleinen-von Königslöw, K. (2018). Pseudo-discursive, mobilizing, emotional and entertaining: Identifying four successful communication styles of political actors on social media during the 2015 national elections. *Journal of Information Technology & Politics*, *15*(4), 358–377.

Klinger, U., & Svensson, J. (2015). The emergence of network media logic in political communication: A theoretical approach. *New Media & Society*, *17*(8), 1241–1257.

Larsson, A. O. (2018). Diversifying likes. *Journalism Practice*, *13*(3), 326–343.

Lazarus, R. S. (1991). *Emotion and adaptation*. Oxford University Press.

Lazarus, R. S. (2001). Relational meaning and discrete emotions. In K. R. Scherer, A. Schorr, & T. Johnstone (Eds.), *Series in affective science. Appraisal processes in emotion: Theory, methods, research* (pp. 37–67). Oxford University Press.

Lerner, J. S., & Keltner, D. (2001). Fear, anger, and risk. *Journal of Personality and Social Psychology*, *81*, 146–159.

Marcus, G. E. (2002). *The sentimental citizen. Emotion in democratic politics.* The Pennsylvania State University Press.

Marcus, G. E., & MacKuen, M. (1993). Anxiety, enthusiasm, and the vote: The emotional underpinnings of learning and involvement during presidential campaigns. *American Political Science Review*, *87*, 672–685.

Marcus, G. E., Neuman, R. W., & MacKuen, M. (2000). *Affective intelligence and political judgement.* University of Chicago Press.

Martella, A., & Bracciale, R. (2021). Populism and emotions: Italian political leaders' communicative strategies to engage Facebook users. *Innovation: The European Journal of Social Science Research*. Advance online publication. https://doi.org/10.1080/13511610.2021.1951681

Metz, M., Kruikemeier, S., & Lecheler, S. (2020). Personalization of politics on Facebook: Examining the content and effects of professional, emotional, and private self-personalization. *Information, Communication & Society*, *23*(10), 1481–1498.

Moss, J., Robinson, E., & Watts, J. (2020). Brexit and the everyday politics of emotion: Methodological lessons from history. *Political Studies*, *68*(4), 837–856.

Ridout, T. N., & Searles, K. (2011). It's my campaign I'll cry if I want to: How and when campaigns use emotional appeals. *Political Psychology*, *32*(3), 439–456.

Schmuck, D., & Hameleers, M. (2020). Closer to the people: A comparative content analysis of populist communication on social networking sites in pre- and post-election periods. *Information, Communication & Society*, *23*(10), 1531–1548.

Smith, C. A., & Ellsworth, P. C. (1985). Patterns of cognitive appraisal in emotion. *Journal of Personality and Social Psychology*, *48*(4), 813–838.

Stier, S., Bleier, A., Lietz, H., & Stromhaier, M. (2018). Election campaigning on social media: Politicians, audiences, and the mediation of political communication on Facebook and Twitter. *Political Communication*, *35*(1), 50–74.

Vaccari, C., & Valeriani, A. (2015). Follow the leader! Direct and indirect flows of political communication during the 2013 Italian general election campaign. *New Media & Society*, *17*(7), 1025–1042.

Valentino, N. A., Brader, T., Groenendyk, E. W., Gregorowicz, K., & Hutchings, V. L. (2011). Election night's alright for fighting: The role of emotions in political participation. *The Journal of Politics*, *73*(1), 156–170.

Weber, C. (2012). Emotions, campaigns, and political participation. *Political Research Quarterly*, *66*(2), 414–428.

Zerback, T., & Wirz, D. S. (2021). Appraisal patterns as predictors of emotional expressions and shares on political social networking sites. *Studies in Communication Sciences*, *21*(1), 27–45.

About the Authors

Anna Bil-Jaruzelska is a PhD student at the Department of Language and Literature at the Norwegian University of Science and Technology. Her research interests include political communication and participation on social media and emotions in politics. In her PhD project, she investigates political campaigns' use of different communication strategies on Facebook during pre-, post-, and non-election periods, with a particular focus on emotional appeals.

Cristina Monzer is a PhD researcher in political science at the Norwegian University of Science and Technology in Norway. She holds a research master's degree in communication science from the University of Amsterdam. Her PhD work focuses on how political and media communication resonates with audiences, adopting a cultural analysis perspective. By developing the concept of cultural resonance, she hopes to advance comparative frame analyses. More broadly, she is interested in political communication on social media, socio and cultural linguistics, and computational communication science. https://orcid.org/0000-0003-2479-4063