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The social affirmation use of social media as a motivator of collective action

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Abstract

The mobilizing potential of the internet has been widely recognized but also sharply criticized. We propose and test in two studies that the *social affirmation use* of social media motivates individuals for collective action to achieve social change. In Study 1, we surveyed participants of a university occupation and found that enduring participation was predicted by social affirmation use, mediated by group identification. In Study 2 we experimentally tested our hypothesis, the results of which confirmed that the social affirmation use of a forum (and in particular its interactive aspect) motivated individuals for collective action to achieve social change. We discuss the theoretical and practical implications of our findings for theory and research on the mobilizing potential of the internet.

Occupy movement actions, the "Arab Spring" demonstrations, and student protests in different parts of the world—all attest to the potential of social media use in motivating and sustaining social protests to achieve social change. However, little is known about *what particular use* of social media motivates individuals to engage in such collective action. The current research tests whether what we refer to as the *social affirmation* use of social media (i.e., social network-building, group enhancing, interactive use) motivates enduring participation among activists (e.g., Stürmer & Simon, 2004a) and motivates non-activists to engage in collective action (for a meta-analysis, see van Zomeren, Postmes, & Spears, 2008). We report two studies that examine the role of different types of social media use in protest participation and collective action intentions.

Social media use and collective action

The advent of social media has had a tremendous impact on political activism. Social media affords the dissemination of information through quick communication channels, the politicization of group identities in online communities and discussions (Alberici & Milesi, 2012; Thomas et al., 2015), the empowerment of individuals through its efficiency and instrumentality (Eltantawy & Wiest, 2011). Furthermore, social media is a source of awareness raising, a tool for rapid mobilization (McGarty, Thomas, Lala, Smith, & Bliuc, 2014; Rainie, Smith, Schlozman, Brady, & Verba, 2012; Tufekci & Wilson, 2012), and therefore a general reinforcement to activism (Postmes & Baym, 2005; Postmes & Brunsting, 2002; Rainie et al., 2012) with positive rather than negative impact on offline mobilization (Christensen, 2011; Enjolras, Steen-Johnsen, & Wollebæk, 2013). However, although it is clear that online and offline collective action engagements are strongly connected, the transfer from online participation to offline is affected by many factors, such as societal ones (Honari, 2013) or by the fact that individuals consider their low-investment online actions as sufficient (Schumann & Klein, 2015). Indeed, some have criticized social media as a platform for easy and cheap 'slacktivism' replacing other forms of actions (see Christensen, 2011; Schumann & Klein, 2015). For this reason, it is important to study in more detail what it is that makes social media such a potentially formidable mobilization force.

Donath and boyd (2004) assumed that a potential consequence of using social media is an increase in people's social ties and existing social networks. We further suggest that the online expression of individuals' group identity, and gaining social capital can increase online, and potentially offline, political participation (Ellison, Gray, Lampe, & Fiore, 2014; Ellison, Steinfeld, & Lampe, 2007; Kobayashi, Ikeda, & Miyata, 2006; Valenzuela, Park, & Kee, 2009). Indeed, the social identity model of deindividuation effects (SIDE)

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(Reicher, Spears, & Postmes, 1995) offers a direct explanation of how online social affirmation can lead to engagement in collective action. According to the SIDE model, the public expression of identity and identity-relevant norms affirms group identification which consequently leads to behavior that is normative to the in-group, regardless whether such behavior is positively or negatively evaluated by out-groups (Klein, Spears, & Reicher, 2007). Therefore, it can increase the willingness to engage in collective action on behalf of the in-group, even at the risk of confrontation with an out-group (Spears, Lea, Corneliussen, Postmes, & Ter Haar, 2002).

Research in the early years of widespread internet use focused on the effects of anonymity which it found to strongly predict group-based behavior. The underlying idea is that individuals, under conditions of anonymity, experience increased depersonalization, group cohesion, and adherence to group norms because it makes their group identity salient (rather than their personal identity) (Christopherson, 2007; Lea, Spears, & de Groot, 2001; for a review see Spears, Lea, & Postmes, 2007). This "cognitive" dimension of SIDE, however, may no longer offer sufficient explanation to online activism because social media is no longer dominated by interactions between anonymous members. Nevertheless, the "strategic" dimension of the SIDE model may very well apply, suggesting that identifiability and accountability to in-group members increase affirmation of group identity (Douglas & McGarty, 2002; Reicher, Levine, & Gordijn, 1998; Spears, Lea, Postmes, & Wolbert, 2011). Thus, social media participation can foster collective action as part of the strategic management of group identity if such behavior is normative to the in-group (Spears et al., 2002), thereby facilitating group based identity-politics (Halpern & Gibbs, 2013).[1] Therefore, to understand how social media use shapes collective action engagement, we need to focus on *how*—rather than if—social media can be used to mobilize individuals for collective action.

The social affirmation use of social media

Social network sites fulfill different purposes in people's lives, and are therefore used differently. For example, social media can be used for keeping in touch with friends, for social grooming, or for instrumental and informational purposes (Ellison et al., 2007; Gosling, 2009; Joinson, 2008). A longitudinal study by Ekström and Östman (2015) revealed that different internet uses predicted youth political participation differently. Lovejoy and Saxton (2012) developed a typology of Twitter messages used by non-profit organizations, and described information, community, and action as different means of engagement. On the basis of previous work (Ekström & Östman, 2015; Ellison et al., 2014, 2007; Gosling, 2009; Joinson, 2008; Lovejoy & Saxton, 2012; Sundar, 2004), we distinguish between different forms of social media uses. We use the notion of *interactivity* to refer to the active engagement with social media as opposed to being a passive observer or non-user of it. Interactivity lies at the core of social media (originally referred to as Web 2.0, which describes the change of internet use from passive information consumption to interactivity and user-generated content). However, it is not merely an attribute of communication technology, that is, a technical feature of the internet—it is what enables social use (Sundar, 2004). Interactivity was already identified as playing a key role in the social dynamics of group behavior in the earliest studies about internet communication (Rafaeli & Sudweeks, 1997). In fact, interactive engagement in social media (e.g., posting a news item, especially when one's social network is invited to comment on it) increases involvement and a sense of influence (Oeldorf-Hirsch & Sundar, 2015).

However, different levels of interactivity may be typical for different functions of social media use. Social media can be used for accessing and *sharing information* in which case the exchange of information is emphasized. This is closely connected to what we refer to as *instrumental use*, when information is shared with a purpose, for example, organizing an event. In both the information sharing and instrumental uses, social media can serve as a practical tool with an emphasis on the efficiency and low cost of distributing information within one's existing social network or more widely, as is underlined by previous research about the mobilizing potential of the internet (Rainie et al., 2012; Thomas, Mavor, & McGarty, 2012; Tufekci & Wilson, 2012). However, the mobilizing potential of interactive and informational uses have been contrasted by previous studies, and suggested that social-interactive and creative uses directly motivate political participation whereas informational use promoted only online participation (Ekström & Östman, 2015).

Cross-cutting all these findings is the observation that social (rather than mere informational) use of social media motivates individuals to engage in collective action. We specify and extend this observation by suggesting that it is the *social affirmation use* of social media that increases motivation for collective action. We argue that interactivity is a more general feature of social media in which people engage for a variety of reasons, and which also serves the purpose of social affirmation. However, we refer to social affirmative use of social media when participation in online discussions, information-producing and -sharing takes place with the *purpose* of expressing one's group identity and building social capital. Such social affirmation use may be posting, sharing, and commenting group relevant information on sites accessible to or maintained by other in-group members or engaging

[1]It should be noted that the opposite strategic process is true when social media participation increases visibility to the out-group (Levine, 2000; Reicher & Levine, 1994; Sindic & Reicher, 2008).

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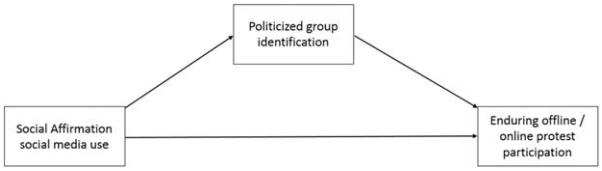

Figure 1 Hypothesized mediation model testing the role of politicized group identification in the effect of social affirmation social media use on enduring protest participation online and offline.

in discussions about issues that express group membership (Alberici & Milesi, 2012; Chong, Zhang, Mak, & Pang, 2015).

The process by which social affirmation use may strengthen group identity is underlined mainly by research within the SIDE-model tradition emphasizing the importance of how one's group is represented online (Spears & Postmes, 2015). Specifically, the mechanism by which social affirmation use can reinforce social identity is based in self-categorization theory's notion of identity salience (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), with stronger social affirmation use strengthening the situational salience of the associated identity. Such an influence is also predicted by Bem's (1967) self-perception theory which suggests that the self-perception of one's behavior (e.g., social affirmation use of social media) informs our self-concept.

This line of thought is consistent with Douglas and McGarty (2002), who showed that internet identifiability enhances group-based behavior and both in-group and out-group stereotyping based on feelings of accountability to other in-group members. Similarly, McGarty et al. (2014) argue that the protest movements of the Arab spring benefited from online social networks not simply from the perspective of efficient organization, but from building group identities based on membership in the opinion based group of the opposition. Because expressing group membership online can amplify the behavioral consequences of a salient group identity (i.e., engagement in behavior that is normative to the in-group), we expect that this is the type of social media use that is most predictive for motivating collective action to achieve social change.

Indeed, we consider interactivity in social media as *reinforcing* group identification (Chong et al., 2015; Sundar, 2004). After all, active engagement with social media ensures an expression of group identity, and thereby political mobilization as suggested by previous research (e.g., Ekström & Östman, 2015; Valenzuela et al., 2009). Therefore, interactivity is not just a proxy for social affirmation, but a characteristic of social media use that has the potential to serve social affirmation purposes. Moreover, the focus on group identification fits nicely with findings documenting that group identification motivates collective action, independent of relatively low efficacy beliefs (Kelly & Breinlinger, 1995; van Zomeren et al., 2008) or relatively high personal costs (see Stürmer & Simon, 2004a, for a review; see also Louis, Taylor, & Neil, 2004; Giguère, Lalonde, & Lou 2010). The unique mobilizing power of group identity (van Zomeren et al., 2008) and specifically politicized group identity (Simon & Klandermans, 2001), social movement identity (Stürmer & Simon, 2004b) and opinion-based identities (McGarty, Lala, & Douglas, 2011; Musgrove & McGarty, 2008; Thomas et al., 2012), justifies our attention to group identification (the psychological connection induced by belonging to a social group or category; see Leach et al., 2008) as relevant for understanding how the social affirmation use of social media motivates collective action.

We tested our line of thought in two studies. First, using a survey method in the context of a real-world protest event, we examined whether the social affirmation use of social media motivated enduring collective action. Second, in a follow-up experiment, we tested the same hypothesis in more controlled settings. Both studies were approved by the IRB of Eötvös Loránd University, Budapest. We report all measures, conditions and data exclusions in the current paper in the main text or in footnotes. The language of the questionnaires used in the studies was Hungarian, with adopted measures translated from and back-translated into English.

Study 1

We examined a 6-week-long student occupation of an auditorium at a large state university taking place in 2013. The students protested against government policy on higher education, as part of a series of anti-government protests. The Occupation was accompanied by live internet broadcasts and ongoing debates in Facebook groups and blogs. The estimated number of participants of the physical Occupation was around 500 at its peak, and attendance of organized events was roughly between 100 and 200 towards the end. A smaller number of protesters stayed there day and night. Participants had weak formal connections as the protest was organized without a central organizing body. We regard the event as a high-investment enduring action, as the protest was ongoing for 6 weeks day and night requiring active involvement by participants. Investigation of this protest has the potential to show that different uses of social media appear as a factor in mobilizing for but also *sustaining* participation in an enduring protest event. The latter is what we were particularly interested in.

Specifically, we hypothesized that the social affirmation use of social media, rather than merely instrumental use, would positively predict enduring online participation (see Alberici & Milesi, 2012; Postmes & Brunsting, 2002), and enduring offline participation (Ekström & Östman, 2015; Valenzuela, Arriagada, & Sherman, 2012; Ellison et al., 2007; Kobayashi et al., 2006; McGarty et al., 2011; Valenzuela et al., 2009). Furthermore, we predicted that higher social affirmation use of

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Table 1 Variables and Items of Study 1 Presented with Factor Loadings Where Applicable

Variable names	Items	Factor loadings
Offline activity level in the three phases	How often did you attend <name of auditorium> during the first/middle/last two weeks of the University Occupation? How often did you participate in the discussions or functioned as a moderator during the first/middle/last two weeks of the University Occupation?	
Online activity level in the three phases	How often did you read or like the Facebook or other online sites of the student protest organizations, such as the <name of Facebook pages> during the first/middle/last two weeks of the University Occupation? How often did you comment or post something on the Facebook or other online sites of the student protest organizations, such as the <name of Facebook pages>during the first/middle/last two weeks of the University Occupation?	
Politicized group identification	To what extent do you identify with the organizers of the Occupation? To what extent do you identify with the Occupiers? How active do you think you were during the student protests?	
Student activism	Did you participate in the university/secondary school strikes in December 2012? Did you participate in the February-March 2013 street protests (e.g., the occupation of the ,,Fidesz" headquarters? Did you participate in the March 2013 street protest against the fourth amendment to the Constitution?	
General political participation (items from ESS, 2012)	In the last 12 months, have you . . . contacted politician or government official? . . . worked in political party or action group? . . . worked in another organisation or association? . . . worn or displayed campaign badge/sticker? . . . signed petition? . . . taken part in lawful public demonstration? . . . boycotted certain products?	
Social media use—Social Affirmation	SNS guaranteed that I felt that I belonged to a community.	.74
	SNS guaranteed that my opinion also counts.	.71
	cross loading on Instrumental use:	*.33*
	SNS guaranteed that I felt important.	.71
	SNS offered the cheapest, and most efficient way to promote the events.	.62
Social media use—Instrumental	SNS offered the site to promote the events for a wider public.	.58
	cross loading on Social affirmation use:	*.34*
	SNS offered the more important information channel for me about the student protests	*.68*
	SNS guaranteed that I did not miss out on anything.	*.66*
	I attended the events because of the information that was shared on SNS	*.48*

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Table 1. Continued

Variable names	Items	Factor loadings
Omitted items	Similarly thinking people were brought together by SNS	
	Factor loading for instrumental use:	.55
	Factor loading for social affirmation use:	.48
	SNS offered the channel of communication between members	
	Factor loading for instrumental use:	.64
	Factor loading for social affirmation use:	.41

social media would go hand in hand with higher politicized group identification, which in turn would predict online and offline protest participation (based on previous theories claiming that politicized identity is a key factor of collective action intentions especially among activists; Stürmer & Simon, 2004a,b; van Zomeren et al., 2008, and studies about the process of online politicization; Alberici & Milesi, 2012; McGarty et al., 2014). The hypothesized mediation model presented in Figure 1 summarized these hypotheses.

Method

Sample

Respondents completed an online questionnaire following a targeted call on the Facebook pages of the organizing network and the Occupation itself. Additional recruitment took place using snowball technique among activists and sympathizers. The online questionnaire was open for 3 weeks in August 2013. The questionnaire was completed by 148 respondents (men = 48%, $M_{age} = 29.3$ years, SD = 12.4 years, 18–71), 66% of the participants were university students. We used a convenience sample; we thus did not aim to achieve a representative sample of protesters. Sample size was sufficient to calculate regressions and correlations based on the expected power of predictors and the number of variables included in the study (Faul, Erdfelder, Buchner, & Lang, 2009).

Measures

The questionnaire consisted of three parts:[2] (a) information on the frequency of offline and online participation in the first, middle, and last phases of the protest; (b) questions about identification as activists; (c) questions related to how social media was used in connection with the Occupation. The answer scale was from "not at all" or "never" (1) to "very much" or "practically every day" (5) unless indicated otherwise.

We divided the Occupation into three two-week-long parts for the purpose of the study to separate the initial phase of the protest from the middle and final phases. The main reason for this division is that it allows us to separate the start and the end of the protest, and also look at an in-between phase that is important when studying enduring participation in collective action. In fact, this enables an analysis of participation in a high-investment enduring protest that allows us to better study and understand the role of different social media uses beyond the effect on initial mobilization. Specifically, we reasoned that participation throughout the three phases would be indicative of endurance, while participation only in the initial phase would be indicative of initial mobilization without endurance. A single question about the overall level of participation would have blurred the differences between enthusiastic sympathizers who were active at first, but did not continue to take part in the protest throughout its six weeks and those who remained active. A more practical reason for specifically dividing the occupation into three two-week long parts (rather than for instance letting participants determine this themselves) was that this created a standardized measurement across participants, which also has the benefit that it helps participants to focus their attention while responding to the questionnaire items. In order to help respondents recall their participation in these phases, we indicated notable events that occurred at the turn of each phase. We nevertheless acknowledge the limitations of this retrospective approach and discuss its possible implications in the discussion section.

Offline activity levels, that is, participation in the physical occupation, were measured with two items designed for the purpose of this study in the first ($\alpha = .79$), second ($\alpha = .85$), and third phase ($\alpha = .81$), and *online activity levels*, sharing, posting and commenting on the Facebook pages of the Occupation, by two items in the first ($\alpha = .72$), second ($\alpha = .69$), and third phase ($\alpha = .69$). Traditional forms of *political participation* were measured with 7 items borrowed from the European Social Survey (2012). Sums of "yes" answers indicated level of participation. *Politicized group*

[2]A shortened Big Five personality self-description questionnaire, items on emotions, instrumental, ideological, and community motivations, two questions revealing whether respondents were in-group activists or sympathizers, and overall perception of social media were included in the questionnaire for explorative purposes to study predictors of endurance. However, the scope of this paper does not allow presentation of these results, therefore we do not discuss it further. We make these items available upon request.

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Table 2 Means, Standard Deviations and Correlations for All Variables of Study 1

Variable	Mean	SD	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Offline activity level (First phase)	2.07	1.19	1	.88**	.73**	.43**	.39**	.44**	.43**	.69**	*.13*	.33**	*.10*
2. Offline activity level (middle phase)	1.78	.94		1	.87**	.37**	.46**	.51**	.43**	.62**	*.12*	.39**	*.08*
3. Offline activity level (Last phase)	1.49	.75			1	.30**	.41**	.53**	.40**	.50**	*.09*	.39**	*.07*
4. Online activity level (First phase)	2.82	1.10				1	.84**	.69**	.52**	.37**	.27**	.42**	.36**
5. Online activity level (middle phase)	2.79	1.02					1	.84**	.55**	.34**	.22**	.47**	.37**
6. Online activity level (Last phase)	2.53	.95						1	.58**	.34**	.17*	.42**	.29**
7. Politicized group identification	3.82	1.12							1	.44**	.38**	.37**	.21*
8. Student activism	1.58	1.13								1	.31**	.26**	.31**
9. Political participation	.51	.22									1	*.14*	.21*
10. Social media—Social affirmation use	3.73	.80										1	.17*
11. Social media—Instrumental use	2.45	.93											1

Note. $^{**}p < .001$, $^{*}p < .05$. Non-significant correlations are in italics.

identification, that is, identifying with the protesters and organizers, and perception of own activity level, were measured with three self-generated items ($\alpha = .81$). Previous *student activism*, that is, participation in related student protests, was measured by the sum of three binominal (yes/no) items asking about previous participation in related student protests. This measure reflects past participation, whereas politicized identification reflects a core motivation for collective action in the *present*, which makes this for present purposes the more relevant variable for our analyses.

Social media use was measured in connection with the Occupation by 10 items designed for the questionnaire to capture the main purposes of using social media for political participation, that is, social affirmation versus instrumental aspects of social media use. We have 8 missing values for all social media use items, as participants skipped these questions stating that they never used (or consumed) social media in connection with the student protests. Maximum likelihood analysis with Varimax rotation revealed two factors ($KMO = .81$, $p < .001$) explaining 48.63% of total variance, consisting of five items about *instrumental use* ($\alpha = .77$), and 3 items on *social affirmation* ($\alpha = .80$). Two items had to be omitted because of high cross-loadings (>.4). The two factors were not independent, but showed only a weak correlation ($r = .17$, $p = .04$). All items and variables including factor loadings and cross-loadings are presented in Table 1.

Results

Descriptive statistics of politicized group identification (identifying with the protesters and organizers and perceptions of own activity level) revealed that the majority of participants could be considered activists ($M = 3.53$, $SD = 1.04$). Specifically, only 3.4% of the sample answered "1: not at all" to all three questions about identification. Descriptive statistics and correlations between the key variables are presented in Table 2.

To identify the general trend across the time points, a repeated-measures ANOVA showed that offline participation declined significantly throughout the three phases (post hoc using Bonferroni correction, $F[1.41, 206.97] = 53.32$; $p < .001$), while online participation declined less over time, significantly only between the middle and the last phases ($F[1.56, 228.94] = 10.21$; $p < .001$). The level of activity and its decline is presented in Figure 2.

Predictors of enduring protest participation

Our hypothesis that social affirmation social media use, rather than instrumental social media use, would positively predict online and offline participation was tested using linear regression analysis, for each type of action (online and offline) and for each phase of the Occupation (i.e., six different analyses in total). Separate regressions were run because we were interested in the motivations of participation in each phase and the changes in predictors. We included relevant variables as covariates (i.e., those that showed a linear relationship with the DVs, namely politicized group identification, student activism, and social affirmation as well as instrumental use of social media, but not general political participation scores which did not show such connection). For predicting offline participation, we also included the

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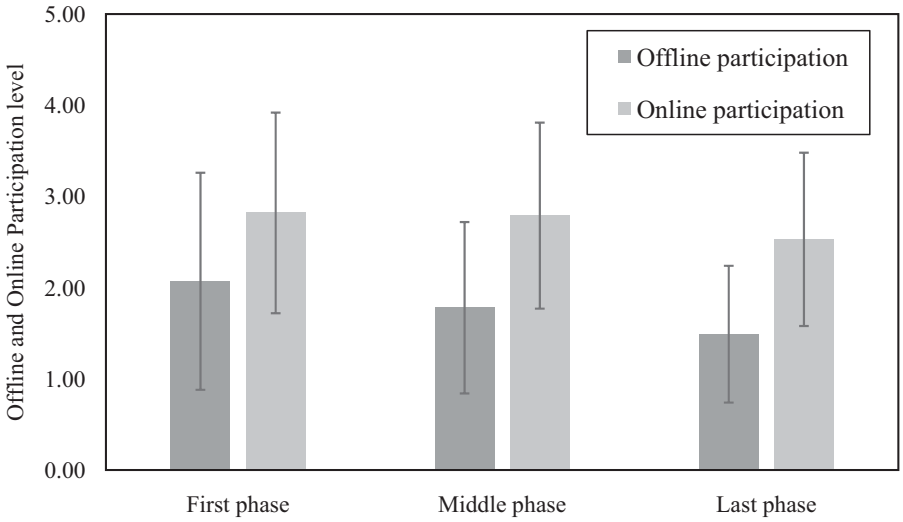

Figure 2 Level of offline and online participation in the three phases indicated on a 5-point scale from "never" (1) to "practically every day" (5) showing means and standard deviations. Repeated measures ANOVA, for post hoc using Bonferroni corrections, $F(1.41, 206.97) = 53.32$; $p < .001$ shows a significant decline between all offline phases, and between the middle and last phases for online participation.

online activity level of the corresponding phase, and for predicting online participation, we included the offline activity level of the corresponding phase to test whether attendance in the physical protest is predicted by online participation and vice versa (for the results of the linear regressions see Table 3).

Significant predictors of the first phase of *offline participation* explained 56.6% of variance ($F[5, 134] = 34.90$, $p < .001$). Most unique variance was predicted by student activism, followed by online activity level of the first phase positively, and by instrumental social media use negatively. For the middle phase, 52.9% of variance was explained ($F[5, 134] = 30.14$, $p < .001$) by the same predictors, but additionally social affirmation social media use became a significant positive predictor. Finally, for the last phase, 45.7% of the variance was explained by the model ($F[5, 134] = 22.52$, $p < .001$) by the same predictors as in the middle phase, including social affirmation use.

For online participation, results were slightly different. When entering the same variables in the model as for offline participation, four of them functioned as significant positive predictors all throughout the three phases: politicized group identification, offline activity level in the corresponding phase, and both social affirmation and instrumental social media uses. Student activism did not function as a significant predictor in any of the three phases of the protest. These variables explained 38.6% of the variance in the first phase ($F[5, 134] = 16.87$, $p < .001$), 45.2% in the middle phase ($F[5, 134] = 22.08$, $p < .001$), and 57.3% in the last phase ($F[5, 134] = 24.05$, $p < .001$). The linear regressions revealed that the different uses of social media predicted online and offline enduring protest participation differently, and the role of politicized group identification and previous student activism also had a varied role in predicting participation in the different phases of the protest and in endurance online and offline. The established connection between social affirmation use, politicized group identification, and online participation in the linear regression analysis, and the correlations between social affirmation use, politicized group identification, and offline participations justified testing our second hypothesis in which we predicted that politicized group identification would mediate the connection between higher social affirmation use and enduring online and offline protest participation.

The mediation model was performed using Process macro (testing Model 4). Confidence interval was calculated using bootstrapping with 1,000 resamples (Hayes, 2013). Social affirmation use of social media was entered as the independent variable, and offline and online protest participation in the last phase in two separate analysis as the dependent variables. The mediator was politicized group identification. Both models were significant with a significant indirect effect. The model explained 23.26% of variance ($R^2 = .23$, $F[2, 137] = 20.76$, $p < .001$) with politicized group identification as a significant mediator (95% Confidence Intervals [CI], LLCI: .05, ULCI: .18) in the connection between social affirmation use and *offline* participation in the last phase. The second model testing the mediated connection between social affirmation use and participation in the last phase of the *online* protest accounted for 36.05% of variance ($R^2 = .36$, $F[2, 137] = 38.62$, $p < .001$), with politicized group identification as a significant mediator (95% CI, LLCI: .10, ULCI: .28). These findings are visualized in Figure 3.

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Table 3 Significant Predictors of Offline and Online Activism in the Three Phases of the Occupation

	Offline activism					
	First phase $R^2 = .57$***		Middle phase $R^2 = .53$***		Last phase $R^2 = .46$***	
Predictor	β	p	β	p	β	p
Politicized group identification	.09	.176	.06	.394	.02	.782
Student activism	.63	.000	.55	.000	.39	.000
Online activity level[1]	.18	.015	.25	.001	.38	.000
Social media: Social affirmation use	.10	.140	.15	.030	.15	.037
Social media: Instrumental use	−.19	.003	−.22	.001	−.19	.007

	Online activism					
	First phase $R^2 = .386$***		Middle phase $R^2 = .529$***		Last phase $R^2 = .473$**	
Predictor	β	p	β	p	β	p
Politicized group identification	.25	.002	.29	.000	.35	.000
Student activism	−.05	.632	−.11	.202	−.09	.252
Offline activity level[1]	.25	.015	.29	.001	.37	.000
Social media: Social affirmation use	.21	.000	.23	.002	.14	.048
Social media: Instrumental use	.26	.000	.28	.000	.19	.005

Note. *** $p < .001$, [1] In each phase the activity level of the corresponding phase is entered in the model example, for the model of offline activity level of the first phase, online activity level of the first phase is entered, and vice versa, for the model of online activity level of the first phase, offline activity level of the first phase is entered. $N = 148$.

Discussion of Study 1

The results of Study 1 showed support for the idea that, among activists, social affirmation use of social media is positively related to protest participation because of its positive relationship with politicized group identification (which fits with extant literature on the identification-action link, see Stürmer & Simon, 2004a,2004b; Thomas et al., 2012; van Zomeren et al., 2008). More specifically, it functions as an important positive predictor of *both* online and offline enduring participation, whereas it does not play a significant role in initial offline mobilization. Indeed, politicized group identification mediated the connection between social affirmation use and online and offline enduring protest participation, which is line with the SIDE model (e.g., Reicher et al., 1995). Thus, using social media for social affirmation (i.e., to express group identity) was positively related to group identification and behavior that is normative to the in-group in the context of this high-investment collective action (Klein et al., 2007; Spears et al., 2002). This finding is in line with self-categorization theory (Turner et al., 1987) and self-perception theory (Bem, 1967), both of which suggest that group-based behavior can be a source of group identification. We thus interpret our findings such that enduring participation required protesters to express their group membership and thereby receive reinforcement for their group identity through social media use.

We also found that instrumental use predicted online but not offline endurance—however, this use of social media actually functioned as a *negative* predictor of offline protest participation (and showed no correlations with any of the protest participation phases). Thus, using social media for instrumental purposes had the potential to maintain online engagement and support for the political cause, but it did not have the potential to transfer online activities to the actual physical occupation. In fact, the more respondents relied on the instrumentality of social media, the less motivated they were to participate in the physical protest, offering a plausible explanation why online actions do not always translate into offline protest participation (see Christensen, 2011; Enjolras et al., 2013; Schumann & Klein, 2015). This nicely illustrates that we need to be specific about *how* individuals use social media, and for what purpose, to ascertain

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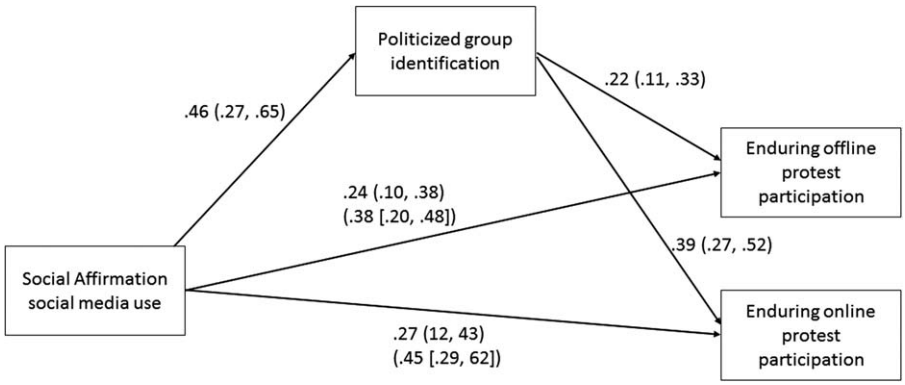

Figure 3 Combined model of mediation analysis showing unstandardized coefficients for politicized group identification as a mediator in the relationship between social affirmation use of social media and enduring protest participation offline and online. 95% confidence intervals and total effects are presented in brackets. All path are significant $p < .001$.

its potential for mobilization. Specifically, we suggest that enduring offline participation is motivated by the social affirmation use of social media.

A caveat of Study 1 was that the rich field data were collected 5 months after the Occupiers reached an agreement with the university and left the auditorium. We thus relied on retrospective recollections, which may have been biased, and which only a longitudinal design could have addressed. We acknowledge that it would have been ideal to be able to ask respondents about their motivations in each phase of the Occupation at different points in time (i.e., through a longitudinal design). Nevertheless, we believe that our retrospective design provides a conservative test of our hypotheses. Although the little variance in the predictors of the three phases warns us to interpret these findings with some caution, it is encouraging to see that individuals indeed remembered and viewed those different phases as potentially different stages in the Occupation. This suggests that our data, though limited in one way, do tell us something important about what motivated activists to endure in this event, which relates to the social affirmation function of social media use. Most importantly, Study 1 confirmed our hypothesis about the motivational power of the social affirmation use of social media. Study 2 was designed to test this hypothesis in a more controlled setting, and with a less activist group.

Study 2

Study 2 tested the idea that collective action intentions among non-activists can be increased by the social affirmation use of social media. We predicted that participants who used social media for the purpose of social affirmation and/or used it in an interactive way would have stronger intentions to engage in collective action than those using social media for information sharing and/or used it in a non-interactive way (Ekström & Östman, 2015; Ellison et al., 2014, 2007; Sundar, 2004; Oeldorf-Hirsch & Sundar, 2015; Valenzuela et al., 2012). Previous studies underlined that informational use of social media is less strongly connected to political participation (Ekström & Östman, 2015) or offline protest participation (Valenzuela et al., 2012; Valenzuela et al., 2009) than other, more interactive and social forms of social media uses. The purpose of distinguishing between the social affirmation–information sharing and the interactivity–no interactivity dimensions was to gain a more refined understanding of whether and how social affirmation social media use increases collective action. We therefore employed a full 2 (social affirmation vs. information sharing use) by 2 (interactivity: yes/no) factorial design. This distinction allowed us to delineate the influence of these two dimensions.[3]

Sample

261 university students participated for course credit in our in-lab experiment (men: 21.8%, $M_{age} = 21.34$, $SD = 3.14$). They were randomly assigned to one of four conditions: social affirmation—interactive ($n = 66$) social affirmation—non-interactive, ($n = 64$) information sharing—interactive, ($n = 63$) information sharing—non-interactive ($n = 68$). Sample size was determined following Faul et al. (2009) for an expected small effect size.

Manipulation and measures

Questionnaires were completed on computers in the university lab using a student sample requiring credits for participation, about 20 participants at a time. All items were rated from "completely disagree" or "not at all" (1) to "completely agree"

[3]We had no specific predictions whether the content manipulation of social affirmation use affected collective action intentions differently when the design allowed interactive engagement or not, and whether interactive engagement influenced collective action intentions differently in the social affirmation vs. information sharing conditions.

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or "very much" (5) with the exceptions of action tendencies, for which we used an 11-point-scale, reflecting individuals' action intention likelihood from 0 to 100% (by steps of 10%).

The first part of the questionnaire contained the manipulation. Participants were informed about the alleged purpose of the study, which was a test of a new university online forum before its official launch. "Hungarian university management realized the serious shortcomings of the online student forum <name of forum>, and as a solution they are planning to introduce a new forum soon. They are aiming to solve the emerging problems and extend the applications at the same time." A screenshot using the header of the existing course management software was presented to make it more realistic. In the *social affirmation* condition they were informed that the forum could be used for organizing discussion groups and student self-representation created on the basis of items on the social affirmation use from Study 1. "One of the important new functions of the forum would be to make it possible for students to communicate with each other effectively, in order to help the self-organization of students and the representation of student rights. The forum aims to offer a possibility for student community-building, organization of social events and online debates."

In the *information sharing* condition, participants were informed that the site could be used to share and access information about important student issues. "One of the important new functions of the forum would be to make it possible for students to reach relevant information, to receive information on student issues and to share them with other students in a cheap and effective way."

Subsequently, participants had to choose from five student issues that they are most likely to join a discussion about. "Below, you can find a list of topics that one could open an online forum about on the new <name of forum>. Please, rank these topics, indicating, which one you would be the most likely to join (1) and which you would be the least likely to join (5): tuition fees—access to study materials—distribution of student scholarships—online course admission—extra points in the entrance exams." In the interactive conditions respondents were also asked to write a post to the forum.

Two items directly related to the forum's social affirmation potential were implemented as manipulation checks ("Using the forum could reinforce my belonging to the community of students," "Using the forum could reinforce my student identity" $\alpha = .77$). At the end of the questionnaire, as a second manipulation check, participants were directly asked whether they thought they were assigned to test the social affirmation or information sharing forum.

In the second part of the questionnaire, participants were informed about two (bogus) measures: one about curtailing the rights of students in their choice of university, and a second one about curtailing higher education students' rights for reduced public transportation fares, followed by a manipulation check to test if those measures were recognized as a source of collective disadvantage ("To what extent will these measures affect students as a group unfavorably?"). *Group identification* (i.e., identification with students) was measured with three items: "I identify with the group of students."; "It is important to me to belong to the group of students."; "Being a student reflects an important part of my personality." (derived from Becker, Tausch, Spears, & Christ, 2011; $\alpha = .82$), while *politicized identification* was measured with a single item designed for the purpose of this study: "It is important to me that I can talk to other students about issues that concern us."

As we were interested in understanding the general mobilizing effect of social media use, that is, with or without the transfer from online to offline, we tested the influence of the manipulation on general and online collective action intentions separately. Eight items, 4 after each trigger story constituted the *general collective action* variable ($\alpha = .82$), namely "I would support other people's efforts to do something about the new measure."; "I would try to initiate some action against the new measure."; "I would participate in protests against these measures (e.g., street protests, strikes or contacting decision makers)."; "I would not participate in the protests" (reverse scored). While *online collective action* intentions were measured by 6 items, 3 after each trigger story ($\alpha = .84$), "I would join online actions against the measure (signing online petitions, using an online badge, etc.)"; "I would initiate some kind of an online action against the measure."; "I would not do anything online" (reverse scored).

As possible control variables we measured *general student activism* by three items which were designed for the purpose of this questionnaire ("I have stood up for my student rights before in some form (e.g., complaint, preventing or correcting my student right violation)"; "I have participated in actions defending student rights."; "I have participated in student protests before.", $\alpha = .77$), *efficacy beliefs* with a single item, "I think together we, students, are able to change this situation.", originally used by Van Zomeren, Spears, Fischer, and Leach (2004). Respondents' chronic preferences for social media use were measured by nine self-generated items to directly address social affirmation and instrumental uses based on previous research (Ellison et al., 2007; Gosling, 2009; Joinson, 2008). Maximum likelihood analysis with Varimax rotation created two factors with eigenvalues above 1, explaining 60.5% of total variance ($KMO = .78$, $p < .001$). *Social affirmation/self-expression use* consisted of the following 4 items presented with factor loadings: "I use social media to listen to other people's opinion about issues that are important to me. (.80); "... to discuss issues with others that are important to me." (.75); "... to express my opinion to others." (.54); "...to freely express myself." (.45)

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Table 4 Means and Standard Deviations in the Four Conditions for All Variables of Study 2

	Social affirmation—Interactive condition	Social affirmation—non-interactive condition	Information sharing—interactive condition	Information sharing—non-interactive condition	Total
Variable	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)
Collective action intentions*	8.02 (2.0)	7.76 (1.83)	8.09 (2.03)	7.01 (2.26)	7.73 (2.07)
Online collective action intentions*	7.45 (2.00)	7.16 (2.25)	7.43 (2.37)	6.84 (2.37)	7.21 (2.18)
Social affirmation (Manipulation check)	3.47 (.82)	3.18 (.96)	3.23 (.86)	3.03 (1.05)	3.23 (.94)
Group identification	3.80 (.90)	3.90 (.93)	4.07 (.72)	3.84 (.99)	3.90 (.90)
Politicized student identity	4.26 (.79)	4.39 (.78)	4.29 (.77)	4.31 (.96)	4.31 (.83)
General student activism	2.06 (1.08)	1.68 (.75)	1.60 (.61)	1.75 (.86)	1.77 (.86)
Efficacy beliefs	3.47 (.98)	3.51 (.88)	3.67 (.82)	3.37 (.90)	3.49 (.90)
SM Social affirmation—self-expression	3.50 (.73)	3.28 (.82)	3.15 (.75)	3.08 (.86)	3.25 (.80)
SM Instrumental	4.33 (.70)	4.37 (.61)	4.29 (.66)	4.38 (.58)	4.34 (.63)
Social and interactional use	3.81 (.68)	3.88 (.61)	3.82 (.75)	3.73 (.65)	3.80 (.67)
Informational use	3.98 (.83)	3.83 (.95)	3.75 (.90)	3.76 (.99)	3.83 (.92)

Note. All items were answered on a 5-point-scale from "completely disagree" or "not at all" (1) to "completely agree" or "very much" (5) unless indicated otherwise. *11-point-scale was used for these variables reflecting action intention chances from 0 to 100% by steps of 10%. $N = 261$.

($\alpha = .76$), and *instrumental use* of 4 items: "... because it is the easiest way to reach others." (.72); "... because I find it a useful tool for communication." (.71); "... because this is the easiest way to arrange things." (.68); "... because events can be organized easily." (.58) ($\alpha = .79$). One item ("... to keep in touch with friends.") was omitted because of high cross-loadings. We also relied on a scale by Ekström and Östman (2015) to measure chronic preferences in social media use consisting of 3 items on *social and interactional use* and 3 items on *informational use*.[4]

[4]We also implemented the scale of Ekström and Östman (2013) about the frequency of specific uses of social media (*"How often do you use social media in the following ways?"*). The recreational subscale which had no connection with political participation was not implemented. Maximum likelihood analysis with Varimax rotation confirmed the original factor structure ($KMO = .739$, $p < .001$), three factors explaining 49.2% of total variance. The social/interaction factor consisted of three items (*"to stay in touch with and keep informed about friends on Facebook or similar* (.447); *to publish information about oneself on Facebook, Twitter, Instagram or similar* (.738); *to talk with friends on Facebook chat, Skype, Whatsapp or similar* (.440), $\alpha = .75$), and the informational of three items (*to read the daily newspaper* (.666); *to search for information or facts* (.492); *to visit sites to learn more about interests* (.839), $\alpha = .76$). However, the third factor about creative uses showed unacceptable reliability ($\alpha = .56$) and was therefore dropped from the analysis (*"to produce music and videos"*, *"to publish a personal blog"*).

Results

Checks

According to the manipulation check, some of the respondents were unable to identify whether they were assigned to the social affirmation or information sharing forum condition when asked directly. Twenty-six respondents were unable to choose between the groups either as a result of not reading the description ($n = 4$), or being unable to decide ($n = 22$), and 74 respondents wrongly identified their condition. Thus, only 161 respondents (62.7%) correctly identified their condition (with some bias toward recognizing the forum as a site of social affirmation rather than information sharing). The rate of correct identification within the four conditions was the following: Social affirmation—Interactive: 66.7%, Social affirmation—Non-interactive: 67.2%, Informational—Interactive: 63.5%, Informational—Non-interactive: 54.4%. The relatively high number of respondents who failed to correctly identify their condition as either social affirmative or informational warns us that the distinction is not intuitive to social media users. However, as we were interested in the influence of *using* social media in different ways, the failure to explicitly identify one's own condition did not automatically mean that respondents were unaffected by

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their assignment to different conditions. Thus, exclusion of the high number of participants who failed to identify their condition did not seem justified.[5] We therefore decided to remove only the four respondents from the sample who claimed not to have read the forum description, and to test our hypothesis on the remaining sample ($N = 257$). Nevertheless, these results are taken into account in our interpretation of the data.

A two-way ANOVA was conducted to check whether the social affirmation-information sharing and/or the interactivity dimension resulted in higher level of social affirmation as a consequence of (potentially) using the forum. The results showed that there was not a significant interaction effect between social media use (social affirmation vs. information sharing) and interactivity on social affirmation ($F[1, 253] = .14$, $p = .71$, partial $\eta^2 < .01$), but an analysis of simple main effect for interactivity was performed with statistical significance receiving a Bonferroni adjustment on social affirmation ($F[1, 253] = 4.09$, $p = .044$, partial $\eta^2 = .02$) and with marginal significance for social affirmation use vs. information sharing use ($F[1, 253] = 2.83$, $p = .094$, partial $\eta^2 = .01$).

The news items were identified as presenting collective disadvantage for students, which participants seemed to accept. None of them rated the measures as "not at all" disadvantageous, and both stories were perceived as highly disadvantageous across the board ($M_{\text{first measure}} = 4.88$, $SD_{\text{first measure}} = 0.41$, $M_{\text{second measure}} = 4.19$, $SD_{\text{second measure}} = 0.79$).

Group identification (i.e., student identity) was positively related to general collective action intentions ($r = .29$, $p < .001$) and online collective action intentions ($r = .23$, $p < .001$), and the latter two were strongly positively correlated ($r = .70$, $p < .001$). Control variables showed weak or no correlations with the dependent variables. For descriptive statistics see Table 4, and all correlations see Table 5.

To check randomization of the distribution of the sample in each condition, we ran one-way ANOVAs, and found significant differences across the conditions for general student activism ($F[3, 257] = 3.56$, $p = .015$, partial $\eta^2 = .04$), and social affirmation/self-expression social media use ($F[3, 253] = 2.93$, $p = .034$, partial $\eta^2 = .03$). We therefore tested our hypothesis both with and without general student activism and social affirmation/self-expression use as a control variable, seeking convergent evidence for our hypothesis.

Hypothesis testing

Our hypothesis was that participants who used the forum in a social affirmation and/or in an interactive way would have the highest intentions to engage in collective action. A two-way ANOVA was conducted to test the influence of the interactivity and the social affirmation-information sharing dimensions on collective action intentions. Although we did not find any significant interaction effects on either general collective action intentions ($F[1, 253] = 1.86$, $p = .174$, partial $\eta^2 = .01$) or online collective action intentions ($F[1, 253] = .16$, $p = .686$, partial $\eta^2 = .00$), we did find a significant main effect of interactivity on general collective action intentions using Bonferroni corrections ($F[1, 253] = 5.67$, $p = .018$, partial $\eta^2 = .02$), such that interactive use of the forum resulted in stronger intentions ($M = 8.05$, $SD = 2.02$) than non-interactive use of the forum ($M = 7.43$, $SD = 2.06$).

When entering general student activism and social affirmation/self-expression use to control for the preexisting differences across the conditions, we found a significant interaction effect in general collective action intentions ($F[1, 251] = 4.35$, $p = .038$, partial $\eta^2 = .02$), and again a main effect of interactivity ($F[1, 251] = 3.90$, $p = .049$, partial $\eta^2 = .02$), but no differences along the social affirmation—information sharing dimension ($F[1, 251] = .01$, $p = .941$, partial $\eta^2 = .00$). This result shows that when comparing the levels of collective action intentions between the interactive/social affirmation and non-interactive/social affirmation conditions, we see no differences between the two groups, but when comparing the interactive/information sharing and the non-interactive/information sharing conditions, we find that those in the interactive/information sharing condition show significantly higher intentions to engage in collective action than the non-interactive/information sharing condition group (see Figure 4). Again we found no differences along any dimensions in online collective action intentions when controlling for general activism and social affirmation/self-expression social media use ($F[1, 251] = .88$, $p = .350$, partial $\eta^2 = .00$).

We then ran another two-way ANOVA on group identification, which showed only marginal differences between the groups ($F[1, 253] = 2.88$, $p = .091$, partial $\eta^2 = .01$). Neither the interactivity dimension ($F[1, 253] = .16$, $p = .761$, partial $\eta^2 = .14$), nor the social affirmation—information sharing

[5]Running the main analysis on a sample reduced by the 100 participants who were either unable to decide or wrongly identified their condition yielded similar results as the tests on the full sample. The two-way ANOVA for social affirmation (manipulation check) shows no significant interaction $F(1, 160) = .06$, $p = .80$, partial $\eta^2 < .01$, and a marginally significant main effect for social affirmation vs. information sharing use, $F(1, 160) = 3.60$, $p = .06$, partial $\eta^2 = .02$, and no main effect for interactivity, $F(1, 160) = .35$, $p = .56$, partial $\eta^2 = .02$. General collective action intentions show no significant interaction, $F(1, 160) = 2.44$, $p = .12$, partial $\eta^2 = .02$, and significant main effect for interactivity, $F(1, 160) = 4.04$, $p = .05$, partial $\eta^2 = .03$, and no main effect for social affirmation—information sharing, $F(1, 160) = 1.05$, $p = .31$, partial $\eta^2 = .01$. Again online collective action showed neither an interaction effect, $F(1, 160) = 1.07$, $p = .30$, partial $\eta^2 = .01$, nor a main effect for either conditions, interactivity: $F(1, 160) = .23$, $p = .63$, partial $\eta^2 < .01$, social affirmation vs. information sharing $F(1, 160) = 1.32$, $p = .23$, partial $\eta^2 = .01$.

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Table 5 Correlations Between all Variables Tested in Study 2

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Collective action intentions	1	.70**	.22**	.29**	.25**	.23**	.28**	.23**	*.03*	*.11*	.14*
2. Online collective action intentions		1	.17**	.24**	.20**	.17**	.18**	.27**	.17**	.22**	.22**
3. Social affirmation (MC)			1	.32**	.23**	*.02*	.21**	.13*	*.09*	*.04*	*.09*
4. Group identification				1	.47**	*−.02*	.25**	.19*	*.10*	.17**	.14*
5. Politicized student identity					1	.14*	.14*	.18*	*.12*	*.03*	*.08*
6. General student activism						1	*−.01*	*.12*	.13*	*.03*	*.12*
7. Efficacy beliefs							1	*.01*	*−.08*	*−.05*	*.06*
8. Social affirmation/self-expression SM use								1	*.12*	.58**	.41**
9. Instrumental SM use									1	.32**	.34**
10. Social and interactional use										1	.41**
11. Informational use											1

Note. ** $p < .001$. * $p < .05$. Non-significant correlations are in italics.

dimension ($F[1, 253] = .17$, $p = .752$, partial $\eta^2 = .14$) had a significant main effect on identification. Therefore, group identification cannot explain the effects found on collective action intentions.

Discussion of study 2

Study 2 showed that interactive engagement in social media motivated individuals to engage in collective action (Alberici & Milesi, 2012; Ekström & Östman, 2015; Oeldorf-Hirsch & Sundar, 2015; Sundar 2004). A closer inspection of the data suggested that *interactivity* may be particularly decisive in the context of the information sharing forum. Indeed, participants in the information/interactive sharing condition expressed higher intentions to engage in collective action than those in the information sharing/non-interactive condition (while such difference was not found between the two social affirmation conditions). We therefore interpret these findings to mean that intentions to engage in activism were more affected by interactivity in the information sharing condition than in the social affirmation condition. Please note that the inclusion of the social affirmation/non-interactive condition served the purpose of establishing a symmetrical experimental design and therefore the possibility to contrast the influence of social affirmation, interactivity and information sharing. But of course in real life, social media would seem hard-pressed to fulfill social affirmation purposes without any interactive engagement with it. Our interpretation, based on these findings, is that participants either needed to engage with the forum interactively, or perceived the forum as a potential site of social affirmation to increase collective action intentions.

This primacy of interactivity is underlined by the results of the two manipulation checks: the social affirmation scale reflected only marginally significant differences between the social affirmation and the information sharing conditions, while differences were significant along interactivity, i.e., interactivity led to higher social affirmation potential. Results of the second manipulation check about identifying one's assignment to the conditions supported this interpretation. Here, we were confronted with a high proportion of respondents who were unable to identify their correct condition, indicating that the stated social-affirmation and information sharing purposes of the forums were not clearly distinguishable for participants. Nevertheless, social affirmation was perceived to be affected by the different uses of social media tested by items serving the manipulation check (items measuring reinforcement to belonging to the student community and reinforcement of student identity) which indicate that affirmation of group belonging was experienced precisely by those who were the most willing to engage in collective action.

Finally, the mobilizing effect of social media was only found on general, but not on online collective action intentions. Our interpretation of these results is that differences in motivations for collective action based on the type of social media use may only appear in connection with collective actions that require higher investment. That may be why we did not find differences in online collective action intentions between the conditions. These findings add to previous research indicating that using social media for political purposes can indeed influence offline collective action intentions (Anduiza, Cristancho, & Sabucedo, 2014; Christensen, 2011; Ekström & Östman, 2015; Enjolras et al., 2013; Valenzuela et al., 2012, 2009).

General discussion

Our set of studies contributes to the literature on social media use and collective action in multiple ways. Both studies confirmed previous findings that online and offline actions are strongly connected, and one appears as a motivation for the other underlined by strong correlations and the fact that they appear as significant predictors of each other (Bennett & Segerberg, 2012; McGarty et al., 2014; Rainie

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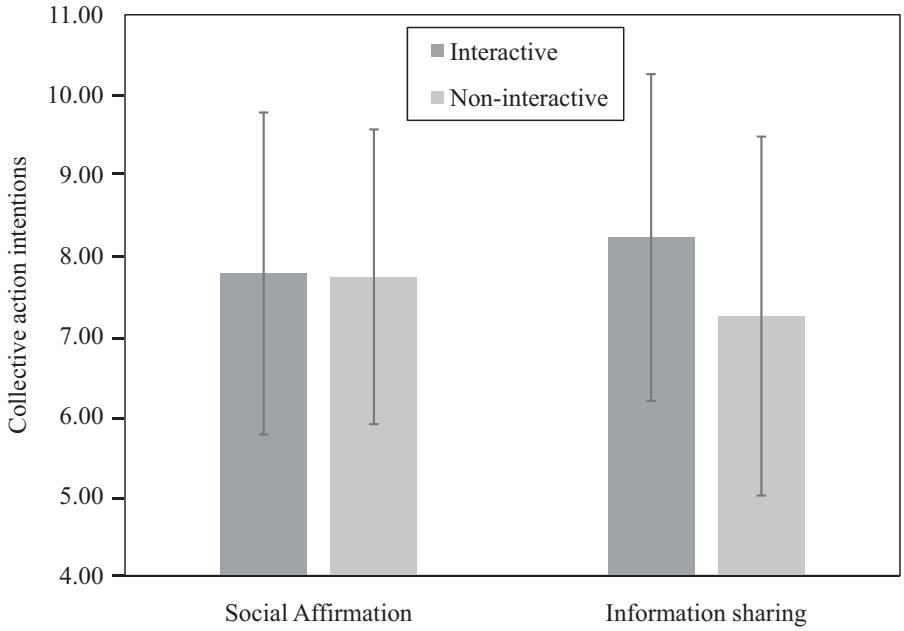

Figure 4 The interaction effect of Interactivity and Social affirmation—Information sharing use on collective action intentions in Study 2 using an 11-point-scale showing means and standard deviations. Covariates in the model are controlled for at the following values: General student activism: 1.77, Social affirmation/self-expression social media use: 3.25

et al., 2012; van Stekelenburg, 2012). Our findings are in line with previous studies stating that offline actions are dependent on the ongoing participation in online political discussions (Alberici & Milesi, 2012) and on the affirmation of politicized identity (McGarty et al., 2014; Reicher, 1984; Simon & Klandermans, 2001; van Zomeren et al., 2008). One of the novelties of this finding is that we showed that engagement in a high-investment enduring protest is particularly dependent on using social media for social affirmation purposes in contrast with initial mobilization and online endurance.

In the real-life setting of Study 1, we found a connection between social affirmation use and higher levels of offline and online participation mediated by politicized group identification. Participation in both the physical and virtual protest were reinforcing for participants who engaged in social affirmation online, which was not the case for those who engaged in online protests for instrumental reasons. We also found that using social media for instrumental purposes is a source of online rather than offline participation. This finding together with our conclusions about social affirmation use may offer an explanation to the previously found mixed results about online mobilization, suggesting that social affirmation use of social media is more likely to translate into offline mobilization than instrumental use (for an overview of online mobilization results see Christensen, 2011).

Pinpointing the importance of specific—social affirmation vs. instrumental—ways of using social media is incremental to findings about the mobilizing effect of participating in online communities (Alberici & Milesi, 2012; Ellison et al., 2007; Eltantawy & Wiest, 2011; Kobayashi et al., 2006; McGarty et al., 2014; Valenzuela et al., 2009), of general social media use (Donath & boyd, 2004; Ellison et al., 2007; Gosling, 2009; Joinson, 2008) and of previously established differences between informational vs. interactive uses of social media in mobilizing for protest (Valenzuela et al., 2012) or political participation (Ekström & Östman, 2015). In this sense, our results fit with the strategic side of the SIDE model, which suggests that internet use allows strategic identity management, and the public expression of group identity increases adherence to group norms (Douglas & McGarty, 2002; Klein et al., 2007; Reicher et al., 1995, 1998; Spears et al., 2007; Spears & Postmes, 2015). We refine these findings by highlighting that this purpose is best served by the social affirmation use of social media, at least when it comes to a high investment protest requiring transfer from online to offline participation.

In addition to previous findings about social media functions and political engagement (Lovejoy & Saxton, 2012) and about the correlational relationship between some forms of social media uses and protest participation (Anduiza et al., 2014; Ekström & Östman, 2015; Valenzuela et al., 2012), a novel finding in Study 2 pointed to a causal relationship between active engagement in social media (interactivity) and collective action intentions. Social affirmation use, especially when *served by interactivity*, increased collective action

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intentions more than informational use did. However, interactive engagement in social media affected collective action intentions without influencing group identification while the manipulation check showed that interactivity led to considering the forum as a source of affirmation for belonging to the student community. Such higher collective action intentions are in fact in line with the claims of the strategic—rather than the cognitive—side of the SIDE model, thus contributing to adherence to group norms as a strategic choice without necessarily making group identity salient or reinforcing group identification (Spears & Postmes, 2015). This may have been attributable to the focus on non-activists who have not (yet) developed a politicized identity, in contrast with previous research that focused mostly on the mobilizing effect of internet among activists with a pre-existing politicized identity or shared opinion-based group membership (Alberici & Milesi, 2012; McGarty et al., 2011; Musgrove & McGarty, 2008; Postmes & Brunstig, 2002). This indicates that using social media in interactive ways has the potential to directly influence collective action intentions among non-activists through expressing group identity without necessarily increasing or otherwise reinforcing group identification.

The current set of studies has a number of limitations. For instance, our operationalization of social media use was somewhat different in the two studies. In Study 1, we focused on the differences between instrumental and social affirmation uses directly connected to the protest, while social affirmation and information sharing in Study 2 were not connected to a specific politicized event. In future research, operationalizations need to more clearly differentiate between political and non-political uses, in order to explain these different purposes for those in different phases of the mobilization process (Klandermans, 1997). Nevertheless, findings converged with respect to highlighting the connection between social affirmation use and mobilization. Finally, we acknowledge that answers to questions about identification with protesters in Study 1 may have changed during the 5 months, possibly affecting participants' memories of engagement levels as well. Despite these limitations, the Occupation provided a unique opportunity to study an enduring political protest, and collect data about a real-life event, but results especially about the pattern of endurance need to be treated with caution.

Conclusions

The current research used field and experimental methods to examine whether the social affirmation use of social media affects individuals' motivation for collective action. In two studies, we found that social media can indeed function as a motivator for collective action, but that it is specific—social and interactive—ways of *using* social media that led to higher political engagement. Our findings thus point to the idea that social affirmation use of social media—and specifically interactive, network building, group enhancing engagement—motivates individuals to seek social change through collective action. We therefore suggest that a deeper understanding of social media use should be integral to the analysis of social-psychological predictors of collective action, especially in the current context of sustained protest movements that are particularly dependent on online networks. By highlighting the relevance of the connection between different uses of social media and collective action, we hope to enrich our understanding of how social media can motivate non-activists to take action for social change, and boost activists' endurance in sustained actions.

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