Special section article: Putting the Social (Psychology) into Social Media

Substitute or stepping stone? Assessing the impact of low-threshold online collective actions on offline participation

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Abstract

Anecdotes of past social movements suggest that Internet-enabled technologies, especially social media platforms, can facilitate collective actions. Recently, however, it has been argued that the participatory Internet encourages low-cost and low-risk activism—slacktivism—which may have detrimental consequences for groups that aim to achieve a collective purpose. More precisely, low-threshold digital practices such as signing online petitions or "liking" the Facebook page of a group are thought to derail subsequent engagement offline. We assessed this postulation in three experiments (N=76, N=59, and N=48) and showed that so-called slacktivist actions indeed reduce the willingness to join a panel discussion and demonstration as well as the likelihood to sign a petition. This demobilizing effect was mediated by the satisfaction of group-enhancing motives; members considered low-threshold online collective actions as a substantial contribution to the group's success. The findings highlight that behavior that is belittled as slacktivism addresses needs that pertain to individuals' sense of group membership. Rather than hedonistic motives or personal interests, concerns for the ingroup's welfare and viability influenced the decision to join future collective actions offline. Copyright © 2015 John Wiley & Sons, Ltd.

In the spring of 2011, people all around the Arab world took to the streets to defy authoritarian regimes and fight for social justice. Journalists and scholars agreed that the Internet—and social media in particular—played a central role for the rapid growth and diffusion of the uprisings; the protests were quickly referred to as a Facebook or Twitter revolution (Morozov, 2011). Indeed, social network, (micro)blogging, and content sharing platforms served as important information brokers, enabling citizens to communicate and coordinate actions (Tufekci & Wilson, 2012). Moreover, by sharing live coverage of the protests online, demonstrators could bypass official media censorship and inform a global audience about their struggles. Activists received endorsing messages from the international community through the same channels, which may have stimulated further engagement (Skinner, 2011).

Recently, the mobilizing potential of the Internet has been called into question. More precisely, it has been argued that the participatory Internet forecloses meaningful engagement by encouraging quick and easy online collective actions such as "liking" Facebook pages or signing online petitions. These low-cost and low-risk digital practices—often referred to as slacktivism—are thought to make users feel good about themselves and derail subsequent participation offline (Christensen, 2011; Lee & Hsieh, 2013; Morozov, 2009). Despite the negative outlook, cause-related and advocacy groups are increasingly promoting low-threshold Internet-based collective actions (Obar, Zube, & Lampe, 2012). Does this strategy hold

hidden costs? And are citizens who sign, for example, a petition online ultimately less willing to support the same group on the street?

The goal of our article is to investigate this question. We propose two alternative hypotheses—the stepping stone and substitute hypotheses—and postulate that so-called slacktivist actions may facilitate or foreclose collective actions that take place offline. After deriving an operationalization for slacktivism in a pilot study, we investigate in three experiments the spillover from online to offline engagement. Moreover, we suggest an original group-level approach to examine the underlying processes of this relation and assess the mediating impact of motives that pertain to individuals' group membership: group enhancement and social identity consolidation.

COLLECTIVE ACTIONS AND THE INTERNET

Collective actions—such as protests, donations, or boycotts—are most commonly defined as actions by members of low-status groups that are aimed at improving "the condition of the entire [disadvantaged] group" (Wright, Taylor, & Moghaddam, 1990, p. 995). Alternatively, collective actions are a way for high-status groups to maintain the oppression of low-status groups (Postmes & Smith, 2009) or a means to

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show solidarity and abolish social injustice (Thomas & McGarty, 2009; Van Zomeren, Postmes, Spears, & Bettache, 2011). Further, groups that are not distinguished by their relative status and defined by shared opinions—opinion-based groups—may initiate collective actions to advance their world view (Bliuc, McGarty, Reynolds, & Muntele, 2007; McGarty, Bliuc, Thomas, & Bongiorno, 2009). Addressing these four conceptualizations, Becker (2012) suggested to consider collective actions as "any action that promotes the interests of one's ingroup or is conducted in political solidarity" (p. 19).

As the Internet gained popularity in the last 20 years, collective actions diffused from the street to the computer screen (Earl, 2010). Especially social network, (micro)blogging, and content sharing platforms "have been found to be the most common gateway into digital activism" (Harlow & Guo, 2014, p. 1). Signing online petitions, "liking" a group's Facebook page, or posting ingroup-endorsing tweets are examples for low-cost and low-risk—low-threshold—Internet-based collective actions (Van Laer & Van Aelst, 2010) that drastically reduce the barriers of participation; they allow long-term members to diversify their action repertoire and enable previously unengaged supporters to work towards a collective purpose without having to pass formal membership procedures (Carlisle & Patton, 2013).

Importantly, it has been argued that the quick and easy digital tactics of contention shape future patterns of engagement. More precisely, taking low-threshold online collective actions could facilitate *or* foreclose subsequent participation offline. These contesting propositions fuel an interdisciplinary discourse on a phenomenon called slacktivism, a negative connoted term constructed of the words slacker and activism (Leonard, 2009).

The Substitute Effect of Low-Threshold Online Collective Actions

Slacktivism advocates question the quality and caution against the consequences of low-threshold online collective actions. The "many clicks" (Lim, 2013, p. 2) are dismissed as "the ideal form of activism for a lazy generation" (Morozov, 2009, para. 2), for users who do not want "to get their hands dirty" (Christensen, 2011, para. 28). Kristofferson and colleagues referred to slacktivism as token support, as a signal of endorsement; the authors distinguished slacktivism from meaningful forms of support that contribute tangible means, such as money, to a group (Kristofferson, White, & Peloza, 2014). In a less evaluative tone, Tufekci (2012) described so-called slacktivist actions as symbolic networked actions, emphasizing as well the expressive nature of the digital practices (see Freelon, 2014).

A central claim of the slacktivism critique is that—despite having no social impact—"liking" Facebook pages or signing online petitions makes users instantly feel good about themselves and elevates their self-esteem (Morozov, 2009; Gladwell, 2010). In other words, by taking low-threshold online collective actions, individuals fulfill hedonistic motives and advance personal interests. Subsequent behavior that would satisfy the same needs—such as more involving offline collective actions—is expected to be foreclosed (Christensen, 2011; Kristofferson et al., 2014; Lee & Hsieh, 2013).

This argument for a substitute effect of so-called slacktivist actions follows the homeostasis principle. That is, unfulfilled (quasi)needs should cause psychological tensions and evoke targeted behavior to resolve the latter (Rudolph, 2009). Once the needs are fulfilled and equilibrium, or homeostasis, is reached, passive behavior is shown until a new imbalance is experienced (Lück, 1996). More important, it is postulated that needs can be met by different means; the respective substitute value for achieving homeostasis is determined by the perceived similarity to the original object or action. Interrupting, for instance, individuals while they are piercing letters on paper (in order to write a slogan) and providing then an opportunity to pursue a different behavior that attains the same goal—writing a slogan with a pen—reduced the likelihood to resume the original activity (Mahler, 1933).

Postmes and Brunsting's research (2002) suggested a substitute value of low-threshold online collective actions; the authors demonstrated that the latter—referred to as persuasive online collective actions—were perceived as not differently efficacious than its offline equivalents, that is, signing petitions and writing letters. Moreover, previous research showed that individuals felt as if they made a positive impression on an audience by taking so-called slacktivist actions in public and were therefore less willing to get engaged again for the same cause (Kristofferson et al., 2014). This finding seems to lend direct support to the notion that quick and easy Internet-based collective actions address hedonistic motives or personal—self-presentational—concerns and therefore derail offline participation.

We propose an alternative perspective to the demobilizing effect of low-threshold online collective actions. In fact, although so-called slacktivist actions are understood as expressions of support for a group or cause, the current literature does not explicitly acknowledge individuals' affiliation with the respective ingroup. And motives that draw on a sense of group membership were not assessed as potential underlying processes of the substitute effect of low-threshold online collective actions. Wright and colleagues (1990) and Becker (2012) emphasize in their definition of collective actions that individuals act for an in- or outgroup as group representatives, following self-categorization at an intergroup and not at an interpersonal level (Van Zomeren & Iyer, 2009; Wright, 2009). As social (rather than personal) identities are salient, the respective group norms determine individuals' preferences and prescribe the context in which behavioral choices are made (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Excelling at advancing group interests is regarded favorable in oneself and others (Tropp & Brown, 2004). Members who identify strongly with a group invest in it owing to an intrinsic motivation to promote group goals; low identifiers are likely considering selfpresentational motives (Barreto & Ellemers, 2000; Stürmer & Simon, 2009). Concluding, we suggest to investigate the foreclosing influence of so-called slacktivist actions from a group-level approach, examining needs that pertain to individuals' group membership(s), namely, group enhancement and social identity consolidation.

Group Enhancement

Collective actions are aimed at promoting a group's ideas (Becker, 2012). In turn, the desire to contribute to the group's

welfare and viability—group enhancement—fosters participation in collective actions (Tropp & Brown, 2004; Stürmer & Simon, 2004; Stürmer, Simon, Loewy, & Jörger, 2003). The most evident strategy to satisfy group-enhancing motives might be to provide tangible means (i.e., instrumental actions), such as donations, to a group. However, also signals of attraction and intentions of engagement—expressive forms of collective actions—can ensure a group's success. How? Self-categorization as a group member elicits stereotyping and conformity to group norms (Turner et al., 1987); if such norms are not explicitly stated, they are inferred from the behavior of prototypical group members (Reicher, 1984) via referent informational influence (Turner, 1982). Thus, pointing out one's endorsement of a group to fellow supporters sets a shared norm that "enjoin(s) [others] to act together in a way that is socially potent" (identity mobilization; Klein, Spears, & Reicher, 2007, p. 8). Thereby, even low-threshold online collective actions such as "liking" a Facebook page can be identity constructing, steering the group's activities towards a common goal and accounting for group enhancement (Klein et al., 2007).

In addition, the public expression of opinion or actions support suggests how many citizens advocate a collective purpose and conveys a sense of solidarity that can encourage fellow group members to act (Alberici & Milesi, 2013; Van Zomeren, Spears, Fischer, & Leach, 2004). Previous research highlighted that individuals were more likely to sign a petition when others had already done so (Margetts, John, & Escher, 2011). And those who did not strongly identify with a group were more willing to contribute to a collective goal when the efforts of fellow supporters were reported, demonstrating that it was worthwhile to be involved (Fishbach, Henderson, & Koo, 2011). Overall, so-called slacktivist actions may be considered as a means to contribute to a group's success by mobilizing fellow supporters, satisfying group-enhancing motives and ultimately derailing offline collective actions that would fulfill the same need.

Social Identity Consolidation

Alternatively, signaling support for a group towards fellow ingroup (or outgroup) members allows individuals to consolidate the respective social identity (Klein et al., 2007¹). In order to act as a group member, one must be recognized and treated as such by others. Thus, pertaining more closely to the opportunistic notion of the slacktivism critique, low-threshold online collective actions might be strategically taken, because individuals aim to be viewed by others as part of a group (Postmes & Smith, 2009; Simon & Klandermans, 2001). More specifically, individuals strive to be regarded as a member who excels at representing the group norms and who advances group goals (Tajfel & Turner, 1979; Tropp & Brown, 2004).

Research on collective self-verification further highlights that individuals aim to be perceived just like they define their standing on dimensions that are central for the group's definition, irrespective of the particular valence or objective

¹Behavior that is driven by social identity consolidation rather than group enhancement should, strictly speaking, not be considered as collective actions but rather as individual actions (Wright et al., 1990; see Wright, 2009, for a discussion).

accuracy of the self-view (Chen, Chen, & Shaw, 2004; Gómez, Morales, Huici, Gaviria, & Jiménez, 2007). Verification of collective self-definition fulfills epistemic and pragmatic functions, providing—on the one hand—a sense of coherent self-perception and a high self-esteem (Chen, Taylor, & Jeung, 2006; Gómez et al., 2007) and ensuring—on the other hand—that social situations are envisioned as more positive, free of conflicts and misunderstandings (Klein et al., 2007). Moreover, when their collective self-view was not verified, even highly committed supporters were less likely to get engaged for a group (Chen et al., 2006); being miscategorized as a member of a group that one did not identify with reduced group loyalty (Lemay & Ashmore, 2004).

Social identity consolidation can be achieved through a range of activities, provided that the actions are visible to an audience and attributable to a specific member (Douglas & McGarty, 2001). Signing a petition with one's full name or giving a speech at a protest could evoke recognition of one's group membership. Likewise, digital practices that require few costs and risks—"liking" a Facebook page (i.e., adding one's name to the list of "likes") or writing an ingroupendorsing comment tagged with one's name—can foster acceptance as a group member, thereby undermining additional efforts, such as offline collective actions, that would address the same motive.

The Stepping Stone Effect of Low-Threshold Online Collective Actions

Contesting the aforementioned proposition of a substitute effect, it has been pointed out that so-called slacktivist actions constitute a stepping stone on a ladder of engagement and facilitate offline engagement (Carlisle & Patton, 2013; Vissers & Stolle, 2012; Tufekci, 2012). Indeed, using social media to promote a political cause fostered volunteering, donations (Georgetown University & Waggener Edstrom, 2013; Rainie, Purcell, & Smith, 2011) as well as participation in protests (Macafee & De Simone, 2012). Research on the foot in the door technique (Burger, 1999) further demonstrated that participants who agreed with a small request, such as telling the time, were more likely to comply later on with larger demands, such as giving money (Freedman & Fraser, 1966). This effect was supported in computer-mediated settings: Signing an online petition increased the willingness to make a subsequent donation (Guéguen, 2002; Guéguen & Jacob, 2002).

So-called slacktivist actions might foster subsequent—possibly more involving—participation offline owing to an increased sense of empowerment or driven by achievement-and action-oriented emotions (e.g., Becker, Tausch, & Wagner, 2011; Drury & Reicher, 1999, 2005, 2009; Tausch & Becker, 2013). Drury and Reicher concluded that individuals develop "confidence in [their] (...) ability to challenge existing relations of domination" (Drury & Reicher, 2005, p. 35) in the course of collective actions, resulting possibly in a virtuous cycle of empowerment and engagement (Drury, Cocking, Beale, Hanson, & Rapley, 2005). An analysis of an anti-poll tax demonstration (Drury & Reicher, 1999) showed that protesters experienced—on the basis of perceived unity and mutual support—a growing sense of power that enhanced the willingness to join future actions (Drury & Reicher, 1999).

Specifying this result, a study of The George Green Tree-Dressing Ceremony and The Eviction of George Green suggested that victorious actions were empowering if they were achieved because citizens acted "in a way which served to bring the world into line with their social identity" (Drury & Reicher, 2005, p. 50). Tausch and Becker (2013) investigated whether experiencing pride after successful collective actions and anger following unsuccessful collective actions influences the decision to remain active. The authors demonstrated a mobilizing effect of anger-a result of attributing failed collective actions to illegitimate behavior of the outgroup; a sense of pride incited follow-up engagement by increasing group members' efficacy beliefs. Outgroup-directed anger and contempt increased as a result of collective actions against a specific outgroup (i.e., the government; Becker, Tausch, Spears, & Christ, 2011). The former emotion mediated the influence of past on future moderate actions; the latter emotion drove the impact of past and future radical collective actions.

THE PRESENT RESEARCH

In conclusion, previous work suggests a facilitating as well as a foreclosing effect of so-called slacktivist actions on offline participation. To our knowledge, only two studies assessed thus far these alternative postulations and arrived at contradicting conclusions. Vissers and Stolle (2012) showed that after "joining" the Facebook group of a political party, citizens were more likely to attend protests. Lee and Hsieh (2013), however, reported that signing an Internet-based petition did not affect the willingness to join a demonstration for the same cause.

To contribute to this line of research, we investigated in three experiments the stepping stone and substitute hypotheses as well as the underlying processes of the relation. More precisely, we examined the action potential of pro-environmental opinion-based groups. The latter refer to two or more individuals who agree that protecting the environment is important. Sharing this point of view determines the group membership and forms the basis for the group's norms and members' attitudes and behavior (Bliuc et al., 2007; McGarty et al., 2009; Thomas & McGarty, 2009).

PILOT STUDY

Online behavior that is dismissed as slacktivism has been criticized as token support, as expressive (rather than instrumental) collective actions that signal one's support to oneself and others (Kristofferson et al., 2014). Previously applied operationalizations for so-called slacktivist actions range from signing online petitions to "liking" the Facebook page of a group. In order to provide an empirical basis for the conceptualization and operationalization of slacktivism, we assessed the factor structure of the phenomenon in a pilot study.

Method

Sample

Six-hundred-twenty supporters of the environmental advocacy group Greenpeace took part in the study. The participants were on average M=30.05 (SD=11.30) years old, 65.6% were female, and they had supported Greenpeace on average for M=8.12 (SD=8.07) years.

Procedure

A link to an online questionnaire was spread via the Facebook page and Twitter account of Greenpeace International and remained active for 2 weeks in February 2013. This approach was chosen to target supporters who used the Internet and who actively engaged with social media platforms. Participants completed the questionnaire anonymously.

Material

The questionnaire was divided into three sections of which only the first is relevant for this pilot study. Measures were taken on a 6-point scale (1 = never; 6 = several times a day). All participants indicated how frequently they had visited in the past any of Greenpeace websites, the social media platforms Twitter, Facebook, and YouTube as well as whether they were registered on a Greenpeace Email list and whether they had a personal blog (dichotomous measures). Participants who stated that they had used any of the social media platforms and Internet services at least once a month and who were registered on an Email list or had a personal blog reported their use patterns in more detail. More precisely, if applicable, they indicated how frequently they had engaged with different functions and features of the Greenpeace websites, Facebook pages, their personal Facebook profile, Greenpeace' Twitter feeds, their personal Twitter account, the Greenpeace YouTube channels, their personal YouTube channel, the Greenpeace Email lists, and their personal blog and email (1 = never; 6 = several times a day). For example, if participants reported having visited Facebook at least once a month in the past, they mentioned how frequently they had "commented on posts by Greenpeace" or "committed to an event organized by Greenpeace." All items of the first section of the questionnaire are available in Appendix A.

Results and Discussion

Items referring to online behavior that was in previous studies or theoretical accounts referred to as slacktivism (e.g., Georgetown University & Waggener Edstrom, 2013; Gladwell, 2010; Lee & Hsieh, 2013; Morozov, 2009; Van Laer & Van Aelst, 2010; Vissers & Stolle, 2012) were included in a principal component analysis with varimax rotation and Kaiser normalization (Table 1). The digital practices loaded on three factors: Factor 1 (eigenvalue: 6.12; 47.04% variance explained) represents items that refer to written statements or clicking icons on social media platforms; Factor 2 (eigenvalue: 1.74; 13.37% variance explained) includes items that assess the frequency of signing online petitions; and Factor 3 holds items that

pertain to making online donations (eigenvalue: 1.54; 11.84% variance explained).

The earlier may be understood as expressive actions, that is, a public and symbolic endorsement and promotion of the ingroup. Online donations for Greenpeace are an instrumental action; they contribute direct means to the group's endeavors. Signing online petitions holds both qualities. On Greenpeace' website, a public count indicates how many people have already signed the petitions, expressing opinion support. The signatures are also instrumental to Greenpeace in the sense that they are a recognized lobbying tool that enables the group to approach and influence decision makers to pursue the group's goals.

As mentioned previously, so-called slacktivist actions are criticized for requiring few resources, posing low risks, and constituting public expressions of support rather than contributions of tangible means (Freelon, 2014; Gladwell, 2010; Kristofferson et al., 2014; Morozov, 2009). Findings of the pilot study endorse this distinction and provide to our knowledge the first empirical evidence for this theoretical conceptualization of slacktivism. In turn, the digital practices represented by Factor 1-text- and click-based actions such "liking" the Facebook status updates of Greenpeace or expressing support for the group in a blog post—provide a suitable operationalization for so-called slacktivist actions.

STUDY 1

As a first step, we investigated the alternative hypotheses on the effects of low-threshold online collective actions.

Substitute hypothesis: Low-threshold online collective actions reduce the willingness to get engaged in offline collective actions.

Stepping stone hypothesis: Low-threshold online collective actions increase the willingness to get engaged in offline collective actions.

In a one-factor between-subject design, participants were randomly assigned to a control or experimental condition.

Method

Sample

The N=76 participants were undergraduate students at a Belgian university and received class credit for their participation; they were on average M = 20.96 (SD = 3.93) years old (80.3% female).

Procedure

The study was completed on personal computers. All participants reported in a pre-questionnaire their agreement with pro-environmental attitudes and identification with others who find it important to protect the environment. Following, they received bogus feedback, indicating that on the basis of their answers, they will be introduced to a group whose members share their point of view and value as well the protection of the environment. The group was given a specific name and referred to as "your group" to enhance the salience of group membership. Participants were then asked to follow a hyperlink to the website of the ingroup to learn more about it. The website was created by the first author with the wordpress content management software and only accessible for participants of the study. The content was based on the Internet presence of an environmental advocacy group; images and a logo were included in a similar way to create an experimental scenario of high ecological validity.

After having read about the ingroup's activities and achievements, participants in the control condition responded to the post-questionnaire. Those in the experimental condition were asked to perform a so-called slacktivist action. As highlighted in the pilot study, text- and click-based actions such as ingroup-endorsing written statements are suitable to operationalize slacktivism. Participants were thus asked to compose a comment that would be posted on the ingroup's website, visible to all group members. The instructions specified that participants should promote their group in the comment and express support for its goals and achievements. Participants were further requested to tag their comment with brief personal information, ensuring that the comment could be attributed to them (i.e., allowing for social identity

Table 1. Rotated component matrix for principal component analysis

		Component	
Item	1	2	3
Website: Make a donation	125	.104	.757
Website: Sign a petition	.444	.677	.152
YouTube: "Like" Greenpeace videos	.773	.222	106
Facebook profile: Express support for Greenpeace in your profile or cover photo	.841	.082	.125
Facebook page: Follow calls to sign petitions	.279	.805	135
Facebook page: Make donations	.250	069	.864
Facebook page: Commit to events organized by Greenpeace	.746	.353	.265
Facebook page: "Like" Greenpeace posts	.763	.404	013
Twitter: "Favorite" Greenpeace tweets	.694	.384	145
Twitter: Express support for Greenpeace in your banner and profile photo	.866	033	.317
Email list: Follow calls of action	.028	.909	.074
Personal Email: Express support for Greenpeace to your friends and family	.670	.447	.095
Personal Blog: Express support for Greenpeace and its activities in your posts	.728	.077	376

consolidation). The length of the comment was not restricted. After submitting their comment to the ingroup's website, also participants in the experimental condition filled in the post-questionnaire. Finally, participants were thanked and debriefed.

Measures

All measures were taken on a 7-point scale $(1 = not \ at \ all;$ 7 = completely). In the pre-questionnaire, participants' attitude towards the need to protect the environment was assessed with the New Environmental Paradigm Scale (12 items; Dunlap & Van Liere, 2008; Appendix B, $\alpha = .77$). Participants' identification with others who find it important to protect the environment was examined with five items (Krizan & Baron, 2007; "I respect others who find it important to protect the environment"; "I feel similar to others who find it important to protect the environment"; "I identify with others who find it important to protect the environment"; "I share many of the same attitudes and values with others who find it important to protect the environment"; "I like others who find it important to protect the environment"; $\alpha = .93$). Following the experimental manipulation, one multiple-choice question explored whether participants had read the material on the ingroup's website. Five participants were eliminated as their answers indicated that they had not done so.

In order to tap into potential explanations for a substitute or stepping stone effect, we examined participants' sense of responsibility ("I feel responsible to support my group offline") and obligation ("I feel obliged to support my group offline") to support the ingroup in offline collective actions as well as the importance of receiving positive appraisal from the ingroup for offline engagement ("It is important for me that fellow members value my participation in the action"). A nine-item scale of depersonalized trust was included as the latter had predicted in previous studies group loyalty and group contributions (Kenworthy & Jones, 2009; Appendix C; $\alpha = .85$). The post-measure for group identification (Krizan & Baron, 2007) was adjusted in wording to refer to the specific ingroup (i.e., "my group" rather than "others who find it important to protect the environment"; $\alpha = .73$).

To assess the dependent variable—willingness to join a collective action offline—participants were first asked to read the following scenario:

Despite having other options available, a group of companies wants to build a highway in an area that your group

plans to develop into a natural reserve. A panel discussion will take place to decide whether the highway will be build. You can join the discussion as a representative of your group to ensure that your goals, establishing a natural reserve to protect biodiversity, are achieved.

Participants then reported on four items ("I am looking forward to the panel discussion"; "I am open to engage in the panel discussion"; "I would initiate even more such panel discussions"; "I prefer not to attend the panel discussion"; reversed; $\alpha = .91$) their intention to attend the panel discussion.

Results and Discussion

Descriptive characteristics and inter-construct correlations are presented in Tables 2 and 3. Analyses of participants' proenvironmental attitudes showed that the mean rating $(M=5.16 \ (SD=.56))$ was significantly above the mid-point (m=4) of the 7-point scale (t(70)=17.34, p<.05), indicating that participants endorsed the protection of the environment and should not have perceived the bogus feedback as contradictory.

A principal component analysis with varimax rotation and Kaiser normalization highlighted that the four items that assessed the dependent variable load on one factor (eigenvalue: 3.08), explaining 77.1% of variance; loadings ranged between .88 and .93. Testing the two alternative hypotheses, an analysis of variance showed that the willingness to attend the panel discussion differed significantly between conditions (Table 2). Scores were higher in the control condition $(F(1, 71)=4.41, p<.05, \eta^2=.06)$, and the stepping stone hypothesis must be rejected. The overall length of the comments—the number of words written—was not significantly related to the dependent variable (r=.19, p>.05), suggesting that the previous result cannot be explained by experimental fatigue following the composition of the comment.

To explore the processes that underlie the principal finding, we performed further analyses of variance. In the control condition, participants attributed more importance to receiving positive appreciation from the ingroup for their offline engagement $(F(1,71)=4.21, p<.05, \eta^2=.06)$ and felt more responsible $(F(1,71)=8.76, p<.05, \eta^2=.11)$ and obliged $(F(1,71)=27.54, p<.05, \eta^2=.29)$ to get engaged for the ingroup offline (Table 2). Perceived depersonalized trust $(F(1,71)=.52, p>.05, \eta^2=.01)$ and the post-ratings of group identification $(F(1,71)=2.39, p>.05, \eta^2=0.01)$ did not differ between the control and experimental conditions.

Table 2. Descriptive characteristics of the key concepts (Study 1)

	Control condition		Experiment	al condition
Variable	M	SD	M	SD
Willingness to participate in panel discussion*	4.78	1.18	4.08	1.57
Identification (post-measure)	4.80	.94	4.34	1.11
Depersonalized trust	3.76	1.17	3.57	.89
Importance of positive appreciation from ingroup*	2.71	1.51	2.08	1.05
Sense of responsibility to participate in offline collective action*	4.51	1.34	3.47	1.61
Sense of obligation to participate in offline collective actions*	4.14	1.82	2.14	1.38

^{*}Significant at p < .05.

Table 3. Inter-construct correlations (Study 1)

	Variable	1	2	3	4	5	6
1	Willingness to participate in panel discussion	1					
2	Identification (post-measure)	.56**	1				
3	Depersonalized trust	.04	.20	1			
4	Importance of positive appreciation from ingroup	.10	.09	.17	1		
5	Sense of responsibility to participate in offline collective action	.45**	.46**	.14	.24*	1	
6	Sense of obligation to participate in offline collective actions	.12	.21*	03	.30**	.42**	1

^{**}Significant at p < .01.

A multiple regression pointed out that participants' perceived responsibility to support the ingroup offline predicted the willingness to join the panel discussion ($\beta = .56$, p < .05). Importance of ingroup appraisal was not significantly related to the dependent variable ($\beta = -.02, p > .05$); participant's perceived obligation to support the ingroup offline was marginally significantly related to the outcome variable ($\beta = -.22$, p = .056) (F(3, 70) = 8.49, $R^2 = .28$). A subsequent bootstrap analysis—including perceived responsibility and obligation simultaneously as mediators—indicated a significant negative indirect effect of low-threshold online collective actions on offline participation owing to a lower sense of responsibility to support the ingroup offline (Model 4 of PROCESS, Hayes, 2012): CI 95% [-0.40, -0.07], indirect effect: -0.21, 10000bootstraps (Figure 1). The indirect effect driven by a reduced obligation to support the ingroup offline was not significant: CI 95% [-0.03, .19], indirect effect: 0.05, 10 000 bootstraps.

The results resonate with the proposition that low-cost and low-risk online collective actions that signal group support foreclose subsequent offline collective actions. Slacktivism advocates have argued for an individualistic and hedonistic explanation of this effect; digital practices should make users feel good about themselves and increase their self-esteem (Christensen, 2011; Lee & Hsieh, 2013). Findings of Study 1 advance this argument to a group-level perspective.

Importance of receiving positive appraisal from the ingroup for offline engagement, which could make participants feel good about themselves, was not related to the dependent variable. Moreover, the perceived obligation to support the group offline—to do what is appropriate (McGarty, Taylor, & Douglas, 2000)—did not shape the decision to attend the panel discussion after having expressed endorsement for the ingroup online. Rather, participants' commitment to the group and a sense of responsibility to act in the group's interest drove the foreclosing impact of the low-threshold online collective actions. In other words, so-called slacktivist actions, such as ingroup-endorsing comments, appear to be considered as

substantial contributions to the group's viability, thereby satisfying group-enhancing motives. In the present study, however, we assessed the latter as well as social identity consolidation with only one item, respectively; these measures may not have captured the phenomena sufficiently. In order to corroborate the aforementioned interpretation of our findings, we developed more comprehensive measures in Study 2.

STUDY 2

To investigate the following hypotheses, participants were randomly assigned to a control and experimental condition.

Substitute hypothesis: Low-threshold online collective actions reduce the willingness to get engaged in collective actions offline.

Group-enhancement hypothesis: This effect is mediated by the satisfaction of group-enhancing motives.

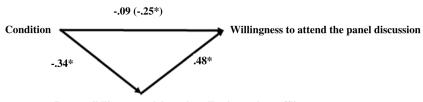
Method

Sample

The N=59 (84.5% female) participants were undergraduate students at a Belgian university and received class credit for their participation. Participants were M=19.48 (SD=2.33) years old.

Procedure

Study 2 followed the same experimental paradigm that was described in Study 1. This time, however, we included the measure for group identification only after participants had received bogus feedback about their membership in a proenvironmental group.



Responsibility to participate in collective actions offline

Figure 1. Mediated relationship between low-threshold online collective actions and the willingness to attend a panel discussion (Study 1). Condition is coded dichotomously $(0 = control\ condition,\ 1 = experimental\ condition)$. *Significant at p < .05

^{*}Significant at p < .05.

Measures

All concepts were assessed on a 7-point scale $(1=not\ at\ all; 7=completely)$. In the pre-questionnaire, measures for proenvironmental attitudes (Dunlap & Van Liere, 2008; α =.71) and identification (Krizan & Baron, 2007; α =.81) resembled those of Study 1. We examined with one multiple-choice question whether participants had read the material on their group's website. On the basis of the answers, no participants were excluded. In addition, we included three items to explore sentiments of psychological ease ("I feel at ease"; "I feel comfortable"; "I feel irritated"; α =.77) to control more explicitly for feelings of experimental fatigue.

To investigate satisfaction of group-enhancing motives, participants reported their agreement with the following statements: "It is important for me to contribute to the success of [name of ingroup]"; "It is important for me to motivate other supporters of [name of the ingroup] to get engaged"; "It is not important for me to do something for the viability of [name of the ingroup]" (reversed); and "It is important for me to steer the actions of fellow members to achieve the goals of [name of the ingroup]" (α =.73). Lower scores indicate a greater satisfaction of group-enhancing motives. Moreover, participants indicated on three items to what degree they experienced social identity consolidation: "I feel recognized as a member of [name of the ingroup]"; "I feel accepted by the other group members"; and "I feel that I am evaluated by the other members of [name of the ingroup] as one of them" ($\alpha = .82$). Higher scores represent greater social identity consolidation.

Taking into account alternative explanations, we measured with one item to what extent participants perceived themselves as responsible citizens ("I am a responsible citizen"). In line with Tropp and Brown (2004), we applied Clary and colleagues' (1998) five-item enhancement dimension of volunteer motivation to examine the fulfillment of motives of personal growth and development ("Taking

actions for [name of ingroup] makes me feel important/good/confident/needed/liked"; α =.80). The dependent measure remained the same as in Study 1: After describing the collective action scenario of a panel discussion, participants expressed on four items their intentions to attend the collective action offline (α =.79).

Results and Discussion

Descriptive characteristics of all measured constructs as well as inter-construct correlations are presented in Tables 4 and 5. Participants' pro-environmental attitudes (M=5.79 (SD=1.00); t(58)=13.79, p<.05) as well as scores of ingroup identification (M=5.17 (SD=0.89); t(58)=10.17, p<.05) ranged significantly above the mid-point of the 7-point scale (m=4). This suggests that having been assigned to a pro-environmental group should not have been considered as inconsistent with participants' self-views and that the bogus feedback indeed encouraged a sense of group membership. Participants who only read the ingroup's website and those who also wrote the ingroup-endorsing comment did not differ with respect to sentiments of psychological ease (F(1, 59) = 1.85, p>.05, $\eta^2=0.03$).

Principal component analyses with varimax rotation and Kaiser normalization showed that items that assessed the satisfaction of group-enhancing motives (eigenvalue: 2.34, explaining 58.48% of variance, loadings range from .72 to .81), social identity consolidation (eigenvalue: 1.76, explaining 58.70% of variance, loading range from –.68 to .86), and intentions to participate in the panel discussion (eigenvalue: 2.11, explaining 70.77% of variance, loading range from .78 to .88) loaded on one factor, respectively.

In line with Study 1, the willingness to attend a panel discussion was lower for participants who composed the ingroup-endorsing comment (F(1, 58)=4.71, p<.05,

Table 4. Descriptive characteristics of the key concepts (Study 2)

	Control	condition	Experiment	Experimental condition		
Variable	M	SD	M	SD		
Willingness to participate in panel discussion*	4.28	1.78	3.56	1.31		
Identification (post-measure)	5.23	.84	5.12	.94		
Importance of group enhancement*	3.63	.59	3.25	.69		
Social identity consolidation	3.79	.78	3.61	.76		
Personal enhancement dimension of volunteer motivation	4.30	.68	3.97	.78		
Being a responsible citizen	4.60	.52	4.41	.69		

^{*}Significant at p < .05.

Table 5. Inter-construct correlations (Study 2)

	• • •						
	Variable	1	2	3	4	5	6
1	Willingness to participate in panel discussion	1					
2	Identification (post-measure)	.28*	1				
3	Importance of group enhancement	.63**	.51**	1			
4	Social identity consolidation	.37**	.58**	.57**	1		
5	Personal enhancement dimension of volunteer motivation	.21	.21	.33*	.34**	1	
6	Being a responsible citizen	.23	.19	.48**	.43**	.48**	1

^{**}Significant at p < .01.

^{*}Significant at p < .05.

 η^2 = .08). In addition, results of analyses of variance indicated that group enhancement was more important for participants in the control condition ($F(1, 59) = 5.17, p < .05, \eta^2 = .08$). Social identity consolidation ($F(1, 59) = 2.62, p > .05, \eta^2 = .04$), perceived personal growth ($F(1, 59) = 3.06, p > .05, \eta^2 = .05$), and sentiments of being a responsible citizen ($F(1, 59) = 1.37, p > .05, \eta^2 = .02$) did not differ between conditions. Finally, a bootstrap analysis confirmed that taking the low-threshold online collective action foreclosed participation in the panel discussion by reducing the importance of group enhancement, thus by satisfying group-enhancing motives (Model 4, Hayes, 2012: CI 95% [-0.99, -.11], indirect effect: -.47, 10 000 bootstraps; Figure 2).

The findings endorse a more nuanced perspective on slacktivism. More precisely, what is belittled as lacking commitment seems to be considered by group members as a meaningful action in itself, holding the same quality that is central to traditional, offline collective actions: They advance the group's collective purpose. Overall, and even though the impact of low-threshold online collective actions has not yet been quantified (Christensen, 2011), digital practices may represent actions that are "a difference-of-degree rather than a difference-in-kind" (Karpf, 2010, p. 3). The results emphasize the relevance of a group-level approach to slacktivism. In Study 1, hedonistic motives and personal interests may not have been captured explicitly; in this experiment, we showed that so-called slacktivist actions are certainly more than "feel-good online activism" (Morozov, 2009, para. 1). To recap, participants did not feel significantly more important, better, more confident, or more needed after composing the ingroup-endorsing comment—they did, however, find it less important to mobilize fellow supporters and invest in the group's viability.

Membership in the environmental group was not consolidated by writing the ingroup-endorsing comment. This finding might be predicated on the design of the study. That is, the items that assessed social identity consolidation explored whether participants felt as if they were recognized or accepted by the ingroup. Despite having been informed that the ingroup would be able to read their comments, participants did not receive any feedback indicating that fellow supporters considered them as part of the group. In this context, it may have been difficult to judge whether collective self-views aligned with those of the ingroup and whether the social identity was indeed consolidated.

An additional limitation of Study 2, and in fact Study 1, is that we examined the dependent variable with one specific collective action scenario. The panel discussion was described as being instrumental for reaching the ingroup's goal

to establish a natural reserve. To succeed, group members would need negotiation skills, be knowledgeable, and have strong arguments. As the action could appear quite difficult, the overall willingness to attend the discussion might have been rather low. In order to justify the latter, the group-enhancing potential of the ingroup-endorsing comment might have been overestimated. If indeed the satisfaction of group-enhancing motives drove the demobilizing impact of so-called slacktivist actions, this substitute effect should be independent of the scenario of the offline collective action.

STUDY 3

In order to respond to the aforementioned shortcoming and to strengthen the results of Study 2, we developed a follow-up study. Rather than measuring whether low-threshold online collective actions satisfied group-enhancing motives, we manipulated the latter. Participants were randomly assigned to one of two conditions where they received bogus feedback about the contribution of their ingroup-endorsing comment to the group's success. We examined the following hypothesis.

Substitute hypothesis: Low-threshold online collective actions that fulfill group-enhancing motives reduce the willingness to get engaged in collective actions offline.

Method

Sample

Participants (N=48) were undergraduate students at a Belgian university and received class credit for their participation; they were on average M=20.09 (SD=2.17) years old (75% female).

Procedure

The first part of the experiment resembled Study 1. After enhancing the salience of membership in a pro-environmental opinion-based group, participants visited the group's website to learn more about the ingroup's goals and achievements. All participants were asked to write a comment that signaled support for the group, tagged with personal information, that was to be posted on their group's website. Following, participants received bogus feedback about the contribution of their comment to the group's welfare and success. In one condition, the feedback read that the comment ensured the group's

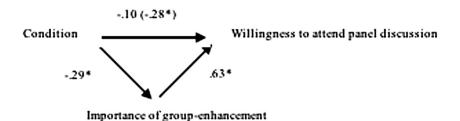


Figure 2. Mediated relationship between low-threshold online collective actions and the willingness to attend a panel discussion (Study 2). Condition is coded dichotomously $(0 = control\ condition)$, $1 = experimental\ condition)$. *Significant at p < .05

viability and that the group's goal to build a natural reserve could be achieved, because more citizens would now support the ingroup. In the second condition, the feedback indicated that only on the basis of the comment, the group's viability could not be ensured and the ingroup's goals could not be reached, because it is unlikely that the group attracts more support. Then, all participants completed the post-questionnaire and were thanked and debriefed.

Material

All measures were taken on a 7-point scale $(1 = not \ at \ all;$ 7 = completely). In the pre-questionnaire, we applied the previously used measures for pro-environmental attitudes (Dunlap & Van Liere, 2008; $\alpha = .73$) and identification with those who find it important to protect the environment (Krizan & Baron, 2007; $\alpha = .80$). Following the experimental manipulation, we assessed with a manipulation check whether participants felt indeed that they had made a distinct contribution to their group's welfare by writing the comment ("By writing the comment I support [name of the ingroup] in establishing the natural reserve"). Moreover, we explored with a multiple-choice question whether participants had read the stimulus material on the ingroup's website; no participant had to be excluded.

The dependent variables included three collective action scenarios: Aside from the aforementioned panel discussion (α =.83), all participants indicated on four items their willingness to join a demonstration ($\alpha = .85$), which was to take place in front of the headquarters of the companies that wanted to build the highway in an area that the ingroup planned to develop into a natural reserve. We further asked to what degree participants perceived participation in the offline collective actions to have an impact on the ingroup's success ("With my participation I support [name of the ingroup] in establishing the natural reserve"). Last but not least, all participants had the opportunity to sign a paper-version petition in support of the ingroup's initiative to build the natural reserve. The petition sheet was placed on the desk where participants were seated and had to be handed to the experimenter after completion. In the debriefing, we assured participants that the information they had indicated in the petition—their full name, email address, and signature—would not be transferred to third parties, and the petition sheets were destroyed immediately after the experiment.

Results and Discussion

Descriptive characteristics of the constructs and inter-construct correlations are presented in Tables 6 and 7. Mean ratings of participants' pro-environmental attitudes ranged significantly above the mid-point (m=4) of the 7-point scale (t(47))= 16.41, p < .05), indicating that the initial bogus feedback regarding participants' group membership should not have been considered contradictory. An analysis of variance on the manipulation check showed that participants who received the feedback that their comment ensured the group's welfare and success thought that they contributed distinctly more to the group's success (F(1, 48) = 11.84, p < .05, $\eta^2 = 0.21$; Table 6).

The perceived contribution of the offline collective actions to the ingroup's goal did not differ between conditions $(F(1, 48) = .75, p > .05, \eta^2 = 0.02)$. However, participants who had received the feedback that their ingroup-endorsing comment contributes to the group's viability viewed the lowthreshold online collective action (M=3.96, SD=1.43) as not differently influential than the offline actions (M=3.96,SD = 1.71) (t(23) = .00, p = 1.00). Participants who did not fulfill group-enhancing motives by taking the low-threshold online collective action considered the comment as less influential than offline collective actions (t(23) = -.68, p < .05).

Principal component analysis with varimax rotation and Kaiser normalization highlighted that the items that assessed willingness to join the panel discussion (eigenvalue: 2.70, variance explained: 67.41%, loading range from -.72 to .89) and the demonstration (eigenvalue: 2.80, variance explained: 70.09%, loading range from -.76 to .93) loaded on one factor, respectively. The willingness to participate in a demonstration was higher $(F(1, 48) = 8.65, p < .05, \eta^2 = 0.16)$ and completion of the petition 4.19 times more likely ($\chi^2(1) = 4.14$, p < .05) for participants who did not satisfy group-enhancing motives by promoting the ingroup in a comment. For the panel discussion, this difference was marginally significant (F(1, 48) = 3.89, $p = .05, \eta^2 = 0.08$).

In Studies 1 and 2, we demonstrated a demobilizing effect of so-called slacktivist actions on one specific collective action scenario, a panel discussion that required particular skills and knowledge from group members. In the present study, we

Table 7. Inter-construct correlations (Study 3)

	Variable	1	2	3	4
1	Willingness to participate in panel discussion	1			
2	Willingness to participate in demonstration	.51**	1		
3	Manipulation check	15	22	1	
4	Perceived support of offline collective actions	.35*	.24	13	1

^{**}Significant at p < .01. *Significant at p < .05.

Table 6. Descriptive characteristics of the key concepts (Study 3)

	Group-enhancing	motives fulfilled	Group-enhancing motives not fulfill	
Variable	M	SD	M	SD
Willingness to participate in panel discussion	3.91	1.09	4.53	1.10
Willingness to participate in demonstration*	3.66	1.33	4.86	1.48
Manipulation check*	3.96	1.43	2.46	1.58
Perceived support of offline collective actions	3.96	1.71	4.38	1.63

^{*}Significant at p < .05.

showed that this substitute effect can be generalized to offline engagement that is relatively quick—signing the petition—and easy—simply attending a demonstration. This result suggests that low-cost and low-risk online collective actions that signal one's support of a group are neither fostering more demanding offline collective actions nor facilitating subsequent low-threshold involvement offline. Ultimately, the stepping stone hypothesis to slacktivism must be rejected.

GENERAL DISCUSSION

Anecdotes of past social movements depict the Internet as a tool to "galvanise, coordinate, collaborate and overthrow" (Krotoski, 2013, p. 145), as a means to incite, for instance, demonstrations or sit-ins (Van Laer & Van Aelst, 2010). Technological advances and the ever-growing popularity of the participatory Internet further enhanced this (potential) mobilizing impact: Namely, Internet-enabled technologies form a platform for digital engagement. In recent years, a lively debate emerged around the quality and potential consequences of low-cost and low-risk Internet-based collective actions that signal endorsement and do not contribute tangible means to a group (Kristofferson et al., 2014). The latter are criticized as slacktivism, as activism that lacks commitment, that has no social impact, and that derails enduring participation (Gladwell, 2010; Morozov, 2009).

Findings from three experiments contribute to this discourse and point indeed to a demobilizing effect of so-called slacktivist actions, driven by the satisfaction of groupenhancing motives. The results are in line with the slacktivism critique but contest an individualistic and hedonistic account. More precisely, participants considered low-threshold online collective actions as a substantial contribution to the ingroup's success, as a valid tool in a larger repertoire of contention to promote their group's ideas; participants did not feel better about themselves after engaging in quick and easy activities on the Internet. The suggested group-level approach to slacktivism resonates with the idea that collective actions are taken on behalf of an in- or outgroup, based on selfcategorization at an intergroup level (Becker, 2012; Wright et al., 1990). As a social identity is salient, motivations that pertain to one's group membership(s)—rather than personal goals and needs-shape individuals' preferences and behavioral choices (Turner et al., 1987).

The empirical analysis of slacktivism is still in its infancy (Kristofferson et al., 2014; Lee & Hsieh, 2013); our studies emphasize that a mere assessment of the effects of so-called slacktivist actions is likely obscuring a more nuanced perspective that is required to understand this much-talked-about phenomenon. By exploring the processes that underlie the relationship between low-threshold online and offline collective actions, we concluded that what has been described as a self-serving practice constitutes (as well) important collective behavior that could impact the viability of a group. We encourage scholars to examine the dynamics that shape the spillover from online to offline collective actions in more detail, reviewing also its boundary conditions.

For instance, in our experiments, participants did not interact with fellow supporters, and other group members were not visualized on the website. The social identity model of deindividuation effects (SIDE; Reicher, Spears, & Postmes, 1995; Spears & Lea, 1994) proposes that the demobilizing influence of so-called slacktivist actions may be qualified if low-threshold online collective actions are taken in a setting where users are confronted with an anonymous ingroup audience. SIDE highlights that anonymity within a group increases social regulation. Given that a social identity is salient-being explicitly stated or contextually derived-the limited availability of interpersonal cues increased the influence of group norms (Postmes, Spears, Sakhel, & De Groot, 2001; Sassenberg & Boos, 2003), enhanced group identification (Lea, Spears, & De Groot, 2001), and the perceived entitativity of a group (Sassenberg & Postmes, 2002). Ultimately, if ingroup-endorsing comments are composed in the presence of other, anonymous group members, it is likely that individuals develop a stronger sense of belonging and are prompted to remain involved for the group—also offline.

Moreover, possible moderators of the substitute effect of slacktivism should be assessed. In the present studies, participants identified on average highly with others who find it important to protect the environment—as we worked with student samples, this might not come as a surprise. Indeed, group enhancement should play an important role for high identifiers; they are driven by an intrinsic need to advance the group's ideas (through collective actions) and stay loyal to their group to pursue its interests (Doosje, Spears, & Ellemers, 2002; Ellemers, Spears, & Doosje, 1997; Stürmer & Simon, 2009). The negative impact of low-threshold online collective actions, mediated by the satisfaction of groupenhancing motives, might then be partially predicated on the high level—and, in fact, low variability—of ingroup identification in our samples. For low identifiers, other motives, such as self-presentational concerns (Barreto & Ellemers, 2000), might shape the relation between low-threshold online and offline collective actions. In order to capture these paths, subsequent work should replicate our experiments in a context where identification with a group is not as socially desirable (as for a pro-environmental group) and therefore likely more varied across participants.

On a broader level, our findings add to a line of research that views collective actions as a dynamic phenomenon (Van Zomeren, Leach, & Spears, 2012). The dual-pathway model of collective actions (Van Zomeren et al., 2012; Van Zomeren et al., 2004) proposes that collective actions are a form of approach coping to deal with a group's disadvantaged situation. More precisely, both emotion-focused and problem-focused coping efforts are thought to facilitate collective actions. As individuals consider a disadvantaged situation as relevant for a group they feel to belong to (primary appraisal), and as they blame the unfairness of their group's situation on an external agent (secondary appraisal), group-based anger towards that agent should be evoked, prompting collective actions. In addition, individuals evaluate the coping potential of the ingroup, the available resources to overcome the disadvantaged situation (secondary appraisal); if the group is considered efficacious, collective action tendencies should be

elevated. An extension of this model (Van Zomeren et al., 2012) considers the function of reappraisal, in other words, how taking collective actions impacts subsequent primary and secondary appraisal. For example, as citizens get engaged on behalf of a group, the relevance of the disadvantaged group situation for the self should be enhanced. Moreover, participating in collective actions should strengthen the perception of group efficacy beliefs (Drury & Reicher, 2005), increasing the likelihood of problem-focused coping efforts (Van Zomeren et al., 2012; Van Zomeren, Spears, & Leach, 2008).

The present studies point as well to the importance of reappraisal—to a reappraisal process, however, that is demobilizing. We demonstrated that once low-threshold online collective actions satisfy the need for group enhancement, another behavior that would address the same motive is derailed. This substitute effect is based on the homeostasis principle, that is, unfulfilled needs evoke targeted behavior to resolve psychological tensions; once needs are met, passive behavior is shown (Rudolph, 2009). Thus, rather than influencing primary and secondary appraisals as described by Van Zomeren and colleagues (2012), composing the ingroup-endorsing comment affected individuals' appraisal of their (un)fulfilled needs. Concluding a sense of equilibrium, subsequent targeted behavior—collective actions (offline)—were not necessary, and willingness to engage in this behavior was reduced. Importantly, homeostasis is not a static quality; psychological tensions due to unsatisfied needs can arise again (Rudolph, 2009). Consequently, low-threshold online collective actions should not undermine participation in offline collective actions indefinitely. Future studies therefore should examine in longitudinal designs the persistence of the demobilizing effect of so-called slacktivist actions.

Scholars and practitioners alike show a growing interest in the role of the Internet for social movements and collective actions. Our work emphasizes the large potential and relevance of this work; citizens do view the Internet as a viable platform to act on behalf of a group in a meaningful way. At the same time, we highlight that a utopian perspective, which hails the Internet as "liberation technology" (p. 70) that "strengthen[s] an emergent civil society" (Diamond, 2010, p. 70), is unfounded. After all, groups that rely on the Internet to encourage citizens' involvement through low-threshold online collective actions could create road blocks on a ladder of engagement and foreclose enduring participation.

ACKNOWLEDGEMENT

The research has been supported by an Aspirant fellowship (2010–2014) of the Belgian Fonds de la Recherche Scientifique FRS-FNRS that had been granted to the first author during her doctoral studies at the Université Libre de Bruxelles.

REFERENCES

Alberici, A. I., & Milesi, P. (2013). The influence of the Internet on the psychosocial predictors of collective action. *Journal of Community and Applied Social Psychology*, 23, 373–388. doi:10.1002/casp.2131

- Barreto, M., & Ellemers, N. (2000). You can't always do what you want: Social identity and self-presentational determinants of the choice to work for a low-status group. *Personality and Social Psychology Bulletin*, 26, 891–906. doi:10.1177/01461672002610001
- Becker, J. C. (2012). Virtual special issue on theory and research on collective action in the European Journal of Social Psychology. European Journal of Social Psychology, 42, 19–23. doi:10.1002/ejsp.1839
- Becker, J. C., Tausch, N., Spears, R., & Christ, O. (2011). Committed dis(s) idents: Participation in radical collective action fosters disidentification with the broader in-group but enhances political identification. *Personality and Social Psychology Bulletin*, 37, 1104–1116. doi:10.1177/0146167211407076
- Becker, J. C., Tausch, N., & Wagner, U. (2011). Emotional consequences of collective action participation differentiating self-directed and outgroupdirected emotions. *Personality and Social Psychology Bulletin*, 37, 1587–1598. doi:10.1177/0146167211414145
- Bliuc, A. M., McGarty, C., Reynolds, K., & Muntele, D. (2007). Opinion-based group membership as a predictor of commitment to political action. European Journal of Social Psychology, 37, 19–32. doi:10.1002/ejsp.334
- Burger, J. M. (1999). The foot-in-the-door compliance procedure: A multiple-process analysis and review. *Personality and Social Psychology Review*, 3, 303–325. doi:10.1207/s15327957pspr0304_2
- Carlisle, J. E., & Patton, R. C. (2013). Is social media changing how we understand political engagement? An analysis of Facebook and the 2008 presidential election. *Political Research Quarterly*, 66, 883–895. doi:10.1177/1065912913482758
- Chen, S., Chen, K. Y., & Shaw, L. (2004). Self-verification motives at the collective level of self- definition. *Journal of Personality and Social Psychology*, 86, 77–94. doi:10.1037/0022-3514.86.1.77
- Chen, S., Taylor, L. S., & Jeung, K. Y. (2006). Collective self-verification among members of a naturally occurring group: Possible antecedents and long-term consequences. *Basic and Applied Social Psychology*, 28, 101–115. doi:10.1207/s15324834basp2802_1
- Christensen, H. (2011). Political activities on the Internet: Slacktivism or political participation by other means? First Monday, 2, accessible at: http://firstmonday.org/ojs/index.php/fm/article/viewArticle/3336
- Clary, E. G., Snyder, M., Ridge, R. D., Copeland, J., Stukas, A. A., Haugen, J., & Miene, P. (1998). Understanding and assessing the motivations of volunteers: A functional approach. *Journal of Personality and Social Psychology*, 74, 1516–1530. doi:10.1037/0022-3514.74.6.1516
- Diamond, L. (2010). Liberation technology. *Journal of Democracy*, 21, 69–83. doi:10.1353/jod.0.0190
- Doosje, B., Spears, R., & Ellemers, N. (2002). Social identity as both cause and effect: The development of group identification in response to anticipated and actual changes in the intergroup status hierarchy. *British Journal* of Social Psychology, 41, 57–76. doi:10.1348/01446602165054
- Douglas, K. M., & McGarty, C. (2001). Identifiability and self-presentation: Computer-mediated communication and intergroup interaction. *British Journal of Social Psychology*, 40, 399–416. doi:10.1348/01446601164894
- Drury, J., Cocking, C., Beale, J., Hanson, C., & Rapley, F. (2005). The phenomenology of empowerment in collective action. *British Journal of Social Psychology*, 44, 309–328. doi:10.1348/01446604X18523
- Drury, J., & Reicher, S. (1999). The intergroup dynamics of collective empowerment: Substantiating the social identity model of crowd behavior. Group Processes & Intergroup Relations, 2, 381–402. doi:10.1177/1368430299024005
- Drury, J., & Reicher, S. (2005). Explaining enduring empowerment: A comparative study of collective action and psychological outcomes. *European Journal of Social Psychology*, 35, 35–58. doi: 10.1002/ejsp.231
- Drury, J., & Reicher, S. (2009). Collective psychological empowerment as a model of social change: Researching crowds and power. *Journal of Social Issues*, 65, 707–725. doi:10.1111/j.1540-4560.2009.01622.x
- Dunlap, R. E., & Van Liere, K. D. (2008). The "new environmental paradigm". *Journal of Environmental Education*, 40, 19–28. doi:10.3200/JOEE.40.1.19-28#.UjA1KtLdetY
- Earl, J. (2010). The dynamics of protest-related diffusion on the web. *Information, Communication & Society, 13*, 209–225. doi:10.1080/13691180902934170
- Ellemers, N., Spears, R., & Doosje, B. (1997). Sticking together or falling apart: In-group identification as a psychological determinant of group commitment versus individual mobility. *Journal of Personality and Social Psychology*, 72, 617–626. doi:10.1037/0022-3514.72.3.617
- Fishbach, A., Henderson, M. D., & Koo, M. (2011). Pursuing goals with others: Group identification and motivation resulting from things done versus things left undone. *Journal of Experimental Psychology: General*, 140, 520–534. doi:10.1037/a0023907
- Freedman, J. L., & Fraser, S. C. (1966). Compliance without pressure: The foot-in-the-door technique. *Journal of Personality and Social Psychology*, 4, 195–202. doi:10.1037/h0023552

- Freelon, D. (2014). Online civic activism: Where does it fit? *Policy & Internet*, 6, 192–198. doi:10.1002/1944-2866.POI358
- Georgetown University, Center for Social Impact Communication, & Waggener Edstrom (2013). Digital persuasion: How social media motivates action and drives support for causes. Retrieved from http://waggeneredstrom.com/downloads/DSCA-Summary.pdf
- Gladwell, M. (2010, October 4). Small change: Why the revolution will not be tweeted [Weblog post]. Retrieved from http://www.newyorker.com/ reporting/2010/10/04/101004fa_fact_gladwell
- Gómez, A., Morales, J. F., Huici, C., Gaviria, E., & Jiménez, J. (2007). When the world understands me... And My alignment with the group. From selfverification to verification of ones group identity. *International Journal of Psychology and Psychological Therapy*, 7, 213–236.
- Guéguen, N. (2002). Foot-in-the-door technique and computer-mediated communication. Computers in Human Behavior, 18, 11–15. doi:10.1016/S0747-5632(01)00033-4
- Guéguen, N., & Jacob, C. (2002). Solicitation by e-mail and solicitor's status: A field study of social influence on the web. *CyberPsychology & Behavior*, 5, 377–383. doi:10.1089/109493102760275626
- Harlow, S., & Guo, L. (2014). Will the revolution be tweeted or Facebooked? Using digital communication tools in immigrant activism. *Journal of Computer-Mediated Communication*. doi:10.1111/jcc4.12062
- Hayes, A. F. (2012). PROCESS: A versatile computational tool for observed variable mediation, moderation, and conditional process modeling [White paper]. Retrieved from http://www.personal.psu.edu/jxb14/M554/articles/process2012.pdf
- Karpf, D. (2010). Online political mobilization from the advocacy group's perspective: Looking beyond clicktivism. *Policy & Internet*, 2, 7–41. doi:10.2202/1944-2866.1098
- Kenworthy, J. B., & Jones, J. R. (2009). The roles of group importance and anxiety in predicting depersonalized ingroup trust. *Group Processes and Intergroup Relations*, 12, 227–239. doi:10.1177/1368430208101058
- Klein, O., Spears, R., & Reicher, S. (2007). Social identity performance: Extending the strategic side of SIDE. *Personality and Social Psychology Review*, 1, 1–18. doi:10.1177/1088868306294588
- Kristofferson, K., White, K., & Peloza, J. (2014). The nature of slacktivism: How the Social observability of an initial act of token support affects subsequent prosocial action. *Journal of Consumer Research*. Retrieved from: http://web.missouri.edu/~segerti/capstone/Slacktivism.pdf
- Krizan, Z., & Baron, R. S. (2007). Group polarization and choice-dilemmas: How important is self categorization? *European Journal of Social Psychology*, 37, 191–201. doi:10.1002/ejsp.345
- Krotoski, A. (2013). *Untangling the web*. London: Faber & Faber.
- Lea, M., Spears, R., & de Groot, D. (2001). Knowing me, knowing you: Anonymity effects on social identity processes within groups. *Personality and Social Psychology Bulletin*, 27, 526–537. doi:10.1177/0146167201275002
- Lee, Y. H., & Hsieh, G. (2013, April). Does slacktivism hurt activism?: The effects of moral balancing and consistency in online activism. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 811–820). New York, USA: ACM.
- Lemay, E. P., & Ashmore, R. D. (2004). Reactions to perceived categorization by others during the transition to college: Internalization and selfverification processes. *Group Processes and Intergroup Relations*, 7, 173–187. doi:10.1177/1368430204043722
- Leonard, C. (2009, September 1). In defense of "slacktivism" [Weblog post].
 Retrieved from http://bayercenter.wordpress.com/2009/09/01/in-defense-of-slacktivism/
- Lim, M. (2013). Many clicks but little sticks: Social media activism in Indonesia. *Journal of Contemporary Asia*, 43, 636–657. doi:10.1080/ 00472336.2013.769386
- Lück, H. E. (1996). Die Feldtheorie und Kurt Lewin: Eine Einführung. Weinheim: Beltz.
- Macafee, T., & De Simone, J. J. (2012). Killing the bill online? Pathways to young people's protest engagement via social media. Cyberpsychology, Behavior and Social Networking, 15, 579–584. doi:10.1089/cyber.2012.0153
- Mahler, V. (1933). Ersatzhandlungen verschiedenen Realitätsgrades. Psychologische Forschung, 18, 16–89. doi:10.1007/BF02409627
- Margetts, H., John, P., Escher, T., & Reissfelder, S. (2011). Social information and political participation on the internet: An experiment. *European Political Science Review*, 3, 321–344. doi:10.1017/S1755773911000129
- McGarty, C., Bliuc, A. M., Thomas, E. F., & Bongiorno, R. (2009). Collective action as the material expression of opinion-based group membership. *Journal of Social Issues*, 65, 839–857. doi:10.1111/j.1540-4560.2009.01627.x
- McGarty, C., Taylor, N., & Douglas, K. M. (2000). Between commitment and compulsion: Obligation and the strategic dimension of SIDE. In T. Postmes, R. Spears, M. Lea, & S. Reicher (Eds.), SIDE issues centre stage: Recent developments in studies of de-individuation in groups. Amsterdam: Royal Netherlands Academy of Arts and Sciences, pp. 143–150.

- Morozov, E. (2009, May 19). The brave new world of slacktivism [Weblog post]. Retrieved from http://neteffect.foreignpolicy.com/posts/2009/05/19/the_brave_new_world_of_slacktivism
- Morozov, E. (2011, March 7). Facebook and Twitter are just places revolutionaries go. *The Guardian*. Retrieved from http://www.theguardian.com/ commentisfree/2011/mar/07/facebook-twitter-revolutionaries-cyberutopians
- Obar, J. A., Zube, P., & Lampe, C. (2012). Advocacy 2.0: An analysis of how advocacy groups in the United States perceive and use social media as tools for facilitating civic engagement and collective action. *Journal of Information Policy*, 2. Retrieved from http://jip.vmhost.psu.edu/ojs/index.php/jip/article/view/80/47
- Postmes, T., & Brunsting, S. (2002). Collective action in the age of the Internet mass communication and online mobilization. *Social Science Computer Review*, 20, 290–301. doi:10.1177/08939302020003006
- Postmes, T., & Smith, L. G. (2009). Why do the privileged resort to oppression? A look at some intragroup factors. *Journal of Social Issues*, 65, 769–790. doi:10.1111/j.1540-4560.2009.01624.x
- Postmes, T., Spears, R., Sakhel, K., & De Groot, D. (2001). Social influence in computer-mediated communication: The effects of anonymity on group behavior. *Personality and Social Psychology Bulletin*, 27, 1243–1254. doi:10.1177/01461672012710001
- Rainie, L., Purcell, K., & Smith, A. (2011). *The social side of the Internet*. Washington D. C.: Pew Internet and American Life Project.
- Reicher, S. D. (1984). The St Pauls' riot: An explanation of the limits of crowd action in terms of a social identity model. *European Journal of Social Psychology*, 14, 1–21. doi:10.1002/ejsp.2420140102
- Reicher, S. D., Spears, R., & Postmes, T. (1995). A social identity model of deindividuation phenomena. European Review of Social Psychology, 6, 161–198. doi:10.1080/14792779443000049
- Rudolph, U. (2009). Motivationspsychology Kompakt. Weinheim: Beltz.
- Sassenberg, K., & Boos, M. (2003). Attitude change in computer-mediated communication: Effects of anonymity and category norms. *Group Processes & Intergroup Relations*, 6, 405–422. doi:10.1177/13684302030064006
- Sassenberg, K., & Postmes, T. (2002). Cognitive and strategic processes in small groups: Effects of anonymity of the self and anonymity of the group on social influence. *British Journal of Social Psychology*, 41, 463–480. doi:10.1348/014466602760344313
- Simon, B., & Klandermans, B. (2001). Politicized collective identity: A social psychological analysis. *American Psychologist*, *56*, 319. doi:10.1037//0003-066X.56.4.319
- Skinner, J. (2011). Social media and revolution: The Arab spring and the occupy movement as seen through three information studies paradigms. Sprouts: Working Papers on Information Systems, 11. Retrieved from http://sprouts.aisnet.org/11-169
- Spears, R., & Lea, M. (1994). Panacea or panopticon? The hidden power in computer- mediated communication. *Communication Research*, 21, 427–459. doi:10.1177/009365094021004001
- Stürmer, S., & Simon, B. (2004). Collective action: Towards a dual-pathway model. European Review of Social Psychology, 15, 59–99. doi:10.1080/ 10463280340000117
- Stürmer, S., & Simon, B. (2009). Pathways to collective protest: Calculation, identification, or emotion? A critical analysis of the role of group-based anger in social movement participation. *Journal of Social Issues*, 65, 681–705. doi:10.1111/j.1540-4560.2009.01620.x
- Stürmer, S., Simon, B., Loewy, M., & Jörger, H. (2003). The dual-pathway model of social movement participation: The case of the fat acceptance movement. Social Psychology Quarterly, 66, 71–82. doi:10.2307/3090142
- Tajfel, H. & Turner, J. C. (1979). An integrative theory of inter-group conflict. In W. G. Austin, & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Monterey, USA: Brooks/Cole.
- Tausch, N., & Becker, J. C. (2013), Emotional reactions to success and failure of collective action as predictors of future action intentions: A longitudinal investigation in the context of student protests in Germany. *British Journal of Social Psychology*, 52, 525–542. doi:10.1111/j.2044-8309.2012.02109.x
- Thomas, E. F., & McGarty, C. A. (2009). The role of efficacy and moral outrage norms in creating the potential for international development activism through group-based interaction. *British Journal of Social Psychology*, 48, 115–134. doi:10.1348/014466608X313774
- Tropp, L., & Brown, A. (2004). What benefits the group can also benefit the individual: Group-enhancing and individual-enhancing motives for collective actions. *Group Processes & Intergroup Relations*, 7, 267–282. doi:10.1177/1368430204046111
- Tufekci, Z. (2012, March 10). #Kony2012, Understanding networked symbolic action & why slacktivism is conceptually misleading [Weblog post]. Retrieved from http://technosociology.org/?p=904

Tufekci, Z., & Wilson, C. (2012). Social media and the decision to participate in political protest: Observations from Tahrir Square. *Journal of Communication*, 2, 363–379. doi:10.1111/j.1460-2466.2012.01629.x

Turner, J. C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), Social identity and intergroup relations (pp. 15–40). Cambridge: Cambridge University Press.

Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. (1987). *Rediscovering the social group. A self-categorization theory*. Oxford: Blackwell.

Van Laer, J., & Van Aelst, P. (2010). Cyber-protest and civil society: The Internet and action repertoires in social movements. In Y. Jewkes, & M. Yar (Eds.), Handbook of Internet crime (pp. 230–254). Cullompto, U.K.: Willan Publishing.

Van Zomeren, M., & Iyer, A. (2009). Introduction to the social and psychological dynamics of collective action. *Journal of Social Issues*, 65, 645–660. doi:10.1111/j.1540-4560.2009.01618.x

Van Zomeren, M., Leach, C. W., & Spears, R. (2012). Protesters as "passion-ate economists" a dynamic dual pathway model of approach coping with collective disadvantage. *Personality and Social Psychology Review*, 16, 180–199. doi:10.1177/1088868311430835

Van Zomeren, M., Postmes, T., Spears, R., & Bettache, K. (2011). Can moral convictions motivate the advantaged to challenge social inequality? Extending the social identity model of collective action. *Group Processes & Intergroup Relations*, 14, 735–753. doi:10.1177/1368430210395637

Van Zomeren, M., Spears, R., Fischer, A. H., & Leach, C. W. (2004). Put your money where your mouth is! Explaining collective action tendencies through group-based anger and group efficacy. *Journal of Personality and Social Psychology*, 87, 649–664. doi:10.1037/0022-3514.87.5.649

Van Zomeren, M., Spears, R., & Leach, C. W. (2008). Exploring psychological mechanisms of collective action: Does relevance of group identity influence how people cope with collective disadvantage? *British Journal of Social Psychology*, 47, 353–372. doi:10.1348/01446607X231091

Vissers, S., & Stolle, D. (2012). Spill-over effects between Facebook and on/offline political participation? Evidence from a two-wave panel study. Retrieved from: https://www.cpsa-acsp.ca/papers-2012/Vissers-Stolle.pdf

Wright, S. C. (2009). The next generation of collective action research. *Journal of Social Issues*, 65, 859–879. doi:10.1111/j.1540-4560.2009.01628.x

Wright, S. C., Taylor, D. M., & Moghaddam, F. M. (1990). Responding to membership in a disadvantaged group: From acceptance to collective protest. *Journal of Personality and Social Psychology*, 58, 994–1003. doi:10.1037//0022-3514.58.6.994

APPENDIX A

Table A1. Website

Digital practice	M	SD
Read news and information about Greenpeace and	4.2	1.35
its activities		
Make a donation	1.72	1.12
Sign a petition	4.36	1.56
Comment on blog posts of Greenpeace representatives	1.74	1.12
Comment on the comments of other Greenpeace	1.68	1.08
supporters on blog posts		
Watch videos	3.68	1.43
Check the ship webcams	1.78	1.23
Share information about Greenpeace via Email	3.66	1.67
or social media platforms with your friends and family		
Play interactive games such as Deepwater Desperation	1.24	0.65
They include games such as Deepwater Desperation	1.27	0.03

Table A2. YouTube

Digital practice	M	SD
Watch Greenpeace videos	2.98	1.58
Subscribe to Greenpeace video channel	1.72	1.49
Comment on Greenpeace videos	1.35	0.89
Comment on the comments of other Greenpeace	1.3	0.82
supporters		
"Like" Greenpeace videos	2.09	1.64
Follow links from the video captions to get more	2.18	1.55
information		
Sign up for the Greenpeace email alert list	1.82	1.54
Share Greenpeace videos on other social media platforms	2.31	1.68

Table A3. Facebook profile

Digital practice	M	SD
Read news and information about Greenpeace and its activities	4.77	1.43
Follow links from Greenpeace posts to get additional information	4.42	1.47
"Like" comments by other Greenpeace supporters on Greenpeace posts	2.91	1.78
Comment on Greenpeace posts	2.27	1.47
View Greenpeace photos	4.51	1.4
Share Greenpeace posts with your network	3.69	1.72
Watch Greenpeace videos	3.66	162

Table A4. Facebook page

Digital practice	M	SD
Read news and information about Greenpeace and its activities	4.53	1.38
Follow links from Greenpeace posts to get additional information	4.28	1.42
Follow calls to sign petitions	4.28	1.66
Leave a post on the Facebook page	2.15	1.44
Comment on Greenpeace posts	2.29	1.5
"Like" Greenpeace posts	4.2	1.62
Share Greenpeace posts with your network	3.72	1.68
Comment on the comments of other Greenpeace supporters	2.06	1.42
Watch Greenpeace videos	3.64	1.61
Share other supporters' posts with your network	2.67	1.69
View Greenpeace photos	4.35	1.43
"Like" the comments or posts of other	2.86	1.72
Greenpeace supporters		
Follow Greenpeace events on the live stream	2.11	1.48
Make donations	1.59	1.21
Sign up to the Action alert Email list	2.79	1.87
Commit to events organized by Greenpeace	2.02	1.43

Table A5. Twitter

Digital practice	M	SD
Read information and news about Greenpeace	3.33	1.87
and its activities Follow links from Greenpeace tweets to get	3.2	1.88
additional information Re-tweet Greenpeace tweets	2.96	1.87
Reply to Greenpeace tweets	1.78	1.25
"Favorite" Greenpeace tweets	2.26	1.68
Reply to tweets by other Greenpeace supporters	1.57	1.13
Send private messages to other Greenpeace supporters	1.26	0.72
Express your support for Greenpeace in your	1.58	1.3
banner and profile photo		
Follow other Greenpeace supporters	2.22	1.62
Follow Greenpeace hashtags	2.35	1.71
Share information about Greenpeace and its activities with your followers	2.84	1.94
Follow Greenpeace lists	1.94	1.52
View Greenpeace photos	2.87	1.81
Explore who is following Greenpeace	1.88	1.41

Table A6. Personal blog

Digital practice	М	SD
Write about Greenpeace and its activities	1.79	1.25
Re-blog posts from Greenpeace blogs	1.45	1.07

Continues

Digital practice	М	SD
Link to Greenpeace websites or social media accounts	1.64	1.26
Express support for Greenpeace and its activities in your posts	1.8	1.44

Table A7. Personal email

Digital practice	M	SD
Interact with official Greenpeace representatives Interact with other Greenpeace supporters	1.8 1.55	1.38 1.2
Express your support for Greenpeace to your friends and family	2.27	1.65
Share information about Greenpeace and its activities with your friends and family	2.43	1.68

Table A8. Email list

Digital practice	M	SD
Get news and information about Greenpeace and its activities	4.48	1.51
Follow links to get additional information about	4.24	1.53
Greenpeace and its activities Follow calls of action	4.00	1.68

APPENDIX B

NEW ENVIRONMENTAL PARADIGM SCALE (DUNLOP & VAN LIERE, 2008)

The balance of nature can be easily upset by the actions of humans.

Natural resources exist so that they can be used by humans. Humans must live in harmony with nature.

Humans do not need to adapt to the natural environment because they can remake it to suit their needs.

We are already doing our best to protect the environment.

We are approaching the limit of the number of people the earth can support.

Humans have the right to modify the natural environment.

When humans interfere with nature it produces disastrous consequences.

Plants and animals exist primarily to be used by humans.

There are limits to growth beyond which our industrialized society cannot expand.

Humans are severely abusing the environment.

APPENDIX C

DEPERSONALIZED TRUST SCALE (KENWORTHY & JONES, 2009)

I would give a typical group member an important letter to mail after s/he mentions that s/he is stopping by the post office today. If a typical group member promised to copy down notes for me, s/he would follow through.

If a typical group member and I decided to meet for coffee, I would be certain s/he would be there.

I would expect a typical group member to tell me the truth if I asked him/her for feedback on an idea related to my job.

If a typical group member was late to a meeting, I would guess there was a good reason for the delay.

I would expect a typical group member to pay me back if I loaned him/her €40.

If a typical group member laughed unexpectedly at something I did or said, I would know s/he was not being unkind.

If a typical group member gave me a compliment on my haircut I would believe s/he meant what was said.

A typical group member would never intentionally misrepresent my point of view to others.