Universiteit Antwerpen

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Can I afford to help? How affordances of communication modalities can guide bystanders helping intentions in cases of harassment on social network sites

"Can I afford to help?" How affordances of communication modalities guide bystanders' helping intentions towards harassment on social network sites

When bystanders want to help victims of harassment on social network sites, they can be guided by the affordances of different communication modalities in order to make a communicative choice. Elaborating on the data of a previous experimental study with 453 adolescents, we compared bystanders' behavioural intentions to help the victim according to their "mediacy" (via communication technologies (CT) or face-to-face), and their "privacy" (in public or in private). Furthermore, we investigated whether the context of the harassing incident (incident severity, identity and behaviour of other bystanders) influenced the "mediacy" and "privacy" of bystanders' helping intentions. The results showed that in general bystanders had higher behavioural intentions to help the victim in private (vs. in public) and via CT (vs. face-to-face). While incident severity influenced the "mediacy" of bystanders' helping intentions, the identity and behaviour of other bystanders affected the "privacy" of their helping intentions.

Keywords: cyberbullying; harassment; ICT; adolescents; bystander; affordance

1. Introduction: bystanders of cyberbullying or harassment on social network sites (SNS)

Social network sites (SNS) are extremely popular among today's adolescents (Lenhart et al. 2007; Livingstone et al. 2011). Unfortunately, when utilising SNS youngsters can be confronted with or engage in antisocial behaviour such as cyberbullying or online harassment (Livingstone et al. 2011; Ybarra and Mitchell 2008). Research on cyberbullying with Flemish youngsters revealed that 44 % of cyberbullying victims said it happened on SNS, making it the most popular venue for cyberbullying (Heirman et al. In press). Victims of cyberbullying

can suffer from several negative health consequences, such as emotional distress (e.g. Mishna et al. 2012; Şahin 2012; Šléglová and Černá 2011) and depression (e.g. Kowalski and Fedina 2011; Machmutow et al. 2012; Schneider et al. 2012), which can possibly lead to self-harming behaviour (Price and Dalgleish 2010; Schneider et al. 2012) and suicide attempts (Schneider et al. 2012). Therefore, cyberbullying constitutes an important threat for the mental and physical health of today's adolescents and warrants attention in education, policy and research.

Research on traditional bullying among children and adolescents has identified three participant roles in bullying instances: the victim, the bully and the bystander or witness (O'Connell, Pepler, and Craig 1999; Salmivalli, Huttunen, and Lagerspetz 1997; Salmivalli et al. 1996). These roles have also been investigated and identified in cases of cyberbullying (Kowalski, Limber, and Agatston 2008; Li 2006; Mason 2008). Bystanders appear to play an important role in (traditional) bullying (O'Connell, Pepler, and Craig 1999; Salmivalli et al. 1996), because they can help the victim in two ways. On the one hand, by taking sides with the victim or by defending the victim, bystanders can threaten the perpetrator's goal of achieving status and power among peers, and as such make bullying less attractive for the perpetrator (Hawkins, Pepler, and Craig 2001; Pepler, Craig, and O'Connell 2010). On the other hand, by providing the victim with (emotional) support, bystanders can counter the negative effects caused by the bullying victimization (Flaspohler et al. 2009; Matsunaga 2011; Salmivalli 2010). Therefore, activating bystanders is an important goal for interventions that aim to tackle (cyber)bullying.

Although different bystander helping behaviours (e.g. defending the victim, reporting the incident, comforting the victim) and their determinants have been mapped numerous times in cyberbullying research (e.g. Barlińska, Szuster, and Winiewski 2013; DeSmet et al. 2012; DeSmet et al. 2013; Jones, Manstead, and Livingstone 2011; Kowalski, Schroeder, and

Smith 2013; Li and Fung 2012; Macháčková et al. 2013; Nickerson et al. 2014), to the best of our knowledge no research has been conducted on the specific communication modalities that can be used to perform these helping behaviours. Specifying helping behaviours according to the various communication modalities can be highly useful for cyberbullying research and intervention development, allowing a more detailed investigation of (the effectiveness of) bystanders' helping behaviours, which can facilitate more targeted recommendations on helping behaviour.

Apart from face-to-face communication, adolescents have access to a whole range of communication technologies (CT) with specific characteristics that they can use in their helping behaviour. Face-to-face communication and (some) CT-mediated forms of communication can be performed in different social contexts (e.g. in front of an audience or one-to-one), thus generating specific communicative dynamics. Furthermore, adolescent bystanders' helping behaviour can depend on the specificities of the cyberbullying incident, as has been demonstrated in various studies (DeSmet et al. 2012; DeSmet et al. 2013; Holfeld 2014; Obermaier, Fawzi, and Koch 2014). Therefore, we assume that in order to generate an in-depth understanding of adolescent bystanders' helping behaviour in cases of harassment on SNS, we need to look at these different communication modalities and how they are selected in various contexts.

2. An affordances of technologies perspective on bystanders' helping behaviour

When making a choice between the various communication modalities of helping a victim of harassment on SNS, bystanders can take into account the characteristics of these different communication modalities. In this respect, the "*affordances of technologies*" perspective offers a useful framework to compare communication modalities (Hutchby 2001a; Hutchby 2001b). Inspired by Gibson's (1979 in Hutchby 2001a) work on the psychology of

perception, Hutchby applied the concept of "affordances of material objects" to communication technologies (Hutchby 2001a). The central idea is that each material object, or communication technology, has specific characteristics or affordances that "frame, while not determining, the possibilities for agentic action in relation to an object" (Hutchby 2001b, 444). These affordances are functional, enabling or constraining certain actions, but also relational, in the sense that the affordances may be judged differently by different users (Hutchby 2001b). The concept of affordances has been applied to the use of specific CT, such as mobile phones (Reid and Reid 2010) and social network sites (boyd 2011), and to CT use of specific user groups, such as adolescents (Livingstone 2008; Mesch 2008). In her research on adolescents' CT use, Van Cleemput (2012) has listed the most important affordances that distinguish various modes of communication from each other, and has formulated them in terms of affordances to exert control: control over time and place, control over the message, and control over the audience.

First, communication modes can be distinguished through their possibility to communicate with people without physically being together (*control over time and place*). Control over time refers to the distinction between synchronous and asynchronous communication (Baym 2010; Van Cleemput 2012). While face-to-face communication and certain types of CT-communication, such as video chat, only allow immediate and synchronous communication (Baym 2010), most CT-communication is asynchronous by nature, granting youngsters more time to "stop and think before giving a response" (Madell and Muncer 2007, 139). Control over place points towards the ability to communicate with someone without physically being present in the same place. Apart from the practical convenience of this affordance, the ability to communicate without actually being in the same place as the communication partner grants the adolescent a certain degree of (audio-visual)

anonymity, which is attractive for insecure, shy or self-conscious adolescents (Valkenburg and Peter 2011).

Secondly, communication modes differ in the extent to which they offer *controllability of the message* (Van Cleemput 2012), which refers to the type and number of social cues conveyed (Baym 2010; Valkenburg and Peter 2011; Van Cleemput 2012). Face-to-face communication, on the one hand, allows rich communication with contextual, visual and auditory cues (Baym 2010). However, since all of these cues are transferred simultaneously in face-to-face communication, it is more difficult for communicators to control their message. On the other hand, CT such as instant messaging, text messages, e-mail and social network sites are leaner in cues compared to face-to-face communication (Baym 2010), which means that users can only use a comparatively limited number of cues to convey their message (e.g. in text, emoticons, pictures). This limited number of cues, however, offers adolescents more control over their communication and often allows them to retain a certain amount of (audio-visual) anonymity, which can help them in their self-disclosure and self-presentation (Valkenburg and Peter 2011).

As adolescents highly value the ability to communicate asynchronously and exert control over the conversational nature (i.e. type and number of cues), especially in difficult social or emotional situations (Madell and Muncer 2007), we expect that bystanders of harassment on SNS will have higher behavioural intentions to help the victim via CT than face-to-face.

H1: bystanders of a harassing incident on SNS have higher behavioural intentions to help the victim via CT than face-to-face ("mediacy" of helping intentions).

The third important affordance of communication modalities entails the degree of *audience controllability* (Van Cleemput 2012), the ability to control the targets of

communication. While public communication allows a large reach, private one-to-one communication has a more precise focus on one communication partner. Whether bystanders prefer to help the victim one-to-one, by communicating with the victim or the bully, or in front of an audience of other bystanders, can firstly depend on their beliefs on the effectiveness of these communication modes to reach their goal of helping the victim. Research on bystanders of cyberbullying has revealed that they often believe that publicly helping the victim will continue or increase the harassment, because it will make the bully lose face in front of others (DeSmet et al. 2013; Pöyhönen, Juvonen, and Salmivalli 2012). In addition, bystanders often think that helping the victim in front of an audience can make the victim feel embarrassed (Thornberg 2007). Secondly, bystanders' choice of public or private communication can depend on their beliefs about the risks that public communication can hold for themselves. When dealing with risky or sensitive information, adolescents tend to use private forms of communication in order to reduce potential embarrassment and harm (Agosto, Abbas, and Naughton 2012). In line with this finding, many bystanders of cyberbullying stated that they fear that others will consider them as a squealer when they see them helping the victim (DeSmet et al. 2013; DeSmet et al. 2012). On top of that, bystanders think that they risk getting harassed themselves when they help the victim in front of the bully and/or other bystanders (DeSmet et al. 2012). As adolescent bystanders often appear to believe that public communication is not suitable for helping the victim and holds potential risks for themselves, we expect that bystanders of harassment on SNS will have higher behavioural intentions to help the victim in private than in public.

H2: bystanders of a harassing incident on SNS have higher behavioural intentions to help the victim in private than in public ("privacy" of helping intentions).

3. How a situational context can affect the importance of communication affordances

Hutchby (2001a; 2001b) contended that affordances of objects or technologies have a relational aspect: they can differ according to the context of use. Baym emphasised the importance of the context of CT use for the affordances of technologies (2010, 148), by stating that "technological affordances intersect with personal, social, and cultural influences in ways that lead to media use meaning different things to different people in different situations at different times." Apart from individual characteristics such as personality and knowledge/self-efficacy of certain communication modalities, adolescent bystanders' perceived affordances can also depend on the peer group, for instance on the relationship with interactants and audience, and on the cultural context, including norms that state "what kind of communication is appropriate with what medium in what type of situation" (Baym 2010, 143).

When youngsters get confronted with a harassing incident on SNS, they can use several types of contextual information in determining which communication modality they will use to help the victim. On the one hand, adolescent bystanders can use information on the severity of the incident, which has been found to play an important role in helping behaviour of cyberbullying bystanders (DeSmet et al. 2012; DeSmet et al. 2013). On the other hand, research on bystanders of violent incidents has shown that the presence of others affects bystander behaviour (Latané & Darley, 1970 in Latané and Nida 1981). Consequently, an adolescent bystander can use information on the behaviour of other bystanders (Marsden and Friedkin 1993), whether these other bystanders are helping the victim or reinforcing the bully, and information on the identity of these other bystanders (Tajfel and Turner, 1979 in Jones, Manstead, and Livingstone 2011), whether these are good friends or acquaintances to the bystander. All of these contextual factors (incident severity, identity and behaviour of other bystanders) can affect bystanders' perception of affordances, and consequently also their preference of certain communication modalities. Therefore, we would like to investigate how

these contextual factors influence bystanders' behavioural intentions to help the victim via CT or face-to-face, and in public or in private.

RQ1: How do the severity of a harassing incident and the identity and the behaviour of other bystanders influence the "mediacy" of bystanders' behavioural intentions to help the victim (via CT or face-to-face)?

RQ2: How do the severity of a harassing incident and the identity and the behaviour of other bystanders influence the "privacy" of bystanders' behavioural intentions to help the victim (in public or in private)?

4. Method

4.1. Study set-up and manipulations

This paper elaborates on the results of an experimental study with a 2 (low vs. high incident severity) x 2 (other bystanders reinforce the bully vs. defend the victim) x 2 (other bystanders are acquaintances vs. good friends) between-subjects design (Bastiaensens et al. 2014). The factors were manipulated in eight different scenarios that reported a harassing incident on Facebook®. These scenarios were randomly distributed among participants.

In order to ensure a successful manipulation of incident severity, we set up a pilot test[1] in which adolescents judged the severity and credibility of nine different harassing situations on SNS. This pilot test allowed us to select two incidents that differed significantly in perceived severity and that scored positively on credibility: an incident in which the perpetrator put a privacy-invading photo of the victim on Facebook® with a deriding comment (more severe situation), and one in which the perpetrator put an offensive comment on the victim's Facebook® wall (less severe incident). The results of this test correspond with former research on cyberbullying, which found that youngsters consider bullying through

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[1] Detailed set-up and results of the pilot test are described in (Bastiaensens et al. 2014).

photos and videos worse than bullying through offensive comments (Menesini, Nocentini, and Calussi 2011).

4.2. *Research instrument*

The research instrument consisted of a scenario on a harassing Facebook® incident, described through text and pictures, which was put into a paper-and-pencil questionnaire that participants completed at school. Participants were instructed to read the scenario carefully and imagine that they really encountered the incident as bystanders. In the scenario, the perpetrator and the victim were introduced as hypothetical school acquaintances of the participants. Other bystanders were either said to be acquaintances or good friends of the participants (participants were provided with definitions to guide the distinction[2]). Their behaviour ranged from reinforcing the bully, by clicking "I like" or by writing similar offensive remarks, to defending the victim by telling the perpetrator to stop. Afterwards, participants received questions on their behavioural intentions to help the victim and reinforce the bully.

In the questionnaire we measured intentions of several behaviours aimed to help the victim ("telling the victim you think the bullying is not OK", "comforting the victim", "giving the victim advice" and "defending the victim"), which were further specified into CT-mediated or face-to-face, and public or private helping behaviours. Behavioural intentions were measured using seven-point Likert scales, ranging from "I would definitely not do this" (1) to "I would definitely do this" (7). In order to test our hypotheses, four categories of behavioural intentions to help the victim were considered: "helping the victim via CT", "helping the victim face-to-face", "helping the victim in public" and "helping the victim in private". Reliability analyses, measured via internal consistency, showed that these four

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[2] Acquaintance: "someone you occasionally see and talk to, but whom you do not have a close connection with or tell personal things to" / Good friend: "someone you hang out with and talk to a lot, someone whom you have a close connection with and whom you tell personal things to".

categories of behavioural intentions all formed reliable scales (see Table 1). Consequently, mean behavioural intentions could be created for these four categories of behavioural intentions. A summary analysis of these categories is shown in Table 1.

Table 1: summary analysis of categories of behavioural intentions to help the victim

Categories of behavioural intentions	N	M	SD	α
Helping the victim via CT: via SMS/chat/e-mail/SNS posts	453	4.75	1.46	.886
Helping the victim face-to-face: at school	453	4.66	1.43	.867
Helping the victim in private: via SMS/chat/e-mail or in private at school	453	4.95	1.51	.908
Helping the victim in public: via SNS posts or in public at school	453	4.46	1.51	.889

In the final part of the questionnaire we included questions on socio-demographic variables (gender, educational level), frequency of participants' internet use, SNS profile ownership, frequency of SNS use and number of contacts on the most used SNS. We also asked personal questions on involvement in cyberbullying on SNS as a victim, perpetrator or bystander within the last six months.

4.3. Participants

In total, 453 Flemish students from the second year of secondary education, originating from six schools, participated in this study. Eighty-eight per cent of the second year students in these schools received parental consent and consented to participate in the study themselves. Participants were thirteen years old on average (*N*=450*, M*=13.29, *SD*=0.58), 55 % of them were boys. All three educational levels were included: 69 % of participants indicated that they were in general secondary education, while 26 % were in preparatory vocational or technical education.[3]

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[3] Educational level: 6 % non-response.

The descriptive data show that the participants of this study were frequent internet and SNS users: 59 % used the internet up to two hours on a week day, while 52 % used the internet between three and five hours on a weekend day. The vast majority (95 %) of participants had a profile on one or more SNS, Facebook being the most popular one (87 % had a profile on this SNS). Seventy-four percent of participants used SNS up to two hours on a week day, while for a weekend day 48 % reported up to two hours of SNS usage and 44 % said they used SNS between three and five hours. Most participants did not have more than 500 contacts on their most frequently used SNS: 65 % reported having up to 300 contacts and 23 % had between 300 and 500 contacts.

4.4.   Analysis

In this paper, the comparisons between participants' behavioural intentions to help the victim via CT or face-to-face ("mediacy" of helping intentions) and in public or in private ("privacy" of helping intentions) are central. In order to examine the difference between participants' behavioural intentions, repeated-measures ANOVA analyses were performed separately for the behavioural intentions to help the victim via CT and face-to-face (within-subjects factor "mediacy of helping intentions" with two levels), and for the behavioural intentions to help the victim in public and in private (within-subjects factor "privacy of helping intentions" with two levels). As between-subjects factors, the contextual factors manipulated in the experiment (incident severity, identity and behaviour of other bystanders) and all possible interactions between these contextual factors were included in the models.

Statistical analyses were performed using IBM SPSS Statistics, version 20. Significance was tested using a 95 % confidence interval.

5. Results

5.1.   Equality of treatment groups

Pearson Chi-square tests were performed in order to ensure that the groups of participants in the different conditions were comparable. This was done for each background variable separately (see section 4.2. for an overview of the background variables), including the participants' schools in order to check for school differences. The tests showed no significant background differences between the treatment groups ($1.02 \leq \chi^2 \leq 52.84$, all $p > .05$).

5.2. *Manipulation check: perceived severity*

In the questionnaire perceived severity was measured with five items[4]. Reliability analysis measured via internal consistency showed that the five items formed a reliable scale ($\alpha = 0.85$), after which their mean could be calculated. In order to assess mean differences in perceived severity between participants who saw the situation with the photo (supposed to be more severe) and participants who were exposed to the situation with the insult (supposed to be less severe), an Independent Samples T-test was performed. Results of this test showed a successful manipulation of incident severity: there was a significant positive mean difference ($t(439)=5.47$, $p<.001$, 95% CI [0.38, 0.81], $d=0.60$) between the perceived severity of the photo ($n=219$, $M=5.94$, $SD=1.12$) and the insult ($n=222$, $M=5.35$, $SD=1.17$).

5.3. *Analysis of the "mediacy" of behavioural intentions to help the victim: via CT vs. face-to-face*

A repeated-measures ANOVA was used to compare respondents' behavioural intentions to help the victim via CT or face-to-face, by introducing a variable "mediacy of helping intentions" with two levels (behavioural intentions to help the victim via CT and behavioural intentions to help the victim face-to-face) as within-subjects factor. As between-subjects factors, the contextual factors (incident severity, identity and behaviour of other bystanders) and all possible interactions between these contextual factors were included in the model. The

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[4] Higher scores indicating higher severity: severe – not severe (reversed), amusing – not amusing, hurtful – not hurtful (reversed), not a problem at all – a big problem, funny – not funny

results of the within-subjects effects, displayed in Table 2, reveal that there is a significant difference in the "mediacy" of helping intentions and a significant interaction effect between the "mediacy" of helping intentions and the severity of the harassing incident.

Table 2: results for within-subjects effects of repeated-measures ANOVA for behavioural intentions to help the victim via CT vs. face-to-face ("mediacy of helping intentions")

Within-subjects effects	F	η^2
Mediacy	6.67*	.02
Mediacy x incident severity	6.98**	.02
Mediacy x other bystanders' identity	0.02	.00
Mediacy x other bystanders' behaviour	3.18	.01
Mediacy x other bystanders' identity x other bystanders' behaviour	0.05	.00
Mediacy x incident severity x other bystanders' identity	0.78	.00
Mediacy x incident severity x other bystanders' behaviour	1.93	.00
Mediacy x incident severity x other bystanders' identity x other bystanders' behaviour	0.53	.00

Note. *$p<.05$, **$p<.01$, ***$p<.001$

The significant difference in the "mediacy" of helping intentions was further examined through a simple repeated-measures ANOVA model with only "mediacy of helping intentions" included as within-subjects factor. This analysis showed that participants had significantly ($F(1,452)=6.47$, $p<.05$, $\eta^2=.01$) higher behavioural intentions to help the victim via CT ($N=453$, $M=4.75$, $SD=1.46$) than face-to-face ($N=453$, $M=4.66$, $SD=1.43$), thus confirming hypothesis H1.

In order to investigate the effect of the severity of the harassing incident, the data were split according to incident severity and subsequently the simple repeated-measures ANOVA model with "mediacy of helping intentions" as within-subjects factor was performed. In the high severity case, a significant difference was found in the "mediacy" of helping intentions ($F(1,225)=3.81$, $p<.001$, $\eta^2=.06$), but not in the low severity case ($F(1,226)=0.002$, $p>.05$, $\eta^2=.00$). Only in the highly severe harassing situation, bystanders had significantly higher

behavioural intentions to help the victim via CT (N=226, M=4.99, SD=1.45) than face-to-face (N=226, M=4.81, SD=1.45). The interaction effect between the "mediacy" of helping intentions and incident severity is visually displayed in Figure 1.

Figure 1: significant interaction effect between "mediacy of helping intentions" (via CT vs. face-to-face) and incident severity

5.4. *Analysis of the "privacy" of behavioural intentions to help the victim: in public vs. in private*

In order to compare bystanders' behavioural intentions to help the victim in public or in private, a repeated-measures ANOVA was set up containing the variable "privacy of helping intentions" with two levels (behavioural intentions to help the victim in public and behavioural intentions to help the victim in private) as within-subjects factor. As between-subjects factors, the contextual factors (incident severity, identity and behaviour of other bystanders) and all possible interactions between them were included. The results of this model, included in Table 3, show a significant difference in the "privacy" of helping intentions. Furthermore, this difference appeared to be significantly dependent on other bystanders' behaviour and on the interaction between other bystanders' identity and behaviour.

Table 3: results for within-subjects effects of repeated-measures ANOVA for behavioural intentions to help the victim in public vs. in private ('privacy of helping intentions')

Within-subjects effects	F	η^2
Privacy	85.13***	.16
Privacy x incident severity	0.04	.00
Privacy x other bystanders' identity	0.70	.00
Privacy x other bystanders' behaviour	8.07**	.02
Privacy x other bystanders' identity x other bystanders' behaviour	4.04*	.01
Privacy x incident severity x other bystanders' identity	0.05	.00
Privacy x incident severity x other bystanders' behaviour	0.11	.00
Privacy x incident severity x other bystanders' identity x other bystanders' behaviour	0.42	.00

Note. *p<.05, **p<.01, ***p<.001

First, the significant difference in the "privacy" of helping intentions was examined through a simple repeated-measures ANOVA with only "privacy of helping intentions" as a within-subjects variable. Bystanders appeared to have significantly ($F(1,452)=84.14$, $p<.001$, $\eta^2=.16$) higher behavioural intentions to help the victim in private ($N=453$, $M=4.95$, $SD=1.51$) than in public ($N=453$, $M=4.46$, $SD=1.51$), which is in line with hypothesis H2.

Secondly, we examined the significant influence of other bystanders' behaviour on the "privacy" of helping intentions by splitting the data according to other bystanders' behaviour and then running the simple repeated-measures ANOVA model with only "privacy of helping intentions" included as within-subjects factor. The results of this analysis (see Table 4 and Figure 2) show that both when other bystanders defended the victim and when these other bystanders reinforced the bully, bystanders had significantly higher behavioural intentions to help the victim in private rather than in public. This difference is however larger when other bystanders reinforced the bully, which means that in these cases bystanders eschewed publicly helping the victim even more.

Table 4: results of repeated-measures ANOVA with "privacy of helping intentions" as within-subjects variable, separate according to other bystanders' behaviour

Contextual factor: other bystanders' behaviour	Within-subjects effect: "privacy of helping intentions"		Descriptive statistics				
	F	η^2	Behavioural intention	n	M	SD	MD (private-public)
Other bystanders defend the victim	19.86***	.08	Helping the victim in public	225	4.56	1.57	0.34
			Helping the victim in private	225	4.90	1.60	
Other bystanders reinforce the bully	74.65***	.25	Helping the victim in public	228	4.36	1.44	0.64
			Helping the victim in private	228	5.00	1.42	

Note. MD= mean difference; *p<.05, **p<.01, ***p<.001

Figure 2: significant interaction effect between "privacy of helping intentions" (in public vs. in private) and other bystanders' behaviour.
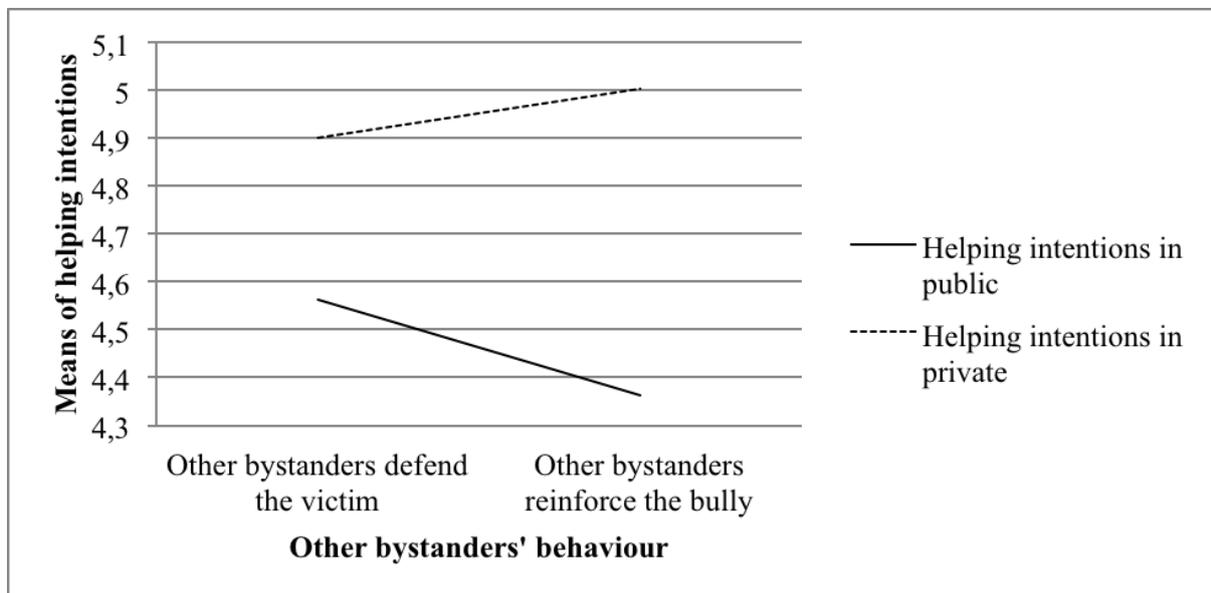
Thirdly, with regard to the significant interaction effect of other bystanders' identity

and behaviour, we performed a data split according to other bystanders' identity and

behaviour and we subsequently performed simple repeated-measures ANOVA models with

only "privacy of helping intentions" as within-subjects variable. These results are displayed in Table 5 and Figures 3 and 4. In cases when other bystanders defended the victim, there was a difference according to whether these other bystanders were acquaintances or good friends. When acquaintances defended the victim, bystanders had significantly higher behavioural intentions to help the victim in private than in public. In contrast, when good friends defend the victim, there was no significant difference in behavioural intentions to help the victim in private or in public. In cases when other bystanders reinforced the bully, bystanders had significantly higher behavioural intentions to help the victim in private than in public, both when these other bystanders were acquaintances or good friends. However, when good friends reinforced the bully, the difference was larger than when acquaintances reinforced the bully, which means that bystanders' eschewed publicly helping the victim even more.

Table 5: results of repeated-measures ANOVA with "privacy of helping intentions" as within-subjects variable, separate according to other bystanders' behaviour and identity

Contextual factor: other bystanders' behaviour	Contextual factor: other bystanders' identity	Within-subjects effect: "privacy of helping intentions"		Descriptive statistics				
		F	η^2	Behavioural intention	n	M	SD	MD (private-public)
Other bystanders defend the victim	Good friends defend the victim	3.23	.03	Helping the victim in public	113	4.75	1.53	0.18
				Helping the victim in private	113	4.93	1.59	
	Acquaintances defend the victim	20.27***	.16	Helping the victim in public	112	4.38	1.58	0.49
				Helping the victim in private	112	4.87	1.62	
Other bystanders reinforce the bully	Good friends reinforce the bully	53.23***	.32	Helping the victim in public	114	4.33	1.45	0.70
				Helping the victim in	114	5.03	1.39	

				private				
	26.26***	.19	Helping the victim in public	114	4.40	1.44	0.57
Acquaintances reinforce the bully			Helping the victim in private	114	4.97	1.45	

Note. MD= mean difference; *p<.05, **p<.01, ***p<.001

Figure 3: significant interaction effect between "privacy of helping intentions" (in public vs. in private) and other bystanders' identity and behaviour: results for other bystanders defending the victim
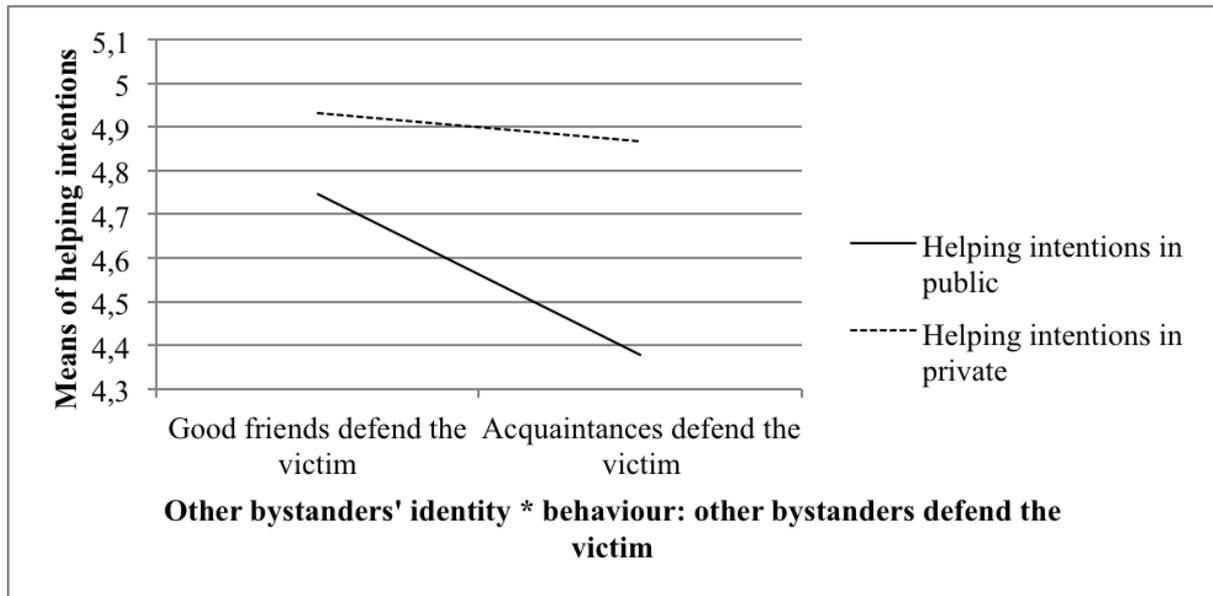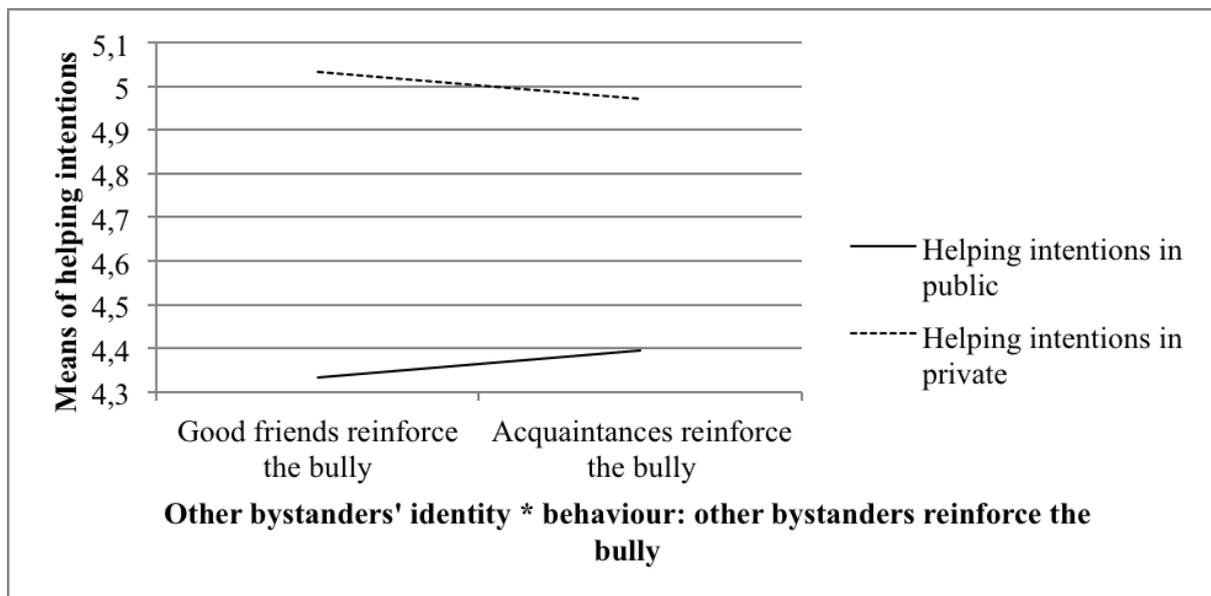
Figure 4: significant interaction effect between "privacy of helping intentions" (in public vs. in private) and other bystanders' identity and behaviour: results for other bystanders reinforcing the bully

6. Conclusion and discussion

In this paper we used the "affordances of technologies" perspective (Hutchby 2001a; Hutchby 2001b) in order to differentiate between communication modalities of bystanders' helping behaviour in cases of SNS harassment. Based on data of our previous experimental study on bystanders of SNS harassment (Bastiaensens et al. 2014), we compared behavioural intentions to help the victim according to their "mediacy" (via CT or face-to-face) and their "privacy" (in public/in front of an audience or in private/one-to-one). Furthermore, we examined how contextual factors within the harassing incident on SNS (severity of the incident, identity and behaviour of other responding bystanders) can influence bystanders' choice of certain modes of bystander behaviour.

6.1. "Mediacy" of helping intentions: via CT vs. face-to-face

In line with our expectations, the results of this study showed that bystanders displayed higher behavioural intentions to help the victim via CT rather than face-to-face. Adolescent bystanders appear to assign high value to the affordances that distinguish CT-mediated from

face-to-face communication: controllability of the message in terms of (social) cues (Baym 2010; Madell and Muncer 2007; Valkenburg and Peter 2011; Van Cleemput 2012), and controllability of time (asynchronous communication) and place (audio-visual anonymity) (Baym 2010; Madell and Muncer 2007; Valkenburg and Peter 2011). The importance of maintaining control was emphasised by the effect of the severity of the incident. In high severity situations of harassment on SNS, bystanders had higher behavioural intentions to help the victim via CT than face-to-face. In low severity situations, however, this difference did not become apparent. This gives strength to our assumption that adolescents highly value the ability to control their communication in more difficult social situations (Madell and Muncer 2007), thus preferring CT-mediated over face-to-face communication.

6.2. *"Privacy" of helping intentions: in public vs. in private*

As expected, this study revealed that bystanders had higher behavioural intentions to help the victim via private rather than via public communication. Privately helping the victim appears to be more attractive for adolescents, which can have to do with the importance that adolescents assign to the affordance of audience control (Valkenburg and Peter 2011; Van Cleemput 2012) and the risks that publicly helping the victim can have for themselves or the victim (DeSmet et al. 2012; DeSmet et al. 2013; Pöyhönen, Juvonen, and Salmivalli 2012; Thornberg 2007). Furthermore, the presence of other bystanders (Latané & Darley, 1970 in Latané and Nida 1981), their identity and behaviour (Tajfel and Turner, 1979 in Jones, Manstead, and Livingstone 2011; Marsden and Friedkin 1993), appeared to affect bystanders' behavioural intentions to help the victim in public or in private. Other bystanders who reinforced the bully deterred bystanders from publicly helping the victim, and good friends could either encourage or discourage public helping behaviour more than acquaintances could. These results point towards social influence or peer pressure exerted on bystanders' choice to help the victim in public or in private.

6.3.   Limitations

We have to acknowledge that this experimental scenario study has its limitations. First of all, participants read about a harassing incident on SNS in a questionnaire at school, which does not replicate the circumstances in which adolescents encounter SNS harassment in their everyday lives. Secondly, we are aware that behavioural intentions are only a proxy for actual bystander behaviour. Due to socially desirable answering patterns, helping behaviour might be overestimated. Thirdly, behavioural intentions were measured separately and not in one item directly comparing communication modalities against each other. Therefore, we cannot be entirely sure if participants adequately compared or weighted these communication modalities against each other. Lastly, we did not measure the extent to which participants took the specific affordances into account when displaying their behavioural intentions. However, we assumed that by explicitly mentioning these affordances and by priming them with participants, we could have created bias in their decision making process. In our study we departed from the assumption that adolescents' consideration of affordances is part of a rather subconscious decision making process. Therefore, we investigated adolescents' perception of the affordances of communication modalities for helping a victim of harassment on SNS by looking at the results of these decision making processes (behavioural intentions to help the victim via specific communication modalities), and by comparing these intentions in particular contexts.

6.4.   Implications and recommendation for cyberbullying research and interventions

Traditionally, cyberbullying research has emphasised the characteristics of CT in distinguishing cyberbullying from traditional bullying. Researchers have proclaimed the specificity of cyberbullying by referring to the continuous '24/7' attainability (Kiriakidis and Kavoura 2010; Kowalski and Limber 2007; Patchin and Hinduja 2006) and the large potential

audience (e.g. Juvonen and Gross 2008; Kiriakidis and Kavoura 2010; Patchin and Hinduja 2006) in CT-mediated communication, in combination with the possibility to act anonymously through certain CT (e.g. Juvonen and Gross 2008; Kiriakidis and Kavoura 2010; Mesch 2009). In this way, they adhered to a more traditional paradigm of technology determining the behaviour of interactants. By applying the user-agency-centred "affordances of technologies" perspective (Hutchby 2001a; Hutchby 2001b), however, cyberbullying research can move beyond this paradigm and investigate how adolescents actively use various CT in dealing with cyberbullying. Such knowledge is direly needed to empower adolescents, and adolescent bystanders of cyberbullying in particular.

By making a comparison between the "mediacy" and "privacy" of bystanders' helping intentions, according to the "affordances of technologies" perspective (Hutchby 2001a; Hutchby 2001b), the current study allows us to make some suggestions for future research, and for interventions tackling cyberbullying and harassment on SNS. First, the results showed that bystanders prefer to help the victim via CT rather than face-to-face, and in private rather than in public. When advising bystanders on how to help a victim of SNS harassment, intervention developers and implementers can take this into account in order to provide adolescents with behavioural options that they feel most comfortable with. Secondly, bystanders' preference for public or private helping was affected by the identity (good friends or acquaintances) and behaviour (defending the victim or reinforcing the bully) of other bystanders. Therefore, for cases in which publicly defending the victim is deemed beneficial, interventions could work on reducing negative social influence of peer pressure on bystanders.

Unfortunately, until now limited knowledge exists on which of these modes of helping behaviour (CT-mediated or face-to-face, in public or in private) are most effective in stopping the bullying or reducing negative effects on the victim. Further research on the effectiveness

of bystanders' helping behaviour, focusing on specific communication modalities, is direly needed to fill this gap. Only then can intervention developers successfully integrate helping behaviours that adolescent bystanders feel most comfortable with, and helping behaviours that have proven to be effective in harm reduction, in order to be able to provide youngsters with targeted and effective advice.

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