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Exploring Action Coils for Bystander Intervention: Modeling Bystander Consequences

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Abstract

Objective: Individuals who take action to reduce sexual assault can experience a range of positive and negative consequences as a result of helping. This study examined how different types of consequences explain variation in confidence and intent to help. **Participants:** Nine hundred sixty-six individuals who reported intervening in a situation involving interpersonal violence; approximately half were recruited from university psychology courses

and half through Amazon's Mechanical Turk. Data were collected from September to December of 2016. **Methods:** Participants completed measures of consequences related to helping, bystander efficacy, and intent to help. **Results:** Positive reactions from victims and other individuals who witnessed the situation were related to higher efficacy and intent, while negative reactions were associated with lower efficacy and intent. Actionists' personal feelings (ie, positive and negative) about their behavior mediated these relationships. **Conclusions:** Bystander training on campuses should address the range of potential consequences actionists face.

Keywords:

Bystander action, college students, interpersonal violence

Introduction

High rates of sexual assault (SA) and dating violence (DV) among college students are a significant public health problem.^{1,2} College students not only suffer mental health consequences as a result, but also interference with successfully achieving their academic goals.³ Research in college communities suggests that at least one third of these incidents are witnessed by a third party who had the potential to help.^{4,5} These individuals have been called "bystanders" in prior research and college campus programming. We use the term "actionist" to refer to the subset of bystanders who step in to help. Individuals who are confident (ie, possess high efficacy), who see the benefits of taking action, who feel a greater sense of responsibility to prevent SA and DV, and who see friends as potential victims or perpetrators, are more likely to act when given the opportunity.^{6,7} In addition, programs that train college students to be actionists in situations involving SA and DV have been found to be effective in the sense that they increase helping behavior.⁸⁻¹⁰ However, very little is known about the potential consequences of actionists' behaviors – both how they feel after the incident and the reactions (positive or negative) they receive from the parties involved (ie, victim, perpetrator, and witnesses). The aim of the current study was to test a model that linked perceived consequences of actionism, and their feelings about having helped to two key attitudes linked to behavior – efficacy and intent to help in the future.^{11,12}

Initial studies of the consequences for bystander behavior indicate that actionists tend to receive positive responses from potential victims and other bystanders, but experiencing negative consequences as a result of taking action is not uncommon.^{13,14} Furthermore, experiencing negative consequences relates to lower efficacy, which may decrease the likelihood of future actionist behavior in similar situations.¹³⁻¹⁵ One study also found that having more positive and less negative feelings about taking action was related to the desire to help again.¹⁶ Although, many college campuses have instituted programs to encourage bystander intervention and teach students how to take action in potentially risky situations, little research has examined the extent to which these programs might put individuals in harm's way and the actual costs and benefits that actionists experience.

Banyard¹⁷ proposed the Action Coils model of bystander behavior, which suggests that bystander behavior operates like a feedback loop, where the consequences of taking action have repercussions for future action. This model (see Figure 1) includes key factors from Latané and Darley's¹⁸ situational model, including a coil that represents intrapersonal factors within the bystander (eg, sense of responsibility), as well as a coil that describes what happens after the bystander action. This latter coil includes the consequences of the bystander action, which could be positive or negative for the actionist, the potential victim, the perpetrator, and others who may have been present. The Action Coils model predicts that consequences will be related to efficacy and intent to help (two key aspects of the theory of reasoned action that has been used to explain actionism).¹¹ Further, the reactions of others involved in the situation may exert their influence on future behavior by shaping the actionist's feelings about how they acted. We know from prior research, for example, that even short emotional states can influence future behavior.¹⁹ For example, in a workplace experiment, receiving positive or negative

feedback about performance affected emotions which in turn impacted work attitudes and behaviors.²⁰ It is reasonable to suppose that Actionists who receive positive feedback are likely to feel positive emotions (eg, pride, satisfaction), which are proposed to increase their sense of efficacy and willingness to intervene in the future, whereas actionists who experience negative consequences are likely to feel negative emotions (eg, regret, embarrassment), which are predicted to reduce their efficacy and intent to help.

Figure 1. Bystander action coils (Banyard, 2015). Reproduced with permission from Banyard, V. L. (2015). *Toward the Next Generation of Bystander Prevention of Sexual and Relationship Violence: Action Coils to Engage Communities*. Springer Publishers.

In the present study, we tested the Action Coils model by examining how consequences perceived by actionists are related to two key correlates of future behavior: efficacy and intent to help. We hypothesized that each of six forms of consequences (ie, negative and positive reactions from the victim, negative reactions from the perpetrator, and negative, positive and apathetic reactions from other witnesses to the actionist's behavior) would explain unique and significant variance in efficacy and intent to help. Specifically, greater positive and fewer negative consequences would be related to greater efficacy and intent to help. We further hypothesized that these relations would be mediated by actionists' feelings about what happened when they intervened.

Methods

Participants

Participants were recruited from psychology courses at a medium-sized university and Amazon's Mechanical Turk (MTurk). The university sample was fairly homogenous in terms of gender, ethnicity, and sexual orientation; thus, we used MTurk to increase the diversity of our sample.^{21,22} Prior research has concluded that data collected from online platforms, such as MTurk, are consistent with findings from more traditional methods (eg, student samples).²² Demographic information is reported only for participants who completed all measures.

For the psychology subject pool, 354 participants reported helping in a situation involving interpersonal violence and completed the full survey, and thus was used in subsequent analyses. The survey was offered both online (78.2%) and in-person in groups of 40 to 50 students (21.8%) to psychology participant pool participants. The average age of this sample was 19.03 ($SD = 1.18$). The majority of this sample was female (74.9%), heterosexual (93.2%), and Caucasian (91.5%). Most participants (83.3%) were in their freshman or sophomore year at university.

Individuals from the MTurk sample chose to participate in the study and then answered a series of screening questions. Participants ($N = 612$) who qualified for the full survey (ie, between the ages of 18 and 24, U.S. resident, and have helped someone in an instance of harassment, dating violence, unwanted sexual advances, or controlling behavior in the past six months), and completed all measures and were used in subsequent analyses. The average age of the MTurk sample who finished the full survey was 22.24 ($SD = 1.57$). This sample was comprised of 296 males (48.4%) and 315 females (51.5%); there was one participant who identified as "other." Further, the majority of MTurk participants identified as heterosexual (83.7%) and had some college

experience, an associate's degree, or a bachelor's degree (82.9%). More than half the sample identified as Caucasian (58.8%), followed by Asian (17.3%), Hispanic (8.0%), African American (7.4%), American Indian (4.9%), Pacific Islander 0.5%), two or more races (2.6%), and other (0.5%). Listwise deletion of missing data was used resulting in somewhat lower sample sizes for multivariate analyses which used only the sample who completed all measures included.

The MTurk sample and the psychology subject pool differed significantly in terms of their gender (MTurk sample included more male participants), age (psychology subject pool participants were younger), ethnicity (psychology subject pool participants were less racially diverse), and sexual orientation (MTurk sample included more sexual minority participants). These differences in demographic information are supported by prior research on the diversity of MTurk samples.^{21,22} The MTurk sample reported lower bystander efficacy, higher levels of negative and unsure feelings, and perceptions of greater negative responses from victims, perpetrator and others and greater perception of positive perpetrator response.

Procedures

Following the completion of the consent form, participants were given definitions of forms of SA and DV. Those who indicated that they helped in an instance of harassment, dating violence, unwanted sexual advances, or controlling behavior answered questions about the outcomes they experienced in their most recent incident. If participants reported that they did not help, they were automatically redirected (for the online survey) or instructed to skip ahead (for the in-person survey) to questions on attitudes (eg, efficacy, intent to help). Participants from the psychology subject pool received partial course credit for participating in this survey. Participants from MTurk received \$0.10 for completing the screening questions to determine if they qualified for the study (ie, between the ages of 18 and 24, U.S. resident, and helping behavior), and participants who finished the survey were paid an additional \$2.50. All participants were provided with a debriefing form, which included the purpose of the study and a list of resources regarding interpersonal violence, upon survey completion. All procedures for both the psychology subject pool and MTurk were approved by the university's institutional review board.

Measures

Compendium of bystander action consequences²³ (same dataset but very different analyses)

Participants completed four measures pertaining to one specific actionist behavior that was taken in response to an incident of SA or DV. One measure assessed actionists' feelings about what they did. The other three measures assessed perceived reactions of the parties involved (ie, victim, perpetrator, and other witnesses to the incident) to the actionist's behavior.

Bystander Feelings²³

The Bystander Feelings measure consists of 12 items.²³ Participants were asked to rate how much they felt certain emotions after taking action on a four-point scale ranging from "not at all" to "a lot." Positive feelings included five items, such as "felt good about doing something." Cronbach's alpha for the positive feelings subscale was .90. Negative feelings included five items, such as "regretted what I did." Cronbach's alpha for the negative feelings subscale was .92 ($M = 1.54$, $SD = .81$). Feelings of uncertainty included two items, like "felt confused about what to do." Cronbach's alpha for the uncertain feelings was .75 ($M = 2.12$, $SD = .83$).

Bystander action response – victim (BAR – V)²³

This scale includes eight items inquiring about the reactions of the victim following the participant's bystander behavior.²³ Participants answered "yes" or "no" to indicate if they had experienced a variety of positive and negative reactions from the victim or "the person you thought needed help" during that specific incident. For example, "person I tried to help was safe because of my actions" and "person I tried to help got mad or upset at

me.” Cronbach’s alpha for the positive subscale was .84 ($M = .67$, $SD = .37$) and the negative subscale was .74. ($M = .14$, $SD = .28$).

Bystander action response – perpetrator (BAR-P)²³

This measure consists of seven items that asked about the responses of the perpetrator after engaging in bystander action.²³ Participants answered “yes” or “no” to indicate if they had experienced a range of positive and negative responses from the perpetrator or “the person who was potentially harming” during that specific incident. Sample items include, “person who was harming told me to mind my own business” and “person who was harming thanked me for stepping in.” Cronbach’s alpha for the positive subscale was .84 ($M = .18$, $SD = .31$) and the negative subscale was .67 ($M = .39$, $SD = .38$).

Bystander action responses – other (BAR-O)²³

This scale includes nine items that inquired about positive, negative, and apathetic reactions of other people present in the situation after action was taken.²³ Participants answered “yes” or “no” to indicate if they had experienced a variety of responses from “other bystanders or people like your friends who were around during that specific situation.” Example items included, “others said I did the wrong thing,” “others walked away from the situation after I did something,” and “others told me I did the right thing.” Cronbach’s alpha for the positive subscale was .79 ($M = .51$, $SD = .42$), the negative subscale was .64 ($M = .14$, $SD = .27$), and the apathy subscale was .80 ($M = .30$, $SD = .39$).

Bystander efficacy²⁴

The bystander efficacy Scale is a 14-item scale that has been used to assess participant’s confidence in performing various bystander behaviors.⁶ Participants rated their confidence to engage in behaviors on a scale ranging from 0 (ie, *can’t do*) to 100 (ie, *very certain*). An example item is “ask a friend if they need to be walked home from a party.” Cronbach’s alpha for the current sample was .93 ($M = 75.36$, $SD = 18.49$).

Intent to help²⁴

The Intent to Help Scale consists of 22 items assessing bystanders’ willingness to intervene on a scale of 1 (ie, *not at all*) to 5 (ie, *extremely likely*).²⁴ Example items include “speak up if I hear someone say ‘she deserved to be raped’” and “confront a friend who plans to give someone alcohol to get sex.” Cronbach’s alpha for the current sample was .90 ($M = 3.68$, $SD = .65$).

Data analysis

Only participants who completed all measures ($n = 966$) were used in analyses and these sample sizes were reduced further in multivariate analyses due to missing data. We used Pearson correlations to examine bivariate associations among the measures of actionists’ feelings, reported consequences, and the two outcome variables (ie, efficacy and intent to help). Theory and research suggest that efficacy and intent to help should be affected by consequences of previous bystander actions. Structural equation modeling using MPlus 8.0 was used to test the mediational model that reactions from victims, perpetrators, and other bystanders would be associated with actionists’ feelings, which in turn would be related to efficacy and intent to help. Model fit indices, particularly the Root Mean Square Error of Estimation (*RMSEA*, good fit $\leq .06$), Comparative Fit Index (*CFI*, good fit $\geq .95$) and Tucker–Lewis Index (*TLI*, good fit $\geq .95$), and standardized root mean square residual (*SRMR*; good fit $< .08$) were used to assess the fit of each model tested.²⁵

Results

Table 1 presents correlations between actionists’ reported consequences, efficacy, and intent. In general, positive reactions and feelings were related to greater self-reported efficacy and greater intent to take action, with the interesting exception of positive perpetrator reaction which was associated with lower outcomes.

Experiencing negative consequences was related to lower efficacy and less intent to help. Table 1 also presents a test of the differences between the correlations of the consequences with each outcome (ie, efficacy and intent to help),²⁶ all but one were significantly different. It should be noted that negative feelings were correlated $-.14$ with positive feelings which, though significant, suggests that they are largely independent. Unsure feelings were correlated $.62$ with negative feelings and $-.27$ with positive feelings, suggesting that feeling unsure is experienced as somewhat negative.

Table 1. Correlations between bystander consequence scales and bystander attitudes (college student sample only ($N = 692-830$)).

Scale	Efficacy	Intent to help	z ($N = 830$ and corr between eff and intent is $.50$)
1. Feelings – unsure	$-.28^{***}$	$-.13^{***}$	-4.45^{***}
2. Feelings – positive	$.21^{***}$	$.28^{***}$	-2.10^*
3. Feelings – negative	$-.44^{***}$	$-.26^{***}$	-5.67^{***}
4. Vic react – positive	$.25^{***}$	$.25^{***}$	n.s.
5. Vic react – negative	$-.26^{***}$	$-.11^{***}$	-4.43^{***}
6. Perp react – positive	$-.20^{***}$	$-.10^*$	-2.92^{***}
7. Perp react-negative	$-.01$	$.10^{**}$	-3.17^{***}
8. Other react – negative	$-.22^{***}$	$-.08^*$	-4.10^{***}
9. Other react – positive	$.08^*$	$.16^{***}$	-2.32^{***}
10. Other apathy	$-.01$	$.08^*$	-2.59^{**}

* $p < .01$;

** $p < .01$;

*** $p < .001$.

We then tested the proposed mediational models. We first modeled efficacy with both positive and negative feelings as mediators of reactions by victims (positive and negative), perpetrators (positive) and others (negative). This model had excellent fit ($\chi^2(5) = 4.74$, n.s., $RMSEA = .00$ ($90\% CI = 0 - .05$; $CFI = 1.0$; $TLI = 1.0$; $SRMR = .01$). In this final model, greater positive feedback from victims was related to more positive actionist feelings, less negative feelings, and higher efficacy for action. Results for positive perpetrator feedback were in the opposite direction, with greater positivity from perpetrators related to greater negative actionist feelings and lower efficacy. More negative responses from others or victims were related to more negative actionist feelings and lower efficacy. Nearly all of the significant paths involved negative actionist feelings, and because the model showed indications of saturation ($RMSEA$ values of 0 and CFI of 1), a second model was computed that omitted all but one path involving positive feelings as a mediator (victim positive). This model also had excellent fit but again showed evidence of saturation. To make the model more parsimonious, attention was paid to the high residual variance for positive feelings, showing that 84% of the variance was unexplained by these models. Thus, a revised model ($N = 667$) was computed without this variable, using only negative feelings as the mediator. This model had excellent fit, ($\chi^2(4) = 8.42$, $p = .08$; $RMSEA = .04$, $90\% CI = .00 - .08$; $CFI = .99$; $TLI = .98$, $SRMR = .02$). Figure 2 presents this model including standardized estimates.

Figure 2. Mediational role of negative emotions on efficacy.

We took a similar approach to testing the hypothesized mediating role of positive and negative feelings on intent to help. In this model, more positive feedback from others and victims was related to fewer negative feelings and greater positive feelings and intent to help. This model also had excellent fit ($\chi^2(3) = 8.37, p = .03$; $RMSEA = .05$ with 90% $CI = .01-.09$; $CFI = .99$; $TLI = .96$, $SRMR = .02$). The N for this analysis was 715. Figure 3 presents this model including standardized estimates. For models of both intent and efficacy, there were no direct associations between responses by others and outcomes; rather the model was fully mediated by actionists' self-reported feelings.

Figure 3. Mediation of intent to help by negative and positive feelings.

Comment

The current study examined whether consequences experienced by actionists – reactions of others and internal feelings after stepping in – explained variation in efficacy and intent to help. Consistent with the predictions of the Action Coils model, positive reactions from victims and other witnesses were related to greater intent to intervene in the future, while negative reactions were associated with lower efficacy and intent. It is interesting that it is not just the reaction of the victim and perpetrator that predicted actionists' feelings, but also the responses of others present in the situation. Further, actionists' feelings, particularly negative feelings, about having taken action mediated these relationships, which is consistent with research that documents the importance of emotions for understanding behavior and recent work highlighting the importance of positive experiential attitudes on intent.¹¹ This extends current theories of bystander action, suggesting that bystanders attend to reactions from others which, when positive, are associated with greater positive evaluations of their actions and lower negative evaluations, which in turn are associated with greater efficacy and intent to help. These analyses support the newer Action Coils model of actionists who take opportunities to prevent SA and DV and work that uses the Theory of Reasoned Action to better understand more nuances among attitudes that promote actionism.^{11,17}

The results suggest that we need to measure and pay attention to what happens after individuals act to prevent SA or DV and this should be discussed in prevention programs. The present study suggests that actionists' feelings *after* they help may hold salience for future helping, where recalling positive feelings may reaffirm their decision to help in future situations. Campus prevention efforts should address not only the potential consequences of bystander action, but also the feelings associated with negative and positive consequences. This might entail educating bystanders about common consequences to bystander action and ways to respond

to these outcomes to mitigate negative outcomes, such as focusing on their own independent appraisal and that their efforts were well-intended or helping them to focus on the positive aspects of the situation (eg, that the victim was safe). Prevention efforts might also offer role-play opportunities where individuals can practice deescalating situations and responding to both positive and negative reactions from others. Further, more work needs to be done to help individuals feel supported when they take action to prevent SA and DV. Rather than single training sessions, actionists may need to meet together over time to process instances of helping, gain support for positively reframing their efforts, and engaging in activities to help address feelings they have about stepping in. This is where campus health professionals may play a role in providing social support to student actionists who express stress as a result of trying to be helpful. Indeed, when students present to campus professionals with concerns about stress and well-being it is becoming more common to assess for SV or DV exposure. It may be helpful to also inquire about a student's role as a bystander with friends or acquaintances as part of a comprehensive intake evaluation of risk and protective factors in a student's life that may be influencing current concerns. These professionals may also be in a position to provide students with suggestions for healthy coping practices that can enhance their well-being overall but that also may make them more resilient actionists.

Limitations

There are a number of limitations of the current study. The Compendium of Bystander Action Consequences is keyed to one specific instance of behavior, which limits its ability to capture the range of experiences an individual may have in responding if only report on their most recent experience, as opposed to a typical experience. Further, this study did not control for confounding variables, such as the bystander's personal history with violence and perceived safety in the situation. The study is also cross-sectional and, thus, cannot establish the order or causal chain of the variables. Future research should follow college students over time perhaps using a daily diary method to better capture feelings and reactions closer to the moment of bystander action. For example, perhaps it is the actions of the bystander that, however well-intentioned, create negative reactions. Prior studies of actionism distinguished between reactive and proactive behaviors.¹⁷ The current study measured only consequences of actions taken where there was risk for unwanted sexual experiences or dating violence. Actionists can also help prevent SA and DV by modeling positive norms, such as through using social media to promote healthy relationships, intolerance of violence, and support for survivors. The current study did not model correlates of these more prosocial behaviors that occur outside of situations where there is imminent risk for an assault. Indeed, the current study excluded many initial participants who did not have the opportunity to be an actionist. Modeling these more prosocial actions, that everyone has an opportunity to do, will help us understand action coils model in a larger group of young adults. Finally, while the current study sought to create a more diverse sample of young adults through the combination of MTurk and campus samples, this did make interpretation of how the model does or does not hold for different groups difficult. In particular, students on campus are likely exposed to a great deal of information about SA and DV and bystander intervention as part of prevention activities and mandatory programming about SA and DV resources. Indeed, the finding that the MTurk sample reported less favorable bystander feelings and attitudes may be due to lesser exposure to the kinds of positive bystander messaging that is often found on college campuses. Future research with larger samples should explore how the current model of action coils applies or needs to be adapted for young adults who occupy different occupational and social contexts.

Conclusions

The present study provides empirical support for the Action Coils model, which emphasizes the role of actionists' emotional responses to their intervention and the responses of others who were present, including the victim, perpetrator, and other witnesses. It suggests that the reactions of the victim and other bystanders impact bystanders' evaluation of their behavior and influence their perceived efficacy and intent to intervene in

the future. Further investigation of the consequences actionists experience after intervening can help to inform and improve programs designed to encourage bystander intervention as well as support services for students whose burden of stress may be exacerbated by actionist events.

Conflict of interest disclosure

The authors have no conflicts of interest to report. The authors confirm that the research presented in this article met the ethical guidelines, including adherence to the legal requirements, of the United States and received approval from the Institutional Review Board of the University of New Hampshire.

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