

The Impact of Bystander Effect and Gender on JMU Students

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### The Impact of Bystander Effect and Gender on JMU Students

The bystander effect can be defined as, a social psychological phenomenon in which the presence of others hinders individuals' helping behavior (Fischer et al, 2011). The more people who are present in a situation, the less likely any one individual is to intervene when someone needs help. According to Thomas, De Freitas, DeScioli, and Pinker (2016), the main reason for this is due to the notion that the other bystanders have just as much responsibility to help the person in need. When the responsibility is shared among all of the people who are present, no one bystander wants to be the first person to step in and take control of the situation. The bystander effect can occur in a variety of social situations. For example, in a 2017 research article a study was conducted to understand the relationship between negative bystander effects and youth bullying (Evans & Smokowski, 2017). Their research found that peer pressure, verbal victimization, delinquent friends, and bullying perpetration had a significant association with an increased likelihood of engaging in negative bystander behavior. Not only is the bystander effect relevant in high school peer interactions, but it can also have a significant impact on adults.

Another area where the bystander interventions are investigated is in instances of sexual assault. Researchers at Georgia State University were interested in whether pressure to conform to traditional male gender roles impacted a man's likelihood to intervene in a sexually aggressive situation (Leone, Parrott, Swartout, & Tharp, 2016). They found that "the belief that men must be tough and aggressive was associated with greater perceived negative consequences for intervention and less confidence in men's ability to intervene" (Leone, Parrott, Swartout, & Tharp, 2016, p.82). Another study investigated whether there were differences between how women and men respond when witnessing a woman's experience of gender prejudice. Their

analysis found no significant differences between genders in the use of confrontational responses when witnessing gender prejudice (Brinkman, Dean, Simpson, McGinley, & Rosén, 2015).

Our Psychological Research Design and Data Analysis class set out to study the effects of gender and the number of spectators on the bystander effect. The two independent variables in our study are the gender of the paper dropper and the number of confederates (how many people are in the elevator at the time the papers are dropped). Our dependent variables are whether or not the subject helps clean up the papers and how long it takes them to offer to help.

Researchers hypothesized there would be a significant relationship between gender of the dropper and whether they received help. We also hypothesized that there would be a significant relationship between number of confederates in the elevator and whether the dropper received help. Additionally, we predicted that there would be a main effect of gender on time it takes the participant to help pick up the dropped papers. We predicted that if the paper dropper is female, the more likely a bystander is to intervene. Researchers also predicted a main effect between the number of confederates and time it takes the bystander to help. Our hypothesis stated that the more confederates that are present in the elevator, the less likely a bystander is to intervene. This correlates with other research we found that supports the idea of the more bystanders that are available, the less likely someone is to interfere (Katz & Moore, 2013). In their research study, Katz and Moore found that even after implementing bystander education programs to prevent sexual assault on college campuses, there was only a “moderate effect of bystander education on intentions to help others at risk” (Katz & Moore, 2013, p.1054). Furthermore, we did not hypothesize any interaction between gender of the paper dropper and the number of confederates.

## **Methods**

### **Participants**

Participants in this study were JMU students gathered by convenience sampling in the elevators of the Student Success Center on James Madison University's Campus. These participants were participants of opportunity. This study had a minimum of 60 participants and a maximum of 80 participants. No identifiable data or contact information was gathered from any of the subjects used in this study.

### **Materials**

For the purposes of this study, researchers used a small stack of papers and a file folder to hold them in. These were the materials that were dropped in the elevator. The environment where our experiment took place was in the two elevators at the Student Success Center. Other materials that were used included a stopwatch to record reaction times and a paper and writing instrument to gather our data.

### **Procedure**

On the day students participated in the study they entered into an elevator of the Student Success Center at JMU with a confederate dropper that was either male or female. Either one or four confederates were also in the elevator acting as additional bystanders. The dropper confederate dropped a folder full of papers and the confederates ignored the situation and did not help. One confederate recorded the response of the subject while another timed how long it took for the subject to assist our dropper if they did assist at all. We repeated this procedure with eight participants in each condition. Our conditions consisted of one male dropper and one additional confederate, one male dropper and four additional confederates, one female dropper and one

additional confederate, and one female dropper and four additional confederates. The purpose of this study was to see if the subject would help even though none of the other students in the elevator offered to lend a hand.

### Results

The results of the first Chi-square Test of Independence we ran indicated that there was not a significant relationship between the gender of the dropper and whether they received help,  $\chi^2(1, N=32) = .000, p = 1.000$ . The results of the second Chi-square Test of Independence also indicated that there was not a significant relationship between the number of confederates in the elevator and whether the dropper received help,  $\chi^2(1, N=32) = 2.000, p = .157$ .

The results of the two-way ANOVA indicated that there was not a main effect of gender on time it takes the participants to pick up the papers,  $F(1,32) = .083, p = .775, \text{partial } \eta^2 = .003$ . The mean time it took for individuals to help the male dropper when one confederate was present ( $M = 1.97, SD = 2.14$ ) was greater than the mean time it took for participants to help the female dropper when one confederate was present ( $M = 1.55, SD = 1.57$ ). However the mean time it took for individuals to help the male dropper when there were four confederates ( $M = 1.38, SD = 1.57$ ) was lower than the mean time it took for participants to help the female dropper when there were four confederates ( $M = 1.39, SD = 2.21$ ). The results also indicated that there was no main effect on the number of confederates and the time it took the bystander to help,  $F(1,32) = .287, p = .596, \text{partial } \eta^2 = .010$ . Lastly, the results showed that there was no significant interaction between gender of the dropper and the number of confederates in the elevator,  $F(1,32) = .097, p = .758, \text{partial } \eta^2 = .003$ .

### Discussion

Our results did not support our hypotheses that there would be a significant relationship between the gender of the dropper and whether or not they received help. Our results also did not support that there was a significant relationship between the number of confederates and whether the dropper received help. This data calls into question the research we found suggesting that gender plays a significant role in understanding the bystander effect (Leone, Parrott, Swartout, & Tharp, 2016). The participants in our study were participants of opportunity, so we were not able to ensure equal number of male and female subjects. This could be one reason why our results did not match our hypotheses.

We hypothesised that there would be main effects of the gender of the dropper and the number of confederates on the time it takes the bystander to pick up the papers. Our results did not support these hypotheses. This may be due to the fact that there wasn't a large enough difference between the number of confederates in each condition to mimic the bystander effect. On the other hand, our hypothesis that there would be no interaction between the gender of the dropper and the number of confederates was supported by our data analysis.

### **Limitations**

We had a few limitations within our study. The majority of the participants were female and white. Since we did not have a diverse group of participants, this likely impacted our data and may have skewed our results. In addition, we only gathered data from students who were in the Student Success Center. We may have gotten completely different results had we used the elevators in the Health and Behavioral Studies building, where a majority of the students are in the helping profession, or Showker Hall, where a majority of students are business majors.

Another limitation in the study was our small sample size. We only used eight participants in each condition due to the time it took to gather the data.

### **Further Research**

For future replications of this study, we would suggest including a more diverse group of participants. We also suggest including more participants in each condition if time permits. Not only would a larger sample size increase power, but it would also reduce the effects of possible confounding and extraneous variables. Future researchers should also utilize more confederates for the second condition. For example, if we had used eight confederates instead of four we may have increased the saliency of our experiment and witnessed the bystander effect.

## References

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Appendix A

Table A.1

<b>Case Processing Summary</b>						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Help * Condition_Gender	32	100.0%	0	0.0%	32	100.0%

Table A.2

<b>Help * Condition_Gender Crosstabulation</b>					
			Condition_Gender		Total
			Male	Female	
Help	Yes	Count	8	8	16
		% within Help	50.0%	50.0%	100.0%
		% within Condition_Gender	50.0%	50.0%	50.0%
		% of Total	25.0%	25.0%	50.0%
	No	Count	8	8	16
		% within Help	50.0%	50.0%	100.0%
		% within Condition_Gender	50.0%	50.0%	50.0%
		% of Total	25.0%	25.0%	50.0%

Total	Count	16	16	32
	% within Help	50.0%	50.0%	100.0%
	% within Condition_Gender	100.0%	100.0%	100.0%
	% of Total	50.0%	50.0%	100.0%

Table A.3

<b>Chi-Square Tests</b>					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.000 <sup>a</sup>	1	1.000		
Continuity Correction <sup>b</sup>	.000	1	1.000		
Likelihood Ratio	.000	1	1.000		
Fisher's Exact Test				1.000	.638
Linear-by-Linear Association	.000	1	1.000		
N of Valid Cases	32				
a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.00.					
b. Computed only for a 2x2 table					

Appendix B

Table B.1

<b>Case Processing Summary</b>						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Help * Confederate_Number	32	100.0%	0	0.0%	32	100.0%

Table B.2

<b>Help * Confederate_Number Crosstabulation</b>					
			Confederate_Number		Total
			1.00	4.00	
Help	Yes	Count	10	6	16
		% within Help	62.5%	37.5%	100.0%
		% within Confederate_Number	62.5%	37.5%	50.0%
		% of Total	31.3%	18.8%	50.0%
	No	Count	6	10	16
		% within Help	37.5%	62.5%	100.0%
		% within Confederate_Number	37.5%	62.5%	50.0%

		% of Total	18.8%	31.3%	50.0%
Total		Count	16	16	32
		% within Help	50.0%	50.0%	100.0%
		% within Confederate_Number	100.0%	100.0%	100.0%
		% of Total	50.0%	50.0%	100.0%

Table B.3

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	2.000 <sup>a</sup>	1	.157		
Continuity Correction <sup>b</sup>	1.125	1	.289		
Likelihood Ratio	2.021	1	.155		
Fisher's Exact Test				.289	.144
Linear-by-Linear Association	1.938	1	.164		
N of Valid Cases	32				
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 8.00.					
b. Computed only for a 2x2 table					

Appendix C

Table C.1

Descriptive Statistics				
Dependent Variable: Time				
Condition_Gender	Confederate_Number	Mean	Std. Deviation	N
Male	1.00	1.9713	2.14155	8
	4.00	1.3763	1.95590	8
	Total	1.6738	2.00497	16
Female	1.00	1.5500	1.57276	8
	4.00	1.3925	2.21558	8
	Total	1.4713	1.85788	16
Total	1.00	1.7606	1.82809	16
	4.00	1.3844	2.01893	16
	Total	1.5725	1.90418	32

Table C.2

Tests of Between-Subjects Effects						
Dependent Variable: Time						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1.843 <sup>a</sup>	3	.614	.156	.925	.016
Intercept	79.128	1	79.128	20.040	.000	.417
Condition_Gender	.328	1	.328	.083	.775	.003
Confederate_Number	1.133	1	1.133	.287	.596	.010
Condition_Gender * Confederate_Number	.383	1	.383	.097	.758	.003
Error	110.559	28	3.949			
Total	191.531	32				
Corrected Total	112.402	31				

a. R Squared = .016 (Adjusted R Squared = -.089)

Figure C.1

