This paper assesses the impact that reading violent comic books has on hostile attributional bias using relationally aggressive scenarios. College students (N=85) read either very violent or mildly violent comic books. Participants rated the comic books on levels of violence, humor, interest level, and overall likeability. They also read five hypothetical stories in which a relationally aggressive event occurs to a child, but the intent of the provocateur is unclear. Participants then answered questions concerning the stories. Like previous research, results show that when using overt provocation situations trait hostility was significantly related to attributions about the provocateur. They also show that an individual with a chronically aggressive construct will typically demonstrate biased social information-processing. In addition, the results offer support for the contention that violent comic books influence the perception of relationally ambiguous provocation situations. When asked about the intent of the provocateur, participants reading the very violent comic book responded significantly more negatively than participants reading the mildly violent comic book. Thus, violent comic books appear to lead to a short term relational hostile attributional bias. Also, participants reading the violent comic book ascribed a more negative emotional state to the provocateur than participants reading the mildly violent comic book. (MKA)
Violent Comic Books Influence Relational Aggression

Steven J. Kirsh
Paul V. Olczak
Violent Comic Books Influence Relational Aggression
Steven J. Kirsh and Paul V. Olczak
State University of New York-Geneseo


Introduction

Relational aggression involves social exclusion (e.g., not inviting someone to a party) or social manipulation (e.g., spreading rumors, threatening not to be a friend) in order to control another's behavior. However, to date, research assessing media-related, hostile attributional bias has utilized instrumental provocation situations (e.g., being hit with a ball or pushed into a puddle). Given that overt and relational forms of aggression represent different types of aggression, and thus have potentially different antecedents and consequences, a purpose of the present research is to assess the impact of reading violent comic books on hostile attributional bias using relationally aggressive scenarios.

Method

Participants

The participants were 85 introductory psychology students (69% female) at a mid-sized college in Western New York state. The distribution of males and females in this study approximated the gender distribution at the college.

Procedure

At the beginning of the semester, participants filled out the Buss-Durkee Hostility Inventory to assess their trait level of hostility. Approximately 6-10 weeks later, these participants were recruited to participate in the comic book study. Participants were randomly assigned to read either the very violent or mildly violent comic books.

Materials

Comic Books. The comic books used in this study are Curse of the Spawn and Archie & Friends. Curse of the Spawn (Issues 12 & 18) relays the continuing saga of Jason Wynn and Jessica Priest as they attempt to fight evil with their combat skill, intellect, and ruthless tactics. This comic book was used in the Very Violent condition of the experiment. Approximately 85% of the panels in Curse of the Spawn contain violent acts and/or aggressive themes. Archie & Friends follows the humorous (although occasionally aggressive) adventures of Archie, Veronica, Betty, Jughead and others during high school. Each Archie & Friends comic book consists of four or five independent stories. This comic book was used in the Mildly Violent condition of the experiment. Approximately 7% of the panels in Archie & Friends contain mildly violent acts and/or aggressive themes.

Comic Book Rating Form. To reduce demand characteristics and maintain the ruse that we need comic book ratings for a future study, participants rated the violence (Aggression), humor (Humor), interest level (Interest), and overall likeability (Like) of their assigned comic book. All questions involved 7 point Likert-type scales.

Relational Provocation Stories Task. For this assessment, participants read five hypothetical stories in which a relationally aggressive event occurs to a child, but the intent of the provocateur is unclear. For instance, in one story, when a child sits down at the lunch table, the peers at the table stop talking and do not say anything to the child. For each scenario, the gender of both the provocateur and of the child protagonist were not stated. After each story, participants were asked six questions: two questions about the provocateur's intent; two questions about potential retaliation and punishment toward the provocateur; and two questions about the provocateur's emotional state. Responses were written down by participants and then coded in terms of amount of negative and aggressive content. Negative and aggressive responses were coded as a "1" and neutral or positive responses were coded as a "0." Composite variables were formed by combining like questions. For each composite variable (Intent, Retaliation, Emotion), responses were summed across all five stories (possible range: 0-20). Cronbach's alpha scores for the 12 responses within each composite variable ranged from .62 to .75.
Results

Preliminary Analyses

Trait Hostility. Analyses were conducted to assess the relation between trait hostility and scores on the composite variables. Results indicated significant Pearson product-moment correlations between trait hostility and Intent ($r = .21, p < .05$) and Retaliation ($r = .37, p < .01$). The correlation between trait hostility and Emotion was not significant ($r = .16, p < .14$).

Comic Book Ratings. To verify that the “violent” and “mildly-violent” comic books were categorized correctly, an analysis of variance (ANOVA) was conducted to test for differences in perceived aggression of Archie & Friends and Curse of the Spawn. Results indicated a significant main effect for comic book, $F(1,83) = 518.2, p < .001$, with Curse of the Spawn being rated as significantly more violent than Archie & Friends.

In addition, to test for differences in participants’ perceptions of the comic books, a series of ANOVAs was conducted. For Like, there was a significant main effect for Comic Book, $F(1,83) = 23.2, p < .001$. Participants liked Archie & Friends significantly more than Curse of the Spawn. For Humor, there was a significant main effect for Comic Book, $F(1,83) = 54.3, p < .001$, in which Archie & Friends was rated as significantly more humorous than Curse of the Spawn. For Interest, the ANOVA approached significance, $F(1,83) = 2.7, p < .10$. Given that participants perceptions of the comic books may influence their responses to the ambiguous stories, Like, Interest, and Humor were entered as covariates in subsequent analyses. See Table 1.

Main Analyses

In order to test the contention that violent comic books influence the processing of social information, a 2 (Comic Book) X 2 (Gender) multivariate analysis of covariance was conducted, with Trait Hostility, Interest, Like, and Humor as the covariates. Results indicated a significant multivariate main effect for Comic Book, $F(3,75) = 4.34, p < .01$ and for the covariate, Trait Hostility, $F(3,75) = 4.03, p < .01$. Follow-up univariate analyses of covariance (ANCOVAs) were then conducted for each composite variable. For Intent, the univariate main effect for Comic Book was significant, $F(1,77) = 7.4, p < .01$. Results indicated that participants reading Curse of the Spawn responded more negatively than participants reading the Archie & Friends. The univariate follow-up test for Retaliation yielded a significant main effect for Comic Book, $F(1,77) = 7.84, p < .01$. Participants reading the very violent comic book suggested more retaliation than participants reading the mildly violent comic book. Results for Emotion indicated a significant Comic Book univariate main effect, $F(1, 77) = 12.1, p < .01$. Participants reading Curse of the Spawn inferred a more negative emotional state to the provocateur than participants reading Archie & Friends. No other significant differences were evident. Table 2 presents the estimated means and standard errors for the composite variables.

Discussion

Similar to previous research using overt provocation situations trait hostility was significantly related to participants attributions about the provocateur. These findings support Bushman’s (1998) and Dill et al’s (1997) contention that an individual with a chronically aggressive construct (e.g., a person high in trait anger) will typically demonstrate biased social information-processing. In addition, the results of the present study offer support for the contention that violent comic books influence the perception of relationally ambiguous provocation situations. As expected, when asked about the intent of the provocateur participants reading the very violent comic book responded significantly more negatively than participants reading the mildly violent comic book. Thus, violent comic books appear to lead to a short term relational hostile attributional bias. Similarly, the hypothesis that participants reading the Curse of the Spawn would suggest more retaliation and expect more punishment than participants reading the Archie & Friends was supported. Finally, as anticipated, participants reading the violent comic book ascribed a more negative emotional state to the provocateur than participants reading the mildly violent comic book. These findings are consistent with research showing a link between aggressive themes in comic books and aggressive feelings (Brand, 1969) and perceptions of social situations (Kirsh & Olczak, 2000). Clearly, violent comic books bias social information-processing toward malevolence and increased negative affect.

Gender differences in the perception of relational provocation situations were not evident. The relatively
small sample of males limited the power of our analyses, thus making it more difficult to find gender differences. However, it is also possible that for females and males, violent comic books influence perceptions of relational aggression similarly. In contrast, previous research has shown that for ambiguous provocation scenarios emphasizing overt aggression, violent comic books appeared to have less of an effect on the processing of social information for females than for males (Kirsh & Olczak, 2000). Thus, when assessing the impact of violent media on social information-processing, researchers may need to more carefully consider the nature of the dependent variable (e.g., perception of overt vs. relational aggression). However, given the small number of males in this study, the contention that perceptions of overt and relational aggression differ requires replication with a larger sample size.

Bushman (1998) contends that in response to experiences with aggression individuals develop an aggressive construct. Media violence is thought to increase the accessibility of these aggressive constructs, thus increasing the likelihood that they will influence subsequent social information-processing. Our data support the contention that violent media temporarily increases the accessibility of an aggressive construct. Independent of trait hostility, which indicates an individual’s chronic level of accessibility, we found that very violent comic books also influenced the perception of relational provocation situations. However, additional research is necessary to determine how long after reading violent comic books the priming effect lasts. It may be reasonable to conclude that the effects of violent comic books may last longer or perhaps be stronger in individuals who are dispositionally hostile than in those who are not. This is an area for future research.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Mean and Standard Deviations (in Parentheses) for Comic Book Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Archie</td>
</tr>
<tr>
<td>How much did you like your comic book?</td>
<td>4.1 (1.4)</td>
</tr>
<tr>
<td>How interesting did you find your comic book?</td>
<td>3.9 (1.4)</td>
</tr>
<tr>
<td>How humorous did you find your comic book?</td>
<td>3.7 (1.3)</td>
</tr>
<tr>
<td>How aggressive did you find your comic book?</td>
<td>2.0 (1.3)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Estimated Means and Standard Errors (in Parentheses) of Intent, Retaliation, and Emotion as a Function of Comic Book Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Composite Variable</td>
</tr>
<tr>
<td>Intent</td>
<td>6.3 (.32)</td>
</tr>
<tr>
<td>Retaliation</td>
<td>5.0 (.52)</td>
</tr>
<tr>
<td>Emotion</td>
<td>8.3 (.29)</td>
</tr>
</tbody>
</table>

Note: Significant differences between comic books: * p < .01
References


I. DOCUMENT IDENTIFICATION:

Title: Violent Comic Books Influence Relational Aggression

Author(s): Steven J. Kirsch and Paul V. Oczak

Corporate Source: American Psychological Association

Publication Date: August, 2000

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, Resources in Education (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

__________________________

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 1

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) and paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

__________________________

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2A

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only.

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

__________________________

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Level 2B

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only.

Documents will be processed as indicated provided reproduction quality permits.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Signature: [Signature]

Organization/Address: Dept. of Psychology

SUNY, Geneseo, Geneseo, NY

Printed Name/Position/Title: Steven J. Kirsch, Asst. Prof.

Telephone: 716-245-5243 FAX 716-245-5235

E-Mail Address: kirsch@geneseo.edu

Date: 5/10/00

APR 2000
III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:

Address:

Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:

Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse: University of North Carolina at Greensboro
ERIC/CASS
201 Ferguson Building
P.O. Box 26171
Greensboro, NC 27402-6171

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
4483-A Forbes Boulevard
Lanham, Maryland 20706

Telephone: 301-552-4200
Toll Free: 800-799-3742
FAX: 301-552-4700
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com

EFF-088 (Rev. 2/2000)