

IRB Protocol #: 2013B0542

IRB Protocol Title: Media & Gun Violence

PI: Brad J. Bushman, PhD, Professor of Communication & Psychology, Rinehart Chair of Mass Communication, **School of Communication**, The Ohio State University, 3016 Derby Hall, 154 N. Oval Mall, Columbus, OH 43210, USA 614-688-8779 Office / 614-292-2055 Fax; bushman.20@osu.edu u.osu.edu/bushman.20

Collaborator: Kelly P. Dillon, PhD, Assistant Professor of Communication, Wittenberg University, 325 Hollenbeck Hall, Springfield, OH 45504, 614-551-9379, dillonk@wittenberg.edu

Inclusion criteria: 8-12yo, had not participated in study prior, was able to schedule participation with a known peer (8-12yo).

Exclusion criteria: Younger than 8yo, older than 12yo, had participated in study prior, could not schedule participation with a known peer (8-12yo)

Location: Journalism Building, School of Communication, The Ohio State University, Columbus, OH.

Primary Outcomes: Number of seconds participant held real firearm, number of times participant pulled trigger of real firearm. Control variables measured and included are sex, age, trait aggressiveness, exposure to violent media, interest in guns, and number of guns at home. Other data collected include race, opinions of the movie, observed play and communication after watching movie, if participant returned real firearm to researchers.

Intervention Materials: Two movies rated PG will be used for this experiment: *National Treasure* (Disney, 2004) and *The Rocketeer* (Disney, 1991). A total of 20min worth of scenes from each movie was spliced together on a DVD. In the experimental condition, any moment with a gun, gunshot, or gunshot wound was removed. In the control condition, the scenes remained as they were filmed and distributed. The same scenes were used in each condition with only the guns removed (milliseconds)

Data Analyses:

Measurements. Exposure to violent media will be measured by self-report of favorite movies, television shows, and video games. Video game ratings were scored according to the Entertainment Software Ratings Board (ESRB). Games participants indicated they played, and with what frequency, were coded for early childhood (1), everyone (2), everyone ages 10 and up (3), teens (4), mature audiences (5), adults only (6), and a pending rating (7). Television show ratings were scored according to TV Parental Guidelines and mirror the MPAA ratings. Shows participants indicated they watched, and with what frequency, were coded for all children (1), older children (2), older children with fantasy violence (3), general audiences (4), parental guidance suggested (5), parents strongly cautioned (6), and mature audiences only (7). Movie ratings were coded according to the Motion Picture Association of America's (MPAA) ratings standards. Movies participants indicated they favored most, and watching with

what frequency, were coded for general audiences, or G (1), parental guidance suggested, or PG (2), parental strongly cautioned, or PG-13 (3), restricted, or R, (4), no one under 17 admitted, or NC-17, (5), or no rating provided, or NR, (6). Sources for ratings were found directly from the distributor or manufacturer, through Common Sense Media, and online databases such as IMDB.com.

The Attitudes Towards Guns Scale (Shapiro, Dorman, Burkey, Welker, & Clough, 1997) was calculated according to the original scale's instructions, including reverse coded items. Participants indicated the extent to which they disagreed (1=Strongly disagree) or agreed (5=strongly agree) with each of the 15 statements. The Aggressive Behavior Scale (Bushman, Huesmann, Gentile, Anderson, Boxer, & O'Brien, 2013) was calculated according to the original scale's instructions, including reverse coded items. Participants indicated the extent to which they never (0), sometimes (1), or often (2) participate in the 9 behaviors listed.

Quantitative Analyses: Independent groups t-tests will be used to determine intervention success (difference in violence between conditions) on items from the Movie Opinion Survey. A generalized estimating equation (GEE) with an exchangeable correlation structure will be used to contrast between movie conditions, with pairs as units. A log-link model with Poisson distribution was used to analyze the number of trigger pulls. A log-link model with Tweedie distribution will be used to analyze the amount time spent handling the gun (in seconds). The main predictor in each model will be movie condition (guns versus no guns). The first set of models will include movie condition (guns versus no guns), movie (*National Treasure* versus *The Rocketeer*), and participant's gender (male versus female). A second set of models will include movie condition, movie, gender, age, number of guns in the home, attitudes towards guns, trait aggressiveness, consumption of violent media, and parental estimation of their child's interest in the gun. All analyses will be performed using SPSS 22.

Qualitative Analyses. Two trained research assistants, blind to movie condition and hypotheses, will independently watch and transcribe videos of each play session, and recorded type of play (i.e., aggressive, gentle, independent, together, taking turns), type of verbal communication (i.e., swearing, complimenting), any interpersonal aggression between participations (i.e., punching, wrestling, shooting Nerf gun at partner), and pointing the real gun at self, partner, or others. The first author will conduct random quality assurance checks to confirm coding. Random pairs from each condition will be chosen to explicate in any publication.

RECRUITMENT SCRIPT

If the person who responds to the ad does so via email, request a phone number so you can make sure you are talking to the parent or guardian. Send the following email: "Thank you for your interest in our study. Can you please call 614.688.8779 so I can tell you more about it?"

When the call, say the following on the phone:

Thank you for your interest in our study. The study is being conducted on the Campus of The Ohio State University and takes less than one hour to complete. If you need it, we can provide a free pass for parking. Your child will also receive \$25 for participating. Would you be willing to bring your child to our lab at OSU?

Previous research has shown that children who see movie characters smoke are more likely to smoke themselves. Other research has shown that children who see movie characters drink alcohol are more likely to drink themselves. Our research is about the effects of gun violence in movies and video games on children. Of course, real guns are not toys for children. Indeed, each year in America there are 16,000 to 19,000 accidental gun shootings, and about 600 of these are fatal.

Is your child 8-12 years old? (**if yes, continue**) In the study, your child would watch a 20-minute movie clip. Some of the scenes may contain violence and/or guns, but the violence will not be excessive or graphic. All movies will be rated G or PG.

After watching the movie clip, participants will be placed in a room containing toys, with hidden cameras on the ceiling. Participants will be told that they can play with any of the toys in the room. Inside the room, two brightly colored plastic (empty) water pistols and an actual .380 caliber semiautomatic handgun will be placed in separate drawers, as in previous research.

The handgun contains no bullets and will be modified so that it cannot fire. Inside the magazine, the handgun will contain a sensor that counts the number of times the trigger is depressed with sufficient force to discharge the weapon. This allows us to distinguish reliably the children who pull the trigger from those who only handle the gun. You will be asked to predict whether your child will handle the gun and pull the trigger. The Ohio State University Chief of Police has inspected the gun and has authorized its use in this study. Your child will be videotaped so we can see what he or she does. You will be able to watch your child with us to see what he or she does via a monitor. The videotapes will be stored on a password-protected computer and will be destroyed immediately after they are coded. The videotapes will only be used for analyses. They will not be used in presentations, TV shows, etc. We predict that children exposed to movies containing guns will be more likely to play with the real gun than will children exposed to movies without guns. However, we cannot tell your child this in advance or the study would be ruined.

You will also report how interested your child is in real guns using the following item: :
“How interested is your child in real guns?” (1=no interest to 5=very interested), and will report the number of guns in your home, what type they are, whether they are loaded, and whether they are locked up.

In order to participate in this study, your child must have a sibling or friend the same age also participate. Do you have two children between the ages of 8 and 12? If so, please bring both of them to the study. If not, does your child have a friend between the ages of 8 and 12? If so, please have that parent either call me at 614.688.8779 or send me an email at osumoviestudy@gmail.com. I will then schedule a time that is convenient for both of you. Perhaps you could travel to Ohio State together. We will give you a voucher for parking so you don't have to worry about that.

For Experiment 3 (Parent 2) say:

I understand that your child is the friend of (name of Parent 1's child). Is your child 8-12 years old? **(If yes, repeat script from parent 1)**

I will schedule a time that is convenient for you and **(Parent 1)**. Perhaps you could travel to Ohio State together. We will give you a voucher for parking so you don't have to worry about that.

For all say:

Your child will also give his or her assent to participate. Your child can discontinue participation at any time and still get the \$25.

We think this research is very important, and hope you will allow your child to participate. Is that something you would like to do? If so, we can set up an appointment. If not, that is fine too.

Thank you for your time.

PROTOCOL FOR EXPERIMENT 3

NOTE: Repeat verbatim those statements printed in **bold face**.

BEFORE THE PARTICIPANT ARRIVES

1. Get film clip ready on computer depending on the pair assignment (see random assignment to movies on Subject Identification Sheet).
2. Set-up toys in the drawers
3. Make sure gun count is reset
4. Write subject ID on dry-erase board, hold in front of camera. Have other research assistant start recording to capture the subject IDs and then pause. You won't start recording in room again until after film clip is done.
5. Have questionnaires ready on clipboards. Make sure subject identification numbers match
 - a. Participant clipboard:
 - i. Assent form
 - ii. Movie opinion survey
 - iii. Gun attitude survey
 - b. Parent clipboard:
 - i. Consent forms
 - ii. Gun availability survey
 - iii. Parking voucher receipt form
 - iv. Gift card receipt form
 - c. Lead Researcher clipboard:
 - i. Protocol
 - ii. Debriefing form
 - iii. Paper to take notes from debriefing
 - d. Assistant Researcher clipboard:
 - i. Schedule
 - ii. Subject ID list
 - iii. Parking Voucher Receipt sheet
 - iv. Gift card receipt sheet

ORDER OF OPERATIONS:

1. INTRODUCTIONS
2. CONSENT (MAKE SURE IS DONE OR TO BE DONE)
3. CHILDREN WATCH MOVIE, PARENT FILLS OUT GUN FORM
4. CHILDREN COMPLETE MOVIE SURVEY
5. CHILDREN PLAY FOR 20MIN
6. CHILDREN COMPLETE GUN SURVEY
7. DEBRIEFING (QUESTIONS ABOUT MOVIE FAKENESS)
8. DEBRIEFING FORMS
9. PAYMENT
10. CLEAN UP/SET UP

WHEN THE PARTICIPANT ARRIVES

1. Say:

Thanks for coming today. We are studying movies and other things kids use to entertain themselves. Have you completed the consent forms before coming in?

- a. If no: Give the participant the consent form. For children, give the parent page 1 and 2 of the consent form (the child should NOT see page 1 of the consent form – be sure to tell the parent), have the parent and child both sign page 2 of the consent form.

Say: I will give you a few minutes to read over this consent form and sign it.

- b. If yes: Great! If I could have those and make sure they're signed out properly we can get started.

FILM CLIP

1. Say:

Right now, we want you to watch a 20-minute film clip. I will give you further instructions after that.

2. Set a timer for 20 minutes. When the timer goes off, peek into the room to see if the movie is over. Don't enter unless the movie is over.
3. Once the movie is over, start the recording of the hidden cameras. Enter the room and turn off the television and stop the movie.
4. Press CTRL + ALT + DEL to lock the computer so only those with the password can get back on.
5. Hand the clipboard to each participant and ask them to rate the movie. Say:

We are interested in what you thought about the movie. If you could fill out this form and let us know that would be great. There are no right or wrong answers, just your opinion. I'll come back in a few minutes.

6. Return in a few minutes and take the clipboards. Then say:

You and your friend/sibling can play with any of the anything in this room for the next 20 minutes. I'll come in when we are done out here.

7. Set the timer for 20min.
8. Ask the parent to fill out the gun use form questionnaire, parking voucher receipt, and gift card form. Make sure subject ID is listed for each child.
9. While children are playing, enter the movie opinion data into Qualtrics.

SURVEY

1. When the timer goes off, return to the room with the “Gun Attitudes Survey.” Say:

We have one more survey for you to fill out. Please fill it out quietly. If you get to a question you're not sure, just come out and I'll read it to you. I'll leave the door open a little bit so I can help you if you need it. When you are finished with the survey, just come on out.

DEBRIEFING

1. Lead researcher goes into room, say to children:

We are just about finished with everything. I am just going to ask you to answer a few more questions and show you a short movie. Then we will be finished.

2. If the participant played a violent movie, say:

*Most kids know that video movies are fake – that they don't show life like it really is. Kids know that when someone gets hurt or killed in a movie, that it is not the same as when someone gets hurt or killed in real life. Let's see what you know about how violent movies are fake. List **THREE (3)** ways kids can know that violent movies are **FAKE** – that they are **NOT** like real life. How do **YOU** know that violent movies are **FAKE**?”*

3. Say: *Now I am just going to show you a short movie.*

4. Give the parent and the participant each a debriefing, then read it together with them and answer any questions they have. If the child handled the gun say:

You know that guns are not toys for children, right. You should never handle a gun without permission from your parent.

5. If the participant expresses suspicion, ask if we should keep his/her data or toss it.
6. Sincerely thank the participant for coming.
7. Give each child \$25 and have them sign the form.
8. **DURING DEBRIEFING:** Assistant researcher enters gun attitudes survey into Qualtrics, resets the recording, prepares for next group.

SURVEYS

Attitudes Towards Guns and Violence (Shapiro et al., 1997)

Please indicate how much you agree with each statement as carefully and accurately as you can by choosing a number for each one as follows:

- 1 = *Strongly disagree*
- 2 = *Disagree*
- 3 = *Neither agree nor disagree*
- 4 = *Agree*
- 5 = *Strongly agree*

COMFORT WITH AGGRESSION

1. I don't like being around people with guns because someone could end up getting hurt.
2. I don't like people who have guns because they might kill someone.
3. I wish there weren't any guns in my neighborhood.
4. I wish everyone would get rid of all their guns.
5. Most people feel nervous around someone with a gun and they want to get away from that person.
6. The people I respect would never go around with a gun because they're against hurting people.

EXCITEMENT

1. It would be exciting to hold a loaded gun in my hand.
2. It would make me feel really powerful to hold a loaded gun in my hand.
3. I bet it would feel really cool to walk down the street with a gun in my pocket.
4. I think it would be fun to play around with a real gun.
5. I'd like to have a gun so that people would look up to me.

POWER/SAFETY

1. Carrying a gun makes people feel powerful and strong.
2. Carrying a gun makes people feel safe.
3. Belonging to a gang makes people feel safe because they've got people to back them up.
4. People in gangs feel like they're part of something powerful.

Aggressive Behavior Survey

Now we would like to ask you how often you behave in certain ways toward others. You might do some of these things only when you are mad. We just want to know HOW OFTEN you do these things.

- 0=*Never*
- 1=*Sometimes*
- 2=*Often*

1. Leave another kid out of your group if you're angry with him or her?

2. How often do you ignore another kid if you're angry with him or her?
3. How often do you say bad things behind another kid's back?
4. How often do you yell at or argue with other kids?
5. How often do you say you're going to hurt other kids?
6. How often do you call other kids names?
7. How often do you kick another kid?
8. How often do you shove other kids?
9. How often do you hit other kids?

Movie Opinion Survey

For the following questions, please indicate

- 1= Not at all
- 2= A little bit
- 3 = Somewhat
- 4 = A lot
- 5 = Very much

1. How much did you like this movie?
2. How exciting was the movie?
3. How boring was this movie?
4. How much fun was this movie?
5. How much were you into the movie, like you were part of the action?
6. How violent was this movie?
7. Do you want to see the rest of this movie?
8. Do you think your friends would want to see the rest of this movie?
- 9.

Media Survey

We would like to know about your favorite TV shows.

1. What is your favorite TV show? _____

How often do you watch it?

Only once in a while ____

A lot, but not always ____

Every time it is on ____

2. What is your second favorite TV show? _____

How often do you watch it?

Only once in a while ____

A lot, but not always ____

Every time it is on ____

3. What is your third favorite TV show? _____

How often do you watch it?

Only once in a while ____

A lot, but not always ____
Every time it is on ____

Next, we would like to know about your favorite movies.

4. What is your favorite movie? _____

How often have you seen it?

Only once ____

A few times ____

Many times ____

5. What is your second favorite movie? _____

How often have you seen it?

Only once ____

A few times ____

Many times ____

6. What is your third favorite movie? _____

How often have you seen it?

Only once ____

A few times ____

Many times ____

Now we would like to know about your favorite video games. By video games, we mean any games you play on computer, on video game consoles, on hand-held game devices, or in video arcades.

7. What is your favorite video game? _____

Only once in a while ____

A lot, but not always ____

Almost all the time ____

8. What is your second favorite video game? _____

Only once in a while ____

A lot, but not always ____

Almost all the time ____

9. What is your third favorite video game? _____

Only once in a while ____

A lot, but not always ____

Almost all the time ____

DEMOGRAPHIC INFORMATION

Sex: Male Female

Age: _____

Race: _____

Number of guns in the home: _____

How interested do you think your child will be in the real gun?

____ Not at all interested

____ Sort of interested

____ A little interested

____ Somewhat interested

____ Very interested

DEBRIEFING
Media Violence and Gun Violence (Study 3)

PI: Brad J. Bushman, Ph.D.
Professor of Communication and Psychology
Margaret Hall and Robert Randal Rinehart Chair of Mass Communication
School of Communication
The Ohio State University
3127 Derby Hall
154 North Oval Mall
Columbus, OH 43210-1339
USA
Tel: (614) 688 - 8779
Fax: (614) 292 - 2055
Email: bushman.20@osu.edu

Debriefing

What we told you at the beginning of the experiment was not the whole story. But sometimes if we told people what the point of the experiment was ahead of time, then some people might do whatever it is they think we want them to do, just to be helpful. Other people might do the exact opposite of what they think we want them to do, just to show us that we can't figure them out. When people are trying to second-guess what the experiment is really about, and they behave a certain way because of it, our results gets messed up. That's because they aren't behaving like they naturally would in the real world. The whole point of this experiment is to find out how people would naturally behave.

Now I'd like to explain what we were trying to learn about with this study. In this study we are testing the effects of violent movies, including those with guns, on kids. In this study, kids watched either a violent or nonviolent video, that had guns or no guns. You watched a _____ movie that _____ (tell the participant what condition he or she was in). We wanted to test whether guns in movies would make kids more interested in real guns.

The room containing toys had hidden cameras. Inside the room, two brightly colored plastic water pistols and two actual guns in separate drawers. The handguns contained no bullets and contained a counter so we could count the number of times kids pulled the trigger, We predict the highest levels of playing with guns and firing them among kids who saw a violent clip containing guns.

I want to emphasize that guns are not toys. Although our guns had no bullets and could not be fired, many guns do. If you pull the trigger, you or someone else could get badly hurt, or even die. If you ever find a gun, you should never pick it up. You should tell your parent or an adult about it.

I would like to emphasize that your responses will be will be private only between you and the researchers because they will be analyzed as part of a group of responses (e.g., all the people who watched a violent film with guns present will be grouped together). Thus, I would like to ask you not to mention anything about the study to anyone else. If people found out about the study, and then they would be in the study,

our study would be ruined. Your efforts and our efforts would be wasted. Therefore, we would appreciate it if you did not tell others about the study. Thanks a lot for your help.

Tell the parent: If you would like to withdraw your child's data from the study, please tell me now. This study provides a possible teaching opportunity for you to discuss gun safety with your child. I hope you will take advantage of that opportunity.

Participation in the study may lead to thoughts and feelings that are upsetting. We have attempted to dispel any bad feelings. If your child watched a violent film clip, we had him/her list three reasons why violent films are fake. We also showed all participants a short video of adorable animals. If your child continues to feel upset after he/she returns home, have him/her do an enjoyable activity (e.g., play basketball, draw pictures, etc), which should take his/her mind off the study. If that doesn't work and your child remains upset, please call us (614-688-8779) and we'll refer you to an appropriate counseling service for help, depending on where you live. For questions about your child's rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251. (Give the parent a resource sheet)

In 1 week we will call you to see how your child is doing. We will ask you the following questions.

- (a) How the child behaved on the ride home from campus?
- (b) Did you discuss the study with your child, and how he or she behaved in the study?
- (c) How was your child the day after the study?
- (d) Have been any changes in your child's behavior, mood, sleeping and eating patterns since the study
- (e) Has your child acted aggressively in any way this past week, and if so is this any different from the ir previous behavior?

If your child needs professional counseling, we'll refer you to an appropriate counseling service for help, depending on where you live. A list of some excellent counseling services are on the sheet I gave you. If your child needs counseling, but you cannot afford it, we will pay for those services.

RESOURCES SHEET (HANDOUT)

Counseling resources:

The Central Ohio Mental Health Center has excellent services for children, and they have two offices in Delaware (**250 South Henry Street**, Delaware, OH 43015, 740.369.4482; **824 Bowtown Road**, Delaware, OH 43015, 740.369.7688), an office in Powell (75 Clairedan Drive, Powell, Ohio 43065, 614.396.5665), and an office in Mount Gilead (**950 Meadow Drive, Suite A**, Mount Gilead, OH 43338, 419.947.4560).

Gun safety resources:

I also want to give you this brief article on the weapons effect.¹ Research has shown that the mere presence of weapons such as guns can make people more aggressive. If you have guns in your home, we hope you will keep them locked up and out of sight of your children.

The Ohio State University Chief of Police offered the following recommendations for gun safety resources:

- The Ohio Hunter Safety training course includes elements of firearm safety. There is a now home study course available. Here is the link to the program.

<http://ohiodnr.com/tabid/18566/Default.aspx>

- For younger people there is the NRA Eddie Eagle program.

<http://eddieeagle.nra.org/>

- Here is a video on gun safety:

<http://www.nssf.org/safety/video/>

¹ Bushman, B. J. (2013). The weapons effect. *JAMA Pediatrics*, 167(12), 1094-1095. doi:10.1001/jamapediatrics.2013.3824

