

IN THE UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

ENTERTAINMENT SOFTWARE)
ASSOCIATION; VIDEO SOFTWARE)
DEALERS ASSOCIATION; ILLINOIS)
RETAIL MERCHANTS ASSOCIATION,)
Plaintiffs,)

vs.) No. 05 C 4265

ROD BLAGOJEVICH, in his official)
capacity as Governor of the State) Judge Kennelly
of Illinois; LISA MADIGAN, in her)
official capacity as Attorney) Magistrate
General of the State of Illinois;) Judge Denlow
and RICHARD A. DEVINE, in his)
official capacity as State's)
Attorney of Cook County,)
Defendants.)

THE DEPOSITION OF CRAIG A. ANDERSON
OCTOBER 13, 2005

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7 The deposition of CRAIG A. ANDERSON,
8 PH.D., called for examination, taken pursuant to
9 the Federal Rules of Civil Procedure of the United
10 States District Courts pertaining to the taking of
11 depositions, taken before JULIANA F. ZAJICEK, CSR
12 No. 84-2604, and ROSANNE M. NUZZO, CSR No. 84-1388,
13 Notary Publics within and for the County of Kane
14 and County of Will respectively, State of Illinois,
15 and a Certified Shorthand Reporter of said state,
16 at Suite 4000, One IBM Plaza, Chicago, Illinois, on
17 the 13th day of October, A.D. 2005, at 8:00 a.m.
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Page 3

1 PRESENT:
2
3 JENNER & BLOCK,
4 (601 Thirteenth Street, NW,
5 Suite 1200 South,
6 Washington, D.C. 20005,
7 202-639-6000), by:
8 MR. PAUL M. SMITH,
9 -and-
10 JENNER & BLOCK,
11 (One IBM Plaza,
12 Chicago, Illinois 60611-7603,
13 312-222-9350), by:
14 MR. WADE A. THOMSON,
15 appeared on behalf of the Plaintiffs;
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1 PRESENT: (Continued)
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3 MR. MICHAEL J. KASPER,
4 Special Assistant Attorney General,
5 (222 North LaSalle Street, Suite 300,
6 Chicago, Illinois 60601,
7 312-704-3292),
8 -and-
9 HOGAN & MARREN, LTD.,
10 (180 North Wacker Drive, Suite 600,
11 Chicago, Illinois 60606,
12 312-946-1800), by:
13 MS. LIMO T. CHERIAN,
14 appeared on behalf of Defendant
15 Rod Blagojevich;
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Page 5

1 PRESENT: (Continued)
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3 OFFICE OF THE ATTORNEY GENERAL -
4 STATE OF ILLINOIS,
5 ATTORNEY GENERAL LISA MADIGAN,
6 (100 West Randolph Street,
7 Chicago, Illinois 60601,
8 312-814-3632), by:
9 MR. ANDREW L. DRYJANSKI,
10 Assistant Attorney General,
11 appeared on behalf of Defendant
12 Lisa Madigan.
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14
15
16 REPORTED BY: ROSANNE M. NUZZO, C.S.R.,
17 CERTIFICATE No. 84-1388;
18 JULIANA F. ZAJICEK, C.S.R.
19 CERTIFICATE NO. 84-2604.
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1 MR. SMITH: Are we ready to go?
 2 Swear the witness for me.
 3 (WHEREUPON, the witness was duly
 4 sworn.)
 5 CRAIG A. ANDERSON, Ph.D.,
 6 called as a witness herein, having been first duly
 7 sworn, was examined and testified as follows:
 8 EXAMINATION
 9 BY MR. SMITH:
 10 Q. Could you state your full name.
 11 A. Craig A. Anderson.
 12 Q. And where are you employed?
 13 A. Iowa State University.
 14 Q. Do you have a title there?
 15 A. Distinguished Professor.
 16 Q. Over what department?
 17 A. Psychology.
 18 Q. Do you have a specialty in the field of
 19 psychology?
 20 A. Social psychology, primarily.
 21 Q. You've, I know, been deposed at least
 22 once before, but let me just say for the record
 23 that I'm going to be asking you questions. We need
 24 a verbal response. If there's any question that

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1 you don't understand, please let me know before you
 2 answer it. Is that understood?
 3 A. Yes.
 4 Q. Okay. You have been retained to appear
 5 in the litigation involving the Illinois Video Game
 6 Law as an expert witness, is that right?
 7 A. Yes.
 8 Q. By whom were you retained?
 9 A. By whom? Officially, I'm not --
 10 Q. Do you know whether you are an expert
 11 for all of the Defendants?
 12 A. No. For the Governor.
 13 Q. Okay. And who first contacted you?
 14 A. I believe it was Matt Ryan.
 15 Q. Okay. And when was that?
 16 A. I'm not entirely sure. It would have
 17 been -- I don't know.
 18 Q. You have no idea?
 19 A. I don't have the exact date.
 20 Q. Can you give me a rough estimate?
 21 A. I would guess about a month ago.
 22 Q. And what did he say to you on that
 23 occasion?
 24 A. He informed me that there was such a

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1 case involving video games and asked if I would be
 2 willing to talk to people representing the
 3 Governor's office.
 4 Q. And at some subsequent point, you agreed
 5 to be an expert in the case?
 6 A. Yes.
 7 Q. Are you being compensated for your work
 8 on this case?
 9 A. Yes, I am.
 10 Q. At what rate?
 11 A. \$200 an hour for work at my home office
 12 and \$1500 a day for the two days that I'm here in
 13 Chicago.
 14 Q. So that would be for today and for --
 15 A. And traveling in yesterday.
 16 Q. Would the same rate apply if you end up
 17 testifying in court next month?
 18 A. Yes.
 19 Q. Did you come to Chicago yesterday? Is
 20 that what you indicated?
 21 A. Yes.
 22 Q. And did you have meetings yesterday with
 23 counsel?
 24 A. Yes.

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1 Q. Who did you meet with?
 2 A. Limo Cherian, Mike Kasper. Matt didn't
 3 really meet with us. Laura Liu.
 4 Q. L-i-u.
 5 Did you review any documents yesterday?
 6 A. Yes.
 7 Q. What --
 8 A. Are you talking about --
 9 Q. In connection with preparation for this
 10 deposition, other than your airline ticket and
 11 things like that?
 12 MR. KASPER: The newspaper.
 13 BY THE WITNESS:
 14 A. Yes. Yes. Well, are you asking --
 15 I reviewed documents last night.
 16 BY MR. SMITH:
 17 Q. Okay. Let me separate them out.
 18 A. Okay.
 19 Q. Did you review documents in your
 20 meetings with counsel yesterday?
 21 A. Yes.
 22 Q. What were they?
 23 A. I looked at my declaration. Did I look
 24 at anything else? I think that's all that we went

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1 over.
 2 Q. Did you review the statute that's at
 3 issue in this litigation?
 4 A. Only the -- only parts of it, the part
 5 that -- what would it be called? The findings, the
 6 two findings that are relevant to my expertise.
 7 Q. Okay. Which were those two findings?
 8 A. The findings involving the effects of
 9 violent video games on aggressive behavior and
 10 aggressive feelings.
 11 Q. Okay. And just so we're clear, a third
 12 finding relates to a reduction of activity in the
 13 frontal lobes of the brain. That is not a finding
 14 about which you have an expert opinion?
 15 A. Correct.
 16 Q. Did you review the section of the Act
 17 dealing with the purposes of the Act?
 18 A. No, I did not.
 19 Q. Had you seen the statute before
 20 yesterday?
 21 A. I had seen those two findings. I had
 22 not seen the rest. I have not read it. I mean,
 23 I suspect it's in the --
 24 Q. So sitting here today, do you know what

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1 games are restricted by the statute?
 2 A. Well, from newspaper reports and from
 3 conversations we had yesterday, my understanding is
 4 that it involves games that have human-on-human
 5 violence, meaning the player shoots human or
 6 human-like figures or attacks the human or
 7 human-like figures in some way.
 8 Q. Is there anything else you know about
 9 the nature of the restriction in the statute?
 10 A. No.
 11 Q. Do you have any knowledge of how, if at
 12 all, the ESRB ratings factor into the statute?
 13 A. No.
 14 Q. Now, what documents did you review last
 15 night?
 16 A. I reread several of my own publications.
 17 Q. Which were those?
 18 A. The 2003 -- I didn't read it cover to
 19 cover -- the 2003 PSPI report.
 20 Q. Would you spell that out for me?
 21 A. Psychological Science in the Public
 22 Interests.
 23 Q. Right.
 24 A. So I skimmed sections of that article.

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1 MR. SMITH: Let me just have this marked as
 2 Exhibit 1 so we can be clear what we are talking
 3 about.
 4 (WHEREUPON, said document was marked
 5 Anderson Deposition Exhibit No. 1,
 6 for identification, as of
 7 10/13/05.)
 8 BY MR. SMITH:
 9 Q. Showing you what I've marked as Anderson
 10 Exhibit 1, is this the article you just referred as
 11 one that you reviewed in part last night?
 12 A. Yes.
 13 Q. Okay. What other articles did you look
 14 at last night?
 15 A. I looked at and skimmed part of the
 16 Science article that came out in -- my Science
 17 article that came out in, I believe it was, 2002.
 18 Q. That would have been in Science
 19 Magazine?
 20 A. Right.
 21 Q. So is that a report of research or is
 22 that more of a popular discussion of video games?
 23 A. It is research.
 24 Q. Is there a co-author on that one?

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1 A. Brad Bushman.
 2 Q. So was that the article on which you
 3 first reported a meta-analysis?
 4 A. No.
 5 Q. That's a different one?
 6 A. That's a different one.
 7 Q. What research is recorded in the Science
 8 Magazine article?
 9 A. It's partly a commentary on an article,
 10 a longer article that someone else published in
 11 that same issue of Science and then it also reports
 12 some meta-analytic results from the media violence
 13 domain.
 14 Q. The domain of media is generally not
 15 video games specifically?
 16 A. Yes. Video violence generally.
 17 Q. Which article was it commenting on?
 18 A. If I recall correctly, the first
 19 author's name was Johnson.
 20 Q. And what was the nature of the research
 21 that was conducted and reported in that Johnson
 22 piece that you were commenting on?
 23 A. It -- the article was a -- reported a
 24 longitudinal study of the effects of television

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1 viewing on later aggressive behavior.
 2 Q. Did the article find such effects?
 3 A. Yes, it did.
 4 Q. Can you give me the gist of what your
 5 comments were on the article?
 6 A. My comments pointed out the -- some of
 7 the unique aspects of that particular study as well
 8 as one of the weaknesses of that study.
 9 Q. And what was the weakness?
 10 A. The weakness was that the measure of TV
 11 exposure was not specific to violent TV.
 12 Q. Can you tell me why you chose to review
 13 that article last night?
 14 A. I'm guessing here, but presumably
 15 because I haven't looked at it in a long time.
 16 Q. Are there other of your prior
 17 publications that you reviewed last night?
 18 A. No.
 19 Q. Do you know the title of the Anderson
 20 and Bushman piece that you looked at last night?
 21 Is it "The Effects of Media Violence on Society"?
 22 That's the Science article that -- I'm sorry.
 23 A. Yes.
 24 Q. And that is -- so -- just so I'm

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1 clear --
 2 A. It is the Science -- yeah, I don't
 3 remember the exact title.
 4 Q. Now, referring to the two findings that
 5 you identified as relevant to your opinion that
 6 were made by the legislature, the first is that
 7 "minors who play violent video games are more
 8 likely to exhibit violent asocial or aggressive
 9 behavior," unquote. I take it your opinion is that
 10 that's true?
 11 A. Yes.
 12 Q. Okay. And the second one is that such
 13 minors are also more likely to experience feelings
 14 of aggression, is that right?
 15 A. Yes.
 16 Q. And you take -- you believe that's true
 17 as well?
 18 A. Yes.
 19 Q. Are there any other opinions that you
 20 plan to -- strike that.
 21 Let me first try to understand why you
 22 don't have an opinion about the third finding
 23 relating to activity in the frontal lobe. Is that
 24 because you don't have any expertise in that area?

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1 A. I guess a more accurate description
 2 would be that I don't have much expertise -- I
 3 don't have sufficient expertise in that particular
 4 area.
 5 Q. Do you have an opinion about the
 6 usefulness of studying activity in the various
 7 parts of the brain using MRI as a basis for
 8 studying the effects of different media?
 9 A. Could you run that by me again?
 10 Q. Do you have an opinion about the
 11 usefulness of studies of brain activity in the
 12 frontal lobe or other parts of the brain as a basis
 13 for assessing the effects of media of people's
 14 behavior?
 15 A. Yes.
 16 Q. What's your opinion?
 17 A. My opinion is that such studies are
 18 likely to be useful.
 19 Q. Do you have an opinion about whether the
 20 research that exists to date is useful?
 21 A. I guess two responses. One is it
 22 appears useful to me, but the second piece is I'm
 23 not really qualified to make that judgment as to
 24 whether all of the procedures were carried out

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1 correctly or any of the interpretation of the
 2 results was done correctly. It is not my area of
 3 expertise. I'll just stop there.
 4 Q. Do you recall testifying by telephone
 5 before a committee of the Michigan legislature
 6 recently in connection with their consideration of
 7 legislation to restrict sales of violent video
 8 games?
 9 A. No, I don't.
 10 Q. You don't recall any kind of a
 11 conference call where you called in and talked
 12 about the state of the research to a Michigan
 13 committee?
 14 A. No, I don't.
 15 Q. Are you saying that didn't occur?
 16 A. No, I'm not saying it didn't occur. I
 17 talked to a lot of people. I don't specifically
 18 recall that conference call. I have talked to
 19 people from Michigan and a number of other states
 20 over the last two years.
 21 Q. Did you have any involvement in the
 22 process of consideration of the Illinois Violent
 23 Video Game Statute prior to its enactment?
 24 A. Yeah, I'm not entirely sure in part

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1 because I get a lot of calls from a lot of people
 2 requesting documents. I do have -- well, it's
 3 possible that I talked to some people from the
 4 Governor's office at some point.
 5 Q. Informally?
 6 A. Informally, right.
 7 Q. Did you have any formal role such as
 8 testifying or writing a formal opinion or anything
 9 like that?
 10 A. No, I did not.
 11 Q. Are there any other places where you
 12 have testified in a legislative context about the
 13 subject of violent video games other than the 2000
 14 U.S. Senate testimony and the St. Louis County
 15 testimony?
 16 A. Just the Washington State deposition and
 17 expert witness.
 18 Q. No. But I was asking you about
 19 legislative?
 20 A. Oh, legislative. I'm sorry.
 21 In a formal capacity, no. Again, I get
 22 a lot of phone calls and requests for documents.
 23 And I can't enumerate those and I can't remember
 24 all of those. I don't know which ones of those, if

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1 any, actually ever results in any legislation being
 2 passed.
 3 (WHEREUPON, Mr. Andrew L. Dryjanski
 4 entered the deposition proceedings.)
 5 BY MR. SMITH:
 6 Q. Now, according to the Illinois statute,
 7 one of its purposes, I'll represent to you, is,
 8 quote, "preventing psychological harm to minors who
 9 play violent video games," unquote.
 10 You say you have never read the purposes
 11 before?
 12 A. Right.
 13 Q. And I wonder if I can ask you, based on
 14 your overall knowledge of the research, if you
 15 could give me a sort of picture of what forms of
 16 psychological harm you believe are caused by
 17 exposure of minors to violent video games, if you
 18 could break them down into -- one is, obviously,
 19 clearly causing aggressive behavior, correct?
 20 A. Yes.
 21 Q. Are there others?
 22 A. The research evidence suggests increases
 23 in aggressive thinking, increases in
 24 aggression-related affect or feelings, increases in

Page 20

1 physiological arousal, and decreases in pro-social
 2 or helping behavior.
 3 Q. Okay. Let me -- is that the full list?
 4 A. Yes.
 5 Q. Let me just break those down.
 6 First of all, physiological arousal, is
 7 that an effect that only occurs in the immediate
 8 aftermath or during the playing of the game?
 9 A. There aren't really, to my knowledge,
 10 studies looking at potential long-term
 11 physiological arousal effects. My assumption,
 12 until such studies are done, is that those
 13 physiological arousal effects are probably
 14 short-lived.
 15 Q. Okay. Now, you listed them as one of
 16 the kinds of psychological harm that can be caused
 17 by exposure to violent video games. Do you
 18 consider physiological arousal in the short term to
 19 be harmful in some way?
 20 A. Actually, if -- well, I'm sure you have
 21 read some of my documents. I'm not one of the
 22 people who worries a whole lot about the
 23 physiological arousal aspect. That may be
 24 ignorance on my part because the physiological

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1 aspect is -- really gets outside of my domain of
 2 expertise. So ...
 3 Q. Is there any research out there that
 4 suggests that it would be better if people avoided
 5 physiological arousal in general?
 6 A. Well, again, you're kind of getting
 7 outside my area of expertise. I do know that there
 8 are some physicians with an interest in the video
 9 game research domain who are concerned about the
 10 physiological arousal aspects, both short-term and
 11 long-term. But again, that's really outside my
 12 domain of expertise.
 13 Q. So you don't have an opinion yourself
 14 about the harmfulness or not of physiological
 15 arousal?
 16 A. Right. In terms of the harmfulness,
 17 I don't have a strong opinion on that, one way or
 18 another.
 19 Q. Now, another one of the harms you listed
 20 was aggressive thinking. Can you tell me why you
 21 consider aggressive thinking to be harmful?
 22 A. Aggressive thinking, especially when
 23 it's repeated and practiced and rehearsed, is
 24 likely to, over time, lead to what's called an

<p style="text-align: right;">Page 22</p> <p>1 increase in the chronic accessibility of aggressive 2 knowledge structures, aggressive scripts. 3 Different people use different terms in this 4 domain. 5 But the concern is not so much with the 6 short-term effect, although that's a real issue, at 7 least for a short period of time, but with the 8 learning aspects that go along with it. 9 Q. Can you explain to me what you mean by 10 "learning aspects" of aggressive thinking? 11 A. Well, basically, when one plays a 12 violent video game, one is, in essence, practicing 13 how to be vigilant or to look for threats, 14 potential threats, potential harm. One is also 15 practicing how to make decisions about how to 16 respond to that threat and basically one is 17 practicing making violent decisions to choose 18 violent courses of action. 19 And one is rehearsing, then, selecting 20 of a violent action and then actually carrying it 21 out in some way. The idea is, as we know from -- 22 I mean, that's basically how learning occurs in 23 most any context, whether one is learning 24 multiplication tables or, you know, almost anything</p>	<p style="text-align: right;">Page 24</p> <p>1 causing -- the primary one of causing aggressive 2 behavior, developing an attitude, viewing the world 3 as a hostile place that this aggressive thinking 4 produces that you would consider harmful? 5 A. Well, yes. To the extent that someone 6 has aggressive thoughts, aggressive knowledge 7 structures, scripts very accessible in memory, it 8 decreases the likelihood of other types of thought 9 patterns or knowledge structures, scripts that 10 might be applicable, it decreases the likelihood 11 that these other kinds of ways of thinking would 12 come to mind in an appropriate situation. 13 Q. Other attitudes that you consider more 14 beneficial or more ways -- other ways of thinking 15 that you consider more beneficial would be 16 suppressed? 17 MS. CHERIAN: Objection, mischaracterizes his 18 testimony. 19 BY THE WITNESS: 20 A. Pardon me? 21 BY MR. SMITH: 22 Q. Is what I said an apt summary of what 23 you said? 24 A. I'm sorry. Could you say it again.</p>
<p style="text-align: right;">Page 23</p> <p>1 else. It's through rehearsal. 2 Q. Is it fair to say that the reason you 3 think this kind of aggressive thinking and kind of 4 rehearsal you mentioned is harmful is because it 5 ultimately leads to an increase in aggressive 6 behavior? 7 A. The long-term impact, the long-term 8 harmful aspect or the -- let me back up. 9 The primary concern about this increase 10 in aggressive thinking is that it's likely to lead 11 under some circumstances to increases in aggressive 12 behavior. 13 Q. Is there a secondary concern? 14 A. Yes, to the extent that one essentially 15 grows up to view the world in a hostile fashion in 16 this aggressive kind of way. It basically has a 17 potential to create people who essentially are 18 always ready to see things in a threatening or a 19 harmful way. 20 Q. So it develops an attitude of viewing 21 the world as a hostile place? 22 A. That would be one way of describing it, 23 yes. 24 Q. Okay. Is there anything else other than</p>	<p style="text-align: right;">Page 25</p> <p>1 Q. I said, is what you're saying that other 2 kinds of attitudes and views of the world that you 3 consider more beneficial are suppressed because of 4 the attitude of viewing the world as a hostile 5 place? 6 A. Partially. I guess it isn't -- it isn't 7 just that attitudes or ways of viewing the world 8 that I or anyone, you know, else might have an 9 opinion about what constitutes a beneficial way of 10 looking at the world, but there's also sort of an 11 accuracy issue that is independent of, for example, 12 my views about what's proper behavior or improper 13 behavior or improper ways of looking at the world. 14 Q. Can you explain to me the accuracy 15 issue? 16 A. Yes. The accuracy issue -- I can give 17 you an example. There would be more examples 18 possible, I would think, with some thought, but in 19 normal every day life people face ambiguous 20 situations all of the time. They might be 21 ambiguous in terms of whether someone likes you or 22 doesn't like you, they might be ambiguous in terms 23 of whether someone might be posing a threat of some 24 kind, may have insulted you or harmed you</p>

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1 intentionally versus say accidentally.
 2 And to the extent that a person is
 3 looking for instances of harm and threat, they may
 4 very well misinterpret some of these ambiguous
 5 situations as if it were some sort of intentional
 6 provocation when, in fact, the event that
 7 transpired was entirely accidental. So instead of
 8 giving sort of a benign interpretation, you tend to
 9 give a hostile interpretation to the situation.
 10 Q. Let me then turn to your statement that
 11 one of the harms -- psychological harms caused by
 12 exposure to violent video games is aggressive
 13 feelings.
 14 Here again is the reason you consider
 15 those feelings harmful because they lead to
 16 aggressive behavior?
 17 A. The primary reason would be because they
 18 can lead to aggressive behavior. Another harm
 19 presumably would be to the individual who in
 20 essence might become a more hostile person over
 21 time, that is, they might develop a tendency to
 22 become angry easier. But the primary one really
 23 is, in my thinking at least, the potential for
 24 increasing aggressive behavior.

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1 Q. Okay. Can you explain to me what the
 2 fourth harm means, the decrease in pro-social
 3 behavior?
 4 A. Pro-social behavior, sometimes called
 5 helping behavior, involves behavior designed -- or
 6 it's intended to help someone else or do something
 7 good for someone else.
 8 Q. So your expert opinion is that people
 9 exposed -- minors exposed to violent video games
 10 are less likely to help other people?
 11 A. There is research evidence suggesting
 12 that, in fact, exposure to violent video games lead
 13 to a decrease in such pro-social behavior.
 14 Q. And just so I'm clear, if I were to ask
 15 you the same series of questions about the
 16 psychological harms caused by exposure to violent
 17 television or violent movies, would you have the
 18 same list of four things in addition to the
 19 aggressive behavior itself?
 20 A. I would have to say that I'm not -- I
 21 don't remember what kind of research there is on
 22 pro-social behavior and television, violent
 23 television viewing. I simply don't remember what's
 24 there.

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1 Q. How about the other three, aggressive
 2 thinking, aggressive feelings and physiological
 3 arousal?
 4 A. I have -- at this point without going
 5 back and looking things up, I don't remember the
 6 meta-analytic results looking at just television
 7 effects on arousal or aggressive thinking. I do --
 8 there are such studies that have found some of
 9 those results in the TV literature, but I don't
 10 remember whether there is a good meta-analytic
 11 summary of all of those results. I believe that
 12 there is, but I can't say for certain.
 13 Q. How about the other two, aggressive
 14 thinking and aggressive feelings?
 15 A. I would have to give the same response
 16 at this point without going back and looking at
 17 that meta-analyses that others have done of that
 18 literature, but I'm -- again, I believe -- if I'm
 19 remembering right, I believe that there is evidence
 20 for those, but I'd have to look at -- I'd have to
 21 look things up.
 22 Q. Sitting here today, it is your expert
 23 opinion, is it not, that exposure to violence in
 24 any of -- in any media, TV, movies or violent video

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1 games, makes people feel more aggressive, isn't it?
 2 Is there some doubt about that?
 3 A. I guess the -- you are focusing on
 4 aggressive feelings?
 5 Q. That was what that particular question
 6 was.
 7 A. This question is focusing on aggressive
 8 feelings. Okay. My recollection, the research
 9 literature is that, yes, in general media violence
 10 exposure does tend to lead to increases in
 11 aggressive feelings, at least in the short term.
 12 Q. Is the same true of aggressive thinking?
 13 A. Yes.
 14 Q. Now, Professor, in your declaration you
 15 talk about several different categories of studies
 16 that have looked at the issue of the effects of
 17 exposure to video games. And the first of those is
 18 the experimental studies; is that true?
 19 A. Pardon me?
 20 Q. That's one category, experimental
 21 studies?
 22 A. Experimental studies is one category.
 23 Q. And just so we are clear, an
 24 experimental study is a study that looks at

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1 short-term effects of exposure to a particular
 2 stimuli, like a video game, is that right?
 3 A. The vast majority of studies -- of
 4 experimental studies are short-term in nature.
 5 Q. And in those studies the responses that
 6 are measured after exposure to the particular
 7 stimulus are typically some sort of proxy for
 8 aggressive behavior, is that right?
 9 A. In some studies they -- they are --
 10 well, let me back up.
 11 When we conduct meta-analyses, for
 12 example, or when anyone conducts good experimental
 13 research in this domain, the aggressive behavior
 14 measure is, in fact, a measure of -- it fits the
 15 definition of aggressive behavior. So I'm not
 16 quite sure what one means by proxy. If you mean by
 17 proxy that no one was actually harmed, then the
 18 answer is yes in some studies it's a proxy measure.
 19 In other studies, particularly some of
 20 the studies with younger children, there is some
 21 harm because the measure is -- might consist of
 22 observing children in a free-play situation and
 23 counting the number of times they hit or trip or
 24 kick or do something that -- to another child that

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1 would, in fact, constitute some level of real harm
 2 to a real person.
 3 Q. Okay. Now, leave aside that issue of
 4 playground observation. For an older population,
 5 such as the college students that you've studied,
 6 in those situations you've either studied what you
 7 call aggressive behavior or sometimes you are
 8 studying aggressive cognition, I think aggressive
 9 feelings, other things, is that right?
 10 A. Yes, we've done studies with all three
 11 of those types.
 12 Q. The aggressive behavior that you measure
 13 in those studies involving some of the older
 14 populations has included noise -- noise blasts that
 15 the person can inflict on another person, is that
 16 right?
 17 A. Yes. In those studies the research
 18 participant typically believes that they're
 19 delivering noxious noise blasts to another person.
 20 Q. Is there any other form of aggressive
 21 behavior that you have measured in your
 22 experimental studies?
 23 A. In other contexts, we have used what are
 24 essentially verbal aggression measures in an

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1 experimental laboratory-type study.
 2 Q. Can you tell me what you are referring
 3 to?
 4 A. Those are -- that was a study -- say in
 5 other contexts, it is not a video game study, but
 6 it was a study of justified versus unjustified
 7 frustration.
 8 Q. What did you measure as a form of
 9 aggressive behavior?
 10 A. In that particular study, the
 11 frustration was provided by the person
 12 administering the experiment and then at the end of
 13 the experiment the participant was given an
 14 opportunity to essentially evaluate that
 15 experimenter and was led to believe that their
 16 evaluation would be influential in determining
 17 whether that experimenter got some sort of -- if I
 18 remember right, some sort of a research assistant
 19 position. So they could harm them by giving a very
 20 bad evaluation.
 21 Q. And you consider that a form of
 22 aggression?
 23 A. That is a standard well-accepted in the
 24 field form of aggression.

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1 Q. When you use the word "aggression," it
 2 means anything that you can do that has a potential
 3 to harm another person, is that correct?
 4 A. There are several key features to what
 5 counts as aggression in this research literature.
 6 The person doing the behavior, whether it is verbal
 7 or physical aggression or relational or whatever,
 8 is presumed to intend to harm the victim. The
 9 assumption is also that they believe that there is
 10 some chance that that behavior will, in fact, harm
 11 the victim and the belief that the victim would
 12 like to avoid that harm.
 13 Q. Now, returning to the context of
 14 experimental studies of video game exposure, just
 15 so it's clear, the only form of what you would call
 16 aggression or aggressive behavior that you've
 17 measured in your experimental studies is noise
 18 blasts?
 19 A. To the best of my recollection, in the
 20 video game studies that we have conducted, the
 21 original experimental laboratory, right, would be
 22 noise blasts.
 23 Q. Okay. And you mentioned before that
 24 some other people have studied playground behavior

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1 of smaller children.
 2 Putting those two examples aside, can
 3 you give me an example -- can you give me any other
 4 examples of what you would call aggressive behavior
 5 that have been measured in experimental studies of
 6 video games?
 7 A. I -- yeah, I can't say with certainty
 8 without going back and looking at the studies,
 9 whether there are other examples.
 10 Q. But you've done -- we're going to talk
 11 about these later -- at least three meta-analyses
 12 of the research relating to video games. And those
 13 are studies where you combine the effects of a
 14 large number of studies and produce a sort of
 15 overall effect size, is that right? Combine them
 16 in a very sophisticated way, I'm sure, but combine
 17 them, nevertheless?
 18 A. Yes. Basically what a meta-analysis --
 19 that's what a meta-analysis does, is to --
 20 Q. And sitting here today, in terms of --
 21 strike that.
 22 One of the things you do in those
 23 meta-analyses is to separate out the studies of
 24 aggressive behavior versus aggressive cognition or

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1 aggressive emotion, is that right?
 2 A. Yes. We attempt to categorize the
 3 outcome variables into meaningful categories,
 4 right.
 5 Q. And in the area of aggressive behavior,
 6 the studies that you've put into those
 7 meta-analyses, sitting here today, at least, you
 8 can't think of any other forms of aggressive
 9 behavior that those studies have measured?
 10 A. Not with certainty, not without going
 11 back to those tables.
 12 Q. Is it accurate to say that you're not
 13 aware of any experimental study of video games in
 14 which the behavior being measured would be
 15 accurately described as violence?
 16 MS. CHERIAN: Objection, vague.
 17 BY THE WITNESS:
 18 A. I guess I would need to know what you
 19 mean by "violence."
 20 BY MR. SMITH:
 21 Q. You've discussed the distinction between
 22 the word "aggression" and the word "violence" in
 23 many of your publications, haven't you?
 24 A. I have pointed out in a number of

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1 publications that violence is generally thought of
 2 in this domain as being at the more severe end of a
 3 continuum of aggression ranging from pretty mild
 4 stuff to very severe forms of aggression, and it's
 5 those more severe -- towards the more severe end
 6 that one would typically classify as violence.
 7 Q. You've also said that the experimental
 8 studies don't actually study violence because it's
 9 unethical to create a situation in which somebody
 10 would actually behave violently?
 11 A. That is basically correct, that one
 12 cannot typically do a study, an experimental study,
 13 where you set up a situation that allows someone to
 14 be severely harmed.
 15 Q. Now, let me ask about the experimental
 16 studies that look at aggressive thinking or
 17 aggressive cognition. One of the ways in which
 18 you've studied that is to give people, after they
 19 play a violent video game, words with some of the
 20 letters missing, is that right?
 21 A. Yes.
 22 Q. And then you see which word they fill
 23 in, essentially?
 24 A. Yes. That's known as the word

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1 completion task or the word fragment task.
 2 Q. And another thing you've studied is how
 3 quickly they react to particular words?
 4 A. How quickly they can begin reading a
 5 word that's flashed on a computer screen.
 6 Q. How do you test that?
 7 A. In that kind of an aggressive cognition
 8 task, which is actually a fairly standard task from
 9 the cognitive psychology domain, what one does is
 10 have a computer program that flashes a series of
 11 words on a computer screen one at a time. The
 12 participant's task is to read each word out loud as
 13 quickly as they can, and the computer records how
 14 quickly or how slowly they can read each word.
 15 Now, some of the words have aggressive
 16 meaning. Some of the words are aggression-related
 17 words, and some are not. And what one then does is
 18 compute, on average, how quickly one responds to
 19 the aggression words and how quickly one responds
 20 to the non-aggression words and look at the --
 21 essentially, the relative speed for those two types
 22 of words.
 23 Q. And the conclusion that you can draw
 24 from that is what?

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1 A. If one has been thinking aggressive
 2 thoughts, if aggressive knowledge structures have
 3 been primed, have been thought about, or are more
 4 accessible in memory, one should be relatively
 5 faster at naming the aggressive words relative to
 6 the non-aggressive words as compared to someone who
 7 has not been thinking aggressive thoughts.
 8 Q. These measures are taken in the
 9 immediate aftermath of exposure either to a violent
 10 game or another game that you consider less -- that
 11 you consider non-violent?
 12 A. That is the typical use of that task,
 13 would be in a -- typically in an experimental
 14 context.
 15 Q. Have you ever seen it used in the
 16 context of a video game study in some other way?
 17 A. Well, in some of those studies --
 18 I can't say that I remember with complete
 19 certainty. Some of the aggressive cognition
 20 measures have been used in a correlational context.
 21 And off the top of my head, I can't remember which
 22 ones.
 23 MR. SMITH: Let's have this document marked as
 24 Exhibit 2.

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1 (WHEREUPON, said document was marked
 2 Anderson Deposition Exhibit No. 2,
 3 for identification, as of
 4 10/13/05.)
 5 MR. SMITH: Off the record.
 6 (WHEREUPON, discussion was had off
 7 the record.)
 8 BY MR. SMITH:
 9 Q. Dr. Anderson, I'm showing you what has
 10 been marked as Exhibit 2. This is an article you
 11 published with Professor Dill in the year 2000,
 12 right?
 13 A. Yes.
 14 Q. And is this the report of first --
 15 strike that.
 16 This report includes some discussion of
 17 experimental research that you had conducted on
 18 video games?
 19 A. Yes.
 20 Q. Had you done experimental research on
 21 the effects of video games prior to this study?
 22 A. Yes.
 23 Q. You did some work back in the '80s with
 24 a person named Ford, is that right?

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1 A. Yes, that is right.
 2 Q. Was that a study that didn't find
 3 significant effects of video game play on affect,
 4 which is what I think you were studying?
 5 A. It -- that study did find some effects
 6 on some affect measures.
 7 Q. But not others?
 8 A. But not others, and I don't remember
 9 which.
 10 Q. Was there some experimental study of
 11 video game play between the Anderson and Ford study
 12 in the 1980s and the Anderson and Dill experiment
 13 here that you conducted?
 14 A. I don't believe -- I don't believe we
 15 conducted any experimental studies between there.
 16 Q. Is it accurate that as of the time you
 17 published this Anderson and Dill piece, it was your
 18 expert judgment that the existing experimental
 19 research on video game effects did not provide a
 20 strong basis for judgments about those effects?
 21 A. Certainly, the literature would have
 22 been weaker at that point. But if I remember
 23 correctly, we were already in the process of
 24 gathering studies for what eventually became the

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1 meta-analysis that appeared in, I believe, 2001.
 2 What I don't remember is the exact
 3 timing because there's -- publication lags differ
 4 not only from journal to journal, but even the same
 5 journal, different times.
 6 So I don't know when, for example, the
 7 last revision was written for this 2000 paper,
 8 whether -- I mean, it had to have been in '99
 9 and -- or earlier, possibly in 1998.
 10 Q. What I'm really trying to ask you is are
 11 you aware of experimental research conducted by
 12 anyone prior to the experiment reported here that
 13 you considered provided substantial basis for
 14 assessment of the effects of video game play?
 15 A. There were some experimental studies --
 16 I believe there were -- yeah, I would have to look
 17 to be sure because I don't remember the dates on
 18 all of these.
 19 MR. SMITH: Let's have this marked as
 20 Exhibit 3, please.
 21 (WHEREUPON, a certain document was
 22 marked Anderson Deposition Exhibit
 23 No. 3, for identification, as of
 24 10/13/05.)

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1 BY MR. SMITH:
 2 Q. Exhibit 3 is a chapter entitled "Violent
 3 Video Games, the Effects on Youth and Public Policy
 4 Implications" that you published with Professor
 5 Gentile?
 6 A. Yes.
 7 Q. And that was published in --
 8 A. It's not published.
 9 Q. It actually is in press right now, is
 10 that right?
 11 A. Yes.
 12 Q. And it is going to appear in a book?
 13 A. Yes.
 14 Q. Now, if you could turn over to Page 229.
 15 This is essentially a galley proof, I gather?
 16 A. Yes, it's a galley proof.
 17 Q. The last paragraph on that page, you
 18 say, quote, "The best experimental studies share at
 19 least four common characteristics, sample size,"
 20 and then -- I'll read you the whole thing --
 21 "sample size of 200 or more, violent and
 22 non-violent games equated on potentially
 23 confounding dimensions, violent and non-violent
 24 games that are truly violent and non-violent, and a

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1 clear and valid measure of aggression or
 2 aggression-related variables assessed for the game
 3 playing participant," unquote. Do you see that?
 4 A. Yes.
 5 Q. And over on the next page, beginning of
 6 the next paragraph, you say, "The first study that
 7 contained all four of these characteristics
 8 appeared in 2000," citing the Anderson and Dill
 9 study which is Exhibit 2, is that correct?
 10 A. Yes.
 11 Q. So is it true that all of the studies
 12 that occurred before the Anderson and Dill study
 13 had -- were missing one of these characteristics?
 14 A. Yes. None of them had sample sizes that
 15 large.
 16 Q. And were there -- is it also true that
 17 most of them didn't even separate out violent game
 18 play from non-violent game play?
 19 A. That is not true for experimental
 20 studies. There were some that didn't do a really
 21 good job of being sure that the violent -- the
 22 purported violent games were -- had a lot of
 23 violence and that the purported non-violent games
 24 had little or no violence.

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1 Q. Now, one of the things you mention here
 2 is a characteristic of the best experimental
 3 studies is a -- it says, quote, "Violent and
 4 non-violent games equated on potentially confounded
 5 dimensions, e.g., difficulty," unquote. Can you
 6 tell me what you meant by that?
 7 A. Yes. One of the -- one of the things
 8 one should be somewhat aware of in selecting games
 9 in such studies is that you don't want to have say
 10 a violent game that is a lot more difficult or a
 11 lot easier than the non-violent game. Ideally you
 12 don't want that.
 13 If you want to -- well, it depends on
 14 what kind of inferences you want to draw. If you
 15 want to draw the inference that -- or be able to
 16 draw, depending on how the results come out, the
 17 inference that it is purely the violent content
 18 that's creating whatever outcome variable you are
 19 looking at, then in some circumstances -- and you
 20 would want to control for difficulty level either
 21 by selecting games that are pretty much the same
 22 difficulty or by measuring perceived difficulty and
 23 controlling for it statistically.
 24 Q. Is that because a more difficult game

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1 can produce a higher level of frustration which
 2 could then be reflected in the response of the
 3 player after the exposure?
 4 A. Yeah, if one is looking at, for example,
 5 aggressive behavior as your outcome measure, it is
 6 conceivable that a game that is more difficult,
 7 whether it's the non-violent game or the violent
 8 game, that that difficulty itself could influence
 9 the level of aggression.
 10 Q. Are there other confounding, potentially
 11 confounding dimensions, such as arousal?
 12 A. Again, it sort of depends on what one is
 13 trying to study.
 14 Q. But we are talking in the context of
 15 this article about studies of video games and their
 16 effect on potentially creating aggressive behavior
 17 or aggressive cognition or aggressive feelings,
 18 right?
 19 A. If one asks the question sort of
 20 broadly, do violent video games increase aggressive
 21 behavior, there are several ways in which violent
 22 video games might increase aggressive behavior.
 23 One of those ways is by increasing arousal. So
 24 whether or not one wants to control for arousal

<p style="text-align: right;">Page 46</p> <p>1 depends on whether or not you're trying to make a 2 much finer theoretical point about, "Okay. We want 3 to see, for example, whether aggressive thoughts 4 inspired by video games can increase aggressive 5 behavior." And if you want to specifically look at 6 that question, then you would want to try to 7 control for arousal. 8 Q. If your goal was to determine whether or 9 not violent content in particular in the games 10 leads to what you would call aggressive behavior, 11 you would want to control for arousal, is that 12 right? 13 A. Not necessarily. Again, if it is found 14 that -- for example, that violent content is 15 frequently associated with increases in arousal, 16 that would be one sort of legitimate route through 17 which violent video games can increase aggressive 18 behavior. So you wouldn't necessarily want to 19 control for that, again, depending on what 20 theoretical hypothesis one is trying to test. 21 Q. Well, you have controlled for it in 22 repeated experimental studies, have you not? 23 A. We have controlled for it in a number of 24 studies, yes.</p>	<p style="text-align: right;">Page 48</p> <p>1 A. I typically am more interested in what I 2 call the cognitive route as opposed to the 3 physiological route because of -- because I believe 4 that the cognitive route is more likely to produce 5 the kinds of learning changes in terms of 6 knowledge, accessibility of knowledge structures 7 and aggressive scripts and so on that that's where 8 you're more likely -- or the way in which one is 9 more likely to see long-term effects. 10 Q. As opposed to short-term effects involve 11 physiological arousal? 12 A. Yes, as opposed to the short -- what 13 I view as short-term effects of physiological 14 arousal. 15 Q. Now, are there other examples of what 16 you called in Exhibit 3 potentially confounding 17 dimensions? 18 A. Pardon me? 19 Q. Are there other examples beyond 20 difficulty and arousal effects that are examples of 21 what you call in Exhibit 3 potentially confounding 22 effects? 23 A. Do you mean examples that aren't in this 24 list? I've lost my place.</p>
<p style="text-align: right;">Page 47</p> <p>1 Q. Can you tell me why? 2 A. The main reason why is because I haven't 3 been terribly interested in the physiological 4 arousal aspect. 5 Q. Is it because you are studying the 6 effects of the violent content, trying to separate 7 that out from the effects of arousal, is that 8 right? 9 MS. CHERIAN: Objection. Mischaracterizes his 10 testimony. 11 BY THE WITNESS: 12 A. That isn't -- no, that isn't correct. 13 BY MR. SMITH: 14 Q. In what sense is it not correct? 15 A. I am -- violent content itself may well 16 lead to increases in arousal. And if that's the 17 case and if the research question is can violent 18 content in video games increase aggressive 19 behavior, one could legitimately try to conduct a 20 study that looks to see if one way that that 21 happens is by increasing arousal. 22 Q. Let me get at it this way then. Why is 23 it that you don't do studies without controlling 24 for arousal?</p>	<p style="text-align: right;">Page 49</p> <p>1 Q. I'm sorry. We're on page 229. You have 2 the four characteristics of the best experimental 3 studies. One of them is -- 4 A. Oh. 5 Q. -- "violent and non-violent game equated 6 on potentially confounding dimensions, e.g., 7 difficulty." Do you see that? 8 A. Yes. 9 Q. First of all, is it fair to say that you 10 consider arousal effects another potentially 11 confounding difficulty -- confounding dimension? 12 A. No. Well, the answer is more 13 complicated than that. It depends on the 14 theoretical goals of the study. 15 Q. Fair enough. 16 A. In some circumstances, yes. In other 17 circumstances, no. 18 Q. And are there other things that you 19 would want to equate the violent and non-violent 20 game on if you were -- at least in some situations? 21 A. Yes, there are other dimensions. 22 Q. And what are those? 23 A. Sort of excitement or enjoyability. 24 Those all tend to kind of go together, as it turns</p>

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1 out. I mean, to give sort of a crude example, you
 2 don't want a game -- you don't really want to
 3 compare games that -- where one game, everybody
 4 really likes; and the other game, everybody really
 5 hates.
 6 Q. So one is more fun than the other?
 7 A. So, yeah, so if -- basically, yeah,
 8 I mean, that is a decent summary label for what
 9 some of these dimensions eventually get to.
 10 Q. I'm sure you have better terms for that
 11 than that.
 12 MR. SMITH: But let me have this marked as
 13 Exhibit 4. Is that what we are up to?
 14 (WHEREUPON, said document was marked
 15 Anderson Deposition Exhibit No. 4,
 16 for identification, as of
 17 10/13/05.)
 18 BY MR. SMITH:
 19 Q. Okay. This is a study -- an article you
 20 published in The Advances in Experimental Social
 21 Psychology in 2004, correct, Doctor?
 22 A. Yes.
 23 Q. With a number of colleagues?
 24 A. Yes.

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1 Q. Are they all at Iowa State, by the way?
 2 A. No.
 3 Q. They're from all over the place?
 4 A. Yes.
 5 Q. I guess I can look them up.
 6 If you turn over to page 206 of this
 7 Exhibit 4, under the heading "Key Questions," it
 8 says: "Three key second-level questions remain
 9 unanswered by existing research on violent video
 10 games. First, do violent video games generally
 11 increase aggressive cognitions? Several studies
 12 have found significant increases in aggressive
 13 thoughts as a function of exposure to violent video
 14 games" -- citing Anderson and Bushman, 2001 -- "but
 15 most have not explicitly controlled for other
 16 potential differences between the target video
 17 games, such as differences in affective or arousal
 18 properties," unquote.
 19 Can you tell me what you meant there by
 20 "differences in affective properties"?
 21 "Affective," with an A.
 22 A. That would be things like how much they
 23 like the game.
 24 Q. That's what we were just talking about?

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1 A. Yes.
 2 Q. Okay. And you go on to say that.
 3 As of the time you wrote this article,
 4 only one published experimental study had
 5 successfully controlled for both arousal and
 6 affective features.
 7 A. Yes.
 8 Q. And that was the Anderson and Dill
 9 study, Exhibit 2?
 10 A. Yes.
 11 Q. Okay. So all of the other experiments
 12 that had been done on video game effects as of the
 13 time you wrote this article had failed to control
 14 for either arousal or this affective differential?
 15 A. Most of the prior studies had measured
 16 those properties.
 17 Q. Now --
 18 A. Again, we're talking about experimental
 19 studies here, if I remember.
 20 Q. Yes.
 21 A. Yes.
 22 Q. Can we go back to No. 2, the one that
 23 you say here did successfully control for arousal
 24 and affective features. This is the Anderson and

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1 Dill study.
 2 Can you tell me how, in the experiment
 3 that's reported in Exhibit 2, you went about
 4 controlling for those two factors?
 5 MR. SMITH: Maybe we can take a break and look
 6 at it quickly. Do you mind going off the record
 7 for a minute.
 8 (WHEREUPON, a recess was had from
 9 9:15 a.m. until 9:20 a.m.)
 10 BY MR. SMITH:
 11 Q. There was a pending question. Do you
 12 know what it was? I guess I can just restate it.
 13 A. Why don't you restate it.
 14 Q. How did you go about, in the Anderson
 15 and Dill experiment, controlling for differences of
 16 arousal or affective effects?
 17 A. There were two procedures used. One was
 18 based on some pilot testing of several games. We
 19 selected the two that matched best on the things
 20 that we wanted to match on.
 21 And then we also took measures of
 22 perceived differences -- or actually, we took
 23 measures of some of those dimensions in the main
 24 experiment itself so that, if need be, we could

<p style="text-align: right;">Page 54</p> <p>1 statistically control for any differences that 2 might emerge. 3 Q. So to get more specific, turning to 4 page 783 of Exhibit 2, you talk about the two games 5 that you ended up testing here. 6 One is Wolfenstein 3D, is that right? 7 A. Yes. 8 Q. That's the violent game? 9 A. Yes. 10 Q. And Myst, M-y-s-t, is the non-violent 11 game? 12 A. Yes. 13 Q. And Wolfenstein 3D is a first-person 14 shooter? 15 A. Yes, it is. 16 Q. And Myst is a kind of quest game where 17 you go around and solve puzzles? 18 A. Yes. It is. 19 Q. You say at the top of the second column 20 there that, "Wolfenstein 3D was rated as more 21 exciting than Myst," is that right, at least by 22 male participants? 23 A. Somewhere. Somewhere. Where is that? 24 The top?</p>	<p style="text-align: right;">Page 56</p> <p>1 testing had revealed a significant difference in 2 the excitement level of the game (based on 3 self-report data but not on the physiological data) 4 between Myst and Wolfenstein 3D." 5 And then, in the next sentence: 6 "We included game excitement as a covariate in all 7 the models that follow because of the pilot study 8 results, but it was not a significant predictor in 9 any of the models." 10 Q. So excitement became a separate variable 11 in the aggressions? 12 A. It became a control variable, yes. 13 Q. And was excitement -- how did you get 14 the value for that variable from the ratings of the 15 individual players? 16 A. Yes, the same way as in the pilot, in 17 the same ratings category. 18 Q. So for any one person who had particular 19 measures on the noise blasts, they would also have 20 a particular rating that they had given the two 21 games in terms of how exciting they were and that 22 would go into the equation? 23 A. Yes, into the regression equation, 24 that's correct.</p>
<p style="text-align: right;">Page 55</p> <p>1 Q. The top of the second column there. 2 A. Yes. 3 Q. And that didn't prevent you from using 4 them as the two games that were compared? 5 A. That finding didn't emerge until after 6 the study was run. 7 Q. Well, you go on in the next paragraph to 8 say, "Myst and Wolfenstein 3D matched well, but 9 because of the rated difference in excitement 10 level" -- 11 A. Oh, oh, I see. No, you're correct. 12 You're correct. That was in the pilot study. 13 Q. And you went ahead and used them anyway? 14 A. Yes, because those two matched best. 15 They were closest on various dimensions. 16 Q. And in the main study, did you do 17 anything to adjust the results to reflect the fact 18 that Wolfenstein 3D was perceived as more exciting 19 by at least -- I believe it was the male 20 participants? 21 A. Yes, we did. 22 Q. And can you show me where that is? 23 A. Page 785 under "Results," it says "Video 24 Game Questions." And it says: "Recall that pilot</p>	<p style="text-align: right;">Page 57</p> <p>1 Q. And do you know whether, in fact, the 2 people involved in the main study both on average 3 rated Wolfenstein 3D as more exciting than this? 4 A. I do not recall. If it's not -- yeah, I 5 don't recall whether -- whether it did or not. 6 Q. Okay. So the method that you use here 7 at least to equate these two was essentially a kind 8 of self-report or an assessment by the players of 9 which ones -- of how exciting they found each game 10 and how frustrating and those sort of things? 11 A. Yes. 12 Q. Okay. Have you gone on and adopted a 13 similar approach in more recent experiments to 14 equate games on factors such as arousal or 15 affective effects? 16 A. We have in some experiments, yes. 17 Q. And there have been experiments where 18 you've equated the game Marathon 2 with the game 19 Glider Pro? 20 A. We have -- I don't remember exactly what 21 we equated on in that study. 22 Q. Do you remember which games it was? 23 A. I remember the games, yes. 24 Q. Okay. Oh, you don't remember which</p>

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1 factors you actually controlled for is what you are
 2 saying?
 3 A. Yes, without looking it up.
 4 Q. Can you tell me about any research that
 5 has occurred -- strike that.
 6 We were talking before about how at the
 7 time you did the Anderson-Dill experiment, that was
 8 the first one that had successfully controlled for
 9 arousal and affective effects. Do you recall that?
 10 A. Well, it was the first one that had all
 11 four of those --
 12 Q. Characteristics?
 13 A. -- characteristics.
 14 Q. One of which was equating the games on
 15 potentially confounding dimensions, correct?
 16 A. Yes.
 17 Q. Can you tell me, leaving aside your own
 18 subsequent experimental work, whether you are aware
 19 of any other experimental studies done since
 20 Anderson and Dill in which people have attempted to
 21 equate games on arousal, for example?
 22 A. There are such studies. There were some
 23 done -- I'm trying to remember what the year would
 24 have been. There are such studies that have tried

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1 to equate on arousal.
 2 Q. If we could go back to Exhibit 4,
 3 quickly. That's the Anderson, Carnagey, et cetera,
 4 et cetera?
 5 A. Sure.
 6 Q. Back to 206. That's where you say at
 7 least in an article published in 2004 that "only
 8 Anderson and Dill had successfully controlled for
 9 both arousal and affective features."
 10 Do you know whether any studies done
 11 since you made that statement have successfully
 12 controlled for both arousal and affective features?
 13 A. Off the top of my head I can't recall
 14 any by -- you know, that I can guarantee controlled
 15 for both types of factors other than some ones that
 16 we've done in our lab.
 17 Q. Let me just talk to you a little bit
 18 about the second category of studies that you
 19 mention in your declaration which is correlation
 20 studies, cross-sectional correlation studies,
 21 correct?
 22 A. Yes, that is a second type.
 23 Q. First I'd like you, if you could, to
 24 summarize the extent to which you think that kind

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1 of study can or cannot be used to establish a
 2 causality between exposure to video -- violent
 3 video games and aggressive behavior?
 4 A. I guess first of all it is important to
 5 note that no single study, whether it is
 6 correlational, experimental, longitudinal, can
 7 really definitively answer such complex questions.
 8 What one has to look at is what's sort of the
 9 nomological network, all of the studies as a group,
 10 theoretical, the theoretical basis for studies and
 11 for findings and so on.
 12 What -- it's in that context that
 13 correlational studies become particularly useful.
 14 Q. But I'm asking you to isolate that
 15 category. I understand that that's your position.
 16 A. That's right.
 17 Q. But I'm asking you to isolate that
 18 category now in talking about the extent to which
 19 those kinds of studies can be used to establish
 20 causality.
 21 A. What -- the answer to that really
 22 requires an understanding that if you want to
 23 understand the phenomenon scientifically, you have
 24 to be building some kind of a model or theory that

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1 you then test, modify and so on. A good theory has
 2 to be falsifiable, and that is where correlational
 3 studies come into -- is one way in which
 4 correlational studies come into play. They provide
 5 the opportunity for hypothesized relationships --
 6 Q. To be disproved?
 7 A. -- to be disproven or for, I'm going to
 8 make up a word, unhypothesized or contradictory
 9 relationships to emerge.
 10 The correlational studies also sometimes
 11 provide opportunities to test plausible alternative
 12 explanations, alternatives to the prevailing
 13 theory. So it is in that context that
 14 correlational studies are relevant to sort of the
 15 overall judgment about whether a particular
 16 theoretical view of a phenomenon is strong, weak,
 17 somewhere in between.
 18 Q. Is it accurate to say -- and I want you
 19 to imagine a world in which the only kind of
 20 research we have available is the correlation
 21 studies. Is it accurate to say that in such a
 22 world we would know that more aggressive people
 23 tend to play more violent video games, but we
 24 wouldn't know which direction the causality runs?

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1 A. Well, you are asking about a
 2 hypothetical world --
 3 Q. Yes.
 4 A. -- that doesn't exist.
 5 Q. I understand that.
 6 A. Okay. Partly the answer I guess from my
 7 view is that, in fact, there are sciences that have
 8 essentially causal theories, you know, come up with
 9 what are generally accepted, you know, theoretical
 10 models where there is no ability to run
 11 experimental studies.
 12 So I -- I guess the answer to the
 13 question in some sense is if one could only conduct
 14 cross-sectional correlational studies, no
 15 experimental studies, no longitudinal studies are
 16 possible, if that was the case, one would still be
 17 able to come up with reasonable causal theoretical
 18 models that are falsifiable, although the task
 19 would be different -- somewhat different than the
 20 way we conduct research.
 21 Q. It is certainly true that your causal
 22 theories could be falsifiable, but they couldn't be
 23 provable, isn't that right?
 24 A. Provable is a word that's typically not

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1 used in science.
 2 Q. You made up a word. I can make up a
 3 word.
 4 A. No, it's a real -- no. I mean, I'm
 5 assuming it is a real word, but any theory whether
 6 it's, you know, big bang theory or theories about
 7 disease or whatever is even -- you know, even the
 8 most well-established theory in any demand of
 9 science is always subject to revision.
 10 Q. Are you saying that you think the
 11 hypothesis that exposure to violent video games
 12 causes aggressive behavior could be proved by
 13 correlation studies alone?
 14 A. I would not use the word "prove"
 15 regardless of what kind of studies. I mean,
 16 depending on what context one is asked to use the
 17 word, in a purely scientific context I guess I
 18 would say that one could create theories that
 19 certainly meet reasonable standards of proof as
 20 established by the scientific community.
 21 Q. Okay. Let me ask you to turn to your
 22 public policy piece, Exhibit 3 at Page 228, the
 23 second column, first full paragraph. The sentence
 24 begins, "The major weakness." Do you see that?

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1 A. Yes.
 2 Q. "The major weakness of correlational
 3 studies is that causality cannot be proven" --
 4 those last four words are italicized, correct,
 5 Doctor?
 6 A. Yes.
 7 Q. -- "by them, at least not in a single
 8 correlational study. It might be that playing
 9 video games -- violent games causes aggressive
 10 behavior or that aggressive children play violent
 11 games or some third variable that causes both, such
 12 as being male, which predicts both aggressive
 13 behavior and interest in violent video games."
 14 Is that -- is there anything you
 15 disagree with in the two sentences I just read?
 16 A. No.
 17 Q. And when you used the word -- the words
 18 "causality cannot be proven by them," what did you
 19 mean by that?
 20 A. Well, the context is, first of all, very
 21 important that it not in a single correlational
 22 study.
 23 Q. Well, I was asking about the prior
 24 phrase, "the causality cannot be proven by them."

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1 What did you mean by that?
 2 A. The audience for this chapter is a more
 3 general audience and it is not a scientific
 4 audience. I mean, obviously science people are
 5 going to read it, but this is -- the audience is
 6 actually -- it includes teachers and presumably
 7 some public policy people.
 8 Q. Here we are.
 9 A. Right.
 10 Q. So what did you mean by that statement?
 11 MS. CHERIAN: Can you clarify what statement
 12 specifically?
 13 BY MR. SMITH:
 14 Q. "Causality cannot be proven by them."
 15 A. I guess I don't understand the question.
 16 It seems like it isn't clearly phrased to me. That
 17 a single study cannot in layman's terms prove sort
 18 of essentially direction of causality.
 19 Q. Okay. Now, if that's true, how is it --
 20 let me back up.
 21 If that's true, if you had done 100
 22 studies showing the same relationship between
 23 exposure to the video games and aggressive
 24 behavior, would the 100 studies be more probative

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1 than the one study?
 2 A. It would depend on existing theory
 3 because it can't be done in a theoretical vacuum
 4 and whether the plausible alternative explanations
 5 had been tested with other correlational studies
 6 and found essentially untenable given the overall
 7 set of studies that -- and findings that exist.
 8 Q. I'm not sure I understand that. If you
 9 just have 100 studies which replicate the first
 10 study, does that make causality more proved than it
 11 was with the first study?
 12 A. Presumably if you have 100 studies,
 13 you've got studies testing different potential
 14 alternative explanations in an attempt to see
 15 whether they fit the data or fail to fit the data.
 16 Q. Such as?
 17 A. If -- let's say one has -- I'm making up
 18 a hypothetical here. If one has a study that shows
 19 a correlation between violent video game play and
 20 somehow -- let's say fights, a number of fights at
 21 school.
 22 Q. Okay.
 23 A. And a plausible alternative explanation
 24 is offered that kids who are generally aggressive

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1 are both more likely to be in fights and are more
 2 likely to like violent video games, a later study
 3 might measure this general trait of aggression and
 4 violent video game exposure and fights at school
 5 and ask whether or not the correlation between
 6 violent video game play and fights at school
 7 remains statistically significant even after you
 8 statistically control for the general
 9 aggressiveness of the participants.
 10 Q. How would you go about measuring general
 11 aggressiveness?
 12 A. There are -- that's done in different
 13 ways. Some -- one way would be self-report rating
 14 scales. It might be parent ratings. It might be
 15 peer ratings. It might be teacher ratings.
 16 Q. Are there correlation studies out there
 17 that attempt to measure those three variables?
 18 A. Yes.
 19 Q. And can you give me an example?
 20 A. If I remember right, one of Doug
 21 Gentile's more recent studies does that.
 22 Q. Do you have any more information about
 23 it than that?
 24 A. Depends how much time you want me to

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1 take looking for it.
 2 Q. Is that the only example you can think
 3 of?
 4 A. That's the only specific one I can think
 5 of.
 6 Q. Okay. Is that something that you were a
 7 coauthor on?
 8 A. I think so, but I can't -- again, off
 9 the top of my head, I cannot remember where that
 10 one is.
 11 Q. Could we save that for a little break
 12 later on, and you can see if you can figure out
 13 which article it is?
 14 A. Sure.
 15 Q. So just so it is clear, the question is:
 16 Can you identify a study in which -- a correlation
 17 study in which there was a measurement of the
 18 correlation among three variables: General
 19 aggressiveness, exposure to violent video games and
 20 fights in school or some other specific measure of
 21 aggressive behavior.
 22 A. You probably don't want me writing on
 23 these (indicating)?
 24 Q. No, you really shouldn't write on the

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1 exhibits.
 2 (WHEREUPON, a sheet of paper was
 3 tendered to the witness.)
 4 MR. SMITH: Thank you, court reporter.
 5 BY MR. SMITH:
 6 Q. Now, in your judgment, when you
 7 measure -- you have measured the correlation
 8 between violent video game exposure?
 9 A. I'm sorry?
 10 Q. You have measured the correlations
 11 yourself between violent video game exposure and
 12 aggressive behavior, right?
 13 A. Yes.
 14 Q. Is it your judgment that at least some
 15 of that correlation reflects causality in each of
 16 the two possible directions? Perhaps I should
 17 phrase that a little bit better.
 18 Is it your judgment that -- I know you
 19 think that the violent video game exposure causes
 20 some of the aggressive behavior. But is it also
 21 your judgment that preexisting aggressiveness
 22 causes some of both, causes both the aggressive
 23 behavior and the decision to play more violent
 24 video games?

<p style="text-align: right;">Page 70</p> <p>1 A. There certainly is research in the 2 television violence domain that would suggest that 3 and that there's bidirectional causality is the 4 phrase. 5 Q. Is that your opinion as an expert? 6 A. And I would think that that's -- yes, 7 that that's probably true to some extent or at 8 least likely to be true to some extent in the video 9 games domain. 10 Q. Are you familiar with research on what's 11 called selective exposure to particular media? 12 A. Yes. 13 Q. Does that term mean something to you? 14 A. Well, it -- I guess the term I'm 15 thinking of is used more in a social psychological 16 context rather than a media -- in a different 17 context. 18 Q. Okay. I'm referring to literature which 19 supports -- directly tests and supports the 20 proposition that people with aggressive 21 personalities seek out violent media. 22 A. Um-hum. 23 Q. There is such research? 24 A. I assume that there is. I'm not that</p>	<p style="text-align: right;">Page 72</p> <p>1 and not because media violence increases children's 2 aggressive thoughts and behaviors. This is a 3 reasonable criticism of correlational research, but 4 it does not explain the findings from experimental 5 research in which both aggressive and 6 non-aggressive children become more aggressive 7 after playing a violent video game." 8 A. Um-hum. 9 Q. "In our view, it does not matter what 10 starts the ball rolling, whether aggressive 11 children watch more violence or whether watching 12 violence makes children more aggressive," unquote. 13 Can you tell me what you meant by that 14 last statement about it doesn't matter which gets 15 the ball rolling? 16 A. Right. It gets back to this idea of 17 bidirectional causality; that even if it is the 18 case that a group of people, children, whatever, 19 tend to watch more violent television and play more 20 violent video games initially because they're 21 attracted to it, that's the one direction of 22 causality, the research evidence suggests that 23 exposure to -- that increased exposure relative to 24 other people to more media violence increases their</p>
<p style="text-align: right;">Page 71</p> <p>1 familiar with that research, but -- I mean, in 2 terms of being able to name studies. But I would 3 certainly not be at all surprised if there are 4 studies of that kind that would show that 5 aggressive people seek out or tend to like violent 6 medium more so than non-aggressive people. 7 Q. But you've never made a study of that 8 literature? 9 A. No, not -- not directly myself where 10 I've -- you know, I have not gone in and reviewed, 11 you know, those individual studies. Certainly, 12 there are colleagues who have. 13 Q. Okay. Let me ask you to turn back to 14 the Public Policy piece. On page 231, this is 15 toward the end of the page -- this is Exhibit 2. 16 No, Exhibit 3, sorry. 17 A. Yeah. 18 Q. The sentence begins, "It is often 19 claimed." It's toward the end of the page there. 20 A. Um-hum. 21 Q. It says, quote: "It is often claimed 22 that the correlation between media violence 23 exposure and aggression is due to the fact that 24 aggressive children like to consume media violence,</p>	<p style="text-align: right;">Page 73</p> <p>1 aggressiveness more. 2 Q. Okay. What literature are you referring 3 to there? 4 A. Most of the -- in terms of longitudinal 5 stuff, most of that is from the television film 6 violence literature. 7 Q. You can't get that out of the 8 correlational studies, right? That would have to 9 be from a longitudinal study? 10 A. In terms of bidirectional causality, 11 that would best come from a longitudinal study. 12 Q. Now, can you tell me, leaving aside the 13 effects of media exposure, what other factors would 14 come into play in making a particularly younger 15 person more aggressive and, therefore, more 16 attracted to violent media? 17 A. Well, I don't know about the last part 18 of that statement, all the links. There are a 19 number of risk factors for children becoming sort 20 of more aggressive over time. Those risk factors 21 would include things like sort of parental 22 practices, you know, seeing violence in the -- in 23 one's environment. Being victimized I think is 24 considered a risk factor.</p>

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1 Q. How about socioeconomic status?
 2 A. Socioeconomic status is correlated with
 3 aggressiveness in a number of studies.
 4 Q. Anything else?
 5 A. Oh, there's more than that. I'd have to
 6 go look up --
 7 Q. Now, you said those were risk factors
 8 for increasing aggressiveness over time. Is it
 9 also true that some people are just born more
 10 aggressive than others?
 11 A. There is evidence that there are --
 12 might be some genetic -- you know, sort of genetic
 13 factors or other kind of biological risk factors as
 14 well.
 15 Q. When you say --
 16 A. It starts to get a little bit beyond my
 17 particular area of expertise, though I've read some
 18 of those studies.
 19 Q. Now, referring back to Exhibit 3, on
 20 page 230, under "Correlational Studies," six lines
 21 down, you list three characteristics of the, quote,
 22 "best correlational studies." Do you see that?
 23 A. Um-hum.
 24 Q. And you go on to say that the first

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1 published correlational study with all three
 2 characteristics was, again, the Anderson and Dill
 3 piece, Exhibit 2.
 4 A. Um-hum.
 5 Q. And is it also true that the first
 6 correlational study to study the effects of video
 7 games on children that had those characteristics
 8 wasn't published until 2004?
 9 A. Yes.
 10 Q. Can you tell me whether you're aware of
 11 correlational studies of video games -- of violent
 12 video games that have those three characteristics,
 13 other than that 2004 study and your own work, that
 14 you can point us to?
 15 A. Other -- okay. So there's the Gentile,
 16 Lynch, Linder and Walsh, 2004, I believe, and that
 17 Krahe and Moller, 2004. And to my knowledge, I'm
 18 trying to think what I've seen recently. To my
 19 knowledge, those are the --
 20 Q. The only ones?
 21 A. -- the only ones.
 22 Q. Okay.
 23 A. Certainly at the time that this was
 24 written.

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1 Q. How about since then? None come to
 2 mind?
 3 A. Ones that we've done.
 4 Q. Yes. Other than that?
 5 A. Other than that, no.
 6 Q. Okay. Is this Gentile article here the
 7 one we were searching for before?
 8 A. I think it is, actually. I would have
 9 to look it up to be sure, but I believe it is.
 10 Q. So just so we're clear, that's the one
 11 you think includes a measurement of both a variable
 12 for a particular aggressive behavior and aggressive
 13 personality in general --
 14 A. Yes.
 15 Q. -- as well as exposure to violent video
 16 games?
 17 A. Yes.
 18 Q. Do you know if he has his articles
 19 posted on his Web site?
 20 A. I don't know. Maybe. It's published,
 21 so ...
 22 Q. Yes. I understand.
 23 A. Okay.
 24 Q. I want to ask you now about correlation

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1 studies that measure and find a correlation between
 2 exposure to video games and violent conduct that
 3 would be considered criminal in nature.
 4 You say in paragraph 28 of your
 5 declaration in this case that Anderson and Dill
 6 exhibit two related video game exposures to
 7 aggression -- have you got your declaration, by any
 8 chance? No? -- related video game play to
 9 self-reported aggression on the National Youth
 10 Survey, an instrument developed by criminologists
 11 which includes items assessing behavior that would
 12 be considered criminal if known to the police.
 13 Do you recall that statement?
 14 A. Um-hum. Yes. Sorry.
 15 Q. Leaving aside Anderson and Dill, are
 16 there other correlation studies you're aware of
 17 which draw some connection between video game
 18 exposure and conduct that would be considered
 19 criminal if known to the police?
 20 A. There's at least one study that relates,
 21 essentially, juvenile offenders, juvenile offending
 22 to preference for violent video games. It's an
 23 older study. I'd have to look it up.
 24 Q. It's an older study?

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1 A. It's an older study.
 2 Q. So it would be -- it was one that
 3 related the amount of overall video game play to
 4 juvenile offending?
 5 A. It was -- I'd have to look it up to be
 6 sure, but as I recall, it looked at -- it included
 7 a measure of violent video game preferences among
 8 juvenile offenders and non-offenders.
 9 Q. So it took two populations of people,
 10 juvenile offenders and non-offenders, and
 11 ascertained whether they had different preferences
 12 for video games?
 13 A. That's my recollection.
 14 Q. Do you know who wrote that study?
 15 A. I'd have to -- I'd have to look it up.
 16 I think it's a person named Hind, H-i-n-d.
 17 Q. Okay. Now, leaving that one aside and
 18 Anderson and Dill aside, is there any other
 19 correlation study that relates exposure to violent
 20 video games with conduct that would be criminal if
 21 known to the police?
 22 A. I believe there are, but, again, for
 23 that specific point of reference, I would have to
 24 look it up. And there are several -- do you want

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1 to rephrase that question? I've forgotten it.
 2 Q. I was actually just using your phrase
 3 from the declaration. You said that, "Anderson and
 4 Dill related exposure to games to conduct that
 5 would be considered criminal if known to the
 6 police."
 7 I wanted to know if there is anybody
 8 else out there who has done a study like that?
 9 A. Right. We have some other studies.
 10 Q. More recent?
 11 A. More recent with that same scale.
 12 Q. And do your studies essentially use the
 13 same national use survey, self-reported aggression
 14 score methodology?
 15 A. Yes, with some minor changes from one
 16 study to another.
 17 Q. Okay. Let me ask you to explain that
 18 methodology, if you could, please, on Exhibit 2,
 19 Anderson and Dill. I believe there is a discussion
 20 of how you went about this at Page 777 under the
 21 heading "Delinquency."
 22 A. Um-hum.
 23 Q. Is that correct?
 24 A. Yes, under "Delinquency" would be the

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1 description of that scale.
 2 Q. Okay. Now, first of all, could you tell
 3 me what the National Youth Survey is?
 4 A. It's basically a large self-report
 5 questionnaire developed by some criminologists that
 6 was administered apparently in a number of studies
 7 that asked questions about a variety of behaviors,
 8 including things like drug use, and a subset of
 9 those questions were called the aggressive items.
 10 And those are the items that we used.
 11 Q. Now, if you look at the first full
 12 paragraph in the second column there where it says,
 13 "Aggressive behavior," it says, "The authors of the
 14 delinquency scale," which I guess is the 45 factors
 15 that are listed on that questionnaire, is that
 16 right? That's the delinquency scale?
 17 A. Right.
 18 Q. "The authors have sometimes analyzed
 19 their data by dividing the scale into sub scales
 20 based on the severity of the delinquent crime."
 21 A. Um-hum.
 22 Q. You didn't do that, you didn't look at
 23 severity. Instead you tried to identify those 10
 24 items out of the 45 that were clearly related to

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1 aggressive behavior, is that right?
 2 A. That is correct.
 3 Q. Okay. And some of those then would have
 4 been in the minor delinquency versus the more
 5 severe categories as divided by the authors?
 6 A. It is likely that at least one or two,
 7 but I don't recall exactly.
 8 Q. Would have been what?
 9 A. Would have been in the author's original
 10 sort of minor delinquency category.
 11 Q. Okay. Now, is there anywhere that we
 12 can in this publication identify what these 10
 13 items were?
 14 A. I don't believe so.
 15 Q. Is there any way we can figure out --
 16 let me ask it this way.
 17 Can you tell me how many of those 10
 18 were, in fact, conduct that would be criminal in
 19 nature?
 20 A. Without going back to the original
 21 items, it would have to be at least two, it could
 22 be as many as eight or nine. Well, no. It says
 23 here we dropped -- was it we dropped two items?
 24 Q. Yes, because nobody --

<p style="text-align: right;">Page 82</p> <p>1 A. Because nobody reported them. So that 2 leaves eight. So I would say probably somewhere 3 between five and I would guess seven, but without 4 going back...</p> <p>5 Q. Well -- give me a minute here. You've 6 got a lot of publications.</p> <p>7 MR. KASPER: Can we just take one minute? 8 MR. SMITH: Sure, absolutely.</p> <p>9 (WHEREUPON, discussion was had 10 off the record.) 11 (WHEREUPON, Mr. Michael J. Kasper 12 left the deposition proceedings.)</p> <p>13 BY MR. SMITH: 14 Q. The population that you asked these ten 15 questions to was a population of undergraduates at 16 a state university?</p> <p>17 A. In the Anderson and Dill paper, yes. 18 Q. Right. And it was 78 males, 149 female 19 undergraduates?</p> <p>20 A. Yes. 21 Q. And they were asked to describe their 22 own behavior in the past year. Is that how it 23 was -- the delinquency scale worked? 24 A. I don't -- offhand I don't see where --</p>	<p style="text-align: right;">Page 84</p> <p>1 Q. Would you expect that it was a large 2 number?</p> <p>3 A. I would not want to speculate on that. 4 Q. Do you know whether it was more than 5 one?</p> <p>6 A. We did not -- well, it had to be more 7 than one or it would not have been included. 8 Q. It had to be more than zero or it would 9 not be included?</p> <p>10 A. It had to be more than zero or it would 11 not have been included, right. 12 Q. But you don't know sitting here today 13 whether there is more than one?</p> <p>14 A. I cannot give you an exact number. 15 Q. Now, the way you did this is you 16 combined all of these various eight behaviors into 17 a single aggression measure, right?</p> <p>18 A. That is correct. 19 Q. You didn't actually test whether or not 20 violent video game plays related to undergraduate 21 robbing, did you? 22 A. We did not do the tests on an 23 item-by-item basis. 24 Q. Can you tell me why?</p>
<p style="text-align: right;">Page 83</p> <p>1 Q. The top of the second column on 777, the 2 format of the delinquency scale is a self-report of 3 frequency of each of 45 specific behaviors over the 4 last year.</p> <p>5 A. Okay. Yes, there it is. 6 Q. And can you tell me how many of this 7 sample of 200-some undergraduates reported that 8 they had engaged in some form of aggressive 9 criminal behavior in the past year?</p> <p>10 A. We did not categorize on that. 11 Q. Well, can you give me any sense at all 12 whether it was like more than ten out of 230 or 13 less than ten?</p> <p>14 A. Well, that's purely speculative, but I 15 would guess that it would be more than ten. 16 Q. Is it true that one of the eight 17 behaviors that were included ultimately after you 18 took two out was engaging in robbery? 19 A. Yes, that would be one them. 20 Q. Can you tell me how many of the 230 or 21 so undergraduates said they had robbed somebody in 22 the past year? 23 A. I can't without going back to the 24 original data.</p>	<p style="text-align: right;">Page 85</p> <p>1 A. That's not the way you analyze scales, 2 data. 3 Q. And did you do any kind of an analysis 4 of the extent to which that overall aggression 5 measure was driven by criminal behavior versus 6 non-criminal behavior in terms of the predominant 7 data, if that question makes any sense?</p> <p>8 A. It is really impossible to answer 9 without -- without going back and seeing how many 10 of those eight items would be considered criminal 11 without going back to the original data. 12 Q. But sitting here today, you really don't 13 have any basis for saying that the Anderson and 14 Dill study established a relationship between video 15 game play and criminal behavior, do you? 16 A. I -- well, first of all, none of these 17 people were convicted, so. 18 Q. Would that be behavior that would be 19 considered criminal? 20 A. Yeah, I can't -- in a sense I can't 21 answer that question without knowing what the items 22 are that were retained there and what the 23 underlying distribution was. 24 Q. Did you have anything else to say,</p>

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1 Doctor?
 2 A. No.
 3 Q. Okay. Now, just so I understand the
 4 correlation aspect of the Anderson and Dill study,
 5 you asked people to assess their behavior using
 6 this -- these eight items under the delinquency
 7 scale and then you asked them about their video
 8 game playing habits essentially and compared the
 9 two, is that right?
 10 A. Yes. I don't remember what the order of
 11 the questionnaires was.
 12 Q. Okay. I didn't mean to have it in
 13 order -- temporal order.
 14 Now, did you in that process then have
 15 to divide the games that they reported playing into
 16 the categories of violent and non-violent?
 17 A. No. The way the scale operates, the
 18 individual indicates their favorite games and rates
 19 them, provides then actually two ratings of how
 20 much violent content or how much violence is in
 21 each of their favorite games.
 22 Q. Can you tell me why you chose to use the
 23 individual's assessment of how much violence there
 24 is in those games as opposed to some objective

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1 measure of how much violence there is in those
 2 games?
 3 A. It is not clear what one would -- how
 4 one would go about coming up with a purely -- well,
 5 let me back up.
 6 Because each person is generating five
 7 video games and with, you know, that kind of sample
 8 size you end up with a very large number of video
 9 games, some of which are -- or many of which are
 10 out of date and would be hard to get ahold of, it
 11 would be incredibly difficult and expensive to
 12 somehow for each video game come up with some
 13 indicator of violence level in the game. And so
 14 the decision was made to have each participant
 15 indicate how much violence was in the game.
 16 Q. Did you consider the option of having
 17 all of the participants who reported playing a
 18 particular game rate its level of violence and
 19 aggregating those into a single measure?
 20 A. At one point we thought about doing that
 21 but didn't actually do that.
 22 Q. Weren't you concerned that the
 23 perceptions of any one individual about the level
 24 of violence in a game would reflect their

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1 preexisting dispositions towards violence?
 2 A. Yes, but the -- if, in fact, there is
 3 any -- well, two pieces to this.
 4 First of all, if there is nothing real
 5 systematic in the ways that different kinds of
 6 people are rating say the same game, if there is
 7 nothing systematic in those differences, then what
 8 you would end up with is a weaker -- the obtained
 9 whatever correlation would be weaker or smaller
 10 than what in some sense is the true relation.
 11 If there is something systematic, it
 12 would tend to be that those who expose -- those who
 13 play a lot of violent video games would tend to
 14 underestimate or underrate the violent content
 15 relative to those who play few violent video games.
 16 And, in fact, if there was that kind of
 17 systematic difference, that would tend to reduce
 18 any correlation between exposure.
 19 Q. How do you know that that would be the
 20 systematic effect, if there was?
 21 A. It's basically based on theory and what
 22 we kind of know from the television violence and
 23 film violence literature, that people who are
 24 exposed to a lot of media violence tend to not see

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1 it as severe.
 2 Q. I guess the question we are talking
 3 about here is people who are attracted to lots of
 4 media violence. Do they tend to perceive it and
 5 report that it's there or not?
 6 A. What research that I know of, and it's
 7 kind of summary research, really, more than -- you
 8 know, it's not research we have done at this point,
 9 but from the TV literature suggests that people who
 10 are attracted to violence and whatnot tend to rate
 11 it or view it as somehow less severe and more, say,
 12 normal.
 13 Q. What research is that?
 14 A. Well, I'd have to go back and cite it.
 15 Q. You can't cite it now?
 16 A. I can't cite it.
 17 Q. Now, over on 779 in Exhibit 2, you
 18 report that the three most popular games, just
 19 starting at the bottom of 778, the three most
 20 popular games listed were Super Mario Brothers,
 21 Tetris, and Mortal Kombat, "Kombat" with a "K."
 22 A. Right.
 23 Q. And then, you then go on to say that
 24 "Super Mario Brothers and Mortal Kombat both

<p style="text-align: right;">Page 90</p> <p>1 involve considerable violence in the sense that the 2 player typically spends a considerable amount of 3 time destroying other creatures." 4 Do you know whether, in fact, the people 5 taking -- participating here rated Super Mario 6 Brothers as a violent game? 7 A. No, I don't. We didn't pull those means 8 out. 9 Q. So whatever they said, they said, 10 basically? You didn't -- 11 A. Right. 12 Q. -- check it? 13 A. Correct. 14 Q. Why did you point out that those two 15 were violent games here in the article? 16 A. Merely a descriptive part of the 17 article. 18 Q. Now, we have come to a final part of the 19 discussion of the correlational studies. 20 We talked, when you and I last conversed 21 in Ames, about how, generally speaking, the 22 correlation coefficient in this area in these 23 studies tend to be around .2. Is that, generally 24 speaking, accurate?</p>	<p style="text-align: right;">Page 92</p> <p>1 but roughly as a ballpark figure 4 percent. 2 Q. Of the variance? 3 A. Four percent of the variance, maybe 4 5 percent of the variance. 5 Q. Now, if you study exposure to media 6 violence as a whole as opposed to just exposure to 7 violent video games, do you get about the same 8 effect size? 9 A. There are -- yes and no. It's very 10 hard -- well, they tend to be in the .2 to .3 range 11 for, say, television effects as well, they tend to 12 be in the television domain, which is a much larger 13 domain. Some subsets of studies that -- find 14 somewhat larger effect sizes than that. 15 Q. But I guess my question is whether the 16 two effects would be cumulative or essentially 17 overlaps so much that they basically don't change 18 the results. 19 If you were to have a correlation study, 20 I don't know if somebody has done this, that says 21 how much do you play violent games, how much do you 22 watch violent TV, how much do you watch violent 23 movies -- 24 A. Right.</p>
<p style="text-align: right;">Page 91</p> <p>1 A. Generally speaking, that is correct. 2 Q. And the percentage of variance -- of the 3 variance among non-aggressive to very aggressive 4 people that is explained by that kind of effect 5 size is, what, in the range of 2 to 4 percent? 6 A. In statistical terms, right, a .2 7 correlation accounts for 4 percent of the variance, 8 which is another very specific statistical -- 9 Q. Right. 10 A. Okay. 11 Q. As I recall, we were using sort of 12 2 percent as your best estimate of the amount of 13 the variance that is explained by exposure to video 14 games, according to these studies. Looking at your 15 overall review of the literature, is that still 16 your view? 17 A. I don't -- yeah. I don't remember 18 saying 2 percent, but it's possible; and that would 19 probably be the low end if -- of what I might have 20 said a couple of years ago. 21 The average correlations -- the average 22 correlation size or average effect size does tend 23 to be around 2 percent -- or .2 or .3 in some of 24 the later meta-analyses, so kind of, you know --</p>	<p style="text-align: right;">Page 93</p> <p>1 Q. -- and would the combined score have 2 about the same effect size as each of the 3 individual ones? 4 A. The combined would be slightly larger. 5 Q. Can you give me an estimate of how much 6 larger? 7 A. Well, this is an estimate -- 8 Q. Yes. 9 A. -- off the top of my head. But probably 10 on the order of, I don't know, point -- I'm 11 thinking about some statistic studies. It would be 12 about .3, you know, maybe a little bit bigger. 13 Q. Which particular studies are you 14 thinking of? 15 A. One of the newer ones that people in my 16 lab have done had some estimates like that in it. 17 Q. Which study is that? 18 A. I believe the high school study that's 19 in the unpublished paper. 20 Q. (Indicating)? 21 A. Yeah. 22 Q. And it's your understanding that in 23 there, they measured various categories of violent 24 media and --</p>

<p style="text-align: right;">Page 94</p> <p>1 A. And, yeah --</p> <p>2 Q. -- and then did a combined score?</p> <p>3 A. Yeah. And it was -- I think it was</p> <p>4 slightly larger having sort of both sort of new</p> <p>5 media and old media types together. But it's still</p> <p>6 not -- it's not what you would call a big effect.</p> <p>7 Okay?</p> <p>8 Q. If the effect remains in the same sort</p> <p>9 of .3 range, is it fair to say that it's important</p> <p>10 to look at not just one violent medium in trying to</p> <p>11 assess the effects of violent media exposure</p> <p>12 because you might actually end up with kind of a</p> <p>13 false result, suggesting that video games alone</p> <p>14 explain a substantial part of the variance?</p> <p>15 A. Well, the only studies that I'm aware of</p> <p>16 that have -- and there's one -- there's one by</p> <p>17 Jeanne Funk in 2004, you know, that have</p> <p>18 essentially comparable measures of, say,</p> <p>19 TV exposure -- of TV violence exposure and video</p> <p>20 game violence exposure, tend to find that if you</p> <p>21 control for, say, TV violence exposure, the</p> <p>22 correlation between video game violence exposure</p> <p>23 and, say, whatever the outcome variable is tends to</p> <p>24 still be statistically significant. So -- which</p>	<p style="text-align: right;">Page 96</p> <p>1 Over on page 86, you kind of do a</p> <p>2 summary of at least the experimental results</p> <p>3 studying TV and movie violence. It would be toward</p> <p>4 the bottom of the first column.</p> <p>5 A. Um-hum. Yes.</p> <p>6 Q. And you point to the Paik, P-a-i-k, and</p> <p>7 Comstock piece as having an effect size of .138 for</p> <p>8 movies and TV violence. Do you see that?</p> <p>9 A. Yes.</p> <p>10 Q. And if you look at -- and then it says</p> <p>11 if you limit it to experiments in which the outcome</p> <p>12 was classified as physical violence against a</p> <p>13 person, it goes down to .32. Is that right?</p> <p>14 A. Yes.</p> <p>15 Q. Okay. Now, is that the best estimate</p> <p>16 you think of from -- at least from experimental</p> <p>17 data of the effect size with respect to TV and</p> <p>18 movie violence?</p> <p>19 MS. CHERIAN: Are you going to ask him as of</p> <p>20 the time of this article?</p> <p>21 MR. SMITH: I'm asking him now.</p> <p>22 BY THE WITNESS:</p> <p>23 A. My estimate -- I actually think that</p> <p>24 the -- a better number, although, comes from or is</p>
<p style="text-align: right;">Page 95</p> <p>1 sort of indicates that they're not completely</p> <p>2 overlapping.</p> <p>3 Q. Not completely?</p> <p>4 A. But it's -- right. But it's very, very</p> <p>5 difficult. And, actually, at this point in time,</p> <p>6 it's -- you know, there aren't enough studies like</p> <p>7 that to categorically say this proportion of the</p> <p>8 media violence effect is purely from video games</p> <p>9 versus this proportion is purely from -- I mean,</p> <p>10 there are some studies that do that test and shows</p> <p>11 that the video games are having a significant</p> <p>12 impact beyond the TV violence.</p> <p>13 But personally, I guess, I would like to</p> <p>14 see more such studies.</p> <p>15 Q. Are there studies that draw the</p> <p>16 conclusion that the video game effect is greater</p> <p>17 than the TV effect?</p> <p>18 A. The Funk paper suggests that, and</p> <p>19 I believe it's that high school study in the big</p> <p>20 manuscript (indicating) suggest that it might be</p> <p>21 slightly larger as well.</p> <p>22 Q. Now, let me ask you to go back to</p> <p>23 Exhibit 1, which was your Psychological Science in</p> <p>24 the Public Interest piece.</p>	<p style="text-align: right;">Page 97</p> <p>1 shown in that Science article that Brad Bushman and</p> <p>2 I did that I referred to earlier.</p> <p>3 BY MR. SMITH:</p> <p>4 Q. What do you say there?</p> <p>5 A. It's a slightly -- it's slightly smaller</p> <p>6 than these numbers.</p> <p>7 Q. Above .3?</p> <p>8 A. No.</p> <p>9 Q. Is it above .2?</p> <p>10 A. Yes.</p> <p>11 Q. The number for TV and movie violence?</p> <p>12 A. Well, that's for all combined, but the</p> <p>13 vast majority of those are TV and movie violence</p> <p>14 studies.</p> <p>15 Q. When you say the vast majority of</p> <p>16 something is TV, what do you mean; most of the</p> <p>17 studies?</p> <p>18 A. Most of the studies that are in that</p> <p>19 meta-analysis are studies of TV or film violence</p> <p>20 simply because there are more such studies than</p> <p>21 there were of say video games.</p> <p>22 Q. Is it your view that the evidence of the</p> <p>23 effective violent media is clearer with respect to</p> <p>24 TV and movies than it is with respect to video</p>

<p style="text-align: right;">Page 98</p> <p>1 games?</p> <p>2 A. Yes, if -- yes, if you pit the two</p> <p>3 against each other.</p> <p>4 Q. And is it also your view that</p> <p>5 essentially the effects that are being measured</p> <p>6 come out about the same?</p> <p>7 A. I believe that that is essentially the</p> <p>8 way the data at this point in time looked, that the</p> <p>9 effect sizes are roughly in the same ballpark.</p> <p>10 Q. Putting video games on one side and TV</p> <p>11 and movies on the other side --</p> <p>12 A. Yes.</p> <p>13 Q. -- is there any way to estimate the</p> <p>14 effects on aggressive behavior that would be</p> <p>15 produced by eliminating exposure to violent video</p> <p>16 games without changing people's exposure to violent</p> <p>17 movies and TV?</p> <p>18 A. I'd say based on the current research</p> <p>19 literature, there is not an obvious way or clear</p> <p>20 way to get a good estimate of that.</p> <p>21 Q. Does the fact that the coefficient is</p> <p>22 about the same for one as for the other and, in</p> <p>23 fact, it is about the same when they are combined</p> <p>24 mean that you wouldn't really expect to have much</p>	<p style="text-align: right;">Page 100</p> <p>1 literature. And some of those studies find</p> <p>2 evidence of the bidirectional, some don't. And so</p> <p>3 it is -- you know, the best guess or the best</p> <p>4 summary would be to say there is probably some</p> <p>5 degree, but it is clear that the effect of media</p> <p>6 violence on aggression in that literature is</p> <p>7 considerably bigger than the effect of sort of</p> <p>8 aggressiveness on seeking out or exposure to</p> <p>9 violent media.</p> <p>10 If we extrapolate from that to the video</p> <p>11 game case, the best guess would be that the average</p> <p>12 effect size -- if one knew how big this other</p> <p>13 effect was, the average effect size of the effect</p> <p>14 that people are concerned about would drop some,</p> <p>15 probably not a lot.</p> <p>16 Q. But some component of it is that</p> <p>17 causality going the other direction you think?</p> <p>18 A. I believe that there probably is some</p> <p>19 causality going in the other direction, yes.</p> <p>20 Q. Now, are you aware of anybody who has</p> <p>21 attempted to quantify in a valid way your</p> <p>22 assessment of the amount of violent behavior in the</p> <p>23 society that is caused by media violence?</p> <p>24 A. I have only vague recollections of</p>
<p style="text-align: right;">Page 99</p> <p>1 of an effect on aggressive behavior simply by</p> <p>2 eliminating one of the two?</p> <p>3 A. No, that doesn't necessarily follow</p> <p>4 because it's not -- there tends to be a positive</p> <p>5 correlation between exposure to the violent</p> <p>6 television and films and exposure to violent video</p> <p>7 games, but they aren't really measuring the same</p> <p>8 thing. And certainly there are individuals for</p> <p>9 whom most of their media violence exposure just in</p> <p>10 terms of number of hours let's say per week would</p> <p>11 be violent video games.</p> <p>12 Q. Now, in assessing the significance of</p> <p>13 these effect sizes, .2 to .3, is it important to</p> <p>14 take into account the possibility at least that</p> <p>15 some of that correlational relationship is caused</p> <p>16 by aggressive people seeking out the violent games</p> <p>17 rather than the other way around?</p> <p>18 A. That would be a fair statement that if,</p> <p>19 in fact, there was this bidirectional causality --</p> <p>20 Q. But you don't disagree that there is</p> <p>21 some, it is just a question of how to --</p> <p>22 A. Well, there are people -- in the</p> <p>23 television -- I mean, the best evidence comes from</p> <p>24 the television -- television/film research</p>	<p style="text-align: right;">Page 101</p> <p>1 seeing some numbers years ago, but --</p> <p>2 Q. Well, there was one of these years ago</p> <p>3 which suggested that TV was causing 50 percent of</p> <p>4 the murders in America, is that correct? Isn't</p> <p>5 that what Mr. Centerwall said? Is that what you</p> <p>6 are referring to?</p> <p>7 A. Yes, that's what I kind of vaguely --</p> <p>8 but again, I can't -- I can't recall exactly what</p> <p>9 the number was or anything else, but I don't</p> <p>10 know -- that's not an issue that, you know, comes</p> <p>11 up a lot in current, you know, research papers on</p> <p>12 this, at least not to my knowledge.</p> <p>13 Q. So nobody is, to your knowledge,</p> <p>14 attempting to figure out what -- how much of a</p> <p>15 component of the crime rate is the effect of media</p> <p>16 exposure?</p> <p>17 A. I don't know of such studies.</p> <p>18 Q. Is there a way to do that?</p> <p>19 A. Yes, there probably would be.</p> <p>20 Q. What would that be?</p> <p>21 A. You are asking an incredibly difficult</p> <p>22 statistical question.</p> <p>23 Q. I'm going to go home and do it after you</p> <p>24 tell me.</p>

<p style="text-align: right;">Page 102</p> <p>1 A. You are going to do it, okay. 2 What -- let's see. You would have to 3 have -- you'd have to know what type of crime you 4 are looking at, you would have to know base rate of 5 that crime, you would have to have -- 6 Q. The base rate meaning? 7 A. How many per 100,000 or something like 8 that. 9 Q. Are going on, right? Okay. 10 A. Right. 11 Q. That we could get. 12 A. You'd have to have a good estimate of 13 the link between say media violence, whatever 14 measure you use, whether it is TV or video games or 15 whatever, and that specific crime. 16 Q. Or some combination of crimes? 17 A. Or some combination or class of crimes. 18 Q. So you'd have to have a separate 19 estimate from the .2. You'd have to say -- have a 20 study that related it to violent crime as opposed 21 to aggressive behavior? 22 A. Yes, that -- if you really want it to be 23 as accurate as possible, I would think that would 24 be the way to do it.</p>	<p style="text-align: right;">Page 104</p> <p>1 A. I'm not sure. 2 Q. You got us all of the way down the road 3 and you don't know how to do it? 4 A. Yeah, I hate to make a statistical 5 pronouncement on something that I've never done 6 before. I don't -- I mean, I guess what you could 7 do is if you have to -- if you have the right 8 regression model, essentially the correlation 9 there, you could ask what would happen if one 10 reduced the amount of media violence exposure, you 11 know, the high end by a certain amount, but I 12 don't -- I'd have to talk to some statistics people 13 to figure out exactly how to do that. 14 Q. You've never thought about trying to do 15 that? 16 A. No, not that I -- 17 Q. Sitting here today, you can't give me 18 any estimate about the percentage of violent crime 19 in this country that is caused by media exposure? 20 A. I can't remember any such studies or -- 21 you know, that would come up with that or such 22 calculations that would generate such an estimate. 23 Q. Then do you have a judgment about 24 whether it is a very small percentage or not or a</p>
<p style="text-align: right;">Page 103</p> <p>1 Q. Is it true in general the literature 2 teaches that the relationship with violent crime is 3 less than it is for more mild aggressive behaviors? 4 A. That is the general finding, that the 5 more -- in some sense it's a statistical -- I don't 6 know. Artifact isn't the right word. But it is a 7 statistical property that rarer events aren't -- 8 you can't predict them as well as more frequent 9 events, at least in terms of these effect size 10 kinds of things. 11 Q. What would be the best estimate of the 12 effect size between media violence, exposure and 13 violent crime? Do you have any estimate of that? 14 A. Probably the best estimates come from 15 this Paik and Comstock meta-analysis which suggest 16 that that effect size, it's on page 86 -- 17 Q. Of Exhibit 1? 18 A. -- of Exhibit 1 is about .13. 19 Q. Okay. So if you have that as your best 20 estimate of the relationship between -- so if you 21 took .13 as your best estimate of the relationship 22 of the correlation coefficient between media 23 violence exposure and violent crime and you knew 24 what the base rate was, what would you do then?</p>	<p style="text-align: right;">Page 105</p> <p>1 very large one for that matter? 2 A. I would guess it would be relatively 3 small. However, one of the things -- another 4 factor that enters into this is how many people 5 are, you know, exposed to a particular risk factor. 6 And it is, you know, also the case that more -- you 7 know, more extreme behaviors tend to occur when 8 there are more risk factors present. It almost 9 seems like risk factors kind of add -- they add on 10 top of each other or they add up. 11 Q. Yes. How is that pertinent to what we 12 are talking about here? 13 A. Well, it further complicates this idea 14 of how do you -- how do you calculate what 15 percentage of violent crimes are attributable. 16 Q. Are you essentially saying that when 17 crime occurs, it tends to be a constellation of 18 risk factors, and it's difficult to assess whether, 19 without the media exposure, the other risk factors 20 would have been sufficient to cause the trial? 21 A. Yeah. The key is, what is this 22 "sufficient" notion? I mean, it is possible based 23 on some regression models if you have, you know, 24 very specific data on a particular behavior and</p>

<p style="text-align: right;">Page 106</p> <p>1 risk factors, to go in and compare what percentage 2 of people would have likely done, you know, this 3 behavior had they been low media violence consumers 4 instead of high media violence consumers, given all 5 these other factors. 6 But to my knowledge, such datasets don't 7 really exist at the level of violent crime that 8 would allow you to do that. But it is conceivable 9 that that's possible, you know. 10 THE WITNESS: Can we take a quick break? 11 MR. SMITH: Sure. 12 THE WITNESS: And you can look for -- 13 MR. SMITH: I appreciate it. 14 THE WITNESS: -- whatever you are looking for. 15 MR. SMITH: I'm not even sure what I'm looking 16 for. 17 Let's go off the record. 18 (WHEREUPON, a recess was had from 19 10:49 a.m. until 10:56 a.m.) 20 MR. SMITH: Ready to go back? 21 BY MR. SMITH: 22 Q. Doctor, I want to just ask you a few 23 more general questions about your understanding of 24 what the evidence shows about the impact of video</p>	<p style="text-align: right;">Page 108</p> <p>1 E-rated game was at least as harmful as the 2 exposure to violence in a T-rated game? 3 A. Yes, that would be a fair statement, a 4 fair summary statement of that study. 5 Q. And what were the games involved in that 6 study? 7 A. The T-rated ones, I don't have that in 8 front of me, were RoboCop. It's the big one. 9 MR. SMITH: All right. Let's go off the 10 record a second. 11 (WHEREUPON, discussion was had off 12 the record.) 13 BY MR. SMITH: 14 Q. You were going to tell me what the games 15 were in the study that showed that the E-rated 16 violent games were at least as harmful at the 17 T-rated ones. 18 A. Right. The E-rated violent games were 19 Captain Bumper and Otto Matic -- that's O-t-t-o, 20 M-a-t-i-c. 21 And the teen-rated games were Future Cop 22 and Street Fighter. 23 Q. And the E-rated games, is it fair to say 24 they're cartoonish in nature?</p>
<p style="text-align: right;">Page 107</p> <p>1 game play. 2 Is it your judgment that adults are just 3 as affected by violent video game exposure as 4 children? 5 A. At this point, the research shows effect 6 sizes that are pretty comparable for adults and for 7 younger people. 8 Q. And is it true that in your more recent 9 research, you found that realism in the game, the 10 realism of the violence didn't have an impact on 11 its effects? 12 A. Yes, in the -- in one study where we 13 manipulated that, it did not produce a significant 14 difference. 15 Q. In fact, in that study, the adolescents 16 who were exposed to "E" games -- E-rated games as 17 opposed to T-rated games had a higher degree of 18 effect? 19 A. The mean for the E-rated violent game -- 20 games was slightly higher -- well, was higher than 21 for the T-rated violent games, but those means were 22 not significantly different from each other. 23 Q. Is it fair to say that the results of 24 that study were that exposure to violence in an</p>	<p style="text-align: right;">Page 109</p> <p>1 A. They are extremely -- yes, they are 2 cartoonish, with kind of -- well, especially 3 Otto Matic, with happy music. 4 It's also the case that the teen-rated 5 ones are not terribly realistic, but they do depict 6 human-like characters. 7 Q. Are they more realistic than Super Mario 8 Brothers? These are games that we have all seen. 9 A. Right. It would be hard to say. Street 10 Fighter may be. 11 Q. No. I'm talking about the "E" games. 12 A. Oh, the "E" games. I'm sorry. 13 Q. I'm sorry. The statement you made 14 before about them being realistic, that was 15 applicable to the "T" games? 16 A. All right. The "T" games -- 17 Q. Are more realistic than the "E" games? 18 Is that what you said? 19 A. -- have -- they are slightly more 20 realistic. 21 Q. Are the "E" games comparable in terms of 22 their violent content to Super Mario Brothers? 23 A. They're probably a little more violent 24 than Super Mario Brothers in that the primary</p>

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1 object of both of those -- of these E-rated violent
 2 games involves shooting the bad guys, whereas in
 3 Super Mario Brothers, one can actually play the
 4 game and advance in the game without harming the
 5 little creatures that come across the screen.
 6 Q. Now, in that study that found that the
 7 E-rated games were at least as harmful as the
 8 T-rated games, the E-rated games were, in fact,
 9 rated by the players as being less violent, is that
 10 right?
 11 A. That is correct.
 12 Q. And do you draw any conclusion on the
 13 basis of that?
 14 A. It actually confirms some statements by
 15 some other people that -- some other researchers
 16 that a lot of people, when they rate the violence
 17 of whatever they're looking at, they're focusing
 18 primarily on human -- or that's not quite accurate.
 19 One of the apparent definitions that
 20 people use is whether or not there are human or
 21 humanoid-like characters being shot or killed or
 22 whatever.
 23 Q. And the research shows that whether or
 24 not the victims are human-like doesn't make a

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1 difference?
 2 A. No. It shows that --
 3 Q. In the way people assess the games, it
 4 makes a difference, but not in terms of the harmful
 5 effects, is that right?
 6 A. Oh. In this particular study, that
 7 didn't seem to make a difference.
 8 In other studies in the TV violence
 9 domain, there is some evidence that realism does
 10 tend to increase the effects. It actually gets
 11 more complicated than that, even. There's some
 12 evidence that realism is important primarily in
 13 terms of long-term effects rather than short-term
 14 effects, like this study with Otto Matic. But that
 15 is certainly a research question.
 16 Q. And as far as you know, there's no
 17 research out there to support the proposition that
 18 human victims -- having human victims in a video
 19 game is more harmful than having fantasy alien
 20 victims?
 21 A. There's no good research in the
 22 video game literature that would -- yeah, that
 23 would support that contention.
 24 Q. And is the same true, that with respect

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1 to the question of whether the violence is graphic
 2 or not, that there's no research supporting the
 3 proposition that more graphic violence is more
 4 harmful in the video game world?
 5 A. There are hardly any studies that have
 6 looked at it in the video game literature. The
 7 ones that I can -- there's one that I don't
 8 remember the results from that I'd have to -- I'd
 9 have to look it up.
 10 But my recollection is that there's one
 11 that used Mortal Kombat with sort of blood turned
 12 on versus blood turned off that found a somewhat
 13 bigger effect when the blood was turned on. But
 14 I'd have to look it up to confirm that.
 15 Basically, that the issue of graphicness
 16 effects and the issue of, say, human versus clearly
 17 non-human has not been researched sufficiently in
 18 the video game literature to really make a strong,
 19 you know, conclusive confident statement.
 20 Q. Now, what is it that we can learn from
 21 the literature on television about those issues?
 22 A. The TV and film literatures do suggest
 23 that realism is important, that the higher or more
 24 realistic portrayals of violence tend to produce

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1 bigger effects, at least that's pretty solid when
 2 one looks at the longitudinal studies.
 3 There is also some evidence in the TV
 4 and film kind of domain that that same realism
 5 effect occurs in short-term studies as well, but it
 6 is not as solid, not as clear.
 7 Q. And these are studies that compared
 8 cartoons with movies?
 9 A. I'd have to go back and look and see
 10 exactly how they manipulated.
 11 Q. Can you give me an example of any of
 12 these studies?
 13 A. Some of them are cited in the -- I guess
 14 that would be Exhibit 1.
 15 Q. Exhibit 1 where?
 16 A. On page 98 under that heading
 17 "Perceptions of Realism," there is a bunch of
 18 citations about eight or ten lines down.
 19 Q. You refer at the bottom of that column
 20 to "numerous studies that have found significant
 21 effects of media violence on aggression even when
 22 the media violence is clearly fictional and
 23 unrealistic."
 24 Can you tell me which studies you are

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1 referring to there?
 2 A. Studies that use cartoons, violent
 3 cartoons versus say non-violent portrayals.
 4 Q. Any particular examples you can give me?
 5 A. As I recall, these things like Road
 6 Runner cartoons, Bugs Bunny cartoons.
 7 Q. And those studies found substantial
 8 harmful effects from watching Bugs Bunny?
 9 A. Yes. I mean, those are the examples
 10 that the media violence people who focus on the TV
 11 research frequently cite.
 12 Q. I wonder if you could -- I'm going to
 13 take you now through the meta-analyses a little bit
 14 just so I understand how the studies that you used
 15 kind of came and went. The meta-analysis
 16 technique, by the way, could you just summarize, if
 17 you can, for a lay audience here how it is that you
 18 combine a number of studies into a single estimate
 19 of the effect size?
 20 A. Yes. Basically a meta-analysis is a
 21 statistical procedure for averaging or combining
 22 results of studies of the same basic hypothesis
 23 and, for example, what's the effect of playing
 24 violent video games on aggressive behavior. That's

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1 a hypothesis that there might be a positive
 2 relationship there.
 3 So what you can do with a meta-analysis
 4 is you get an estimate -- let me back up. You get
 5 an estimate of the effect size for each of the
 6 tests of that hypothesis and then you essentially
 7 average those effect sizes.
 8 Q. In averaging them, do you take into
 9 account the sample sizes of each of the individual
 10 studies?
 11 A. Yes, sample sizes taken into account.
 12 Q. So each of the effects is weighted in
 13 some way by the number of participants in this
 14 study?
 15 A. Yes.
 16 Q. Are there other ways in which the
 17 effects of each of the -- the effect sizes produced
 18 by each of the studies are weighted in some way?
 19 A. No. They are weighted -- they are
 20 weighted by effect size.
 21 Q. No. I mean, in combining them, you
 22 said --
 23 A. Or by -- I'm sorry. They are weighted
 24 by sample size.

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1 Q. So in some sense it amounts to basically
 2 taking all of the participants in all of the
 3 studies, putting them all into one big pool and
 4 then producing a combined effect size, isn't that
 5 right?
 6 A. Yes, conceptually that's what one is
 7 doing.
 8 Q. Okay. Now, the first one of these that
 9 you did was reported in the Anderson and Bushman
 10 piece in 2001, correct?
 11 MR. SMITH: Can I have this marked as Exhibit
 12 5.
 13 BY THE WITNESS:
 14 A. Yes, that is correct.
 15 (WHEREUPON, a certain document was
 16 marked Anderson Deposition Exhibit
 17 No. 5, for identification, as of
 18 10/13/05.)
 19 BY MR. SMITH:
 20 Q. And at that time you had -- you found 35
 21 studies?
 22 A. Yes, 35 research reports.
 23 Q. And are you drawing a distinction
 24 between the word "study" and "research report"

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1 here?
 2 A. The word "study" has been misused so
 3 much in this domain that sometimes people use the
 4 word "study" to mean a publication, sometimes they
 5 use it to mean a particular sample of subjects, and
 6 sometimes it's unclear.
 7 Q. Okay. So when you say "research
 8 reports," do you mean publications or do you mean
 9 separate studies within -- to use the wrong word,
 10 within each publication?
 11 A. 35 research reports which includes some
 12 unpublished manuscripts as well.
 13 Q. But, for example --
 14 A. Or dissertations.
 15 Q. -- was Anderson and Dill included in the
 16 Anderson and Bushman meta-analysis?
 17 A. Yes.
 18 Q. That included both an experiment and a
 19 correlational study?
 20 A. Yes, it did.
 21 Q. And did each of them count separately
 22 among the 35 or did that get reported as a single?
 23 A. Each independent sample gets counted
 24 separately.

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1 Q. So there were 35 independent samples?
 2 A. There were 54 independent samples.
 3 Q. Okay. Gotcha. So when we go over to
 4 Table 1 on Page 358 of Exhibit 5 and you report
 5 there the results for various categories of studies
 6 depending on what they were measuring?
 7 A. Yes.
 8 Q. And under "Aggressive Behavior" you have
 9 33 reports that you are -- whatever you call
 10 those --
 11 A. Samples.
 12 Q. -- samples. That's 33 out of 54, is
 13 that correct, or 33 out of 35?
 14 A. 33 out of 54.
 15 Q. Okay. Now, is there anything among
 16 those studies that you did other than the Anderson
 17 and Dill studies?
 18 A. Of those 33?
 19 Q. Yes.
 20 A. Yes, there would have been.
 21 Q. Let me ask you this way. Among the 54,
 22 how many of the studies included in here were work
 23 that you had done?
 24 A. I don't know without going back and

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1 counting.
 2 Q. Well, you had the Anderson and Ford
 3 piece from 1986 or so. Would that have been
 4 included?
 5 A. Not in those 33.
 6 Q. Right. In the 54?
 7 A. But in the 54, yes, that probably was
 8 included.
 9 Q. And then we had the Anderson and Dill,
 10 the two different ones, correlational and
 11 experimental. Was there anything else that you had
 12 done by this point in time that would have been
 13 included here?
 14 A. There probably -- and I'd have to go
 15 back to the reference list to see. I don't think
 16 it is in -- they are not all in the reference list
 17 in this article, but they are -- I have a table.
 18 There were probably another two or three
 19 unpublished studies that went into that.
 20 Q. That you had done?
 21 A. That we had done and that were not yet
 22 published.
 23 Q. This is work that showed up in
 24 publications in 2002, 2003?

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1 A. Yes, somewhere in there. I mean,
 2 sometimes the publication lag is long.
 3 Q. Can you give me a general sense, it is
 4 hard to read all of these articles, what kind of
 5 experimental work you did after Anderson and Dill?
 6 You did similar sorts of studies involving exposure
 7 to two different games and noise blasts, is that
 8 right?
 9 A. Yes.
 10 Q. And the two games that you used were
 11 Marathon 2 and Glider Pro?
 12 A. In one study.
 13 Q. Was it just one?
 14 A. And then -- well, we used those in
 15 another study, but that other study also had two
 16 different versions that we made of Marathon and
 17 then another version of the Marathon World but
 18 without any violence in it.
 19 Q. So you manipulated the game by taking
 20 the violence out of it?
 21 A. Yes.
 22 Q. Was it still a game you could play?
 23 A. It -- that game became a -- sort of a
 24 search game where you had to basically find oxygen

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1 bottles in different parts of this space
 2 environment before you ran out of oxygen.
 3 Q. Okay. So just to sort of be clear, the
 4 next one you did was what's reported in 2003 as a
 5 second meta-analysis?
 6 MR. SMITH: That will be Exhibit 6.
 7 (WHEREUPON, said document was marked
 8 Anderson Deposition Exhibit No. 6,
 9 for identification, as of
 10 10/13/05.)
 11 BY MR. SMITH:
 12 Q. Is that right?
 13 A. If I remember right, two papers came out
 14 in 2003.
 15 Q. Exhibit 6 is an article -- or it looks
 16 like it's a book chapter that you wrote called
 17 "Video Games and Aggressive Behavior" published in
 18 2003.
 19 A. Yes.
 20 Q. And it reports on a second
 21 meta-analysis, does it not?
 22 A. Yes.
 23 Q. Were these reports also published
 24 somewhere else? Is that what you were saying?

<p style="text-align: right;">Page 122</p> <p>1 I have a third one to go in 2004 yet, if that's 2 what you're thinking about. 3 A. Oh, okay. 4 Q. Now, we had 54 samples before, and what 5 is the comparable figure for the second 6 meta-analysis? 7 A. If I'm reading this right, on page 153, 8 it's 46 samples. 9 Q. Where is that? 10 A. Where it says "Effects For Adults and 11 Children Combined" and then down three lines. 12 Q. Oh, okay. And it says over on the next 13 page that a number of new ones were added since the 14 prior meta-analysis, is that correct? 15 Do you see under the results of the 16 new meta-analysis, first, "Several new studies on 17 violent video games are now available for inclusion 18 in the meta-analysis?" 19 A. Oh, yes. 20 Q. Those are actually listed back in 21 Footnote 19, is that correct? 22 A. Yes. 23 Q. So just so we're clear, how many new 24 samples were added there?</p>	<p style="text-align: right;">Page 124</p> <p>1 number. That is correct. 2 Q. Why did you decide to treat them as 3 single samples rather than multiple samples in the 4 second meta-analysis? 5 A. In part, because we were finding that 6 the video game effect was occurring in both male 7 and female samples. And, in fact, in the prior 8 meta-analysis, one of the things we looked at was 9 to see whether or not sex -- there were sex effects 10 overall in terms of the -- these average effect 11 sizes and found that there was not a sex effect. 12 So that's essentially the -- 13 Q. That makes sense. 14 A. -- the main reason. 15 Q. Now, in neither of these first two 16 meta-analyses did you apply some sort of screen in 17 terms of the quality of the experimental design, is 18 that right? 19 A. That is correct. 20 Q. And is the same true with respect to the 21 quality of the correlational study? You didn't 22 screen those out based on defective design? 23 A. Correct. 24 Q. And, in fact, most of the studies</p>
<p style="text-align: right;">Page 123</p> <p>1 A. I'm not sure. 2 Q. It's at least four because there's four 3 publications here, right, in 19? 4 A. Yes, that looks -- that looks correct. 5 Q. Now, I take it, just the math suggests 6 you eliminated ten or twelve studies that had 7 previously been included. We went down from 54 to 8 46 while adding at least four, right? 9 A. Several things were done. I'm trying to 10 find where it actually says what was done. 11 One of the things we did was to combine 12 some samples that had been done -- treated as 13 separate samples in the original meta-analysis. 14 So, for example, in some of the studies in the 15 original meta-analysis, effect sizes were 16 calculated separately for males and for females. 17 And in this study, those -- if 18 I remember right, those were combined into just one 19 bigger sample. 20 Q. Given the weighting by number of 21 participants in the sample, does that mean that 22 combining them in that way doesn't really affect 23 the bottom line results? 24 A. Yes, because they are weighted by</p>	<p style="text-align: right;">Page 125</p> <p>1 included here didn't have the characteristics which 2 you said in that public policy piece are the 3 criteria associated with a well-done correlational 4 or experimental study, isn't that right? 5 A. That is correct. 6 Q. Okay. Now, in the third meta-analysis, 7 that's the one reported in Exhibit 4, correct? 8 A. Um-hum. 9 Q. Turn to page 237. 10 A. Yes. 11 Q. Now, here we have -- have we added more 12 studies still at this point? 13 A. I don't remember whether there were any 14 that weren't in the 2003. I think that there may 15 have been -- 16 Q. Well, if you look at Table -- 17 A. But I'm not sure. 18 Q. If you look at the table on -- the 19 figure on page 240 of Exhibit 4 -- 20 A. Um-hum. 21 Q. -- you're studying -- am I reading this 22 correctly? -- 38 different samples relating to 23 aggressive behavior; 20 plus 18? 24 A. Not entirely, because sometimes the same</p>

<p style="text-align: right;">Page 126</p> <p>1 sample participants, you can get both a best 2 practices effect size estimate and a not best 3 practices effect size estimate from the same -- 4 from the same sample of people. And so those two 5 numbers, that 20 and that 18, include the -- 6 essentially the same sample a few times. 7 Q. So you take a study that had -- 8 a particular experiment they had done, and they had 9 done it well and they had done it less well, 10 depending on which particular parameters you looked 11 at, and you would count it in both case? 12 A. Typically, this is an issue with some of 13 the correlational studies, more so the experimental 14 -- 15 Q. Can you give me an example of a kind of 16 correlational study in which you would have used it 17 twice? 18 A. Yes. Yes. If -- some of the 19 correlational studies will have a measure of 20 violent video game exposure and a measure of just 21 time spent playing any kind of video game. The 22 violent video game exposure measure is considered a 23 best practices measure to use. Time on any kind of 24 video game is not considered best practices.</p>	<p style="text-align: right;">Page 128</p> <p>1 when you had those two reports? Did you only use 2 one of the two? 3 A. When -- right. We'd only -- in those 4 cases we would only use the best practices 5 estimate. 6 Q. So if you look at the 2004 study, of the 7 16 not best practices -- of the 20 not best 8 practices samples relating to aggressive behavior, 9 a number of them were not actually included in the 10 prior meta-analysis? 11 A. Correct. 12 Q. Do you have any idea how many? 13 A. No. I'd have to look it up. I mean, 14 the not best practices estimate would not have 15 appeared in the prior meta-analysis, but the best 16 practices estimate would have appeared. 17 Q. Now, in dividing the studies into those 18 two categories, you came up with a list of criteria 19 that are on page 238 of Exhibit 4? 20 A. Yes. 21 Q. And how did you go about creating a 22 single categorization based on nine criteria? 23 Either they were or they weren't best practice. 24 A. Yes, the decision was whether or not a</p>
<p style="text-align: right;">Page 127</p> <p>1 Q. And they would report results on each of 2 those? 3 A. Yeah. You could get correlations, 4 effect sizes on each of those. 5 And so when we break it into these 6 different categories, best practices and not best 7 practices, you could have the same sample of 8 subjects contributing an effect size estimate for 9 both of those two categories. 10 Q. If we go back to the 2003 meta-analysis, 11 Exhibit 6, on page 155, you have a graph there 12 showing that you had studied 23 studies addressing 13 aggressive behavior. 14 A. Um-hum. 15 Q. And -- 16 A. 23 samples. 17 Q. I'm sorry, 23 samples, yes. 18 Could you tell me what the reason is 19 that the number goes from 23 up to 38 between these 20 two meta-analyses? 21 A. Partly, it's because of studies -- 22 samples that are contributing to both, the not best 23 practices estimate and the best practices estimate. 24 Q. What did you do back in the 2003 thing</p>	<p style="text-align: right;">Page 129</p> <p>1 study had at least one of these major -- or 2 potentially major problems. Those would become not 3 best practices. 4 Q. I'm sorry. At least one or one? 5 A. Okay. On page 237 we categorize each 6 sample as having none of them, meaning none of the 7 problems, or at least one of those problems. 8 Q. So all of the ones that are in the best 9 practices category are free of all nine problems? 10 A. Yes. 11 MR. SMITH: What are we up to; 7. 12 (WHEREUPON, a certain document was 13 marked Anderson Deposition Exhibit 14 No. 7, for identification, as of 15 10/13/05.) 16 BY MR. SMITH: 17 Q. Exhibit 7 is the list of the studies 18 included in the 2004 meta-analysis, is that right? 19 A. Yes. 20 Q. I guess what I need to have you clarify 21 for me is you rate the majority of these studies as 22 being free of any of the nine problems you listed, 23 is that right? 24 MS. CHERIAN: Are you using "studies" in the</p>

<p style="text-align: right;">Page 130</p> <p>1 way he has used "studies"?</p> <p>2 MR. SMITH: I'm using the word "studies" the</p> <p>3 way he uses it on Exhibit 7.</p> <p>4 BY THE WITNESS:</p> <p>5 A. I guess I'm not sure I understand the</p> <p>6 question.</p> <p>7 BY MR. SMITH:</p> <p>8 Q. Well, did -- these are the raw material</p> <p>9 that went into your meta-analysis and you did a</p> <p>10 categorization of them, right?</p> <p>11 A. Yes.</p> <p>12 Q. And the question was did the majority of</p> <p>13 them end up being rated as meeting the best</p> <p>14 practices standards?</p> <p>15 A. It's a hard question to answer. First</p> <p>16 of all, these are not samples and the numbers we</p> <p>17 have in Figure 7 are samples.</p> <p>18 Q. The samples are derived from these</p> <p>19 publications, right?</p> <p>20 A. The samples are derived from these, yes,</p> <p>21 publications and --</p> <p>22 Q. And so the majority of the samples</p> <p>23 reflected in these publications were rated as</p> <p>24 meeting the best practices standards, right?</p>	<p style="text-align: right;">Page 132</p> <p>1 A. I think I understand the source of</p> <p>2 confusion. The sample size criteria from the one</p> <p>3 statement is not part of the best practices list.</p> <p>4 Q. Because of the aggregation?</p> <p>5 A. Because of the aggregation.</p> <p>6 Q. And there were studies, experimental</p> <p>7 studies from the 1990s that met the other criteria</p> <p>8 but didn't have an adequate sample size?</p> <p>9 A. Yes.</p> <p>10 Q. How about with respect to correlational</p> <p>11 studies, were there studies that could have failed</p> <p>12 the three criteria you listed as important before</p> <p>13 and still made it into the best practices?</p> <p>14 A. Yes, yes, because of the sample size.</p> <p>15 Q. Of the 18 samples you rated as meeting</p> <p>16 the best practices criteria in the 2004</p> <p>17 meta-analysis relating to aggressive behavior, can</p> <p>18 you tell me how many of those were experiments or</p> <p>19 correlation studies that you performed?</p> <p>20 A. It would just be a guess. It would just</p> <p>21 be a wild guess.</p> <p>22 Q. You shouldn't do that.</p> <p>23 A. It would -- yeah, I don't -- I'd have to</p> <p>24 look it up.</p>
<p style="text-align: right;">Page 131</p> <p>1 A. Well, if one looks at the aggressive</p> <p>2 behavior, we have 18 in the best practices and 20</p> <p>3 in the not best practices category. And, again,</p> <p>4 some of those are estimates from the same sample.</p> <p>5 So it's -- it's not really an answerable question.</p> <p>6 Q. Do you know whether there were samples</p> <p>7 from the 1990s that were rated as meeting best</p> <p>8 practices criteria?</p> <p>9 A. Off the top of my head, I can't -- I</p> <p>10 don't know.</p> <p>11 Q. Here is what I'm just puzzling about.</p> <p>12 We established before that you said that until the</p> <p>13 Anderson and Dill piece in 2000, there were no</p> <p>14 experimental studies and no correlational studies</p> <p>15 that met what you thought were the important</p> <p>16 criteria for how to do those studies. Do you</p> <p>17 recall that?</p> <p>18 A. Yes.</p> <p>19 Q. And the large majority of the</p> <p>20 publications on this list are from before that.</p> <p>21 And so I'm trying to figure out how to square that</p> <p>22 with the results here that shows at least about</p> <p>23 half of the studies at least were rated as meeting</p> <p>24 all nine best practices criteria?</p>	<p style="text-align: right;">Page 133</p> <p>1 Q. Back in the 2001 meta-analysis, you</p> <p>2 divided correlational studies from experimental</p> <p>3 studies to see whether it made a difference.</p> <p>4 A. Correct.</p> <p>5 Q. Did you do that with respect to the</p> <p>6 subsequent two meta-analyses?</p> <p>7 A. On Page 241 of exhibit whatever that is,</p> <p>8 4, there is a comparison. The other one is 2000 --</p> <p>9 Q. 2003?</p> <p>10 A. -- '3. I don't remember. It does not</p> <p>11 appear that we did in 2003 a book chapter.</p> <p>12 Q. So looking at Exhibit 4, Page 241, this</p> <p>13 is a figure that is limited to the ones that met</p> <p>14 the best practices tests?</p> <p>15 A. Yes.</p> <p>16 Q. And here you report that the</p> <p>17 correlational effect with respect to aggressive</p> <p>18 behavior was larger than the experimental effect,</p> <p>19 is that right?</p> <p>20 A. It was slightly larger, but it would not</p> <p>21 be significantly larger statistically.</p> <p>22 Q. How can you tell that?</p> <p>23 A. The bars overlap that go above and below</p> <p>24 the mean.</p>

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1 Q. Oh, is that what that is?
 2 A. Yes. Sorry.
 3 Q. And when you reported the results on the
 4 previous page, in combining the experiments with
 5 the correlations, is it accurate that essentially
 6 you just took the number of people in the sample
 7 and multiplied it times the effect size? With
 8 regard to whether it was an experiment or a
 9 correlation, it all gets sort of mixed together on
 10 page 240?
 11 A. Yes, yes, although the averaging formula
 12 isn't quite that simple, but functionally that's
 13 what you are doing.
 14 Q. Essentially though -- I mean, as a
 15 matter of substance, essentially you are equating
 16 experiments with correlations?
 17 A. Yes, you are treating them --
 18 Q. And giving them equal weight based only
 19 on how many people were studied?
 20 A. Yes, exactly.
 21 Q. So in mixing those together, you are
 22 looking at short-term effects and -- of experiments
 23 and combining them with the effects -- with the
 24 data you have about people's self-reports about

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1 their behavior and their video game usage in
 2 correlational studies?
 3 A. Yes, that's correct.
 4 MR. SMITH: Let's go off the record a second.
 5 (WHEREUPON, discussion was had
 6 off the record.)
 7 (WHEREUPON, a recess was had
 8 from 11:48 to 12:30 p.m..)
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1 IN THE UNITED STATES DISTRICT COURT
 2 NORTHERN DISTRICT OF ILLINOIS
 3 EASTERN DIVISION
 4 ENTERTAINMENT SOFTWARE)
 5 ASSOCIATION; VIDEO SOFTWARE)
 6 DEALERS ASSOCIATION; ILLINOIS)
 7 RETAIL MERCHANTS ASSOCIATION,)
 8 Plaintiffs,)
 9 vs.) No. 05 C 4265
 10 ROD BLAGOJEVICH, in his official)
 11 capacity as Governor of the State) Judge Kennelly
 12 of Illinois; LISA MADIGAN, in her)
 13 official capacity as Attorney) Magistrate
 14 General of the State of Illinois;) Judge Denlow
 15 and RICHARD A. DEVINE, in his)
 16 official capacity as State's)
 17 Attorney of Cook County,)
 18 Defendants.)
 19
 20 October 13, 2005, 12:43 p.m.
 21
 22 The deposition of CRAIG A. ANDERSON,
 23 PH.D. resumed pursuant to recess at Suite 4000, One
 24 IBM Plaza, Chicago, Illinois.

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1 PRESENT:
 2
 3 JENNER & BLOCK,
 4 (601 Thirteenth Street, NW,
 5 Suite 1200 South,
 6 Washington, D.C. 20005,
 7 202-639-6000), by:
 8 MR. PAUL M. SMITH,
 9 -and-
 10 JENNER & BLOCK,
 11 (One IBM Plaza,
 12 Chicago, Illinois 60611-7603,
 13 312-222-9350), by:
 14 MR. WADE A. THOMSON,
 15 appeared on behalf of the Plaintiffs;
 16
 17
 18
 19
 20
 21
 22
 23
 24

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1 PRESENT: (Continued)
 2
 3 HOGAN & MARREN, LTD.,
 4 (180 North Wacker Drive, Suite 600,
 5 Chicago, Illinois 60606,
 6 312-946-1800), by:
 7 MS. LIMO T. CHERIAN,
 8 appeared on behalf of Defendant
 9 Rod Blagojevich;
 10
 11 OFFICE OF THE ATTORNEY GENERAL -
 12 STATE OF ILLINOIS,
 13 ATTORNEY GENERAL LISA MADIGAN,
 14 (100 West Randolph Street,
 15 Chicago, Illinois 60601,
 16 312-814-3632), by:
 17 MR. ANDREW L. DRYJANSKI,
 18 Assistant Attorney General,
 19 appeared on behalf of Defendant
 20 Lisa Madigan.
 21
 22 REPORTED BY: ROSANNE M. NUZZO, CSR No. 84-1388;
 23 JULIANA F. ZAJICEK, CSR NO. 84-2604.
 24

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1 MR. SMITH: Shall we?
 2 THE WITNESS: Sure.
 3 CRAIG A. ANDERSON, Ph.D.,
 4 called as a witness herein, having been previously
 5 duly sworn and having testified, was examined and
 6 testified further as follows:
 7 EXAMINATION (Resumed)
 8 BY MR. SMITH:
 9 Q. This afternoon, Dr. Anderson, I want to
 10 start by going back to the question I was asking
 11 you before relating to estimating the actual amount
 12 of violence caused by media effects.
 13 I ask you to pick up Exhibit 1, your
 14 2003 article on Psychological Science in the Public
 15 Interest, and turn over to page 83 there.
 16 A. Oh, wrong one. Here it is. Okay.
 17 Q. Now, the last paragraph on page 83 says:
 18 "Medical scientists and public health officials
 19 seem to have avoided the problem of underestimating
 20 the public health importance of small effects by
 21 translating their findings into cancer rates or
 22 heart attack rates or death rates for the entire
 23 U.S. population, but behavioral scientists have not
 24 traditionally done this type of population rate

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1 translation," unquote.
 2 A. Um-hum.
 3 Q. First of all, can you tell me why it is
 4 that behavioral scientists have not done that kind
 5 of translation?
 6 A. I don't know why. It's just not part of
 7 the culture, in a sense.
 8 Q. And the point you're making here is that
 9 without that kind of information, the public
 10 doesn't understand the importance of the effects
 11 that you're studying, isn't that right?
 12 A. Yes. That is one of the problems.
 13 Q. And having written this a couple of
 14 years ago, you haven't ever considered to try to
 15 address this absence of some data?
 16 A. No.
 17 Q. And can you tell me why not?
 18 A. It's not something that I'm particularly
 19 requested in.
 20 Q. You're not interested in resolving the
 21 problem you discuss here in your own article?
 22 A. I'm not interested in -- I'm not a
 23 public policy person.
 24 Q. Now, I want to talk a little bit about

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1 longitudinal studies. First of all, can you tell
 2 me what that means?
 3 A. A typical longitudinal study is one in
 4 which the same participants -- almost all
 5 longitudinal studies are correlational in nature.
 6 And what you typically do is measure
 7 variables of interest at two points in time,
 8 separated by at least as much time as is reasonable
 9 for the research domain that one is working in.
 10 So, for example, in the media violence domain, you
 11 might measure media violence exposure at age six or
 12 seven as well as what you might think of as
 13 aggressiveness or trade aggressiveness at that same
 14 age and maybe other variables as well depending on,
 15 you know, what you're able to measure.
 16 And then maybe, you know, six months, a
 17 year -- in some of the TV violence studies, they
 18 have followed up the same population for quite a
 19 long period of time, a number of years -- measure
 20 the same variables again, typically; and then, with
 21 the use of statistical analyses, try to determine
 22 the extent to which media violence exposure at time
 23 one predicts aggressive behavior or aggressiveness,
 24 whatever you want to call it, at time two. And

<p style="text-align: right;">Page 142</p> <p>1 then you can also then see whether that 2 relationship holds once you control for things like 3 how aggressive the participant was at time one. 4 Similarly, you can check to see whether 5 aggressiveness at, let's say, time one predicts 6 media violence usage or exposure at time two, 7 controlling for media violence usage at time one. 8 Q. And why would you do the latter? 9 A. The latter would be a way of looking to 10 see if there's evidence of this bidirectional 11 causality kind of thing. 12 Q. Now, to summarize, then, the 13 longitudinal study is important because it both 14 goes beyond short-term effects like those studied 15 in experiments and helps to address this causality 16 issue that is a problem with respect to 17 cross-sectional correlational studies, is that 18 correct? 19 A. Yes. A longitudinal study is better at 20 looking at some of these alternative explanations. 21 And, you know, if the right time frame is used and 22 the right measures are used and so on, you can look 23 at some of the sort of more naturalistic kinds of 24 -- and surreal aggression measures that one</p>	<p style="text-align: right;">Page 144</p> <p>1 article or -- which one are you -- is it -- does it 2 appear in this one also (indicating)? 3 Q. Yeah. If you turn over to page 88 of 4 Exhibit 1 -- are you in Exhibit 1? 5 A. Um-hum. 6 Q. You have a review of the longitudinal 7 studies that you found significant in the film and 8 TV area, and then there's a conclusion that says 9 "Meta-Analysis and Summary." 10 Is that a report of your meta-analysis 11 with Bushman of TV and movie studies? 12 A. Yes. What I don't remember is whether 13 there were any of those that -- I don't think there 14 were any of those that weren't TV. There might 15 have been. Some of those might have well included 16 film, measures of exposure to film violence. 17 Q. It says TV here, I guess. 18 A. It says, "The great majority were 19 investigations of violent TV." 20 Q. In any event, none of them included a 21 longitudinal study of violent video games? 22 A. Correct. 23 Q. This was done in 2002 or at least was 24 published in 2002?</p>
<p style="text-align: right;">Page 143</p> <p>1 couldn't do, for example, in an experiment. 2 Q. And the first longitudinal study of 3 exposure to violent video games is the one that is 4 currently unpublished that you've done? 5 A. That's the first one -- back up. 6 There's a -- one appeared fairly 7 recently that claims to be a longitudinal study of 8 violent video games. I'm sure you know the one I'm 9 referring to, the Dimitri Williams. It just came 10 out in the last, I don't know, month or so, I'm not 11 sure exactly when. 12 Q. Those are the two? 13 A. Those are the two that have -- that 14 I know of that focus specifically on violent video 15 games. 16 There's the one out of Japan that looked 17 at total amount of time on any kind of video games, 18 not as informative, but not totally unrelated. 19 Q. Okay. Now, stepping aside from video 20 games specifically for a moment, you have in the 21 past with Dr. Bushman done a meta-analysis of the 22 TV violence longitudinal studies, is that right? 23 A. What we -- I guess those would be all TV 24 and film violence effects in that Science</p>	<p style="text-align: right;">Page 145</p> <p>1 A. Yes. 2 Q. And what you found, looking at the 3 42 independent tests involving 5,000 participants, 4 was an effect size of .17? 5 A. Yes. 6 Q. Now, did you, in the course of doing 7 that analysis, attempt to separate out those which 8 are studying serious violent behavior? 9 A. No. 10 Q. So you don't have an opinion about 11 whether the effect size of .17 would have gone down 12 even further if you had just focused on those that 13 looked at serious violent behavior as opposed to 14 other forms of aggression? 15 A. Elsewhere in this article, there is a 16 figure given for longitudinal effects on -- 17 I think. Maybe that's -- let me check. 18 Q. Take your time. 19 (Short pause.) 20 BY THE WITNESS: 21 A. You know, we were talking earlier about 22 that .13. 23 BY MR. SMITH: 24 Q. Yes.</p>

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1 A. I can't remember what context that was
 2 in.
 3 Q. Well, if you look at the very first
 4 paragraph of Exhibit 1, that's where the .13
 5 appears.
 6 A. Okay. Yep, I saw it. It is in here.
 7 Q. So does that mean you actually produced
 8 it in a meta-analysis?
 9 A. Someone else I think did. Here we go.
 10 No, that doesn't -- that isn't what I -- wrong
 11 number.
 12 Q. Wrong number?
 13 A. No, it is the right number, but it is
 14 not a longitudinal study.
 15 Q. Where does that number come from?
 16 A. That's on page 86, top right-hand
 17 column.
 18 Q. So these were correlational studies that
 19 produced the .13?
 20 A. Well, that's under the heading of
 21 "Randomized Experiments" --
 22 Q. Oh.
 23 A. -- "Meta-Analysis and Summary."
 24 Q. So it looks like in their meta-analysis

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1 when they limit it to the 32 of the 71 that had
 2 criminal violence measures, it went to a .13, is
 3 that correct?
 4 A. That is correct.
 5 Q. So it is what we were looking for, is it
 6 not?
 7 A. But it is not longitudinal.
 8 Q. Oh, right. Okay.
 9 A. Or it is not exclusively longitudinal.
 10 Q. And is it your memory there is somewhere
 11 else a combination of longitudinal studies that
 12 produces that result as well?
 13 A. That was the number I was remembering,
 14 so.
 15 Q. Okay.
 16 A. There may not be one. But to answer
 17 your -- if I remember your question right, which
 18 was would I expect that .17 effect size to be
 19 smaller if those longitudinal effects were
 20 restricted to those involving criminal violence,
 21 the answer would be yes, I would expect it to get
 22 smaller as the severity of the crimes that one is
 23 limiting it to goes up.
 24 Did I get it right, did I get the

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1 question right?
 2 Q. You did a beautiful job.
 3 Now, what significance, if any, should
 4 those of us on the public policy side give to the
 5 fact that your meta-analysis of longitudinal
 6 studies produced a somewhat smaller effect size
 7 than your meta-analysis of correlational and
 8 experimental studies, assuming that's true?
 9 A. Yes, and generally -- excuse me. I'm
 10 losing my voice.
 11 Generally, the farther apart in time
 12 that you measure related variables, the smaller the
 13 correlation tends to be.
 14 Q. Presumably because other factors that
 15 are not taken into account can effect people's
 16 evolution over time?
 17 A. Yes, other -- because there are other
 18 factors that influence whatever the outcome
 19 variable is you are looking at, over time they are
 20 likely to have some impact that isn't essentially
 21 captured by that time one measurement elsewhere.
 22 And, of course, the longer time period that goes
 23 by, the more likely it is that the individual's
 24 exposure to violent media may have changed.

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1 Q. Well, let's talk about the time period
 2 issue. When you looked at all of these 42
 3 longitudinal studies of TV violence, primarily --
 4 A. Um-hum.
 5 Q. -- you mentioned that some of them went
 6 over a period of years?
 7 A. Right.
 8 Q. Did most of them?
 9 A. Most of them would have been at least a
 10 year or a majority would have been at least a year.
 11 Q. And is there a rule of thumb about how
 12 much time one ought to have in a longitudinal study
 13 in order of media violence to sort of determine
 14 whether you are really doing something longitudinal
 15 as opposed to merely a correlation?
 16 A. There isn't sort of a standard that's
 17 kind of written down somewhere, but generally
 18 speaking, if one is measuring, you know, looking
 19 for changes in what you might think of as habitual
 20 aggressiveness or trade aggression, you normally
 21 wouldn't expect that to be effected much let's say
 22 on the order of a month or so. In fact, you might
 23 think it would take at least three months or so
 24 typically.

<p style="text-align: right;">Page 150</p> <p>1 Q. Where would I go to find some discussion 2 of this issue? 3 A. I don't know that there is -- there is 4 one. This is sort of law or, you know, part of the 5 culture. What one could do is look at some of the 6 longitudinal studies in the TV domain and see in 7 some sense what time frames have kind of produced a 8 result and what hasn't, some of the stuff by I 9 would recommend Ralph Huesmann and Len Eron. 10 Q. You have a discussion on pages 87 and 88 11 of what I take it are the primary longitudinal 12 studies in the area of TV and movies, is that 13 correct? Again, I'm referring to Exhibit 1. 14 A. Did you say page 87? 15 Q. 87 onto 88. 16 A. Yes. Well, these are examples of 17 longitudinal studies. They are some of the primary 18 ones that, in fact, exemplify what the overall 19 results show. But it is not an exhaustive list. 20 Q. Without asking you to give me an 21 exhaustive list, can you give me what you consider 22 to be the most persuasive and well-done 23 longitudinal studies TV violence? 24 A. Probably the most persuasive ones</p>	<p style="text-align: right;">Page 152</p> <p>1 and top of page 88 referring to the five-country 2 study that, "The extent to which earlier viewing of 3 TV violence predicted later aggression varied 4 substantially between the genders and among the 5 countries," and in that study prior viewing of 6 violence was significantly predictive of later 7 aggression in girls but not in boys, is that right, 8 in the United States? 9 A. Are you in that last paragraph? 10 Q. I've actually gone over to the top of 11 the next page. 12 A. Okay. I see where you are. 13 Q. Is that a correct characterization of 14 the results of this -- of the study? 15 A. What's written here? 16 Q. That he found the correlation a 17 significant effect with respect to girls in the 18 United States but not boys? 19 A. It is a little more complicated than 20 that in that, well, as it says here, boys who had 21 watched violent program frequently in their early 22 childhood and who also reported a strong 23 identification with aggressive TV characters were 24 generally regarded by their peers as the most</p>
<p style="text-align: right;">Page 151</p> <p>1 actually are the Huesmann and Eron studies. 2 Q. When you say "studies" plural, I know 3 that's a very ambiguous word, but are you talking 4 about the studies that -- in Columbia County, 5 New York or the ones involving five different 6 nations or both? 7 A. The whole set, the whole set. The best 8 ones with the most complete data as I recall are 9 the Columbia County ones. And I think they 10 followed those up for now I believe it is 30 years, 11 although I don't know -- I know that there is a 12 publication in 2003 that followed up -- had 13 follow-up data I believe over a 15-year period. 14 Q. Is it accurate that the results were 15 somewhat more mixed on the five-country study? 16 A. There were some unusual patterns 17 particularly, if I remember right, in the Poland 18 data. I've been told, and I haven't seen a writeup 19 yet, that additional data from Poland that have 20 been gathered since that data set was first 21 published clarified that a little bit, but I -- 22 since I don't actually have a writeup of it, I've 23 never really relied on that very heavily. 24 Q. You say here at the bottom of page 87</p>	<p style="text-align: right;">Page 153</p> <p>1 aggressive. 2 Q. So absent that additional factor of 3 strong identification, there was no link -- 4 significant linkage found? 5 A. Correct. 6 Q. And is it also true that the peer review 7 of aggressiveness was only one of the three that 8 they used and that the other two didn't show a 9 significant relationship? 10 A. I don't recall. I'd have to go back and 11 look that up. 12 Q. If that were the case, would you find 13 the finding of one of the three showing a 14 significant relationship to be significant? 15 A. You want to run that by me again? 16 Q. There are, again, three measures of 17 aggressive behavior at time two, and two out of the 18 three don't have any relationships with the prior 19 viewing of violent medium, would you then lend 20 significance to the third if it did? 21 A. To some extent, it would depend on how 22 big or small or nonexistent the other two were, and 23 it would also depend to some extent on what those 24 measures were.</p>

<p style="text-align: right;">Page 154</p> <p>1 One of the problems that one has with 2 longitudinal research, especially when you're 3 comparing across genders or across cultures, is 4 that at different ages, for example, or different 5 genders, the sort of preferred mode of agrading is 6 different. Women, for example, tend to not agress 7 in the same way that men do. 8 So a measure that is very appropriate 9 for one subgroup may be less appropriate for 10 another subgroup and, in fact, some of the later 11 longitudinal stuff with the U.S. sample does, in 12 fact, show longitudinal effects for both men and 13 women but on somewhat different outcome variables. 14 Q. This is in the same study? 15 A. I believe it's in the 15-year follow-up. 16 But it's possible it's in the 30-year follow-up. 17 I'd have to reread the studies to see where -- 18 I think it's in this one. 19 Actually, I think it's in that next 20 paragraph. 21 Q. Has a 30-year follow-up been published? 22 A. That's what I'm not sure, whether that 23 has come out yet. 24 Q. But it's a 30-year follow-up of the</p>	<p style="text-align: right;">Page 156</p> <p>1 measure a game play level and aggressiveness at 2 time A and then aggressiveness at time B? 3 Here you have kind of an intermediate 4 period of time where you're introducing -- 5 A. Right. 6 Q. -- a high degree of exposure to violent 7 media. Would you say that accurately is called a 8 longitudinal study? 9 A. I don't -- well, I don't really regard 10 that as an appropriate longitudinal study. 11 Q. Would you consider it a kind of 12 experimental study? 13 A. It's a kind of an experimental study. 14 Q. But with a great deal more exposure to 15 the media than the kind that you reported on 16 before? 17 A. It -- yes. It's a -- it has more 18 exposure, although it's unclear how much exposure, 19 but it's certainly more than what you have in your 20 typical laboratory. 21 Q. Why is that? Doesn't he report how much 22 there was? 23 A. Well, it's -- they were asked to play so 24 much over this one-month period of time, but</p>
<p style="text-align: right;">Page 155</p> <p>1 Americans in the five-country study as opposed to 2 the Columbia County thing -- 3 A. Ah. That may be. 4 Q. -- or are those the same people? 5 A. I think that's -- boy, I can't say for 6 certain. I'd have to go back and look that up. 7 I believe those are different samples, but -- and 8 I believe that the 30-year refers to the Columbia 9 County, but I have to go back and look at those. 10 Q. Did you review a write-up of the 30-year 11 follow-up of the Columbia County at some point? 12 A. I vaguely recall seeing one. But again, 13 I mean, I didn't, you know, review that literature 14 recently, before coming in here. So I don't want 15 to say for certain that that's where that is. 16 Q. Now, let me ask you a little bit about 17 your assessment of the Dimitri Williams study. 18 That was a study where he asked a group of people 19 to play a particular game intensively for a period 20 of a month and then -- and tested their levels of 21 aggressiveness at the beginning and at the end. 22 A. Yes. 23 Q. In that sense, it's different, is it 24 not, from the usual longitudinal study, where you</p>	<p style="text-align: right;">Page 157</p> <p>1 there's no way of knowing how much they really 2 played. 3 Q. Well, if he reports that they each 4 reported different amounts, but they averaged 5 56 hours, is there some reason to doubt that? 6 A. Sure, there is. Self-report off 7 Internet? 8 Q. And if it was actually 53 hours on 9 average instead of 56, does that make a difference 10 in interpreting the results? 11 A. Well, it makes a difference if some 12 actually were playing a hundred and who knows what 13 and others were playing three or four because what 14 that tends to do is increase -- I mean, if there 15 was going to be an effect, that would increase the 16 error variance, the measurement error tremendously. 17 Q. Well, given that you find effects where 18 people have exposure to these kinds of media for a 19 period of minutes, does it surprise you that 20 exposures in the range of 56 hours didn't produce 21 any measurable effect? 22 A. No, because what they were measuring is 23 not at all comparable to what gets measured in a 24 lab study.</p>

<p style="text-align: right;">Page 158</p> <p>1 Q. Right. They didn't do a word study or a 2 noise blast study? 3 A. Right. 4 Q. They did a report about whether, during 5 the period of exposure, people actually were 6 behaving more aggressively. Do you have a problem 7 with that as a measure? 8 A. Yes. Basically, in -- well, let me back 9 up. 10 What you have in this case is adult 11 subjects, almost all -- I believe the average age 12 was somewhere around 27, who already are 13 computer-savvy and Internet-savvy, who are -- then 14 volunteer to participate in this study where 15 they're asked to play a particular video game, 16 which may merely replace video games that they 17 would normally be playing. 18 And then, the measure is actually a sort 19 of a trait-like, you know, habitual aggressiveness 20 kind of measure. And I don't actually know any 21 media violence researcher who would predict that 22 under those circumstances, you would get changes in 23 aggressive personality. 24 Q. Why do you use the word "personality"</p>	<p style="text-align: right;">Page 160</p> <p>1 surprised if there had been an effect in that 2 study. 3 Q. And can you explain to me why? 4 A. Adults' personalities, or whatever you 5 want to call them, habitual behavioral styles, 6 don't typically change that much without an 7 intensive intervention over an extended period of 8 time. And this is not, in my judgment, intensive 9 enough or long enough period of time. I mean, 10 that's part of it. 11 Another part of it is, they chose a 12 video game that is of a kind that has not been used 13 in prior studies. They chose a massively 14 multi-player online role-playing game, that those 15 kinds of games typically include the formation of 16 groups of other people, sometimes called clans, 17 that you cooperate with, that you communicate with 18 as part of the gaming experience. 19 So there's, in a sense, more 20 cooperation, more planning than in your typical, 21 say, first-person shooter; and there's less 22 shooting than in your typical first-person shooter. 23 Q. Have you done any kind of assessment of 24 this particular game to see if that's true?</p>
<p style="text-align: right;">Page 159</p> <p>1 there instead of "behavior"? 2 A. Well, the measures are basically -- you 3 know, they're typically used as measures of trait 4 aggressiveness. 5 Q. And you've certainly used self-reports 6 about people's aggressive behavior in your 7 research, have you not? 8 A. Yes. 9 Q. So are you saying that it's not that 10 there's a problem with the self-reporting, it's 11 that you wouldn't expect any kind of effects after 12 a month of exposure intensively to the game? 13 A. Not in -- 14 Q. Actual behavior? 15 A. Not in a measure that is trait-like as 16 opposed to -- I mean -- well, let me back up. 17 There are also some -- there are few 18 experimental -- laboratory studies that have 19 similarly used trait-like measures, the same kind 20 of measures, actually, that were used in that 21 study. And we have written elsewhere, it's, you 22 know, inappropriate to use a trait-like measure, 23 you know, in that context as well. 24 In other words, I would have been</p>	<p style="text-align: right;">Page 161</p> <p>1 A. I have asked an expert -- I mean, 2 basically a person who plays the game. I've never 3 played the game. 4 Q. Who is that? 5 A. It is a graduate student in my lab to 6 come up with a summary. And one of the things that 7 he pointed out, this bit about clans. And 8 actually, I think in this one they are not called 9 clans, and I can't remember what they are called, 10 but basically groups of team -- teammates. 11 He did indicate also that among these 12 MMORP-type games, this one has somewhat more 13 shooting and, you know, killing enemies than say 14 the typical like Everquest is the real sort of 15 grand-daddy of this kind of game. But it still 16 would be probably at a lower rate than what you 17 would normally see in a first person shooter. 18 Another problem with this study is that 19 there was a fairly high dropout rate, and that 20 dropout rate differed between the experimental and 21 the controlled conditions. And that creates 22 internal validity problems, is it now more of a 23 correlational study than an experimental study. 24 Q. And are there any other criticisms you</p>

<p style="text-align: right;">Page 162</p> <p>1 have of the methodology that Dr. Williams used? 2 A. I guess those are the ones that come to 3 mind. 4 Q. Now, I wonder if you could just 5 generally describe the methodology you employed in 6 the longitudinal study that is reflected in what we 7 are not going to make an exhibit here today, the 8 one that is unmarked? 9 A. Basically this was a study designed and 10 conducted primarily by one of my co-authors, Doug 11 Gentile. It was conducted on elementary students 12 at a number of schools in Minnesota. It basically 13 measured video game violence exposure, a number of 14 sort of aggression measures from self-reported, I 15 believe, peer report and teacher report. I believe 16 there was some parent reports in there too if I 17 remember right. 18 The sort of second phase of measurements 19 took place at least two months after the initial 20 and no more than, if I remember right, it was 21 either six months or seven months. And, you know, 22 basically the -- sort of the main finding is that 23 video game violence exposure at time one predicted 24 aggression later on even after statistically</p>	<p style="text-align: right;">Page 164</p> <p>1 Let's see. What else am I looking at. 2 And also parental involvement at time 3 one. 4 Q. How was that measured? 5 A. By asking the -- well, let me look it 6 up. 7 (Short pause.) 8 BY THE WITNESS: 9 A. Well, I cannot define the description of 10 how that is measured. 11 BY MR. SMITH: 12 Q. It was some sort of measure of the 13 amount of time the parent spent with the child? 14 A. Spent talking with the child about media 15 use, what's appropriate, what's inappropriate. 16 Q. Did you ask parents, "How much time do 17 you spend talking to your child about media use?" 18 A. Yes. 19 Q. So socioeconomic status wasn't a 20 variable? 21 A. It was not. 22 Q. And there was no variable that related 23 to any events that occurred during the interim time 24 period. That was basically just like two snapshots</p>
<p style="text-align: right;">Page 163</p> <p>1 controlling for aggressiveness of the child at time 2 one. 3 Q. Can you tell me what other variables 4 were controlled for that might have explained the 5 change in behavior over those months? I'm not sure 6 I have it at the right page, by the way. 7 A. No, I'll check one of the other tabs. 8 (Short pause.) 9 BY THE WITNESS: 10 A. Okay. Controlled variables included 11 gender, time lag, race, total screen time. 12 BY MR. SMITH: 13 Q. What does that mean? 14 A. Total amount of time on television and 15 video games. 16 Q. During the intervening period? 17 A. At time one. 18 Q. In other words, the amount of time per 19 day or week they tended to watch at that moment? 20 A. Right. Yes. In one analysis we also 21 controlled for hostile attribution bias which is 22 actually expected to be a mediating variable, that 23 is, a variable that is influenced to some extent by 24 exposure to violent media.</p>	<p style="text-align: right;">Page 165</p> <p>1 in time? 2 A. Yes, that's correct. 3 Q. Can you tell me how the ages that were 4 studied were selected? 5 A. Well, Professor Gentile selected those. 6 I'm assuming that was selected in large part 7 because of a belief on his part that that would be 8 an age that might be fairly susceptible to media 9 violence effects. 10 Q. And was there any effort to consider the 11 extent to which children were exposed to other 12 types of violence? 13 A. Not to my knowledge. 14 Q. Can you tell me why they chose to study 15 total screen time as the variable rather than TV 16 violence or movie violence? 17 A. Total screen time if -- no. Let me back 18 up again. I'm not sure I understood the question. 19 Q. This is a study of video game violence, 20 right, and its effects? 21 A. Right. 22 Q. But there is no variable in the equation 23 for TV violence, right? 24 A. Correct.</p>

<p style="text-align: right;">Page 166</p> <p>1 Q. Why is that?</p> <p>2 A. I'm not sure that there should be.</p> <p>3 Q. Okay. Can you tell me why you are not</p> <p>4 sure there should be?</p> <p>5 A. What you really -- you know, a</p> <p>6 longitudinal study like this, what you want to be</p> <p>7 looking for primarily is to see whether or not</p> <p>8 controlling -- whether you get the longitudinal</p> <p>9 effect video game violence time one, aggressive</p> <p>10 behavior time two after you control for</p> <p>11 aggressiveness of the child at time one. And</p> <p>12 that's the alternative explanation -- or the</p> <p>13 primary alternative explanation that you are</p> <p>14 concerned with.</p> <p>15 Q. I understand. But it is clear that they</p> <p>16 also were concerned that there might be some other</p> <p>17 things that would be explanations that they wanted</p> <p>18 to control for. And I'm wondering why you think</p> <p>19 they shouldn't have controlled for the alternative</p> <p>20 explanation of other forms of violence to which the</p> <p>21 children were being exposed?</p> <p>22 A. I don't think I said that they shouldn't</p> <p>23 have tried to control for them. If I did, then I</p> <p>24 misspoke. In the ideal world it would have been</p>	<p style="text-align: right;">Page 168</p> <p>1 aggression because the people who watch the most TV</p> <p>2 are actually the least aggressive people?</p> <p>3 A. I don't believe so.</p> <p>4 Q. You don't remember ever seeing studies</p> <p>5 to that effect?</p> <p>6 A. We've never gotten a negative</p> <p>7 correlation in any of our studies --</p> <p>8 Q. With total screen time?</p> <p>9 A. -- with total screen time and violence.</p> <p>10 Q. Have you studied TV exposure in that</p> <p>11 way?</p> <p>12 A. We do have some -- in some of the</p> <p>13 studies, we have TV.</p> <p>14 Q. As a variable like this, you mean?</p> <p>15 A. Pardon me?</p> <p>16 Q. Have you studied it directly, or are you</p> <p>17 just using it as a separate variable in a video</p> <p>18 game study?</p> <p>19 A. As a separate variable in a video game</p> <p>20 study.</p> <p>21 Q. All right. Can you tell me, just for</p> <p>22 the record, I guess, what the effect sizes were</p> <p>23 that are -- or maybe there's just one -- that was</p> <p>24 found after all these other variables were</p>
<p style="text-align: right;">Page 167</p> <p>1 nice to have had additional controls, and that's,</p> <p>2 of course, true of any -- of any study.</p> <p>3 Q. It is certainly true that exposure to</p> <p>4 violent video games on elementary students is</p> <p>5 correlated with exposure to violent TV, is it not?</p> <p>6 A. I would expect there to be a positive</p> <p>7 correlation. I don't know what that correlation</p> <p>8 is.</p> <p>9 Q. So these kids who had the higher levels</p> <p>10 of violent video game usage at time one also you</p> <p>11 would think on average tend to have higher levels</p> <p>12 of exposure to other forms of media violence, is</p> <p>13 that right?</p> <p>14 A. To some extent I would expect there to</p> <p>15 be somewhat of a difference.</p> <p>16 Q. Without a variable to measure that,</p> <p>17 you're essentially attributing all of that to the</p> <p>18 video games, is that right?</p> <p>19 A. The total screen time variable would</p> <p>20 capture some of that, and the aggressiveness of the</p> <p>21 child at time one would capture some of that.</p> <p>22 There's a likely --</p> <p>23 Q. Don't the TV studies show that the total</p> <p>24 screen time is negatively correlated with later</p>	<p style="text-align: right;">Page 169</p> <p>1 considered?</p> <p>2 A. Oh, I'm doing some calculations in my</p> <p>3 head because -- for the physical aggression</p> <p>4 variable, it would have been about .6.</p> <p>5 Q. .6 would have been the correlation</p> <p>6 coefficient after prior aggression was taken out?</p> <p>7 A. Yes. Well, let me -- yes, that's</p> <p>8 correct.</p> <p>9 Q. Have you ever seen a longitudinal study</p> <p>10 of media exposure that had an effect size of</p> <p>11 anything like that?</p> <p>12 A. I don't -- well, actually, I have to</p> <p>13 look at the -- I don't recall. I don't recall.</p> <p>14 Probably.</p> <p>15 Q. You don't recall ever seeing one, is</p> <p>16 what you're saying?</p> <p>17 A. No. I'm saying I don't recall what the</p> <p>18 range is of the longitudinal effect.</p> <p>19 Q. But we know that the meta-analysis</p> <p>20 results came to 1. -- .17 for TV?</p> <p>21 A. Right.</p> <p>22 Q. Do you find it surprising that they</p> <p>23 would be .6 for video games?</p> <p>24 A. Well, I -- you know, before one takes</p>

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1 the .6 as a figure carved in stone, I'm calculating
 2 some of this in my head so --
 3 Q. Is there no place in the article where
 4 the "r's" are reported?
 5 A. Oh, this -- I mean, in terms of the
 6 simple correlation --
 7 Q. I mean after the variables are
 8 considered. Does it not get reported that way
 9 after you run the regression?
 10 A. No, it does not.
 11 Q. I see. It gets reported in some other
 12 form?
 13 A. Right, and because it's a bunch of
 14 regression analyses.
 15 Q. I see.
 16 A. And I don't have a number that
 17 corresponds to that in here. It could be
 18 calculated.
 19 Q. The .6 is not that number?
 20 A. Well, I don't -- I'm saying -- you're
 21 asking me to do things off the top of my head that
 22 I'm really not willing to say yes, this is the
 23 absolute correct number for that measure.
 24 Q. Now, the physical aggression variable

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1 is, just so I understand it, the amount of physical
 2 aggression the child engaged in -- engages in on
 3 average at time two?
 4 A. Well, there are several different
 5 variables, but the one that -- there is this
 6 composite measure that combined the several
 7 different individual measures.
 8 Q. I'm sorry for asking you to go back to
 9 describe this thing, but since this is not going to
 10 be an exhibit --
 11 A. Right.
 12 Q. What are the various variables related
 13 to aggression that were studied?
 14 A. Whoops. Wrong way. Let's start here.
 15 Okay. So we have peer ratings of
 16 physical aggression, teacher ratings of physical
 17 aggression and self-reports of physical fights.
 18 Q. And those were combined into a composite
 19 measure of physical aggression?
 20 A. Of physical aggression, yes, that's
 21 correct.
 22 Q. Were there any other aggression-related
 23 variables that were in the study relating to
 24 thoughts or feelings or anything like that?

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1 A. There was the -- what is it called? The
 2 hostile attribution bias measure.
 3 Q. Right. Which is a measure of how
 4 hostile the person thinks the world is?
 5 A. That would be a fair assessment or
 6 summary of what that is, yes.
 7 Q. Now, just methodologically, you did a
 8 meta-analysis of all these other longitudinal
 9 studies and said that the combined effect size was
 10 .17?
 11 A. Um-hum.
 12 Q. Were those studies included in a
 13 regression analysis of the kind that was done here
 14 to control for other variables?
 15 A. Yes.
 16 Q. Did you then have to convert the results
 17 of the regression back to the .17 in some
 18 mathematical way?
 19 A. Actually, Dr. Bushman did those so ...
 20 Q. But there was a conversion done of the
 21 regression results back to the simple correlation
 22 methodology?
 23 A. I suspect what he did was, there was
 24 probably a report of those simple correlations.

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1 But without asking him, I'm not sure exactly how he
 2 did that.
 3 Q. I'm sorry. Are you saying you think
 4 what he did is, he took the simple correlations
 5 before they had run the regressions to control for
 6 the variables?
 7 A. Yes, in a meta-analysis.
 8 Q. And if he had taken into account the
 9 portions of those studies where they had controlled
 10 for other variables, the effect size would have
 11 been less than .17?
 12 A. Not necessarily.
 13 Q. In all likelihood?
 14 A. Well, I -- it is a hypothetical
 15 question. I can't answer without going back.
 16 Q. Well, when you take into account other
 17 variables that explain aggression in time two, they
 18 don't ever increase the explanatory power of the
 19 one you are studying, do they?
 20 A. They can if there is what's called a
 21 suppressor effect. It depends on the -- what
 22 the -- well, it depends on several things. It
 23 depends on how the variables themselves are
 24 intercorrelated with each other and it also depends

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1 on whether the other variables that are added to
 2 the model account for enough variance that they
 3 reduce the overall error term which in turn would
 4 increase the apparent correlation of the variable.
 5 So it's --
 6 Q. In some unusual circumstances that can
 7 happen?
 8 A. Not that terribly unusual.
 9 Q. What was the simple correlation here
 10 before the other variables were considered?
 11 MS. CHERIAN: When you say "here," what do you
 12 mean?
 13 BY MR. SMITH:
 14 Q. I am pointing to the Anderson-Gentile
 15 longitudinal study.
 16 A. Okay. The simple correlation between --
 17 okay, between the physical aggression composite
 18 measure at --
 19 Q. Time two.
 20 A. -- time two and the video game violence
 21 exposure measure at time one was .4.
 22 Q. What was the correlation between
 23 physical aggression in time one and media -- and
 24 violent video game exposure in time one?

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1 A. It was .35.
 2 Q. Now, if you control for the .35, then
 3 the .4 would become less significant, correct?
 4 A. Not necessarily.
 5 Q. Well, isn't that the whole point for
 6 controlling for aggression in time one to see if
 7 you can identify only the increase in aggression
 8 that occurs after that?
 9 A. The point of controlling for time one is
 10 to see whether, in fact, it reduces or eliminates
 11 or has no impact on the relation between in this
 12 case video game violence in time one and aggression
 13 in time two.
 14 Q. If you assume a world in which the kids
 15 with higher video game -- violent video game
 16 exposure have higher aggressive measures in time
 17 one and you want to -- and you are going to find
 18 that those people are the ones that have -- that
 19 tend on average to have a higher aggressive rating
 20 at time two, then you have to -- that second effect
 21 is in part merely a reflection of the fact that
 22 they started out more aggressive, isn't it?
 23 A. But there are other factors that go into
 24 that.

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1 Q. Is it in part a reflection of the fact
 2 that they started out more aggressive?
 3 A. Well, what you are asking me to say is
 4 simply not correct.
 5 Q. Okay. That's all I'm asking.
 6 A. Okay.
 7 Q. If the answer to my question is no, say
 8 no.
 9 A. No.
 10 Q. Okay. Can you explain to me why their
 11 level of aggression at time two isn't in part a
 12 level of their aggression at time one?
 13 A. Well, aggression level at time one
 14 certainly is a predictor of aggression level at
 15 time two.
 16 Q. Okay.
 17 A. There is no doubt about that.
 18 Q. And that's why one has to have a
 19 methodology to -- if you are going to talk about
 20 cause over time, you have to have a methodology to
 21 eliminate that as a factor or control for it in
 22 some way, correct?
 23 A. The -- the reason for doing a
 24 longitudinal study like this is, in fact, to be

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1 able to essentially statistically partial out the
 2 effects of time one aggression from the relation
 3 between time one media violence exposure to video
 4 game violence exposure and time two aggression.
 5 Q. Okay. Now, I'm not quite sure how we
 6 got into this discussion, but isn't it true that
 7 the .4 would become -- overstates the extent of --
 8 the extent to which time one violent media exposure
 9 caused aggression in time two because it also
 10 includes some measure of aggression caused by the
 11 preexisting level of aggression that the person
 12 had?
 13 A. Part of the confusion here I think has
 14 to do with whether one is looking at
 15 correlations -- partial correlations or statistical
 16 significance of a particular test, okay.
 17 Typically in this context you would
 18 expect that correlation to decrease somewhat in
 19 most cases when you do what is essentially a
 20 partial correlation. However, the statistical
 21 reliability of that -- of the test of whether or
 22 not this effect is different from zero essentially
 23 could, in fact, get larger, get bigger.
 24 Q. But the amount of the relationship, the

<p style="text-align: right;">Page 178</p> <p>1 degree of the relationship would go down even if it 2 became more statistically significant, correct? 3 A. Typically it would, yes, somewhat. 4 Q. Quite a bit, wouldn't you think? 5 A. Not with correlations that are this low 6 it wouldn't typically go down a lot. It depends 7 on, for example, how big is the correlation between 8 time one video game violence and time one physical 9 aggression. If that correlation was, say, .9, then 10 controlling for that time one aggression would in 11 that case typically have a pretty big effect on 12 this corrected or partial correlation, but a time 13 one correlation of, you know, .35, that is, time 14 one aggression, time one video game violence 15 exposure, the .35 is not likely to produce a big 16 change simply because that correlation itself isn't 17 big enough. 18 Q. Is there a report of the correlation 19 between time one aggression and time two 20 aggression? 21 A. In here, in this study? 22 Q. Yes. 23 A. I don't believe that is in any of these 24 tables.</p>	<p style="text-align: right;">Page 180</p> <p>1 don't think that's reported. 2 Q. So even though that was a variable that 3 they used, they didn't report the -- that is, you 4 didn't report the actual numbers? 5 A. We did not report the full correlation 6 matrix, basically, and that would be the only place 7 that that would typically appear in a regression 8 analysis. 9 Q. Of the variables that you said were 10 included in the regression analysis, what was the 11 most powerful predictor of the outcome variable? 12 A. From time one to time two prediction 13 or -- 14 Q. I'm sorry. I thought that the outcome 15 variable was aggression at time two. 16 A. Those correlations aren't reported. 17 Q. The bottom line conclusion of the study 18 is that the composite rating for physical 19 aggression is partially -- is related in some 20 statistical way with time one exposure to violent 21 video games? 22 A. Yes. 23 Q. And is that statistically significant? 24 A. Yes, it is.</p>
<p style="text-align: right;">Page 179</p> <p>1 Q. Would that be something you would want 2 to know in trying to analyze the significance of 3 this data? 4 A. If that correlation was large, then the 5 regression analyses that we did would have found 6 that controlling for time one aggression would have 7 wiped out the effect of video game violence at time 8 one. 9 Q. Now, when you do a regression, you get 10 kind of a coefficient for each of the variables? 11 A. Right, a slope. 12 Q. A slope essentially? 13 A. Yes. 14 Q. And that tells you how significant it is 15 in explaining the dependent variable, predicting it 16 perhaps is a better word? 17 A. It tells you, yes -- basically a slope 18 tells you how much does your outcome variable 19 change for each unit change of your predictor 20 variable. 21 Q. And can you tell me what the slope was 22 for time one aggression as a predictor of time two 23 aggression? 24 A. No, I don't think that's in here. I</p>	<p style="text-align: right;">Page 181</p> <p>1 Q. What is the measure of statistical 2 significance that they use for that? 3 A. In the -- well, we did several different 4 analyses. One said that it would basically be "T" 5 tests of the -- what's called the unique variance 6 experience unique to the video game violence 7 predictor variable. 8 Q. And what was the result of the "T" test? 9 A. The "T" value was 3.90. With this kind 10 of sample size, a "T" value of about 2 would be 11 significant and anything bigger than that would be 12 more statistically significant. 13 Q. Okay. Were there other tests of 14 statistical significance that were performed here? 15 A. Well, we did some path analyses, but 16 those were basically regression analyses as well. 17 So in some -- they aren't independent tests because 18 they are -- 19 Q. What is a path analysis? 20 A. A path analysis is when you have let's 21 say a set of three variables, one of which you 22 decide is the outcome variable. In this case it 23 would be something like time two aggression. And 24 you have some variables measured at time one and</p>

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1 maybe even a variable that you think might mediate,
 2 that is, a variable that might be influenced by
 3 some of your time one variables and in turn then
 4 influence the outcome variable.
 5 And what you then do on a path analysis
 6 is -- is basically it is a bunch of regression kind
 7 of analyses that give you estimates of both direct
 8 effects, a direct effect in this case would be an
 9 effect of video game violence on aggressive
 10 behavior at time two that is not associated with
 11 say hostile attribution bias, as well as indirect
 12 effects which would be a case where time one video
 13 game violence is associated with or leads to -- has
 14 something to do with hostile attribution bias which
 15 then also then is related to aggression at time
 16 two.
 17 So it's a slightly different way of
 18 doing regression analyses, and a lot of people
 19 liked them because they make more understandable
 20 figures that you can sort of -- you know, pictorial
 21 representations that this is linked to this, this
 22 is linked to that. It is often easier to
 23 understand than tables.
 24 Q. Can you give me some assessment of how

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1 this longitudinal study compares to those that have
 2 been done on other violent media in the past?
 3 A. It's a shorter duration and, in that
 4 sense, perhaps a little riskier in that it's not
 5 clear, certainly, from the television violence
 6 literature that one would get measurable effects in
 7 a two- to six-month time frame.
 8 It's got a decent sample size. It would
 9 be hard to follow up, you know, the same group for
 10 a long period of time for a variety of reasons,
 11 among them being that there was no central --
 12 there's not a large grant organization,
 13 essentially, behind it initially to set up
 14 follow-ups at six-month intervals, year intervals,
 15 five-year intervals.
 16 Q. Where did the money come from for that
 17 study?
 18 A. I'm not entirely sure. I think some of
 19 the funding came from the grant or something from
 20 the National Institute on Media and the Family, but
 21 I'm not sure. I'd have to ask Dr. Gentile.
 22 Q. Just looking at the front cover here of
 23 a typewritten draft, we have under his name,
 24 "Institute of Science in Society." I take it

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1 that's something at Iowa State?
 2 A. Yes. There's no funding from there.
 3 Q. The National Institute on Mental Health
 4 and the Family -- on Media and the Family, what is
 5 that?
 6 A. That is a -- that's where Doug Gentile
 7 worked as the research director before he came to
 8 Iowa State as a faculty member. It is an
 9 organization based in Minneapolis that is designed
 10 to provide especially parents with information
 11 about media and media influences on children.
 12 Q. It's a private organization?
 13 A. It's a not -- yes, a not-for-profit
 14 organization.
 15 Q. And does it do scholarly research of its
 16 own?
 17 A. It used to when Doug Gentile was there.
 18 I'm not sure they have -- I'm not sure whether
 19 they're -- you know, what they're doing. I know
 20 that, like many other places, they were having some
 21 budget problems.
 22 Q. Where does their money come from?
 23 A. It comes from -- some of it comes from
 24 one of the HMOs based there in Minneapolis. But

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1 some of that is what was getting cut, I believe, so
 2 I don't -- I don't know. I don't know where their
 3 funding comes from now.
 4 Q. Okay. So that was a possible funding
 5 source for that particular piece of this study
 6 because that was one done by Professor Gentile?
 7 A. Yes.
 8 Q. Some of this was studied -- was work
 9 that you had worked on more directly?
 10 A. Yes.
 11 Q. Some of the experimental stuff?
 12 A. Yes.
 13 Q. And can you tell me where the source of
 14 funding was for that one?
 15 A. That's a good question. We didn't
 16 have -- I'm trying to think of what grants were
 17 available. We didn't have the NIH grant.
 18 Most of that probably was my start-up
 19 funds from when I moved to Iowa State.
 20 Q. That was money provided by Iowa State?
 21 A. Yes.
 22 Q. Do you have any other sources of funding
 23 for your research?
 24 A. Not for these studies.

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1 Q. How about in general?
 2 A. We have a grant through the Centers for
 3 Disease Control that is ongoing now.
 4 And we have a grant from the National
 5 Institute -- NICHD, National Institute on Child
 6 Health and Human Development. Now, there's only
 7 one "H" in the acronym. I have no idea why.
 8 Q. Okay.
 9 A. I'm sorry.
 10 Q. Can you tell me the amounts of those
 11 grants?
 12 A. The CDC grant is roughly 150,000. We
 13 actually have -- that grant mechanism -- that has
 14 been renewed for a second year for about 150,000.
 15 Q. Is there any particular focus of the
 16 work that's funded by the CDC grant?
 17 A. The CDC grant is designed to help us
 18 create a center for the study of violence. The
 19 first year, most of that money was designed to do
 20 some video game studies. The second year, the
 21 funding is all what's called core funding to
 22 actually -- to create the center.
 23 Q. And what is the center going to do?
 24 A. The main goal of the center is to bring

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1 together researchers from -- initially, at least
 2 from around Iowa State in different departments,
 3 different colleges, who have an interest in human
 4 aggression and violence research. So that would
 5 include maybe people from political science, people
 6 from sociology, people from -- what's it called? --
 7 human development and family studies, possibly
 8 people from econ, other -- we're not entirely sure,
 9 you know, where it all comes from.
 10 But the goal is to -- is to help bring
 11 these -- this diverse group of people together to
 12 provide some assistance to them in terms of getting
 13 pilot projects done so that they can eventually
 14 produce publishable research in the domain and
 15 generate Federal grants on their own, again on this
 16 broad topic of human violence.
 17 Q. How about the National Institute grant,
 18 does it have any particular focus?
 19 A. The -- all right. The NICHD grant is a
 20 video game violence grant.
 21 Q. Did you have to submit grant proposals
 22 for these two grants?
 23 A. Yes. There -- the NICHD grant is being
 24 done in conjunction with researchers at the

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1 University of Michigan and is a multi-year grant.
 2 And that went through sort of the normal grant
 3 proposal process.
 4 Q. What is it about video games that you
 5 propose to study that was funded by the National
 6 Institute grant?
 7 A. There is a larger longitudinal study,
 8 "larger" in terms of sample size, time frame and
 9 measures being taken. And there are about one,
 10 two, three, four laboratory experiments.
 11 Q. Of video game play?
 12 A. Of video games.
 13 Q. Is it all focused on violence?
 14 A. Yes, it is all focused on violence in
 15 one way or another.
 16 Q. Have you ever done any study attempting
 17 to ascertain whether there's any benefits obtained
 18 from video game play?
 19 A. We have certainly talked about that and
 20 haven't yet done such a, you know, original
 21 empirical study. We have written -- oh, I'm sorry.
 22 Q. You have written, you said?
 23 A. One of my graduate students and I have a
 24 book chapter coming out in which we talk about some

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1 of the positive video games, the positive effects
 2 that video games can have and with citations to
 3 some of the relevant studies of positive effects.
 4 I've actually been interested in the
 5 positive effects for a long time and, in fact, one
 6 of the first studies that looked at possible
 7 positive effects of certain kinds of video games on
 8 spatial abilities was actually run by a friend of
 9 mine using my lab and my video game stuff, and
 10 I actually suggested to them what games to look for
 11 that might do that.
 12 Now, I'm not an author on that
 13 publication, so I didn't -- I didn't do that study,
 14 but that was -- I think that they used something
 15 like Tetris or something and were able to show that
 16 with practice, certain kinds of spatial
 17 visualization abilities tend to improve.
 18 Q. Do you have any private sources of
 19 funding outside the University and the Federal
 20 Government?
 21 A. Not at this time.
 22 Q. How about in the past?
 23 A. No. I mean, my own -- other than money
 24 out of my pocket that almost all faculty do from

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1 time to time to pay for photocopies or things like
 2 that.
 3 Q. Do you ever receive any money from
 4 The Center For Successful Parenting?
 5 A. We got an award from them at one --
 6 I don't know, two, three years ago for -- I can't
 7 remember. We actually got two awards, but I don't
 8 remember whether there was money associated with
 9 both. As I recall, there was a small amount of
 10 money associated with the first place award.
 11 Q. Could you tell me what they are, that
 12 organization?
 13 A. The Center For Successful Parenting?
 14 That's the group -- if it's -- is this the -- can
 15 I ask you a question? Is this the one that's on my
 16 vitae?
 17 Q. I don't know. I think it is, yes.
 18 A. You know, as I mentioned before, I'm on
 19 so many or in contact with so many organizations.
 20 Q. I'm going to hand you, without bothering
 21 to make it an exhibit, a copy of the vitae that was
 22 part of the most recent submission.
 23 A. Okay. Thank you.
 24 Yes, this is the Center For Successful

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1 Parenting. This is a group based in Indianapolis
 2 that, as far as I know, their main goal is to
 3 provide information to parents about issues of
 4 importance to parents about how to raise kids,
 5 to -- how to deal with certain kinds of problems,
 6 one kind of problem or another.
 7 Q. Is the violent media their primary
 8 focus?
 9 A. To my knowledge, it's not.
 10 Q. Do you ever receive contributions to
 11 your research from private individuals?
 12 A. No, I have not.
 13 Q. Have you ever solicited such
 14 contributions?
 15 A. At one point in time, there was this --
 16 I don't know, a short paragraph on one of my Web
 17 pages that basically said something like,
 18 "If you're interested in contributing to a research
 19 fund," you know, "send money." I mean, it's more
 20 sophisticated than that, but not a lot more
 21 sophisticated than that.
 22 But we got no contributions, and
 23 I decided that was tacky anyway and took it off.
 24 Q. When did you take it off?

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1 A. A year or so ago, two years ago.
 2 I don't know. Maybe longer.
 3 Q. Now, you mentioned in your declaration
 4 the recent APA -- American Psychological
 5 Association -- resolution on video games and their
 6 effects. Do you recall that?
 7 A. Yes.
 8 Q. And can you tell me how that resolution
 9 came about?
 10 A. I can tell you the pieces that I know.
 11 Q. Well, you were pretty involved, right?
 12 A. Yes and no. I was contacted by Dorothy
 13 Singer who is a well-known scholar at Yale.
 14 Q. That's S-A-N-G-E-R?
 15 A. S-I-N-G-E-R.
 16 Q. Singer, okay.
 17 A. Singer. And she and the other person
 18 who's listed as the co-editor or the co-chair, I
 19 guess --
 20 Q. Is that Elizabeth Carll?
 21 A. Yes, Elizabeth Carll.
 22 Q. C-A-R-L-L.
 23 A. And Dr. Singer basically asked me if I
 24 would be willing to serve as a co-author of a brief

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1 summary of what we knew about effects of playing
 2 violent video games. And I agreed to provide such
 3 a summary along with Brad Bushman, and Karen Dill
 4 also worked on that particular summary. We sent
 5 that summary to Dorothy Singer. And really I
 6 don't -- I didn't have much or anything to do with
 7 the process after that.
 8 Q. Did you draft the resolution?
 9 A. I did not draft the resolution.
 10 Q. In what form did the summary take?
 11 A. It was about a three or four-page paper.
 12 Q. The website, the APA website lists a
 13 Committee on Violence in Video Games and
 14 Interactive Media. It lists you and Bushman and
 15 Dill as all three being members of that committee.
 16 Did that committee ever meet?
 17 A. No, that committee did not meet.
 18 Q. Did Dr. Singer tell you any reason why
 19 they were addressing this issue at the time they
 20 were doing it?
 21 A. Not really other than Dr. Singer has a
 22 long history of involvement in research on children
 23 issues, including long history with television, has
 24 served as a consultant to PBS, for instance, in

<p style="text-align: right;">Page 194</p> <p>1 terms of helping to create some children's 2 programming. So, I mean, this is certainly -- the 3 request was certainly fitting with what I know that 4 she does and has done, you know, in terms of her 5 career. 6 Q. And who is Elizabeth Carll? 7 A. I don't really know. 8 Q. You don't know? 9 A. I don't know who Elizabeth Carll is. 10 Q. Did you ever meet her? 11 A. I did not. 12 Q. Dr. Singer has done research on the 13 effects of video games herself, is that right? 14 A. I don't believe so. I don't think she 15 actually does much original research these days. 16 She does a lot more writing and organizing of 17 conferences, organizing books. 18 Q. The resolution that the APA promulgated 19 this year includes a long list of references after 20 the whereas clauses. Did you put that together? 21 A. I didn't -- no, I did not put that 22 together. 23 Q. Now, Dr. Anderson, can I ask you, do you 24 have a current understanding of the recent overall</p>	<p style="text-align: right;">Page 196</p> <p>1 MS. CHERIAN: Objection. Incomplete 2 hypothetical. 3 BY THE WITNESS: 4 A. Yeah, I mean, the -- this is the kind of 5 argument that comes up a number of times, not just 6 in the video game literature, but elsewhere, and as 7 many researchers have pointed out, those kind of 8 overall figures are relevant -- those overall kind 9 of crime figures are relevant only if one assumes 10 that media violence is either the only cause of 11 violent crime or is at least the most important or 12 one of the most important causes of violent crime. 13 And no one that I know has ever made 14 that kind of statement and/or believes that as 15 violent crime typically occurs when there are a lot 16 of risk factors present, and a lot of these other 17 risk factors may well be varying over time that can 18 account for either a decline or in other time 19 periods an increase. 20 One example is that at least in the 21 Surgeon General's report, it was noted that the 22 decrease in homicide seemed to be driven primarily 23 by a decrease in the number of youths who were 24 carrying hand guns. Now, whether that was the</p>
<p style="text-align: right;">Page 195</p> <p>1 trends in youth violence in this country in the 2 last few years? 3 A. I'm not up-to-date on that. The last 4 figures that I looked at closely were the figures 5 that appeared in the Surgeon General's report on 6 youth violence. 7 Q. So those were like five-year old figures 8 at this point? 9 A. Yeah, those that appeared in 2001, so 10 those would be at least five years old. 11 Q. And so let me ask you to assume then 12 that the government's figures on juvenile violent 13 crime measured by numbers of arrests per 100,000 14 people reached the lowest level in 2003 since 1980 15 and, in fact, are 48 percent lower than the same 16 measure in 1994 when they -- when the rate of 17 violence for youth reached its peak. 18 Do you have those assumptions? 19 A. Yes. Okay. 20 Q. Can you give me any hypothesis about why 21 those reductions would have -- those dramatic 22 reductions would have occurred exactly at the time 23 when more violent video games were becoming 24 prevalent?</p>	<p style="text-align: right;">Page 197</p> <p>1 result of some hand gun legislation or a result of 2 different policing -- I mean, no one really -- as 3 far as I know, no one really knows. So it's in 4 some sense not really a relevant statistic to the 5 issue. 6 One other problem with arrest rate data, 7 and one can look at the 2001 Surgeon General's 8 report, is that arrest rate data doesn't correspond 9 that well sometimes with what are considered better 10 indicators of what proportion of youth are 11 committing violent acts; that a better measure 12 according to some criminologists, at least, are 13 some of these self-report type surveys, you know, 14 nationally representative surveys that occasionally 15 get done. 16 Q. Well, if you were trying to measure the 17 amount of time as self-reported by the percentage 18 of youth who were engaged in crime wouldn't give 19 you that information, would it? 20 A. It would -- those self-reports ask 21 questions about, you know, whether or not you as a 22 respondent have done this or done that or done this 23 or that in the last year. 24 Q. But if media violence is having a bad</p>

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1 effect, you wouldn't look only at the percentage of
 2 youth who are engaged in bad behavior. You would
 3 look at the amount of bad behavior they were
 4 committing, isn't that right?
 5 A. Well, what I'm saying is I wouldn't look
 6 at crime rates really much at all as being relevant
 7 to the issue of whether or not violent media are --
 8 Q. You said that first, but what I'm asking
 9 you about is your second comment, which is that
 10 there is some better metric other than arrest
 11 rates, and I'm trying to figure out what that is?
 12 A. It is a self-report of whether -- you
 13 know, whether the people have engaged in certain
 14 kinds of violent behavior or not. There is not
 15 something -- you know, this is not my measure.
 16 This is what, again, some of the criminologists who
 17 worked on that Surgeon General's report did. And
 18 one of the things, again, from that report that
 19 became clear is that even though the overall crime
 20 rate and if I remember right the youth arrest rate
 21 was going down during sort of the end of that time
 22 period, the proportion of youths, I think this was
 23 high school youths, but I'm not entirely sure, but
 24 the proportion who were reporting having engaged in

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1 serious, you know, violent activity was flattening
 2 out, still slightly increasing.
 3 But, again, I would also say that that
 4 is not really relevant to the issue either for the
 5 same reason.
 6 Q. Okay. Now, recognizing that you may not
 7 think you have expertise about this, can you
 8 sitting here today give me any hypothesis about
 9 any -- about any factor that would explain the 48
 10 percent reduction in arrests over the last nine
 11 years that I asked you to assume earlier?
 12 MS. CHERIAN: I'm going to object in terms of
 13 relevance. He has already said it is outside of
 14 his area of expertise.
 15 BY THE WITNESS:
 16 A. Well, I mean, recognizing that you know
 17 the hypothetical nature of it and recognizing that
 18 I don't think those are terribly relevant data
 19 anyway, we do know that -- well, there are a bunch
 20 of factors that might be relevant; decreased usage
 21 or availability of hand guns by youths, by this
 22 population. We don't know what, but that seems to
 23 be true.
 24 BY MR. SMITH:

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1 Q. Is it availability or use?
 2 A. Well, carrying is actually the variable
 3 that they were talking about, carrying around with
 4 them.
 5 Q. That may affect the homicide rate or
 6 explain it. It doesn't explain the violent crime
 7 rate because carrying a gun around is part of
 8 violent crime, isn't it?
 9 A. No, I'm not -- I'm not sure I followed
 10 that.
 11 Q. Okay. Is there anything else you can
 12 think of?
 13 A. Changes in -- in poverty rate, changes
 14 in incarceration rates, changes in proportion of
 15 young males, you know, who are often in the
 16 military and structured environments. I mean,
 17 again, I'm speculating here, but --
 18 Q. You don't have any information that any
 19 of those things have actually changed in the last
 20 ten years in a way that would explain the reduction
 21 in juvenile violence that I hypothesized?
 22 A. We know that gun usage -- gun carrying
 23 by youths was down. We know that poverty rates
 24 were down until fairly recently. Unemployment

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1 rates were down until fairly recently.
 2 I mean, there's -- but, again, you're --
 3 you know, you're asking me to speculate about
 4 things that I don't really -- it's outside my area
 5 of expertise.
 6 Q. I completely understand that.
 7 MR. SMITH: We can take a quick break.
 8 (WHEREUPON, a recess was had from
 9 2:29 p.m. until 2:36 p.m.)
 10 MR. SMITH: Let's have this marked as whatever
 11 the next exhibit is.
 12 (WHEREUPON, said document was marked
 13 Anderson Deposition Exhibit No. 8,
 14 for identification, as of
 15 10/13/05.)
 16 BY MR. SMITH:
 17 Q. Professor, is this a section of your Web
 18 site in which you answer frequently asked questions
 19 about video games and other media violence?
 20 A. Yes, it is.
 21 Q. Let me ask you to turn over to the third
 22 page of the document under No. 7. You make there a
 23 statement: "Unlike the research community, which
 24 has no vested interest in the topic, the media

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1 industry is very concerned about profits and will
 2 do almost anything to protect those profits."
 3 Can you tell me what you meant by that?
 4 A. Well, the media industry in general
 5 misreports or ignores research that is not to their
 6 liking in terms of their news broadcasts, news
 7 reports of various kinds. We know that the
 8 industry actually conducts interviews that
 9 misrepresent what research exists or doesn't exist.
 10 Q. Interviews with whom?
 11 A. Interviews with representatives from the
 12 media industry.
 13 Q. Do you mean the newspapers talk to the
 14 video game people? Is that what you mean by that?
 15 A. Newspapers, news shows, or so-called
 16 news shows do that.
 17 Q. And you think they shouldn't do that?
 18 A. You want to specify, think they
 19 shouldn't do what?
 20 Q. Have interviews with people --
 21 A. No. No.
 22 Q. -- who represent the video game
 23 industry?
 24 A. I'm saying they shouldn't misrepresent

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1 what research exists or doesn't exist.
 2 Q. Who is the "they" in that sentence?
 3 A. The media industry employees who are
 4 giving some of these interviews and misrepresenting
 5 what's out there.
 6 Q. Okay. Do you have any basis for saying
 7 that the news media misrepresents the research in
 8 order to protect their profits?
 9 A. I'm not sure exactly what you mean by
 10 "evidence." I mean, if one reads the James
 11 Steyer's book, there's certainly considerable
 12 evidence presented there by Steyer.
 13 Q. Evidence that the news media, to protect
 14 its profits, distorts the evidence --
 15 A. No. The media --
 16 Q. Let me finish the question, please.
 17 (Continuing) -- distorts the research on
 18 video games?
 19 MS. CHERIAN: Objection. That
 20 mischaracterizes his testimony.
 21 BY MR. SMITH:
 22 Q. What is there evidence of? Let me ask
 23 it to you that way.
 24 A. I guess I'm not really sure what -- what

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1 you're asking for here.
 2 Q. Well, I guess what I -- one of the
 3 things I'm asking you is whether you are taking the
 4 position here that the news media distorts the
 5 evidence about media violence and its effects in
 6 order to protect its profits.
 7 A. Well, first of all, I don't think that
 8 this statement says the news media is protecting
 9 its profits.
 10 Q. Is that what you intended to say there?
 11 Are you saying you didn't intend to say that?
 12 A. I'm saying it's irrelevant. It's not in
 13 there.
 14 Q. Okay. Let me ask you to turn over to
 15 the next page and see if it's there. The last
 16 paragraph, starting with the words "One big
 17 difference."
 18 A. Um-hum.
 19 Q. You say, quote: "One big difference
 20 between the tobacco industry case and the violent
 21 media case is that the main sources of information
 22 to the public, e.g., TV news shows, newspapers,
 23 magazines, are now largely owned by conglomerates
 24 that have a vested interest in denying the validity

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1 of any research suggesting that there might be
 2 harmful effects of repeated exposure to media
 3 violence," unquote.
 4 Are you saying there that the news media
 5 distorts the research on violence in order to
 6 protect its profits?
 7 A. Well, what that sentence is saying that
 8 they -- that many of the news outlets are owned by
 9 conglomerates.
 10 Q. Yes.
 11 A. And those conglomerates themselves have
 12 a vested interest or at least perceive that they
 13 have a vested interest and act on it. I believe
 14 that they act on it in terms of denying the
 15 validity of some of the research.
 16 Q. And is it your belief that they
 17 influence the news coverage about your research and
 18 other kinds of research in this field?
 19 A. I believe that they do influence the
 20 coverage, but I think there's also a number of
 21 different ways that that influence can happen, some
 22 of it unwitting, some of it maybe not so unwitting.
 23 Q. Let me ask you to turn back to the
 24 previous page, the same paragraph. That would be

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1 your citation to Mr. Steyer's book.
 2 You say, quote: "I personally have
 3 witnessed media industry lobbyists lie about a
 4 factual issue, watch them get caught in that lie,
 5 and then seeing the same lobbyist deliver the same
 6 lie to a different group a year later."
 7 Can you tell me what you are referring
 8 to there?
 9 A. I'm not sure that that's relevant here.
 10 Q. We don't have a relevance standard here.
 11 This is your discussion of video games, and I'm
 12 allowed to ask whatever I want to about that.
 13 A. Well, an industry person told -- just to
 14 give you an example, an industry person told a
 15 legislative body that the FBI report on school
 16 shootings made no reference to violent video games
 17 as, you know, being a risk factor or anything when,
 18 in fact, the report did make a very explicit
 19 reference to violent video games.
 20 An attorney for the legislative body
 21 pointed that out to that individual. Sometime
 22 later, at a conference, that same individual
 23 repeated that same statement at a conference.
 24 Q. Okay. What legislative body was that?

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1 A. That was the St. Louis County executive.
 2 Q. And who was the media industry lobbyist?
 3 A. I don't remember -- I don't remember the
 4 name.
 5 Q. Was it a man or a woman?
 6 A. It was a woman.
 7 Q. Is there any other example of that that
 8 you can think of, or is that the only example
 9 you're referring to in that statement?
 10 A. Well, that's the clearest example that
 11 I'm referring to there.
 12 Q. Now, in the next section, you have a
 13 discussion about experts, in quotes, and you say,
 14 quote: "The media industries seek out, promote and
 15 support, quote, 'experts,' unquote, who will make
 16 such claims," referring back to claims that there's
 17 no valid link to violent behavior from violent
 18 media.
 19 Then you go on with the quote.
 20 "There are several such, quote,
 21 'experts,' unquote, who have made their careers by
 22 bashing legitimate research. Examining the
 23 credentials of these industry-supported experts is
 24 quite revealing."

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1 Can you tell me who you are referring to
 2 there?
 3 A. There are several. One is Jonathan
 4 Freedman. One is Jeffrey Goldstein.
 5 Q. Anyone else?
 6 A. There are others that -- others media
 7 violence people have identified, but I can't
 8 remember who they are.
 9 Q. Okay. Now, you go on to say: "Many do
 10 not have any research training in an appropriate
 11 discipline."
 12 Can you tell me whether that statement
 13 applies to either Dr. Goldstein or Dr. Freedman?
 14 A. They have -- they are -- they have
 15 training in psychology, so that that does not apply
 16 to those particular two.
 17 Q. Can you think of anybody to whom it does
 18 apply?
 19 A. Yes, I can. There are some -- well,
 20 Henry Jenkins comes to mind. That would be one
 21 example.
 22 Q. And then you go on to say, "Of those who
 23 do have advanced degrees in an appropriate
 24 discipline, for example, social psychology, almost

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1 none of them have ever conducted or published
 2 original empirical research on video violence."
 3 Can you tell me who you are referring to
 4 there?
 5 A. Jonathan Freedman, Jeffrey Goldstein.
 6 Q. But it's your understanding that
 7 Dr. Goldstein has never published original research
 8 on video violence?
 9 A. I don't believe that he has. Well, on
 10 media violence effects. I should make that clear.
 11 There are some other examples who do some related
 12 research, but have never done effects research.
 13 Q. Such as?
 14 A. Jeffrey Brandt. I think that's his
 15 name.
 16 Q. In Australia?
 17 A. In Australia, yes.
 18 Q. B-R-A-N-T or B-R-A-N-D?
 19 A. I believe it is B-R-A-N-D-T.
 20 Q. Now, are you familiar with
 21 Dr. Freedman's book Analyzing the Media Effects of
 22 Literature?
 23 A. I have not read the book.
 24 Q. You have never read the book.

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1 Do you have an opinion about the
 2 validity of his criticisms of that literature?
 3 A. I have certainly heard what some of
 4 those criticisms are, both from him directly, you
 5 know, at a conference and sort of indirectly from
 6 other sources. And they are sort of the same kind
 7 of old criticisms that have been answered many
 8 times.
 9 Q. Can you be more specific about what you
 10 understand his criticisms to be?
 11 A. Well, one criticism has to do with this
 12 complete dismissal of all correlational research
 13 with the -- with the assertion that correlation is
 14 not causation. So let's ignore all of these
 15 correlational studies.
 16 Q. Have you ever heard him discuss the --
 17 his review of the longitudinal research in which he
 18 concludes that the results are much more mixed than
 19 you reported, for example, in Exhibit 1?
 20 A. I have not heard him discuss that, no.
 21 Q. And you have never reviewed the section
 22 of his book on that subject?
 23 A. No. I just said I haven't read the
 24 book.

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1 Q. Now, is it your view that one has to be
 2 trained in social psychology and have conducted
 3 this kind of original research in order to validly
 4 criticize that literature, the media violence
 5 literature?
 6 A. One could also be trained in
 7 communications, certain department's communication,
 8 provide appropriate training research methods of
 9 training. If one is looking for an expert to try
 10 to look at, you know, a whole domain of research,
 11 especially a large one like this, it is my view
 12 that someone who has never conducted original
 13 empirical research is unlikely to really understand
 14 that research literature very well, the research
 15 methods, the underlying theories and so on.
 16 Q. Are there people in the communications
 17 field who have done such research?
 18 A. There are some. Yes, there are some.
 19 Q. Can you give me an example?
 20 A. James Potter would be one, Neil
 21 Malamuth.
 22 Q. Say that again?
 23 A. Neil Malamuth, M-A-L-A-M-U-T-H, Ed
 24 Donnerstein.

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1 Q. Now, you go on in the next
 2 paragraph under No. 9 to list six organizations
 3 that have announced that they believe the media
 4 violence literature overwhelmingly supports the
 5 conclusion of a causal connection between media
 6 violence and aggressive behavior. Do you see that?
 7 A. Yes.
 8 Q. And is it true that five of those six
 9 organizations are organizations of people that you
 10 would say do not have the qualifications to assess
 11 the validity of the research that we have been
 12 discussing today?
 13 A. There are people in those associations
 14 who do research with children and with media
 15 violence issues, but generally most members of
 16 those -- some of those associations --
 17 Q. All but one?
 18 A. Well, it's -- most members of the
 19 American Psychological Association --
 20 Q. That was the one. Even them as well, so
 21 maybe it is all six is what you are saying?
 22 A. Yes. I mean, most members of those
 23 organizations just like most members of, you know,
 24 the American Chemical Society or whatever would

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1 really have the expertise on a -- to critically
 2 evaluate some particular subset of what chemists
 3 do.
 4 Q. Are you -- is it -- is it your
 5 understanding that there were members of each of
 6 these associations who were qualified to do that
 7 assessment, who did that assessment and, therefore,
 8 caused their association to sign on to this
 9 statement?
 10 A. I have no knowledge of how that -- you
 11 know, of who did the reviews for each of these
 12 associations.
 13 Q. If anyone?
 14 A. I have no knowledge of how they -- how
 15 this was -- how they got together and signed on to
 16 this, no knowledge whatsoever.
 17 Q. Is there any further work or study you
 18 anticipate doing in connection with your role as an
 19 expert in this case prior to what may be an
 20 evidentiary hearing next month?
 21 A. Not to my knowledge.
 22 MR. SMITH: Okay. I have no further
 23 questions.
 24 MS. CHERIAN: No questions.

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1 MR. DRYJANSKI: No questions.
 2 (Time Noted: 2:56 p.m.)
 3 FURTHER DEPONENT SAITH NAUGHT.
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1 IN THE UNITED STATES DISTRICT COURT
 2 NORTHERN DISTRICT OF ILLINOIS
 3 EASTERN DIVISION
 4 ENTERTAINMENT SOFTWARE)
 5 ASSOCIATION; et al.,)
 6 Plaintiffs,)
 7 vs.) No. 05 C 4265
 8 ROD BLAGOJEVICH, in his official)
 9 capacity as Governor of the State) Judge Kennelly
 10 of Illinois; et al.,)
 11 Defendants.)
 12 I hereby certify that I have read the
 13 foregoing transcript of my deposition given at the
 14 time and place aforesaid, consisting of Pages 1 to
 15 214, inclusive, and I do again subscribe and make
 16 oath that the same is a true, correct and complete
 17 transcript of my deposition so given as aforesaid,
 18 and includes changes, if any, so made by me.
 19
 20 CRAIG A. ANDERSON, PH.D.
 21 SUBSCRIBED AND SWORN TO
 22 before me this day
 23 of , A.D. 200 .
 24 Notary Public

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1 STATE OF ILLINOIS)
 2) SS:
 3 COUNTY OF K A N E)
 4 We, ROSANNE M. NUZZO and JULIANA F.
 5 ZAJICEK, Notary Publics within and for the County
 6 of Will and County of Kane, State of Illinois, and
 7 Certified Shorthand Reporters of said state, do
 8 hereby certify:
 9 That previous to the commencement of the
 10 examination of the witness herein, the witness was
 11 duly sworn to testify the whole truth concerning
 12 the matters herein;
 13 That the foregoing deposition transcript
 14 was reported stenographically by us, was thereafter
 15 reduced to typewriting under our personal direction
 16 and constitutes a true record of the testimony
 17 given and the proceedings had;
 18 That the said deposition was taken
 19 before us at the time and place specified;
 20 That we are not a relative or employee
 21 or attorney or counsel, nor a relative or employee
 22 of such attorney or counsel for any of the parties
 23 hereto, nor interested directly or indirectly in
 24 the outcome of this action.

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1 IN WITNESS WHEREOF, we do hereunto set
 2 our hand and affix our seal of office at Chicago,
 3 Illinois, this 13th day of October, 2005.
 4
 5
 6 Notary Public, Will County, Illinois.
 7 My commission expires May 16, 2009.
 8
 9
 10 Notary Public, Kane County, Illinois.
 11 My commission expires 8/30/06.
 12
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1	I N D E X	
2	CRAIG A. ANDERSON, PH.D.	EXAMINATION
3	BY MR. SMITH	6
4		
5		
6	E X H I B I T S	
7	ANDERSON DEPOSITION EXHIBIT	MARKED FOR ID
8	No. 1	12
9	No. 2	39
10	No. 3	41
11	No. 4	50
12	No. 5	116
13	No. 6	121
14	No. 7	129
15	No. 8	201
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