



Teaching Media Psychology

Or How Do I Distinguish the Data from the Dumpster Fire?

Christopher J. Ferguson

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Abstract

The effects of cultural media can be one of the most difficult and controversial topics for psychology instructors to teach. It does not help that many textbooks get the subject matter wrong, claiming that effects are much stronger and better supported by evidence than they actually are. In fact, new evidence, particularly

C. J. Ferguson (✉)
Stetson University, DeLand, FL, USA
e-mail: cjfergus@stetson.edu

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from preregistered studies, suggests that in most realms of media effects, whether media violence, body image, suicide-themed media, or pornography, effects on viewers' attitudes and behaviors are far less than was once imagined. Media effects research provides an excellent opportunity, however, to teach students how to weigh conflicting evidence and apply critical thinking to complicated, nuanced, and morally valenced debates.

Keywords

Media violence · Body image · Video games · Pornography · Sexualization · Suicide · Mass media · Aggression

Introduction

I will start with the premise that, as teachers of psychology, we often unwittingly lie to our students. Looking back on over 20 years of teaching, I cringe when I think now of the various origin myths and morality tales I passed along from introductory psychology texts to fascinated students as if I were a storyteller, passing along fables to youth around a campfire. The amazing story of the murder of Kitty Genovese and the 38 witnesses who did not help her (not true it turns out; Manning, Levine, & Collins, 2007). I described Zimbardo's Stanford Prison Experiment revealing how easily power corrupts us (now descending into chaos and accusations of experimenters pressuring participants to behave as the experimenters wished; Blum, 2018). We could probably think of countless other bits of nonsense we wish we could retract, writing furious e-mails to former students. "Remember when I told you that great story about X, Y, Z? Well, turns out it's not true. Sorry about that!" It is one of the greatest challenges of teaching psychology: separating the good data from the nonsense, particularly when teaching in areas that are not our specialty.

It is even more difficult when so many topics of human behavior, society, and welfare touch upon emotionally and morally valenced topics. Take, for example, the issue of whether males have more variance in IQ (thus resulting in both more cognitively impaired males than females, but also more geniuses). From an empirical view, it is a perfectly valid and testable hypothesis, but also one about which certain results could be upsetting to some people. Do textbooks, then, come under pressure to promote beliefs that advance certain moral agendas at the expense of clear data? Or, for that matter, are they biased in the direction of promoting psychology as a wonderland of clear results and fascinating stories when the reality is much murkier and sometimes embarrassing, such as for psychology's current replication crisis? One thing we know is that introductory textbooks are full of errors (Ferguson, Brown, & Torres, 2018; O'Donohue & Willis, 2018), and I have little confidence in upper division textbooks as well. So, what are teachers and professors to do?

The effects of media on behavior can be one of those difficult topics to teach for several reasons. First, the involved research fields have historically been very messy because of numerous problems with poor methodologies (Savage, 2004; Want,

2014; Whyte, Newman, & Voss, 2016). Second, and related, there is overreliance on the Bandura bo-bo doll studies which, as I will discuss below, may be less informative than students are often told. The Bandura studies, small and flawed as they actually are, have become a kind of *origin myth* of psychology not unlike the now discredited Stanford Prison Experiment (Blum, 2018). Third, the widespread adoption of social learning theory (SLT) by psychology has undoubtedly created a bias in favor of evidence supporting media influences and against evidence questioning those influences. This creates an institutional bias in scholarly and professional organizations around the world, including the American Psychological Association (APA) and the World Health Organization (WHO), and results in the release of multiple seriously misleading policy statements on media effects (Elson et al., 2019). Fourth, issues of media effects are highly wrapped up with moral beliefs and moral advocacy related to a “saving lives” mentality. Fifth, many individuals including textbook authors and individual instructors have very strong opinions on the topic that may blind them to evidence conflicting with their personal views. And last, it has been well documented that there is a high rate of error in introductory psychology textbooks related to the issue of media effects, typically in the direction of vastly overstating the evidence for effects (Ferguson et al., 2018).

Taken together, these factors create a high degree of potential for instructors to *misinform* rather than inform students on this particular set of issues. Given that we have documentation that many introductory psychology textbooks (and certainly social psychology and other textbooks as well) have serious errors and biases about media effects and that even the APA’s public statements have been discredited (also see Ferguson, Copenhaver, & Markey, 2020), covering this field in class creates significant challenges for psychology instructors. (I cannot say these challenges are unique, as textbooks are rife with biases on other morally and ideologically valenced topics.) Indeed, it is safe to say that many declarative statements made by textbook authors and instructors on the issue of media effects are false, particularly as illustrated by recent preregistered research. I will begin this chapter on teaching media psychology by taking a look at the violence in media debate before more briefly discussing several other related media effects realms, then offering some thoughts on how to refocus these debates into opportunities to engage students with critical thinking and appropriate scientific skepticism rather than to indoctrinate them in ideological or moral beliefs.

Media Effects in the Classroom

In most cases, media effects will be taught in classes outside of a course or module devoted specifically to the topic. Introductory psychology and social psychology textbooks typically, though briefly and often poorly, consider the topic of media violence. The potential impact of a “thin ideal” media on body image may be considered in courses on the psychology of women, or sexual behavior. Pornography effects may likewise be presented in courses on sexuality or gender. In most cases, though, textbooks struggle to present the research accurately, often falling back on

misleading and morally valenced claims of public-health level effects that cannot, in fact, be supported by the evidence base in these areas. Indeed, psychology instructors' primary risk when talking about these matters is that they may hold and teach inaccurate information.

Relatively few universities offer "niche" courses that focus specifically on media effects, even though they are popular with students. At my university, I teach two of them; one is a seminar on media effects in general for third-year students, and the other is a first-year seminar for graduate students that focuses specifically on the effects of video games. Such media classes are typically taught at the undergraduate level; graduate-level examples are particularly rare other than at the few programs dedicated specifically to media psychology. Thus, in most cases, students' limited exposure to data on media effects may be in classes that are not devoted to the topic and are taught by instructors who are not particularly familiar with the issues at hand, relying on textbooks that are not particularly accurate in conveying the complexities of data and debate in these areas.

The Cautionary Tale of Media Violence

Interest in the idea that media might have deleterious effects on youth is nothing new and can be traced back to at least the ancient Athenians, some of whom worried about the effects of Greek plays on youth delinquency (Kutner & Olson, 2008). History is replete with societal concerns over new media and technology including, though not limited to, religious texts such as the Bible, phones, comic books, various styles of music (from waltzes through jazz, rock, and rap), Dungeons and Dragons, and, more recently, television and video games. In all such cases, the concern is generational, with older adults concerned about the new media creating a moral panic of alarm (Cohen, 1972). For instance, with video games, this same pattern has been demonstrated among the general public (Przybylski, 2014), clinicians (Ferguson, 2015a), and even scholars who study video games (Ferguson & Colwell, 2017). In each case, age (itself conflated with experience with games) as well as dislike of youth themselves was associated with greater belief in the harmfulness of video games. These surveys also show the inevitable death of moral panics as well. . . typically as the audience of older adults who believe the panic dies, the panic itself dies. This is why few people today worry about the deleterious effects of, say, the radio despite that academic journals in the 1940s published articles warning about its harming youth (e.g., Preston, 1941). In the surveys of clinicians and scholars noted above (see also Quandt et al., 2015), the belief that aggressive video games contribute to societal aggression is a minority view, typically espoused by 10–15% of scholars, with clinicians a bit higher at 39.5%, though once again mostly overrepresented among older clinicians.

Bandura's Origin Myth of Aggression

Most of psychology's unfortunate obsession with violent media can be traced back to the original Bobo doll studies with children. (I do not refer to them as studies of children's aggression as they are not, for reasons that will become clear in a moment.) These were not the first studies related to media violence by any means, but they helped (falsely) cement in the minds of many psychologists that children learned to become aggressive by watching adult models. The gist of these studies is probably known to most psychologists, so I will not repeat them in detail here. However, many flaws and limitations of these studies are typically glossed over when teaching them to students, such that these studies have become part of psychology's origin myths.

By origin myths, I mean that some studies and anecdotes are highlighted to students in order to represent psychology's power, although the stories themselves are flawed or simply untrue. As noted already, the parable of Kitty Genovese and the 38 witnesses and the debunked Stanford Prison Experiment are two such examples, but there are others, including exaggerations of the power of Watson's Little Albert experiment (Griggs, 2014), revelations that Milgram's obedience studies may be the product of demand characteristics and hypothesis guessing rather than real effects (Perry, Wanner, & Stam, *in press*), and the sensationalization of Phineas Gage's injuries and lack of coverage of his recovery (Griggs, 2015). Still other origin myths come from textbooks' failure to correct popular but low-quality studies in the context of psychology's replication crisis. Some phenomena that were once considered firmly established, such as social priming (Pashler, Coburn, & Harris, 2012) and stereotype threat (Stoet & Geary, 2012), now appear to be in serious trouble empirically, yet may be repeated to students by teachers and textbooks without mentioning replication failures. The issue of media violence effects, too, appears to be in this category.

To return to Bandura, his studies are often taught to students as if they tell us something about aggression, but, in fact, they are not aggression studies at all. Part of the problem relates to the severe limitations of a Bobo doll as an instrument through which to measure aggression, and part relates to flaws in the experimental design. It has long been understood that the Bobo doll paradigm is, in fact, a weak one for understanding aggression (Tedeschi & Quigley, 1996). After all, the Bobo doll is a toy whose *sole purpose* is to be hit! Generalizing from this play-like roughhousing to real-life aggression was always ill-advised. As Tedeschi and Quigley (1996) put it, "The Bobo modeling paradigm may not examine aggression at all, rather, imitative behavior of 'rough and tumble play' in which there is no intent to harm." Consider this thought experiment in which young children are exposed to videos of an adult hitting kittens with a hammer and are then brought into a room filled with kittens and hammers. Would most of the children imitate the behaviors they saw in the video? I doubt it. In fact, they likely would be traumatized by what they saw.

Indeed, one can see Bandura's Bobo studies as experiments on compliance, not aggression. He and others have made the arguably incorrect assumption that the children in the the study *felt* aggressive and wished to harm the doll. Yet, no evidence

is offered to support that assumption. The children were shown the video, after which they entered the room where the Bobo doll awaited, but *given no other instructions*. Absent from further instructions from the experimenter, the children may well have assumed that the video had presented instructions as to what they were expected to do next. In effect, the results of Bandura's studies may have been strongly affected by *demand characteristics*, specifically, that when research participants figure out what experimenters want them to do, they tend to do it, even if it is not their natural inclination (Orne, 1962).

If this analysis is correct, the Bandura studies tell us nothing about aggression, as it is unlikely the children were feeling aggressive, and therefore tell us nothing about the impact of media violence. With these points in mind, I suggest that teachers of psychology should not encourage students to accept the descriptions found in many textbooks that link Bandura's results to conclusions about the dangers of media violence. Doing so would deprive students of a significant opportunity for critical thinking. Indeed, fully exploring the Bandura studies and their flaws can become an important learning experience. We can ask students what they do and do not consider convincing about the Bobo doll studies. Are there better ways to quantify aggression in the laboratory? Given ethical limitations, is it even possible to study aggression in the laboratory in a way that means anything for the real world? To what extent do we know that participants are responding in a study in a manner that reflects how they actually feel as opposed to what they think the experimenter wants them to do? Is human psychology really as straightforward as those of Bandura, Milgram, and Zimbardo suggest?

Some argue that the Stanford Prison Experiments should be dropped entirely from psychology courses (see Gray, 2013), and in the context of psychology's replication crisis, it may be time for us to let go of many other of these older cohort studies that have attained the status of origin myths. At the very least, these studies should be used as opportunities to dissect psychology's limitations, not as exemplars by which we indoctrinate students into believing nonsense.

The Pitfalls of Media Violence Research

Armed with Bandura's Bobo doll studies, psychology set upon a quixotic multi-decade effort to link media violence to everything from schoolyard bullying to mass shooting events. This effort has now crashed and burned. It is difficult to think of another field that went so rapidly from public prominence and the embrace of presidential-level politics to become a figurative dumpster fire and exemplar of how science should not be done.

I invoke the term "dumpster fire" to mean that the field has descended into both chaos and acrimony, and I do not do so lightly, but unfortunately the term is apt. This is because, in my view, some researchers in psychology (and some American psychological organizations such as the APA) have engaged in and supported pseudoscience or even antiscience in relation to the impact of media violence. Caught out finally during the replication crisis, the result has been the toppling of

a house of cards, with considerable negative fallout for scientific credibility, professional relationships, and individual careers.

By the early 1970s, media researchers along with policy makers were adamant that television and movie violence (and, later, video game violence) were major causes not only of aggression but also criminal violence. Scholars claimed that perhaps half of all homicides (Centerwall, 1992) or 30% of all violent crime (Strasburger, 2007) could be attributed directly to media violence, and other scholars compared the effects to smoking and lung cancer (Bushman & Anderson, 2001). Ironically, some scholars aggressively bullied any who would question this belief, using ad hominem attacks, falsely claiming industry conflicts of interest where none existed, or comparing more skeptical scholars to Holocaust deniers (for specific examples, see Ferguson, 2015b). Statements by scholars believing in media violence effects became increasingly extreme, with frequent references to mass shootings and even the 9/11 attacks and comparison to important medical effects (for examples, see Markey, Males, French, & Markey, 2015).

Early on, however, some scholars (e.g., Freedman, 1984; Savage, 2004) were already warning that the evidence for these assertions was not strong and that inconsistent findings with weak effect sizes were being presented as more significant and certain than they actually were. These critics also pointed out other problems in the media field, including lack of standardized measures, and a tendency to ignore research results that were inconsistent with the emerging gospel. These warnings were either shouted down in print rebuttals or simply ignored. Not only did organizations like the APA fail to step in to provide scientific correction, but they also largely parroted researchers' most extreme claims in policy statements that ultimately proved to be erroneous and misleading (Elson et al., 2019). The American Academy of Pediatrics (2000) cited a pop psychology book in repeating the apocryphal claim that of 3500 studies of media violence only 18 failed to find harmful effects. In fact, at the time, there were only about 200 such studies, and the results were far more mixed (Freedman, 2002). In short, the history of media violence research is a case study of a remarkable lack of restraint or oversight of this research field, but in fairness it must be noted that acceptance of flawed research was influenced by the correlation between increased television viewing and an increase in the US crime rate that stretched from the 1970s through the mid-1990s. Similar correlations appeared in Canada and South Africa (Centerwall, 1989), though not in other countries (Zimring & Hawkins, 1997). Still, the idea of a link between media violence and violent behavior stuck.

The heyday of the media violence hypothesis lasted with only sporadic opposition until the early 2000s, at which point two things had become apparent. First, the crime wave in the United States that peaked in 1993 had evaporated; crime rates are now about where they were in the 1960s (though, it should be said, early data suggest a significant increase in 2020, likely due to a combination of unique events in that year). This is remarkable because the reduction in crime began just as violent video games were being introduced in the United States (Ferguson, 2015c), thus removing one pillar of the argument for the negative public health level effects of media violence. Ironically, many scholars who once pointed to increasing crime rates

as evidence for those effects began to argue that decreasing crime rates were unimportant. But one cannot have it both ways. Certainly, violence is multiply determined. Yet, such a large negative correlation between recent media violence consumption and societal violence, coupled with the *sheer amount* of media violence consumed by society, provides a persuasive correlational argument against the notion that, at the very least, one-third to one-half of violent crimes are caused by media violence, or the effects are similar to smoking and lung cancer.

The second major recent development in the media violence research field is that the quality of some media violence studies improved and, by the mid-2010s, in the United States, at least, many of them began to be preregistered. This means that the researcher publishes his or her hypotheses, methods, and data analysis plans before collecting any data. Preregistration is important because, previously, most aggression measures used in media violence studies were unstandardized, allowing researchers to pick and choose data that best fit their hypotheses. Indeed, with some of the common measures used, it was possible with the *same sample* to show that violent media either increased, decreased, or had no effect on aggression by extracting data creatively from a single aggression measure (Elson, Mohseni, Breuer, Scharrow, & Quandt, 2014). During this time, it became clear that psychological research on media violence (and on many other topics) was unreliable and that many apparently well-established beliefs and theories were proving to be false under more rigorous testing. The problem was due in part to scholars injecting personal beliefs into their research by *p-hacking* or rerunning their analyses in creative ways until they got the results they expected or wanted. P-hacking is more difficult, though not impossible, following preregistration. Most preregistered studies of media violence have focused on violent video games, and almost none of them supports negative effects (Ferguson, 2020). In other words, the best preregistered research that uses standardized measures finds that media violence does not reliably affect violence, bullying, or milder aggression. Although most preregistered studies now focus on the effects of violent video games; to my knowledge, only one looked at the impact of movies (Mubarak & Ferguson, 2020).

What Is a Teacher to Do?

In a perfect teaching world, psychology teachers would have a set of definitively determined facts which we impart to students. Unfortunately, we often do not have clear facts about media psychology, or about other aspects of psychology. Add to this the fact that some textbooks contain significant biases, misinformation, or outright myths, and the psychology teacher's job becomes particularly challenging.

In the preceding section, I offered a synopsis of media violence research that may differ significantly from what you are likely to find in some textbooks. I believe it is the correct synopsis, but media psychology in general, and research on media violence in particular, is a field characterized by much continued debate, some of which is quite acrimonious. But all this debate and disagreement means that media psychology courses lend themselves particularly well to creating lively teaching and

learning experiences focused on critical thinking. With this in mind, I offer a few suggestions.

Embrace the Debate

Teaching students that a field is in conflict is not necessarily a bad thing. Certainly, imparting definitive facts can be satisfying and exciting, but the truth is that psychology (and real life) is often messier than what appears in textbooks. So it can be even more satisfying and exciting to give students disparate pieces of evidence, ask them to weigh opposing arguments, and come to their own conclusions. Class exercises can be built around this. You can assign students to read review articles from both sides of the academic debate on the effects of media violence (or other course topics) and report on their conclusions. You can also organize in-class debates between students, perhaps asking them to represent the side of the issue that they personally oppose. Exercises like these help to give students a fuller view of science which, rather than discovering facts in a linear fashion, often proceeds in fits and starts, lumbering and lurching toward self-correction.

Highlight the Politics of Science

Ideally, science should be value neutral, with pieces of data carrying no moral or political value. But in psychology and other behavioral and social sciences, this is often not the case. This point is exemplified by media violence research, which though undoubtedly undertaken in good faith has taken on both political and moral valence. In the United States, its results played a role when the Supreme Court was considering the constitutionality of increased restrictions on free speech by artists (in this case, the authors of video games) in the name of *protecting children*. The court was not persuaded by the argument that violent games cause youth aggression and clarified that both game creators and players enjoy substantial free speech protections (Brown v EMA, 2011). The decision came as a disappointment to the many scholars, politicians, activists, and leaders of professional guilds such as the APA who had misrepresented research results (or disseminated misrepresentations) so as to make the research say what they *wanted* it to say, not what it actually said.

Introducing students to the politics of media violence research provides a relatively safe way to get them thinking about the more general problem of politics in psychological science. It is a problem that applies to many other fields in which data collected and analyzed in an utterly neutral way could have explosive emotional, political, and moral repercussions. Research related to race, gender, sexuality, and the like are obvious examples of topics which can be political minefields. We should be explaining this to our students, especially in media psychology courses, because the truth about human behavior may not always align with our cherished beliefs about the world, and misalignments may not sit well with those in the media who

would preserve those beliefs at all costs. Students need to understand that scientists are influenced, consciously or not, by the impact their research can have on society, and that this influence may lead them to choose designs, analyses, and conclusions that are neither unbiased nor value free. To reinforce this point, we should ask students to consider what would happen to scientists who find data that supports certain aspects of racial stereotypes. What if they find evidence that there really are biological and genetic components to gender or ethnic differences? What if their data suggests that intelligence is a real, single construct that plays a major role in determining life success? What if college entrance exam scores are actually good predictors of college grades for all students, and what if students' evaluations are accurate measures of their teachers' performance? Asking such questions can help students begin to understand that, for scientists studying value-laden topics, there is an inherent tension between doing good science and the political agendas of the right or the left.

Arguments to Authority

One of the issues to emerge from the media violence debate is that a lot of very smart people can be extremely wrong. This goes back to Bandura, who undoubtedly was very smart, acted in good faith, and revolutionized our approach to psychology, but who I would argue did more to damage our understanding of how aggression works than any other single individual. I do not mean this assertion as a personal criticism. Sometimes, academics just get things wrong, and science must self-correct. That is the process, but we should be sensitizing our students to the danger of deifying individual psychologists as if their word on a matter is treated as evidence. This is the classic logical fallacy of *argument to authority*.

The same goes for professional guilds such as the APA. Students should be allowed to consider the argument that these organizations are not science organizations, rather that they exist to promote professions. Consequently, they tend to release public policy statements that benefit the profession or just the APA, even if the statements are not necessarily accurate. This general argument has been presented for some time (e.g., O'Donohue & Dyslin, 1996) and has been more recently focused on the APA's flawed policy statements on media violence (Elson et al., 2019). Presenting this information can help stimulate students to critically evaluate the worth of statements made by professional bodies.

The Limits of Meta-Analyses

Especially in advanced courses on media psychology, discussion of research on media violence provides an opportunity to highlight the limits and misuse of certain methodological approaches, especially meta-analyses. These analyses combine the results of individual studies into a pooled mass of data in order to examine mean effect sizes. They have mushroomed in popularity over the past several decades, but

they can have serious flaws that threaten the validity of the conclusions drawn from them.

In most research fields, the pooled mean effect size between studies is not very meaningful, as that effect size may be driven by systematic methodological flaws rather than actual effects that exist in the real world. Also, given that meta-analyses are statistically powerful, and few mean effect sizes are exactly zero, poorly used meta-analyses tend to give undue advantage to the alternative hypothesis. In many, perhaps most, cases, effect sizes are tiny but are nonetheless interpreted as supporting hypotheses with little concern for methodological issues that can cause false positive results. As a result, meta-analyses are often misused as tools for dismissing the significance of between-study inconsistencies and allowing researchers to declare results in a field to be more consistent than they actually are.

As an example, for their 2015 Task force on media violence (mainly focused on video games), the APA conducted a meta-analysis on 18 studies (far fewer than 3500!) and declared them to provide consistent evidence for the effects of violence on aggression, though not on violent crime (APA, 2015). However, a more recent reanalysis found that the APA task force missed dozens of studies, included five studies that actually did not compare violent games to nonviolent controls, and that the evidence presented did not, in fact, support the hypothesis that violent games contributed to aggression (Ferguson, Copenhaver, & Markey, 2020). Other recent meta-analyses have found that publication bias (the tendency to publish positive findings but not negative ones) has been widespread in this field, which also limits the utility of meta-analysis (Hilgard, Engelhardt, & Rouder, 2017). Understanding the limits of meta-analysis can help students put their contribution into proper perspective.

Other Media Effects Fields

The observed discrepancy between public rhetoric and available data is not limited to the field of media violence. It appears to be endemic to most media effects theories, particularly those that warn of the dangers of morally naughty fictional media. Such fields tend to undergo a standard pattern, albeit over varying lengths of time: First, a hypothesis is formed, typically with a moral component to it. Second, data are collected, often heavily reliant on college student participants and usually employing laboratory analogues of stress or aggression that are not directly representative of aggression or gun violence or whatever topic that society is worried about. Third, a narrative process begins in which claims are made and for which data are *superfluous*. Indeed, data that do not confirm the claims are typically ignored; proponents of the asserted theory pretend those data do not exist. Inconsistent results are dressed up as consistent, and meta-analyses are employed to launder away between-study inconsistencies. Typically, the narrative pushes a moral narrative that scientists and society must *do something* to protect children or other groups from mental illness or even death. Fourth, professional guilds such as the APA, perhaps sensing a way to use this field to market the profession, release policy

statements that, as already noted, rarely reflect the realities of the science, but typically further the moral and ideological agenda of the organization.

One of the best-known examples of this pattern can be found in the literature on the alleged causal link between thin-ideal media messages (i.e., that idolize slender models and actresses) and the occurrence of eating disorders in women, particularly anorexia nervosa. It might surprise your students to learn that there are exactly zero empirical studies that support the existence of such a causal link. You can explain that anorexia nervosa is exceedingly rare (occurring in 1% or less of women) making it difficult to obtain relevant research samples. Thus, most studies rely on either self-report surveys of eating disorder *symptoms* (some of which, like dieting to lose weight, are quite common and mild on their own), or a nonclinical condition called *body dissatisfaction*. Most studies are conducted with college students and use research designs that make it easy for participants to guess what the researchers' hypothesis is, thus causing some participants to respond or behave in accordance with what they think the experimenters want to see. Also, many studies do not use appropriate control groups. In an experiment on the impact of "thin ideals," the stimuli for the experimental group should be thin and attractive models, whereas control participants should see stimuli that are larger, but equally attractive. This arrangement separates the impact of thinness from that of, say, general attractiveness. However, many studies compare the impact of thin models to that of household appliances like refrigerators, not average-sized humans. This kind of control condition does not allow researchers to isolate the specific impact of thinness, or even humanness.

In short, serious methodological flaws run rampant in this field (Want, 2014), and as a result, the evidence is quite inconsistent. One of the best examples of flawed data being dressed up as more convincing than they are occurred in the "Fiji study," which examined the prevalence of eating disorders before and after the introduction of television on the island in the mid-1990s (Becker, Burwell, Herzog, Hamburg, & Gilman, 2002). On the basis of self-report surveys, the researchers concluded that eating disorders among Fijian girls increased after the introduction of television. However, a close examination of their main results indicates numerous inconsistencies with that conclusion (Ferguson, 2018). Although self-reported vomiting to reduce weight increased, as did overall eating symptoms, bingeing symptomatic of bulimia nervosa did not, nor did BMI decline as one might expect when girls embrace a thin ideal. A multivariate analysis of TV ownership and self-reported eating disorder symptoms became nonsignificant when only controlling for sample year (samples were collected in 1995 and 1998), and it is likely that effect sizes would have been further attenuated had other theoretically important variables been controlled. Thus, although the Fiji study reported increases in some, but not all, *self-reported* symptoms after television became available, there was no evidence that television resulted in actual weight-reducing behaviors among adolescent girls. Further, given the small sample size (63–65 girls), and the fact that the study design did not make it possible to isolate media effects from those of other social changes occurring in Fiji at the time, the Fiji study – though often interpreted as clear evidence for a media effect – does not provide strong support for that effect.

Indeed, for men and most women, there is no convincing evidence that thin-ideal media messages cause body dissatisfaction, let alone clinically diagnosed eating disorders, yet the studies that fail to find the claimed link tend to be ignored (Ferguson, 2013). Ironically, those studies tend to be the ones with the best experimental designs (e.g., Bruns & Carter, 2015; Roberts & Good, 2010; Veldhuis, Konijn, & Seidell, 2014; Whyte et al., 2016).

After summarizing this body of evidence, it might be instructive to ask your students to consider other ways in which media messages might be related to eating disorders. One possibility is that, for women who *already* experience body dissatisfaction (caused by genetics, family influences, or peer competition), seeing thin models in the media may remind them of that dissatisfaction and amplify it.

Research on the impact of pornography is another which has long been heavily influenced by morality, but often divorced from good data. Even today, some scholars argue that pornography is a cause of sexual violence (e.g., Guggisberg, 2020), despite a dire lack of evidence to support that causal connection (e.g., Ferguson & Hartley, *in press*; Seto, Maric, & Barbaree, 2001). In fact, at the societal level, there is strong evidence for an inverse relationship between the availability of pornography and sexual violence.

Other false narratives about media influences abound. For example, it was briefly claimed that a US TV series called *13 Reasons Why*, which included the graphic suicide of a teenage girl, might be causing teen suicides until a closer examination of suicide data found no relationship to the release of the show (Romer, 2020). In the mid-2010s, both the US Centers for Disease Control and Prevention (CDC, 2017) and the United States Surgeon General (US Department of Health and Human Services (2014) had begun claiming that tens of thousands of Americans were dying each year as a result of having taken up smoking after watching movie or TV characters do so. The data supporting this claim appear to have been largely invented or extrapolated from very weak studies that actually, in the aggregate, found that movie smoking has little effect on teen smoking (Ferguson, Nielsen, & Markey, 2020).

Two more examples of debunked claims about media effects include that the movie *Jaws* was responsible for shark depopulation (that depopulation began before the movie was released and is related entirely to the impact of commercial overfishing), and that a radio broadcast of H.G. Wells' *War of the Worlds* in 1938 sent thousands of Americans fleeing for their lives because they thought the Earth was being invaded by Martians.

However, research on advertising provides strong evidence for causal effects of media messages, particularly on children (e.g., Emond et al., 2019). Making this point should stimulate your students to ask questions about what makes the effects of advertising more influential compared to those of video games, TV shows, or other fictional media. One possible answer is that the behaviors being influenced are relatively trivial (e.g., switching from Coke to Pepsi, eating French fries instead of apple slices) compared to those alleged to be caused by fictional media (increasing aggression, violent crime, or eating disorders). Another possibility is that advertisements are presented as repeated statements of fact (e.g., that X is the best shampoo or

that Y is the best mobile phone) that are designed to tell (or more subtly persuade) consumers to change their behavior in some way. This format, like other forms of strong social influence, is likely to have a stronger causal impact than, say, seeing someone on TV shoot someone else. Couching advertisements as truth, accompanied by requests to make relatively minor behavior changes, may serve to circumvent cognitive and biological processes that normally help us to distinguish truth from fiction, processes that begin as early as age 3 (Petty, Cacioppo, & Kasmer, 2015; Woolley & Van Reet, 2006). A discussion of differences between advertisements and fictional media can be illuminating for students, and also helpful for pointing out that every hypothesis discussed in media psychology courses must be tested independently. It cannot be assumed that because one class of media has effects (advertisements) all of them do.

Tips for Teachers

As should by now be clear, media effects research is very controversial and people, whether scholars, politicians, or students, have passionate opinions about it. The suggestions below pertain mainly to helping teachers make good use of the debate, less as a way to inform students about *facts* (as these are often in dispute), but rather as an opportunity to teach critical thinking and how to debate controversial topics in a civil manner. For teachers who are so inclined, classroom analysis of the media effects controversy also creates an opportunity to discuss matters pertaining to free speech.

Check the Textbook

If you are teaching psychology in a country where it is traditional to assign a textbook for your courses, it is obviously important to choose your books with care. Having studied the content of introductory psychology textbooks (Ferguson et al., 2018), one thing that struck me is that the level of student engagement created by a book is a poor indicator of its accuracy. Put simply, some reader-friendly textbooks contain quite inaccurate information about media matters and other topics, whereas some less-engaging texts are far more accurate. Although few, if any, textbooks are entirely without sin, it would appear that serious errors in content tend to cluster in particular chapters, so if you find biased or erroneous coverage in a few key areas, there may be accuracy problems elsewhere, too. I suggest that you start your evaluation with the section on media or video game violence, which is usually in the chapter on learning. Does that section cover the debate in a fair and balanced manner? Does it take one side, while dismissing (or failing even to report) evidence to the contrary? Check a few other well-known problem areas for textbooks such as the Kitty Genovese fable or the Stanford Prison Experiment. If there is consistent misreporting across multiple areas, it may be wise to consider a different book. Correcting the text in a few areas is fine, but having to do so continuously during the

academic term is likely to confuse students and make them wonder why you chose the book they are reading.

Highlight the Replication Crisis

Psychology is currently going through a massive realignment of knowledge based on an awareness of poor research practices in the past. Yet, we also want to get students excited about psychology, so how can we do that while also acknowledging psychology's serious failures? Discussion of research on media effects can help. The decline of the narrative about media-driven violence from "definitely true" into what has been called a dumpster fire provides an excellent perspective from which to discuss psychology's larger replication crisis. That discussion can lead to the realization that the news is not all bad. The process of self-correction in science is hardly ever peaceful and pleasant, and by reading articles in this field, students can study scientific self-correction in action. The classroom discussion might be intense, but handled correctly it can help students see that criticism of scientists by fellow scientists is what separates science from other ways of inquiring about the world (including, it may be worth noting, in nonscience disciplines). Far from depressing students about psychology, teachers have an opportunity to get them excited about possibly becoming part of the process of scientific self-correction.

Focus on Research Methods

Part of the problem with many studies on media effects is that the vast majority of them are simply of poor quality, including Bandura's Bobo doll studies. It should be easy for students, even in lower-level or introductory psychology classes, to identify the flaws in these studies, and as mentioned already, doing so provides excellent opportunities for critical thinking. So instead of presenting the Bobo doll studies as holy writ (as is often the case in psychology classes), you can encourage students to examine the design and methodology and ask themselves if the results really can be used to make sweeping claims about the nature of human aggression and on factors that influence it.

This kind of analysis also provides the opportunity to reinforce the "correlation doesn't equal causation" mantra, but, more than that, to point out that many scholars (and politicians) eschew this basic tenet when it suits their purposes. Both the Centerwall studies of television violence and violent crime and the Fiji study of thin-ideal media essentially drew causal conclusions from correlational data. Ask students to consider why scholars do this when they obviously should know better?

Promote Civil Debate

Media effects research presents an opportunity for students to learn how to disagree on a topic, but to do so civilly. As I write this, civil debate has all but broken down in North America, Europe, and elsewhere. As teachers, we have a role to play in helping students to focus on facts and methods and scientific reasoning rather than to allow themselves to be governed by political outrage and moral self-righteousness neither of which is healthy or scientific.

I suggest that you encourage your students to examine the pros and cons of media effects research while helping them to build skills in debate that takes a data-based approach rather than one that relies on emotion, personal attack, or anecdotal evidence. These skills take practice, yet teachers of psychology too seldom give students an opportunity to engage in that practice. Many classroom “debate” presentations are actually rather dry, and there is little in the way of exchange of ideas. Instead of having preplanned oral presentations, students could stage a formal debate, with opposing teams, clear rules – including an emphasis on civility – and a vote for winners (that should not affect course grades). Debates can also occur in the context of less formal group discussions.

Legitimize Uncertainty

Many scholars and professional guilds, and certainly many teachers, feel societal or student pressure to have *the* answer when it comes to issues like media effects. This pressure to find or present *the* answer has been the devil’s lure, leading some scholars, teachers, and the APA to offer public statements or lectures that are faulty, and in some cases, deliberately misrepresentative of the research landscape. The APA, for example, has been told that its statements are wrong, in one case by a group of 230 scholars (Consortium of Scholars, 2013), yet failed to correct them. It is difficult to explain that failure without referring to the organization’s need to create a sense of certainty about its science.

I suggest that you discuss with your students the possibility that the efforts of scholars and organizations to establish certainty where there is none can be attributed in part to concerns that it is difficult to market psychology as a science while admitting that it does not have definitive answers to many key questions. Ask them to consider the long-range consequences, such as that the certainty mindset may have actually damaged rather than burnished psychology’s credibility because it results in causal claims that go out on scientifically fragile limbs. What is the alternative? Help students to see that one option is to recognize uncertainty can be acceptable, even exciting, because it drives psychological scientists toward new hypotheses and better data. Teaching students to be alright with uncertainty can be a valuable lesson.

Emphasize the Value of Free Speech

Media effects literature is rife with moral crusading and calls to restrict speech. As already documented above, scholars have been quick to generalize weak findings to create massive public health concerns, including claims that thousands of people are dying every year as a result of certain kinds of media depictions. That such ludicrous claims are readily repeated by otherwise smart people demonstrates how easily emotion and moral self-righteousness can overwhelm critical thinking. If we begin to restrict every kind of speech that someone somewhere passionately believes to be dangerous, what will remain? Who gets to decide what speech is protected and what is not? Are we content with the limits of the First Amendment, even though private multinational corporations may ultimately censor our online dialogues? On the other hand, when people are engaged in free but pernicious and ugly speech, how can we as individuals fight against that while maintaining free speech values?

The topic of freedom of speech as a civic value may not seem central to a course in media psychology, but it is. It is essential to the science of psychology, a science whose research results often challenge society's assumptions about the human condition. Our students, like the rest of us, tend to think of themselves as free speech advocates until they come across speech they do not like, and at that point may seek to restrict it in some way. A media psychology course in general, and an analysis of media effects in particular, can provide an arena in which to sensitize students to this issue.

Concluding Thoughts

Has psychological science royally screwed up the study of media effects? Absolutely. But the next chapter of that story tells how newer, better science is reevaluating old questions with better data. Teaching about media effects effectively in an introductory psychology course (or elsewhere) requires asking students to shift their thinking away from a search for "final answers" to embracing the controversy and debate generated by conflicting results. Helping students to do this will take them beyond rote memorization of course material and stimulate their skill at critical thinking, scientific evaluation, and civil debate. So although research on media effects may be a messy area for instructors to wade into, it is also full of potential for helping students to tolerate uncertainty and to thrive.

Cross-References

- ▶ [Clinical Psychology](#)
- ▶ [Developmental Psychology. From East to West](#)
- ▶ [General Psychology Motivation](#)
- ▶ [Social Psychology](#)

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