Opinions and Perspectives

Challenging Popular Myths and Denial of Scientific Evidence in Public Discourse: An Aggression Researcher's Uphill Struggle

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Research in social psychology addresses many issues that people feel passionately about in their everyday lives, which may be seen as a blessing and a curse at the same time. A blessing because it means that our field has an important role to play in explaining social issues that affect the lives of many people and contributes valuable insights on how to effectively address social problems; a curse because practically everyone is a "naïve social psychologist" holding strong views about what is true or false by way of explaining social phenomena. This becomes particularly apparent in the field of aggression research, beginning with the understanding of the term itself. Whereas there is a consensus within the research community to define aggression as a form of negative, antisocial behavior characterized by the intention to inflict harm on others, everyday discourse often designates aggression as a desirable form of social behavior. Sports teams vow to "aggressively" attack their opponents to secure victory, defeats are explained by the contenders not having been sufficiently "aggressive" in pursuing their goals, and many people talk about "good" aggression to be distinguished from the "bad" forms of aggression nobody wants to see or experience.

In this short commentary, I would like to share a few thoughts on the challenges involved in communicating social psychological findings that are at odds with everyday wisdom to the wider public, using two pertinent examples from aggression research: (1) the belief in the beneficial effects of releasing aggression, as reflected in the "catharsis hypothesis"; and (2) the denial of a link between media violence use and aggression. After citing evidence on the failure and unwillingness to take established findings from psychological research into account, I will sketch a two-pronged approach towards handling the gap between science and popular belief in a constructive way, acknowledging the psychological significance of laypersons' responses as a research topic in its own right.

The unbroken appeal of the "catharsis" hypothesis

In a notable amalgamation of Freud's psychoanalytic and Lorenz' ethological thinking (summarized in Krahé, 2013), the idea of getting rid of aggressive action tendencies by releasing them in a harmless way is deeply rooted in lay persons' thinking about aggression and, therefore, resistant to change. The very expression of "letting off steam" to return to a calm and nonaggressive frame of mind when angered both inspired and popularized Lorenz's "steam boiler" model of aggressive behavior. The idea that acting aggressively in a way that does not actually harm anyone feels "good" and removes the wish to lash out against an actual victim is so

popular that it has been turned into a successful business idea. In 2008, the first "anger room" was opened in Texas, http://www.angerroom.com/, setting an example that has been followed in other parts of the world (e.g. Germany, where an anger room was opened in the town of Halle in 2014). As noted on their website, the Texas anger room was "established to provide an alternative to seeing a 'head doctor' or talking it out when you're having a bad day. We believe that sometimes it's better to just do what you feel and lash out when you need to! And what better place to do that without judgement, consequences or public humiliation than at an *Anger Room*™ location". Customers can choose between a five-minute "short break", a 15-minute "lash-out", or a full 25-minute "demolition", with prices ranging from 25 to 75 US$ at the time of writing. During this time, they can destroy a wide range of items, with supplies coming in through donations of unwanted household items of all sorts.

The alleged benefits of engaging in this form of destructive behavior are stated in bold terms in the promotional video: "If there was an anger room around every corner, the world would be a better place." But would it? As intuitively appealing as the idea may be, there is much to quote against it. Both theorizing and empirical evidence accumulated in social psychological aggression research tell a different story. Conceptually, if acting their aggressive impulses makes people feel good, this can be explained as a classic learning mechanism by which associations between aggressive acts and positive affective states are formed. As a result, future aggressive behavior becomes more likely, as people seek to repeat the positive affective experience. This reasoning is consistent, for example, with a finding by Verona and Sullivan (2008), who showed that the more their participants' heart rate decreased after engaging in an aggressive act, the more aggression they showed in a subsequent situation. Social cognitive theories conceptualizing the acting out of anger or the generation of angry thoughts as a priming process equally suggest that the repeated activation of aggression-related cognitions and actions will lower the threshold for aggressive behavior by increasing the accessibility of aggressive thoughts and feelings (Bushman, 2002). Thus, both from a theoretical and an empirical point of view, behaving aggressively in a supposedly "safe" environment, be it an anger room or the virtual reality of a violent movie or video game, may not just be ineffective but counterproductive as a strategy for reducing aggressive behavior (see Gentile, 2013, for a more thorough discussion). Moreover, hitting a punching bag after a provocation was found to lead to heightened aggression on a subsequent measure of aggressive behavior, particularly among people who were told beforehand that catharsis was effective in reducing aggressive tendencies (Bushman, Baumeister, & Stack, 1999). This finding illustrates two things: (a) the need to debunk the catharsis idea and replace it by a conceptually sound account of why engaging in aggression either in a sheltered or a virtual environment is likely to increase rather than decrease the chances of future aggression, and (b) the difficulty of achieving this goal due to the good feeling people typically report when releasing their anger in this way.

Challenging the "no harm" myth of violent media use

Few topics are more controversial in the exchange between researchers and the general public than the question of whether exposure to violence in the media has an effect on users' aggressive behavior in the real world. The sales figures for films and video games with highly violent content attest to the widespread popularity of such media, as do regular surveys of media habits across the world. It is not difficult to see that users may have a vested interest in rejecting the idea of any harmful effects that might result from the habitual exposure to violence in the virtual reality. Such effects with regard to increasing aggressive behavior have been demonstrated by a large body of research (see Krahé, 2013, for a summary) and even highlighted by prominent media figures like Robert Redford.[1] Instead, many people gladly accept the position advocated by the gaming community, the media industry, and some voices from within academia[2] that there is no evidence of any harmful effects or – alternatively - whatever evidence there may be is methodologically flawed. At the same time, people who are deeply skeptical about media violence effects are generally happy to take on board the positive effects claimed for educational or serious games, despite question marks about the quality of the research studies on which the claim is based (e.g., Girard, Ecalle, & Magnan, 2013; Primack et al., 2012). Thus, on the one hand, people deny that there is any effect of experiences made in the virtual reality of the media on how they feel and act in real life, on the other they highlight the good things that media can do for people in their daily lives.

There are two core messages to be conveyed to address this conundrum. The first is that there is plenty of support for the general notion of a transfer from the media reality to people's actual reality in different fields of society. The whole idea of commercial advertising is based on the assumption that people's exposure to a product in a TV or movie ad will make them more likely to buy it next time they go to the shops. The decision to train pilots in a flight simulator before allowing them to handle a real plane is based on the same logic. If, in principle, people are prepared to acknowledge the possibility of a transfer from experiences in the media environment to the real world, it should be straightforward to persuade them that it is very difficult to argue such a transfer should only happen in areas where they feel positive about it. They should easily see that the very processes, such as learning by reinforcement or imitation, that lie behind the transfer of attitudes and behaviors from the virtual reality to the real world in areas where such transfer is desirable also work in areas where it may be problematic, as in potentially promoting aggressive attitudes and behavior. The second point follows directly from the first, namely that it is content that matters. There is nothing inherently good or bad about media use in terms of influencing real-life feelings, thoughts, and behavior; the effects are strongly dependent on the presented content. Just as prosocial content may promote prosocial behavior, aggressive content may

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[1] http://articles.latimes.com/2013/jan/17/entertainment/la-et-mn-robert-redford-sundance-violence-20130117

[2] See, for example, Elson & Ferguson (2014) and responses by Bushman & Huesmann (2014), Krahé (2014) and Warburton (2014).

promote aggressive behavior (Greitemeyer & Mügge, 2014). These messages are neither complex nor in any way counterintuitive, which raises the question of why they are so difficult to get across.

Making a virtue out of necessity

So how should we as scientists respond to the unwillingness by large parts of the public to be shaken in their lay psychological beliefs in relation to what causes or reduces aggression? The first response is obvious, namely that we should put as much effort as possible into feeding our findings into the public discourse on these matters through a diversity of channels. This can be done by presenting state-of-the-art summaries of our research findings to lay audiences, as illustrated by the expert statement on media violence commissioned by the International Society for Research on Aggression (Krahé et al., 2012), or by talking to journalists about the evidence against the idea of an anger room.[1] As all of you who have ever taken this route know, it is an uphill struggle.

The second, perhaps less obvious response, is to turn public adherence to myths and denial of social psychological findings into a topic for psychological research in its own right and examine it in the light of well-established theories in our field. Recent analyses by Huesmann, Dubow, and Yang (2013) and Nauroth, Gollwitzer, Bender, and Rothmund (2014) nicely illustrate this approach, seeking to understand why there is so much resistance to the idea that media violence may make users more aggressive. Huesmann et al. (2013) present a theoretical account, explaining the denial of violent media use effects as a result of four psychological processes: (a) need for cognitive consistency, leading people who produce, sell, or habitually use violent media to reject information about harmful effects of violent media use as inconsistent with their positive self-image, (b) reactance, shown in response to the perceived restriction of their freedom that is linked to negative reports about violent media as well as measures, such age ratings, limiting their availability; (c) the "third-person" effect, acknowledging that negative effects might be true for others, but not for themselves, and (d) desensitization as a result of habitual exposure to depictions of violence that makes these contents appear less and less violent over time. In addition to these explanations focusing on an individual's personal identity, scientific findings of harmful media violence effects may elicit denial because they threaten a person's social identity. Nauroth et al. (2014) conducted a series of empirical studies showing that the more participants identified with the community of gamers, the more they felt angered and stigmatized by research findings showing negative effects, and the more strongly they discredited such findings.

Although engaging with the public by disseminating scientific evidence on media violence effects and the idea of catharsis in accessible ways remains an important task, these studies illustrate that providing sound and rigorous evidence is not enough. Understanding why sections of the general public are unwilling to take

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[1] http://international.sueddeutsche.de/post/108342829790/the-business-of-destruction-at-germanys-anger

certain findings on board may open up new avenues for presenting our messages in such a way that they are more palatable for audiences from diverse backgrounds. Aggression research may be a good candidate for spearheading this mission.

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