Editorial

Contemporary issues in adolescent video game playing: brief overview and introduction to the special issue

In May of 2001, Alan Waterman contacted two of us (Anderson, Griffiths) about the possibility of serving as co-editors of a special issue of this journal focusing on "video-gaming during adolescence and youth". We drew up a prospectus, invited Jeanne Funk to join us as co-editors, and set about generating submissions. We were excited about the possibility of creating this special issue for several reasons. First, the rise and popularity of video and computer games as a leisure phenomenon has become an ever-increasing part of many young people's day-to-day lives. Second, compared to other areas of adolescent leisure pursuits and activity, video game playing has been a relatively unexplored area. Some academics perceive video game research to be of trivial importance, and perhaps because of this, funding opportunities have been relatively minimal. This may also help explain why there have been no 'special issues' devoted to this topic. We were therefore very pleased to be asked to put together such an issue.

As described elsewhere in this special issue, most reported effects of video games appear to centre upon potential negative consequences (e.g. increased aggression, potential addiction, medical and psychosocial side effects, etc.). In fact, all the co-editors have contributed to the literature on some of these more negative aspects. However, none of us is anti-video games.

Some research suggests positive benefits of video games. For example, some research suggests that playing computer games may produce improvements in reaction times and eye-hand co-ordination and may be a source of positive self-esteem for some players. What's more, game elements that pique curiosity and make the games fun and challenging add to the educational potential of some games. Furthermore, there are a few studies showing that video games constructed to teach specific health behaviours can indeed yield better health outcomes. As computing power has increased, the distinction between video games versus training simulators has blurred, opening the door to potential positive uses in a wide array of educational and business settings. In sum, the motivating properties of video games would seem to make them excellent teaching tools, but to date there is relatively little research on these potentially positive uses.

By creating this special issue we hoped that we could have a positive impact on the quality and the breadth of the next generation of video game research. We created a judiciously worded Call for Papers, one that specifically outlined key methodological problems to avoid and key topics in need of additional research.

The Call for Papers specifically listed seven topics of special interest. These were:

(a) Short-term effects of playing violent video games.
(b) Long-term effects of playing violent video games.
(c) Video game addiction.

(d) Usage patterns.
(e) Social and family relationships.
(f) Positive aspects (e.g. educational video games).
(g) Parental controls, rating systems, and/or other interventions.[1]

The Call was placed in a number of developmental, social, and aggression-related sites, lists, and publications as well as more general locations (APA, APS). Not surprisingly, most of the papers we received focused on effects of exposure to violent video games. Unfortunately, we did not receive a single submission reporting research on potential positive uses of video games. Thus, the resulting special issue is somewhat narrower in scope than we had originally hoped, but it accurately reflects the limited scope of the present body of knowledge in this area. We are pleased to include reports on several novel aspects of the video game-playing phenomenon.

The quality of the articles that are represented in this special issue is impressive, much improved from many studies from the early years of video game research. Scholars have learned from difficulties encountered by that first generation to the benefit of all. Although it is obviously much too early to declare that all of the major theoretical and applied issues concerning effects of video games on children, youth, and society at large have been fully answered, the research articles in this issue move the field forward significantly.

The first article, by Doug Gentile and colleagues, contributes greatly to several key issues involving violent video games. It demonstrates just how much time is spent on violent games by 8th and 9th graders, and how little parents are involved in screening or educating their adolescent children about violent media. More importantly, in this large-scale correlational study these authors uncovered important links between violent video game exposure and a host of social and academic problems, including hostility, arguments with teachers, physical fighting, and poor school grades. Furthermore, they demonstrate that the aggression-enhancing effect of repeated exposure to violent video games occurs to youths who are characteristically aggression and to those who are characteristically non-aggressive.

The second article, by Jeanne Funk and colleagues, examines the potential effects of habitual exposure to media violence and to real life violence on a pair of desensitization-related variables, empathy and attitudes towards violence. High exposure to violent video games was associated with lower levels of empathy and more positive attitudes towards violent behaviour, even when other factors were statistically controlled. Interestingly, TV violence did not independently contribute to either empathy or attitudes towards, and movie violence was significantly associated only with attitudes. This is the first empirical evidence that violent video games may in fact have greater impact than other forms of violent entertainment media.

The third article, by Eric Uhlmann and Jane Swanson, also takes a novel approach to investigating effects of violent video games. Using a modified version of the Implicit Association Test, they found that even a very brief exposure to a violent video game can increase the player's automatic association of ''self'' with aggressive actions and traits. In the same study, they also found that past history of exposure to violent video games is positively associated with aggressive self-views. One implication of their work is that the effects of violent media exposure on self-image

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[1] The long version of the Call for Papers can be found at: http://www.psychology.iastate.edu/faculty/caa/ Call_for_papers.html

can occur entirely without awareness of change, a finding the helps explain why so violent video gamers so stoutly deny that their hobby has any impact on them. They simply cannot notice these subtle changes in self.

Barbara Krahe and Ingrid Möller report findings from their study of German adolescents and their use of violent video games. They found a direct link between exposure to violent video games and acceptance of norms condoning physical aggression, and an indirect link to hostile attributional style. There were some interesting gender differences as well, but the violent video game links to pro-aggression norms and hostile attributional style appeared essentially the same for boys and girls.

The next two articles examine video gaming from somewhat different perspectives. Elizabeth Vandewater and colleagues examined potential linkages between television viewing, video game play and obesity. What they found was a set of complex curvilinear relationships that depended on age and gender. To our knowledge this is the first large-scale investigation of childhood obesity to include video game variables as possible predictors. Future work in this area will be greatly assisted by this groundbreaking work.

The article by Mark Griffiths and colleagues is the first to document how much time is being spent by a variety of different aged people on the recently emerging video game genre known as Massively Multi-player Online Role-Playing Games. The research focuses on the largest current MMORPG, *Everquest*, which reportedly has over 400,000 players world-wide. The article also documents reasons such players give for playing these games, their perceptions of positive and negative aspects of these, and problems that might be created by playing online for so many hours.

Jan Van Mierlo and Jan Van den Bulck present some interesting results from their study of potential cultivation effects of exposure to violent video games. They persuasively argue that many of the standard cultivation outcome variables used in television studies are not as appropriate for use in studies of video game/cultivation effects. They also show some fairly specific violent video game cultivation effects, thereby broadening the video game research literature.

Finally, Craig Anderson's article presents an updated meta-analytic look at the effects of violent video games on aggression, aggressive affect, aggressive cognition, arousal, and prosocial behaviour. This update also reveals that prior estimates of the effect sizes of violent video games may have been too low, because prior meta-analytic reviews included studies with major methodological shortcomings. It turns out that such "weak" studies typically yield weaker effects than studies that are methodologically stronger.

We'd like to thank Al Waterman and Ann Hagell for helping us put this issue together. We hope that you enjoy this special issue of the *Journal of Adolescence*, and find it useful in your own work.

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