A different(ial) perspective: How social context influences the media violence-aggression relationship among early adolescents
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Chapter 7
General conclusion and discussion
All grown-ups were children first
(but few of them remember it).

de Saint-Exupéry (1943)
For whom does media violence exposure lead to aggression?

There is a wide range of perspectives among parents, children, journalists, and professionals about what a relationship between media violence exposure and adolescents’ aggression may look like. For some, it is clear as daylight that the abundance of violence in the media must have negative consequences – after all, so many movies and games contain violence these days, even those specifically aimed at youth audiences such as The Hunger Games, Divergent, and Maze Runner. For others, it is equally logical that media violence does not affect teens’ behavior – after all, given the popularity of violent games and television shows, wouldn’t we have chaos and anarchy if such media content made people more aggressive? A similarly wide range of perspectives about whether media violence affects adolescents’ aggression is found among academics (see e.g., Bushman & Huesmann, 2014; Elson & Ferguson, 2014a). This dissertation explored whether the “truth” (if it exists) may lie somewhere in the middle by investigating whether media violence exposure may influence aggressive behavior for some adolescents, and if so, for whom. Specifically, the studies in this dissertation explored whether characteristics of the social context (family, parents, peers) make some adolescents more and others less susceptible to media violence effects on aggression (known as social susceptibility, Valkenburg & Peter, 2013a). Together, the collection of studies provides five conclusions about the relationship between media violence exposure and early adolescents’ aggression.

1 Media violence exposure does not lead to an increase in aggression over time for all adolescents.

First, when looking across all adolescents in our sample, media violence exposure was not related to increased aggressive behavior over time. Although each chapter found a medium-sized cross-sectional relationship between media violence and aggression (around $r = .30$), this relationship did not remain in longitudinal analyses that tested
whether media violence exposure at one time point was related to increased aggressive behavior four months (chapter 3) or one year later (chapter 4 and 5). Overall, then, this dissertation does not provide evidence for universal and direct effects of media violence on aggression over time. Although this finding is more in line with skeptics’ view of media violence effects (e.g., Elson & Ferguson, 2014b) than with those who propose that media violence is an important risk factor for aggression (e.g., Bushman & Anderson, 2015; Krahé, 2014a), this dissertation does not take the lack of universal longitudinal effects to mean that media violence exposure is trivial. Indeed, the central premise of this dissertation was precisely that not all adolescents will respond to media violence in the same way and, thus, that conclusions based on average effects may be an oversimplification and a potential misinterpretation of such findings (Valkenburg & Peter, 2013a, 2013b). To that end, this dissertation moved beyond universal effects and focused on differential effects.

Effects of media violence on increased aggression do exist for some adolescents: They are more pronounced for youth growing up in negative social contexts.

Second and more importantly, then, this dissertation illustrates that media violence effects do exist for subsamples of early adolescents. Specifically, chapters 3 and 5 indicated that media violence is related to increased aggression for those adolescents who grow up in families with more conflict, or in peer groups where aggression is perceived to be more common. These findings are consistent with the proposition of the Differential Susceptibility to Media Effects Model (Valkenburg & Peter, 2013a) that media effects are conditional and can depend on social susceptibility variables. More specifically, these findings provide empirical support for the theoretical concepts of resonance (Gerbner, Gross, Morgan, & Signorielli, 1980) and context-content convergence (Valkenburg & Peter, 2013a). These concepts propose that media may have more pronounced effects when media content matches with experiences in a person’s social environment. This dissertation shows that this is indeed the case: Adolescents who grow up in a “negative” social environment are more susceptible to violence in games and television programs – they have an increased likelihood of becoming more aggressive over time.
For adolescents in neutral or positive social environments, media violence may lead to less aggression.

Surprisingly, this dissertation also found patterns suggesting that adolescents in neutral or positive social environments (that is, environments in which aggressive behavior is not common) may become less aggressive as a result of media violence exposure. In both chapters 3 and 5, media violence exposure was either not significantly related to aggressive behavior, or was related to decreased aggression for adolescents who experienced no conflict in their family or aggression in their peer group. This suggests that, in addition to resonance or context-content convergence effects, dissonance or context-content divergence effects may take place when an adolescent’s social context does not match with the media content he or she uses. Although empirical research into differential media effects tends to focus on how negative media effects may be worsened by individual differences, this dissertation indicates that it is also worthwhile to explore how positive social contexts may help to reverse such media effects (cf. Piotrowski & Valkenburg, 2015).

Interestingly, one of the most often investigated “positive” social context factors in media effects research – parental mediation – did relatively little to reduce aggression as outcome of media violence exposure. Chapter 4 investigated two parental mediation strategies (restrictive and active mediation) communicated in different styles (autonomy-supportive, controlling, and inconsistent). Although often thought to be an effective tool against adverse media effects (Cantor & Wilson, 2003), active mediation did not affect the relationship between media violence and adolescents’ aggression, regardless of the style in which it was communicated. Restrictive mediation did influence media violence exposure and aggressive behavior, albeit only cross-sectionally and not over time. Specifically, autonomy-supportive restriction was related to lower, and inconsistent restriction to higher media violence exposure and aggression. Perhaps counter to popular belief, chapter 4 offers some support for the idea that parental restriction of violent media use may be a good thing – when communicated in a way that takes the perspective of the child seriously. In the long run, however, other positive social context factors such as direct modeling of prosocial behavior by parents, siblings, and peers (Padilla-Walker & Carlo, 2014) or high-quality relationships with peers and parents (Laible, 2007) may prove more effective in reducing a relationship between media violence exposure and adolescents’ aggression, and therefore merit further attention.
Adolescents’ social context changes the relationship between media violence and aggression by influencing how media violence exposure is experienced.

In addition to showing that the relationship between media violence exposure and aggression is not the same for all adolescents, this dissertation shows that this relationship may vary because adolescents in different social contexts respond to media violence in different ways. For example, chapter 5 showed that media violence had a different effect on perceptions of peer approval of aggression depending on how common aggression was in an adolescents’ peer group. For those adolescents who believe that aggression is very common among their peers, media violence increased their belief that their friends approve of aggression, and this belief was subsequently related to increased aggression. Conversely, for those adolescents who did not think that aggression was common among their peers, media violence decreased their belief that their friends approve of aggression. As a result, they became less aggressive over time. Chapter 6 investigated cognitive, emotional, and arousal responses to violent games and whether these may be predicted by family conflict. Results demonstrated that family conflict was cross-sectionally related to higher arousal in response to violent games and higher aggressive behavior. In other words, adolescents who experienced more conflict in their family environment also experienced higher arousal when playing a violent game. Because higher arousal in response to violent game play was related to higher aggression, this increased responding to violent games could explain the “double dose” or resonance effect found in chapter 3 of this dissertation. The reason that adolescents growing up in high conflict families become more aggressive when exposed to media violence (chapter 3) may be because they experience stronger arousal responses to such content (chapter 6). Together, chapters 5 and 6 show why media violence influences the aggressive behavior of adolescents in different social contexts in different ways.

Media violence exposure can be validly assessed among adolescents with self-report measures – but we still have a long way to go.

Last (but not least), this dissertation showed that media violence exposure can be validly measured among adolescents using self-report measures – with two caveats. First, the quality of self-report measurement depends on the type of measure used and the type of medium under scrutiny. Chapter 2 compared two frequently used self-
report measures of media violence exposure: direct estimates and favorite media titles (user-rated and agency-rated). Direct estimates – a measure that asks adolescents to report the number of days per week and hours per day spent using violent media – were found reliable and valid for measuring exposure to violent content on television and in games. Alternatively, asking adolescents for their three favorite games and television shows, how frequently they play them, and then assessing how much violence these media contain, was reliable and valid only for exposure to violent games but not violent television programs. Thus, researchers who are interested in exposure to violent media (often operationalized as violent games and television) are best off using direct estimates. For violent game-only studies, both direct estimates and favorites can be used. As a second caveat, however, although self-report measurement of media violence exposure can be reliable and valid, it is crucial that researchers in this field think about how to further improve such measures. Currently, the measures evaluated in this dissertation can be described as “sufficient” at best. Given that our ability to detect and interpret effect sizes depends directly on the quality of measurement, efforts to improve and standardize self-report measures of media violence exposure will be vital for this field to take the next step towards understanding the effects of media violence.

What do these findings mean in real life?
In March 2015, parents of children in 16 schools in the United Kingdom received a letter from their head teachers stating that if parents allowed their child to “have inappropriate access to any game or associated product that is designated 18+, we are advised to contact the police and children’s social care as this is deemed neglectful” (Khomami, 2015). This example illustrates the sometimes dramatic calls for action related to children’s violent media use. In a world where violent content is part and parcel of media entertainment (Bleakley, Jamieson, & Romer, 2012; Smith, Nathanson, & Wilson, 2002; Smith, Lachlan, & Tamborini, 2003), where horrific real-world acts sometimes seem inspired by such media content (Pidd, 2012), and where parents are confronted with fear- and guilt-inducing advise about media, it is not strange that parents worry about their children’s use of violent media. The multitude of media education websites (e.g., mediaopvoeding.nl; Ask the Mediatrician) where parents ask questions about the appropriateness of violent media for their children testifies to this fact and indicates a need from parents as well as practitioners to know how harmful media violence exposure really is. The million dollar question, then, is to what extent we should worry about media violence exposure in childhood and adolescence, and what stakeholders involved can do. This dissertation shows that there are two sides...
to the coin of differential media violence effects, and provides two “real world” takeaways for people concerned about children’s behavior.

First, for the majority of children and adolescents, media violence exposure is not directly problematic. Most of the 10- to 14-year-olds who participated in this study did not become more aggressive over time as a consequence of violent media use. This dissertation therefore does not indicate a need for large-scale, one-size-fits-all interventions to ban violent games from the stores or to encourage all parents to prohibit their children’s violent media use. Parents need not feel guilty or concerned when their children enjoy violent media entertainment in reasonable amounts. It is good to keep in mind that, for most youth, violent game play and violent television viewing are part of normal development (Olson, 2010). In addition, violent media are often attractive for reasons other than the presence of violent content (Olson, Kutner, & Warner, 2008; Valkenburg & Cantor, 2000). For example, Grand Theft Auto certainly contains plenty of violence, but also offers players the freedom to discover an immense game world that includes social and political commentary and satire (Miller, 2013; Ruch, 2012). Game of Thrones is one of the most violent television series to date, but with an average budget of six million dollar per episode (Jacobson, 2014), the series also offers an extremely high quality viewing experience. Although it is often all too easy to focus on the negative, an important take-away for parents, practitioners, and academics is not to lose sight of what violent media may offer youth besides the violent content (Jansz, 2005; Ruch, 2012). At the same time, this dissertation does not suggest that children should binge on violent media or that parents should simply allow any type of content. Even if parents need not directly worry when their child wants to play Assassin’s Creed or is interested in The Walking Dead, it remains important for parents to play a guiding role in their children’s media use. The adage “too much of anything is always a bad thing” applies here, too, and children may not always be ready for certain content from a developmental perspective. Parents are in the best position to evaluate whether certain content is appropriate for their individual child. To achieve this, parents can learn more about violent media entertainment through rating systems such as Kijkwijzer and PEGI (Pan European Game Information), by trying media themselves (perhaps together with their children), and use their own expertise as a parent to determine whether the content is right for their child.

Second, concerns about media violence exposure are warranted for youth growing up in adverse social contexts. For adolescents growing up in high conflict families or who perceive high aggression among their peers, media violence may be an additional risk factor for aggressive behavior. This group of adolescents deserves special attention from health care practitioners and teachers, who are in the position
to help these youth and their families identify ways to prevent or reduce adverse outcomes. From a practical perspective, however, it is important to recognize that even for these more vulnerable adolescents, the effect of media violence on aggression was small, both in terms of absolute size and relative to the social context factors studied here. This means that when the goal is to reduce an adolescent’s aggressive behavior, more ground can be gained by changing these social context factors than by changing media violence exposure. Realistically, however, it is also likely more difficult to change social context factors than it is to change media violence exposure. Given that aggressive behavior is often the result of several factors (Ribeaud & Eisner, 2010), health care professionals will likely rely on multiple routes to behavior change when helping aggressive youth and their families. For these stakeholders, it is relevant to know that attempts to reduce media violence exposure (especially when done in an autonomy-supportive way) may be a small but significant step in the right direction for youth in difficult circumstances.

Where do we go from here?
The relationship between media violence exposure and aggressive behavior has been studied and debated for nearly a century, and will likely continue to be debated for years to come. The conclusions of this dissertation neither solve this debate nor provide a definitive answer on the media violence-aggression relationship. What this dissertation does do is add a new perspective to the debate by focusing on the question of who is most susceptible to media violence. Specifically, guided by the Differential Susceptibility to Media Effects Model (Valkenburg & Peter, 2013a), this dissertation tested and supported the idea that different adolescents may be affected by media violence in different ways depending on their social context.

As with all research, it is important to consider some limitations when interpreting these findings. For example, this dissertation relied on survey research and can therefore not formally establish causal claims. However, because of its longitudinal nature, the dissertation still offers meaningful insight into patterns of relationships within a broader social context. Another limitation inherent to this type of research is that it relied on single respondents’ self-report for all study variables, which may enable particular response patterns, biases, or mischievous responding (Ferguson, Garza, Jerabeck, Ramos, & Galindo, 2013). However, because the main question items in this study were embedded within a larger survey and the sample was very large, it is unlikely that the results found in this dissertation are due to particular response patterns among a few adolescents. Lastly, the sample surveyed in this dissertation consisted of Dutch families with typically developing early adolescents (that is, a
WEIRD sample - Western, Educated, Industrialized, Rich, and Democratic, Henrich, Heine, & Norenzayan, 2010). These findings may not necessarily translate to children and families in different cultures or to youth who grow up in more severe negative circumstances (although it may be expected that such youth are even more strongly affected).

Together, the insights learned throughout the five empirical chapters indicate several next steps that media violence researchers – and media effects researchers more generally – may take to move our field forward and come closer to understanding the fickle nature of media effects. A first implication that follows logically from this dissertation is that it is meaningful and necessary to investigate individual differences and underlying mechanisms in media effects. Meaningful because such a more comprehensive approach to investigating media effects more closely matches with theoretical predictions as well as with how we experience media effects in real life (Valkenburg & Peter, 2013a, 2013b). Necessary because not considering differential processes and effects can result in invalid conclusions about media effects (as illustrated by chapter 5 in this dissertation and previously noted by Valkenburg & Peter, 2013a, 2013b). Although increasingly complex models of media effects can at some point become counterproductive, it is clear that testing universal and direct effects is only partially informative, especially in a mature field such as media violence research. Further empirical research that conceptualizes and tests the complex constellation of relationships among individual differences, media use, mechanisms, and outcomes is necessary to fully understand the role of media in adolescents’ lives. More specifically, future research may investigate (combinations of) multiple social, dispositional, and developmental susceptibility variables to gain a more complete understanding of the type of user that is most vulnerable to media effects. Other contributions to theory development can be made by research that investigates differential processes, asking how a media-outcome relationship may be mediated in different ways for different individuals (Slater & Gleason, 2012). Lastly, although this dissertation only focused on the effects-side of the story, it is important to explore differential selection processes as well (cf. Slater, 2007; von Salisch, Vogelgesang, Kristen, & Oppl, 2011). Such research should not only consider disposition as predictor of media use (as is most common), but also biological, developmental, and environmental influences (Elson & Ferguson, 2014b; Valkenburg & Peter, 2013a).

Second, this dissertation shows that more attention for the role of social context in media effects research is justified. Although it is only natural that media effects research typically zooms in on the specific role of media, children and adolescents do not play violent games or watch violent programs in a social vacuum (Jordan, 2004).
theoretical models can guide research into social context factors in media research (Jordan, 2004; Slater, 2007; Valkenburg & Peter, 2013a), and although this dissertation provides an empirical starting point, there is still plenty of ground left to cover. Future research can examine other relevant social contexts such as children’s school environment or their siblings (cf. Hornik, 2006), as well as other characteristics of peers and parents such as their own (violent) media use (cf. Bleakley, Jordan, & Hennessy, 2013) or joint media use (Velez, Greitemeyer, Whitaker, Ewoldsen, & Bushman, 2014). This dissertation provides initial evidence that media violence is related to increased and decreased aggressive behavior depending on the social context of the adolescent. In addition to replicating these findings, relevant next steps would be to understand how this process may work. A key question that needs answering is how children integrate messages from different contexts that may promote different norms, such as their family, peers, school, or (violent) media (Arnett, 1995). Given that children in middle childhood start to distinguish between fact and fiction (Valkenburg, 2014), one may wonder what they take away from (violent) media entertainment, especially when those messages are not in sync with what they see in their real environment. Future research that attempts to understand media (violence) effects not in isolation but in the broader context of children’s lives will help us understand why some children may be vulnerable and others resilient to adverse media effects (Jordan, 2004).

Third, research into media violence and aggression may benefit from incorporating insights learned in communication and entertainment research. Media violence research often relies on the General Aggression Model (GAM, Anderson & Bushman, 2002), which, as a theory of aggression, is aimed at explaining how and for whom aggressive behavior is more likely. Although media violence exposure has a place in this model (as a possible “input” variable), the GAM takes a relatively narrow view on media violence exposure, and is not very specific about how media violence may trickle through to real-life aggression. For example, the GAM proposes that violent media use evokes aggressive thoughts, aggressive feelings, and arousal that may increase aggression. These variables are logical when predicting aggressive behavior, but overlook the many (and also positive) experiences that media users may have while using violent entertainment (as noted in chapter 6 of this dissertation). For example, media entertainment researchers have posited several other processes that are relevant for understanding how media violence is experienced, such as enjoyment (Hoffner & Levine, 2005; Vorderer, Klimmt, & Ritterfeld, 2004), identification (Konijn, Nije Bijvank, & Bushman, 2007), empathy (Vossen, Piotrowski, & Valkenburg, 2015), eudaimonic appreciation (Bartsch & Mares, 2014), and moral disengagement (Hartmann, Krakowiak, & Tsay-Vogel, 2014). These processes are not commonly
included in traditional studies into the media violence-aggression relationship, but may provide relevant new insights into why people experience increases, decreases, or no changes in aggression. Researchers in this field should therefore take advantage of the rich knowledge offered by entertainment research to cast a wider net around violent entertainment. By paying more attention to the media-part of the aggression-equation, this field can be taken to a new level.

Lastly, a key way to advance media violence research is to collectively invest in conceptualizing, designing, and evaluating improved self-report measures for media violence exposure, in youth as well as adult audiences. Apart from the usual limitations associated with self-report measures (Schwarz & Oyserman, 2001), a key problem of current media violence exposure measures is that they operationalize violent content mostly as “present or absent” (either as a dichotomy or on a scale from “not at all” to “a lot,” Ferguson et al., 2013). This overlooks the fact that violent content comes in many forms and contexts (e.g., more or less explicit, human or non-human characters, Smith et al., 2002; Smith et al., 2003) as well as the notion that particular types of violence are theoretically expected to result in stronger effects (e.g., justified or realistic violence, Bandura, 2009; humorous violence, Potter & Warren, 1998). If we can better match self-report measures of media violence exposure to the types of content that are theoretically expected to be most problematic, that should greatly improve the predictive power of research (Slater, 2004). Importantly, improved measurement should also help researchers in this field (on either side of the debate) to offer more convincing answers about the “true” effects of media violence. One avenue that can be worthwhile to explore is to supplement questions about time spent using violent content with questions about specific attributes of that content. For example, experimental studies have shown that viewers’ perceptions of justification, realism, and graphicness of violence predicted their perceptions about how much violence a television program or game contained (Breuer, Scharkow, & Quandt, 2014; Potter & Tomasello, 2003; Tamborini, Weber, Bowman, Eden, & Skalski, 2013). In fact, these perceived characteristics explained more variance in judgments about violent content than the “objective” amount of violent content as determined by the researchers. It would be worthwhile to investigate whether and how the inclusion of such viewer interpretations in surveys may help improve self-report measurement of media violence exposure. If found reliable and valid, including additional questions about theoretically relevant attributes of media violence in survey research may be a feasible way to learn more about which type of media users have which type of interpretations of violent content, and as a consequence may experience changes in aggressive outcomes.
Conclusion
This dissertation aimed to investigate which early adolescents become more aggressive as a result of media violence exposure, rather than assuming that such effects are present or absent for all youth. Although the rhetoric surrounding media violence effects seems to suggest that effects are either large and important, or small and unimportant, the conclusion of this dissertation is that media violence can have a small yet meaningful effect on youths’ aggressive behavior. Adolescents in negative social contexts become slightly more aggressive over time as a result of playing violent games and watching violent television shows. On the other hand, adolescents growing up in normal or positive social environments tended to show no change in or even less aggressive behavior as a result of media violence exposure. This shows that there is no one-size-fits-all answer to media effects questions. Instead, it is more meaningful – theoretically, empirically, societally – to acknowledge the complex ways in which media play a role in children’s lives. By applying a different(ial) perspective to the classic question of media violence and aggression, this dissertation offers important new insights and a step towards a more balanced understanding of media violence effects.

~ The End ~