Psychology of Popular Media Culture

Online Original TV Series: Examining Portrayals of Violence in Popular Binge-Watched Programs and Social Reality Perceptions
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CITATION
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Cultivation theory asserts that heavy exposure to universal themes on TV lead viewers to see the world in ways that parallel TV. This research applies cultivation theory to a contemporary context by considering portrayals of violence in online original TV series. In Study 1, a content analysis of commonly binge-watched online original TV programs revealed 5.9 violent instances per hour, generally characterized as explicit, serious, significant, graphic, and intentional. Moral justification of violence was rare; however, those who engaged in justified violence were frequently White perpetrators. While non-White females were more likely to be targets of sexual violence, non-White males were more likely to be perpetrators of sexual violence. Study 2 found that exposure to these commonly binge-watched online original TV programs was positively related to mean world perceptions and negatively related to kind world perceptions, suggesting that heavier viewers of these programs are more likely to view others as unkind and less likely to perceive them as altruistic. Implications for violence in online streaming TV are discussed.

Public Policy Relevance Statement
This two-part study aims to understand the representations of violence in contemporary digital TV as well as the viewers’ perceptions of the real world. Study 1 revealed that the online original series sampled portrayed intense, graphic violence with problematic representations of race and gender. Findings of Study 2 suggest that viewers who spend more time consuming commonly binge-watched online original programming are more likely to see others in the world as mean and less likely to perceive them as altruistic.

Keywords: cultivation, social reality, online streaming TV, mean world, kind world

The TV landscape is in flux. While traditional TV remains the dominant form of media consumed among American adults (The Nielsen Company, 2018), viewers are currently shifting toward digital streaming services such as Netflix and Hulu (Liesman, 2018; Pew Research Center, 2018). Web-based TV applications offer increased choice and personalization for viewers. These platforms not only stream traditional TV programs but also develop original content. Online original programming has emerged as a new genre in itself (Poniewozik, 2015); the technology offers unique affordances that facilitate not only new consumption habits but also revolutionary storytelling conventions that differentiate online original TV from its predecessors. Past research has applied cultivation theory to a variety of genres (Appel, 2008; Carveth & Alexander, 1985; Lee & Niederdeppe, 2011; Rössler & Brosius, 2001; Segrin & Nabi, 2002). While online original programming is derived from traditional TV, film, and even social media, it offers a distinct viewing and narrative experience and therefore, deserves unique attention when analyzing its messaging. Whereas a wealth of literature documents the frequency and quality of violence on broadcast and cable TV (e.g., Signorielli, Gerbner, & Morgan, 1995; Smith et al., 1998), minimal attention has been given to understanding these patterns within TV crafted exclusively for online distribution.

To better understand the system of messaging prevalent within this emergent genre, the present research study investigates the presence and depictions of violence in online original TV programming. Suggested by Morgan, Shanahan, and Signorielli (2015), cultivation analysis in particular should consider messages disseminated on emergent digital platforms in comparison to those transmitted via traditional broadcast and cable TV. Cultivation theory asserts that individuals who watch heavy doses of TV tend to perceive social reality as reflective of the ideologies conveyed through TV (Gerbner & Gross, 1976). Researchers have found that substantial, long-term exposure to TV leads to negative and mistrusting attitudes toward society, a phenomenon termed the “mean world syndrome” (Gerbner, 1998). Although cultivation theory was established during the network era of TV and extended through the cable era (Morgan et al., 2015), there is a dearth of research regarding...
violence in the postnetwork era and its implications. Therefore, this research fills a gap in the current body of knowledge.

The goals of this investigation are twofold. In Study 1, we conduct a content analysis that analyzes the amount and context of violence in the most commonly binge-watched online original TV programs (TiVo Research Group, 2015; Wallenstein, 2015). Study 2 examines the extent to which heavy exposure to these programs cultivates people’s worldviews, particularly mean and kind world perceptions. Together, these studies theoretically and practically build upon existing media research by delineating the nature of violence featured in programs made for online distribution as well as supporting the socializing potential of such content on viewers’ estimates of real-world violence.

**Study 1**

**Cultivation Theory and New Applications**

Human beings are storytellers; these stories, crafted within a commercial, artistic, and narrative decision, contribute to our shared cultural experiences and understandings (Gerber, 1998). TV comprises a centralized system of messages with patterns that persist across all genres of programming (Oliver, Bae, Ash, & Chung, 2012). The TV landscape has evolved since the emergence of cultivation theory. Instead of a linear, culturally shared experience, TV is now highly personalized and on-demand (Lotz, 2007). While the digital TV environment allows for more active choice among viewers than traditional TV, streaming TV also encourages viewership of specific programs through algorithmically informed recommendations and the auto-play feature, where the next program in a series or a related series automatically begins following the completion of an episode. Therefore, while online original programming may support the process of selective exposure, it also deliberately facilitates continued viewership of specific streamed series.

Behaviorally, these functions result in an increase in binge-watching which is defined as consuming several episodes or seasons of the same series in a short period of time (TiVo Research Group, 2015). Binge-watching is commonplace in contemporary American culture; a recent study on binge behavior revealed that 92% of respondents reported binge viewing at some point and that the negative perception of binge viewing decreased to 30% from 92% of respondents reported binge viewing at some point and that the negative perception of binge viewing decreased to 30% from 53% in 2013 (TiVo Research Group, 2015).

Artistic and narrative decisions now are informed by the technology; online original programming is created with these consumption habits in mind, blending properties of film, TV, and video-on-demand (Jenner, 2016). Bingeing necessitates that viewers spend large quantities of concentrated time with unique narrative worlds. Therefore, to understand the potential implications of TV consumption in the digital age, it is critical to examine the content of these commonly binge-watched stories crafted specifically for the online space. In order to determine the system of messaging within the genre of online original programming, this study analyzes the prevalent themes of violence featured in the most frequently binge-watched online original programs.

**Violence on TV**

**Frequency and amount of violence.** In the early years of TV, cultivation scholars found violence in 80% of primetime and weekend daytime programming, and 60% of characters were involved in a violent act (Gerber, Gross, Morgan, & Signorielli, 1980). The frequency of violence in TV did not change more than 10% over the course of 10 years (Gerber et al., 1980). In reality, the overall crime rate in the U.S. has declined since the 1990s (The Bureau of Justice Statistics, 2015); however, the majority of Americans believe crime is on the rise (Eisen & Roeder, 2016), and persistent media narratives reinforce the perception that violence is ubiquitous. Signorielli’s (2003) longitudinal analysis of TV violence from 1993 to 2001 revealed that violence was consistently present in 60% of primetime programs with an average of 4.5 violent acts per hour. Similarly, Smith, Nathanson, and Wilson (2002) found that violence was present in two out of three primetime programs regardless of the time of consumption. To understand the landscape of violence within on-demand digital TV, the following research question is addressed:

**RQ1:** What is the frequency of and amount of violence in commonly binge-watched online original TV programs?

**Nature of violence.** The need to understand the context of violence is informed by theories such as social learning (Bandura, 1986) and desensitization (Potter, 1999). For example, humorous violence, as opposed to serious violence, may appropriate aggressive behaviors and lead to desensitization effects. Similarly, violence that is significant to the plot may be perceived as more notable than insignificant violence due to its dramatic appeal. In alignment with prior cultivation analyses, this study aims to understand the context of violence on streaming TV, as not all violent acts are represented uniformly (Gerber et al., 1980). Thus, the following research question is proposed:

**RQ2:** What is the nature of violence in commonly binge-watched online original TV programs in the domains of explicitness, sexual nature, seriousness, significance, graphicness, and intentionality?

**Justification of violence.** The growing prevalence of morally ambiguous protagonists in entertainment narratives suggests the importance of examining violence from a moral perspective (Krowiak & Tsay-Vogel, 2015). According to Bandura, Barbaranelli, Caprara, and Pastorelli (1996), individuals engage in moral disengagement to exert control over their moral self-regulation process. For example, advantageous comparison allows individuals to morally justify violence by positioning the act relative to other more violent behavior. Additionally, moral justification occurs when violence is used to combat injustice, such as fighting for the greater good or defending the powerless. Justification of violence may also be reinforced through empathy, particularly demonstrations of empathic concern for perpetrators of violence. Scholars have generally examined empathy from the viewer’s perspective through the lens of identification (Tal-Or & Cohen, 2010). However, depictions of empathy displayed among characters within the narrative have yet to be examined. From a social learning perspective (Bandura, 1986), displaying empathy toward a perpetrator could promote modeling behaviors that mitigate the severity of violent behaviors. Therefore, we ask the following research question:

**RQ3:** What is the extent to which violence is justified in commonly binge-watched online original TV programs in the
domains of making advantageous comparisons, defending the powerless, fighting for the greater good, and displaying empathy?

**Perpetrator and target characteristics.** Prior studies of broadcast TV have investigated identity-based variables such as the age, gender, and race of characters involved in violence. According to Gerbner et al. (1980), privilege expressed through power and oppression dynamics plays a significant role in determining who is depicted as perpetrators and targets of violence. Early assessments of violence in TV dramas indicated that half of all White American characters, six out of every 10 White foreigners, and two thirds of all non-Whites committed violence and suffered from violence in the same order (Gerbner, 1970).

According to a 10-year cultivation study (Gerbner et al., 1980), men are more likely to encounter violence than women and adults more than children. Half of the women and children represented in these programs were involved in violence (Gerbner et al., 1980). A recent study on the intersections of race, gender, and violence in fictional crime dramas found that White women were most likely to be victimized (Parrott & Parrott, 2015). Our study builds upon prior research to further understand the identities of those receiving and committing violent acts in online streaming TV. We propose the following research question:

**RQ4:** Who are the perpetrators and targets of violence in commonly binge-watched original TV programs?

**Perpetrator and target characteristics as functions of nature and justification of violence.** Informed by Gerbner et al.’s (1980) claim that violence manifests as assertions of power and oppression, this study explores the storytelling themes that underscore the types of characters who commit and receive violence based on age, race, and gender in relation to varying levels of nature and justification of violence. Therefore, the following research questions are addressed:

**RQ5:** Are characteristics of perpetrators and targets of violence functions of the nature of violence in commonly binge-watched online original TV programs?

**RQ6:** Are characteristics of perpetrators and targets of violence functions of the justification of violence in commonly binge-watched online original TV programs?

**Method**

To address the six research questions, a content analysis of violence in commonly binge-watched online original TV programs was conducted.

**Sample.** The sample consisted of episodes from the most commonly binge-watched online original TV programs in Fall, 2015. Because cultivation theory is predicated on the most prevalent themes that viewers experience via media, this study examines content from the most popular programs for binge-viewing (Hartmann, Krakowiak, & Tsay-Vogel, 2014; Jamieson & Romer, 2014; Smith, Lachlan, & Tamborini, 2003). This study focuses specifically on online original programming due to its emergence as a new TV genre. Because viewership data is proprietary information not available through corporate entities due to privacy restrictions, third-party sources informed the sampling elements (TiVo Research Group, 2015; Wallenstein, 2015). The five most frequently binge-watched programs were House of Cards, The Unbreakable Kimmy Schmidt, Marco Polo, Bloodline, and Daredevil, all of which are Netflix original series. Due to the inconsistency in the number of seasons available for each program, only the first season of each program was included in the analysis.

**Definition of violence and units of analysis.** The units of analyses were instances of violence. A violent instance was identified as a cinematic sequence and defined as “the overt expression of physical force (with or without a weapon, against self or other) compelling action against one’s will on pain of being hurt or killed, or actually hurting or killing” (Signorielli, Gross, & Morgan, 1982, p. 163). In accordance with Signorielli et al.’s. (1982) definition, verbal and emotional expressions of violence were not counted for the purpose of this study.

**Coding scheme.**

**Nature of violence.** The nature of violence was composed of the following categories: explicitness, sexual nature, seriousness, significance, graphicness, and intentionality (Signorielli, 2003). Instances were coded as suggested violence if the viewer did not necessarily see the explicit act but the “overt expression of physical force” was implied (Signorielli et al., 1982, p. 163). Instances were coded as explicit violence if the depiction of physical force was clearly and directly communicated. The sexual nature of violence was coded as sexual if it related to sex, gender, intimacy, or sexuality, or not sexual if no sexual association existed. Seriousness of violence was coded as not serious for comedic violence, or serious if it was grave within the context of the story. Instances were coded as not significant if the violence was disconnected from the plot or character development, or significant if it was related to the plot and characters. For example, if a side character within a program experiences a random attack unrelated to the progression of the episode, the instance would be categorized as serious and insignificant. Graphicness was coded as either not graphic if there was no blood, gore, or visible/audible pain, or graphic if blood, gore, or agony was displayed. Intentionality was coded as unintentional if the instance occurred by accident, vaguely intentional if motives were difficult to discern, or intentional if the violent act was clearly deliberate.

**Justification of violence.** Indicators of moral justification were informed by Bandura (1999) and have been applied previously to video games (Hartmann et al., 2014). The categories examined are: making advantageous comparisons, defending the powerless, and fighting for the greater good. Instances were coded as advantageous comparison if violence was depicted as moral relative to actions of others. Instances were coded as defending the powerless if violence was used to protect a weaker being. Finally, instances were coded as fighting for the greater good if violence served a societal moral purpose.

Empathy expressed by any character toward the instigator of violence was also considered an indicator of moral justification. Empathy is the “affective response to another person, which often, but not always, entails sharing that person’s emotional state” as well as the “cognitive capacity to take the perspective of the other person” (Decety & Jackson, 2006, p. 54). Empathy was defined as verbal or nonverbal demonstrations of compassion or understanding and coded as no empathy displayed, nonverbal empathy displayed (e.g., head nodding and compassionate touching), or verbal
Perpetrator and target characteristics. To identify characteristics of the perpetrator(s) and target(s) within the instance of violence, researchers first identified whether the instance of violence was caused by an act of nature. If not, perpetrators were identified as known or unknown to the viewer to indicate the viewer’s level of familiarity with the characters in the narrative; for example, if the characters involved are unknown, such as background characters or extras, the violence may hold less emotional weight. Subsequently, perpetrators were coded as individual or not individual, and individual perpetrators were coded for humanness (nonhuman, human, or superhuman), gender (male, female, other, or unknown), race (Caucasian, African American, Asian, Hispanic, Native American, Other, or unknown), and age, using Signorielli and Bacue’s (1999) definition of social ages: children or adolescents, young adults, settled or middle aged, elderly, or unknown. If the perpetrators were not individuals, they were identified as a group. The above coding scheme was also used for group perpetrators with the exception of additional categories of mixed genders, mixed races, and mixed ages. The targets of violence were also coded using this coding scheme.

Training and reliability. Four student coders from a university in the northeast United States were trained to code the violent acts in the first seasons of the five online original TV series sampled. To ensure all coders maintained uniform understanding and application of the codebook, the coders initially coded episodes from the first season of Daredevil. Intercoder reliability based on percent agreement yielded acceptable reliability ranges for nature of violence: explicitness (.83), seriousness (.85), sexual violence (.85), significance (.85), graphickness (.77), and intentionality (.83). Regarding justification of violence, reliability scores were also acceptable: fighting for the greater good (.77), advantageous comparison (.68), defense of the powerless (.79), and demonstrations of empathy (.79). For the remaining four online original TV programs, each coder was randomly assigned to code the episodes across their first seasons.

Results

RQ1: Frequency and amount of violence. Among the 62 episodes, there were a total of 310 violent acts, resulting in 272 min of violence (4.5 hr) out of the total 3,135 min (52.25 hr) coded. Therefore, 8.6% of every hour of content within these programs comprises violence, with 5.9 violent acts per hour. Daredevil featured the most number of violent acts (n = 155), followed by Marco Polo (n = 87), Bloodline (n = 28), Unbreakable Kimmy Schmidt (n = 24), and House of Cards (n = 16).

RQ2: Nature of violence. Among violent acts, 87.4% were portrayed as clear as compared with suggested violence. Approximately 97% of violent acts were not sexual. About 95% of violent acts were depicted as serious and significant to the narrative. Moreover, 85% of violent acts were graphic. In terms of intentionality, 77.4% were portrayed as intentional violence, 19.7% of the violent acts were vague such that intentionality could not be determined, and 2.9% of violent acts were depicted as unintentional.

RQ3: Justification of violence. Among the violent acts, only 24.5% depicted advantageous comparison, 6.8% portrayed defense of the powerless, and 18.4% demonstrated fighting for the greater good. Approximately 85% of violent acts did not display empathy by another character, whereas 3.9% showed nonverbal empathy and 9.7% showed verbal empathy.

RQ4: Perpetrator and target characteristics. Among those who were individual perpetrators (70.0%), the majority were human (99.1%), male (86.6%), White (66.8%), and adults (92.6%). Among the perpetrators in groups, most were human (98.5%), male (72.7%), and adults (56.1%). Among those who were individual targets (77.1%), the majority were human (98.3%), male (84.1%), White (63.2%), and adults (91.6%). Among the targets in groups, all were human (100%) and most were male (68.2%) and adults (60.6%).

RQ5: Perpetrator and target characteristics as functions of nature of violence. As the data indicated that the majority of perpetrators and targets were humans and individuals rather than groups, we focused our subsequent analysis on characteristics of individual human perpetrators and targets. A series of chi-square analyses were conducted to answer RQ5. Only those analyses significant at the p < .05 level are reported below. If this criterion was achieved, we then assessed the degree of difference between percentages such that only percentages differing by 10% or more are discussed (see Smith et al., 2003).

Perpetrator characteristics. A difference in perpetrator gender by sexual nature of violence indicated that males were more likely to be perpetrators of nonsexual violence as compared with sexual violence, whereas females were more likely to be perpetrators of sexual violence as compared with nonsexual violence, $\chi^2(1, N = 210) = 45.41, p < .001, \phi = .47$. A difference in perpetrator gender by intentionality of violence was also found, $\chi^2(2, N = 210) = 12.10, p < .01, \phi = .24$. Specifically, males were more likely to be perpetrators of intentional violence as compared with unintentional violence, while females were more likely to be perpetrators of unintentional violence as compared with violence in which intentionality was vague and present. In addition, Whites were more likely to be perpetrators of nonsexual violence than sexual violence, whereas non-Whites were more likely to be perpetrators of sexual violence than nonsexual violence, $\chi^2(1, N = 206) = 6.20, p < .05, \phi = .17$. See Table 1 for differences in perpetrator characteristics as a function of nature of violence.

Target characteristics. A difference in target gender by explicitness of violence showed that males were more likely to be targets of clear violence as compared with suggested violence, whereas females were more likely to be targets of suggested violence as compared with clear violence, $\chi^2(1, N = 233) = 5.37, p < .05, \phi = .15$. Moreover, males were more likely to be targets of nonsexual violence than sexual violence, whereas females were more likely to be targets of sexual violence than nonsexual violence, $\chi^2(1, N = 233) = 22.14, p < .001, \phi = .31$. Additionally, males were more likely to be targets of graphic violence as compared with nongraphic violence, whereas females were more likely to be targets of nongraphic violence as compared with graphic violence, $\chi^2(1, N = 233) = 4.39, p < .05, \phi = .14$. With regard to race, Whites were more likely to be targets of nonsexual violence than sexual violence, whereas non-Whites were more likely to be targets of sexual violence than nonsexual violence, $\chi^2(1, N = 232) = 4.15, p < .05, \phi = .13$. Whites were also more likely to be targets of serious violence as compared with humorous violence, while non-Whites were more likely to be targets of
Perpetrator characteristics in commonly binge-watched online original TV series as a function of nature of violence.

Table 1

<table>
<thead>
<tr>
<th>Nature of Violence</th>
<th>Explicitness</th>
<th>Sexual Nature</th>
<th>Seriousness</th>
<th>Significance</th>
<th>Graphicness</th>
<th>Intentionality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% male</td>
<td>% White</td>
<td>% adults</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Clear             | 100.0 (n = 13) | 76.9 (n = 10) | 100.0 (n = 20) | $\chi^2(1, N = 232) = 4.30, p < .05, \phi = .14$. Furthermore, Whites were more likely to be targets of significant violence than insignificant violence, whereas non-Whites were more likely to be targets of insignificant violence as compared with significant violence, $\chi^2(1, N = 232) = 7.57, p < .01, \phi = .18$. Lastly, a difference in target age by explicitness of violence emerged, $\chi^2(1, N = 231) = 5.35, p < .05, \phi = .15$, such that adults were more likely to be targets of clear violence as compared with suggested violence, while children were more likely to be targets of suggested violence as compared with clear violence. See Table 2 for differences in target characteristics as a function of nature of violence.
| Suggested         | 88.8 (n = 186) | 83.8 (n = 20) | 89.9 (n = 179) | 100.0 (n = 20) | 89.9 (n = 179) | 84.8 (n = 28) |
|                   | 92.5 (n = 186) | 88.8 (n = 9) | 90.4 (n = 160) | 80.9 (n = 9) | 88.9 (n = 179) | 90.4 (n = 9) |
|                   | 22.2 (n = 2)  | 21.1 (n = 2)  | 19.6 (n = 2)  | 19.6 (n = 2)  | 19.6 (n = 2)  | 19.6 (n = 2)  |
|                   | 81.8 (n = 22) | 81.8 (n = 2)  | 81.8 (n = 2)  | 81.8 (n = 2)  | 81.8 (n = 2)  | 81.8 (n = 2)  |
|                   | 77.8 (n = 7)  | 77.8 (n = 7)  | 77.8 (n = 7)  | 77.8 (n = 7)  | 77.8 (n = 7)  | 77.8 (n = 7)  |
|                   | 27.8 (n = 8)  | 27.8 (n = 8)  | 27.8 (n = 8)  | 27.8 (n = 8)  | 27.8 (n = 8)  | 27.8 (n = 8)  |
|                   | 66.7 (n = 6)  | 66.7 (n = 6)  | 66.7 (n = 6)  | 66.7 (n = 6)  | 66.7 (n = 6)  | 66.7 (n = 6)  |
|                   | 16.7 (n = 2)  | 16.7 (n = 2)  | 16.7 (n = 2)  | 16.7 (n = 2)  | 16.7 (n = 2)  | 16.7 (n = 2)  |
|                   | 30.1 (n = 8)  | 30.1 (n = 8)  | 30.1 (n = 8)  | 30.1 (n = 8)  | 30.1 (n = 8)  | 30.1 (n = 8)  |
|                   | 96.0 (n = 13) | 96.0 (n = 13) | 96.0 (n = 13) | 96.0 (n = 13) | 96.0 (n = 13) | 96.0 (n = 13) |
|                   | 3.1 (n = 6)   | 3.1 (n = 6)   | 3.1 (n = 6)   | 3.1 (n = 6)   | 3.1 (n = 6)   | 3.1 (n = 6)   |

Note. Within each row, percentages in bold with no letter in common in their subscripts differ at $p < .05$ and by $10\%$. Cell $\nu$'s are reported in parentheses.

Discussion

Findings suggest that violence is prevalent in the five most commonly binge-watched online original TV series, and the nature of violence is notably intense; violence is generally explicit, significant, serious, graphic, and intentional, often unaccompanied by justification. Strategies for moral disengagement are integrated in violent instances sparingly, and fictional characters displayed little empathy toward perpetrators of violence.

Perhaps the lack of justification is a result of the binge-watching phenomenon; the content must support high-levels of sustained engagement. Moral complexity may create too much cognitive demand for enjoyable viewership (Bartsch & Hartmann, 2016). Jhally, Gerbner, Kilbourne, and Media Education Foundation
Table 2

Target Characteristics in Commonly Binge-Watched Online Original TV Series as a Function of Nature of Violence

<table>
<thead>
<tr>
<th>Target characteristics</th>
<th>Explicitness</th>
<th>Suggested</th>
<th>Not sexual</th>
<th>Sexual</th>
<th>Nature</th>
<th>Seriousness</th>
<th>Humorous</th>
<th>Serious</th>
<th>Not significant</th>
<th>Significant</th>
<th>Not intentional</th>
<th>Intentional</th>
</tr>
</thead>
<tbody>
<tr>
<td>% male</td>
<td>72.4% (n = 21)</td>
<td>88.8% (n = 180)</td>
<td>88.4% (n = 198)</td>
<td>33.3% (n = 3)</td>
<td>83.3% (n = 10)</td>
<td>86.4% (n = 191)</td>
<td>100.0% (n = 9)</td>
<td>85.7% (n = 192)</td>
<td>76.3% (n = 32)</td>
<td>88.8% (n = 169)</td>
<td>74.5% (n = 5)</td>
<td>86.5% (n = 45)</td>
</tr>
<tr>
<td>% female</td>
<td>27.6% (n = 8)</td>
<td>11.1% (n = 24)</td>
<td>11.6% (n = 26)</td>
<td>66.7% (n = 6)</td>
<td>33.3% (n = 3)</td>
<td>16.7% (n = 2)</td>
<td>13.6% (n = 30)</td>
<td>0% (n = 0)</td>
<td>14.3% (n = 32)</td>
<td>23.6% (n = 10)</td>
<td>11.1% (n = 22)</td>
<td>61.0% (n = 22)</td>
</tr>
<tr>
<td>% White</td>
<td>78.0% (n = 22)</td>
<td>63.2% (n = 129)</td>
<td>66.6% (n = 148)</td>
<td>33.3% (n = 3)</td>
<td>38.5% (n = 5)</td>
<td>66.6% (n = 146)</td>
<td>22.2% (n = 2)</td>
<td>66.6% (n = 14)</td>
<td>100.0% (n = 9)</td>
<td>85.7% (n = 192)</td>
<td>74.5% (n = 5)</td>
<td>86.5% (n = 45)</td>
</tr>
<tr>
<td>% non-White</td>
<td>21.4% (n = 6)</td>
<td>36.8% (n = 75)</td>
<td>33.3% (n = 68)</td>
<td>77.8% (n = 7)</td>
<td>33.3% (n = 73)</td>
<td>61.6% (n = 5)</td>
<td>13.6% (n = 30)</td>
<td>0% (n = 0)</td>
<td>14.3% (n = 32)</td>
<td>23.6% (n = 10)</td>
<td>11.1% (n = 22)</td>
<td>61.0% (n = 22)</td>
</tr>
<tr>
<td>% adults</td>
<td>85.7% (n = 24)</td>
<td>96.1% (n = 195)</td>
<td>94.6% (n = 210)</td>
<td>100.0% (n = 9)</td>
<td>90.0% (n = 12)</td>
<td>94.5% (n = 207)</td>
<td>100.0% (n = 9)</td>
<td>94.6% (n = 210)</td>
<td>97.6% (n = 40)</td>
<td>94.2% (n = 179)</td>
<td>85.7% (n = 6)</td>
<td>90.2% (n = 46)</td>
</tr>
<tr>
<td>% children</td>
<td>14.3% (n = 4)</td>
<td>5.8% (n = 8)</td>
<td>5.4% (n = 12)</td>
<td>0% (n = 0)</td>
<td>5.4% (n = 12)</td>
<td>0% (n = 0)</td>
<td>5.4% (n = 12)</td>
<td>0% (n = 0)</td>
<td>2.4% (n = 1)</td>
<td>5.8% (n = 11)</td>
<td>14.3% (n = 1)</td>
<td>9.8% (n = 5)</td>
</tr>
</tbody>
</table>

Note. Within each row, percentages in bold with no letter in common in their subscripts differ at p < .05 and by 10%. Cell n’s are reported in parentheses.
Table 3  
Perpetrator Characteristics in Commonly Binge-Watched Online Original TV Series as a Function of Justification of Violence

**Perpetrator characteristics** | Making advantageous comparison | Defending the powerless | Fighting for the greater good | Displaying empathy
--- | --- | --- | --- | ---
Not making advantageous comparison | | | | |
Male | 89.0 (n = 129) | 90.8 (n = 59) | 90.6 (n = 174) | 77.8 (n = 14)
Female | 11.0 (n = 16) | 9.2 (n = 6) | 9.4 (n = 18) | 22.2 (n = 4)
White | 65.2 (n = 92) | 81.5 (n = 53) | 69.7 (n = 131) | 77.8 (n = 14)
Non-White | 34.8 (n = 49) | 18.5 (n = 12) | 30.3 (n = 57) | 22.2 (n = 4)
Adults | 96.5 (n = 137) | 98.5 (n = 64) | 97.4 (n = 184) | 94.4 (n = 17)
Children | 3.5 (n = 5) | 1.5 (n = 1) | 2.6 (n = 5) | 5.6 (n = 1)

Note. Within each row, percentages in bold with no letter in common in their subscripts differ at p < .05 and by 10%. Cell n’s are reported in parentheses.

Additionally, recent scholarship in the area of entertainment media has focused on the prosocial impact of portrayals associated with human compassion, empathy, and altruism (see Oliver, Krakowiak, & Tsay-Vogel, 2012; Tsay-Vogel & Krakowiak, 2016; Wirth, Hofer, & Schramm, 2012). As exposure to antisocial behaviors is expected to facilitate mean world perceptions, it is logical to suggest that it would hinder the contrary, perceptions of the world as being “kind.” In order words, instead of promoting a mistrustful social reality, TV violence should likely discourage a world view that people are generally altruistic, thoughtful, and trustworthy. Thus, we extend our findings of cultivation analysis from Study 1 to also test the following hypothesis:

**H2**: Exposure to commonly binge-watched online original TV programs will be negatively related to kind world perceptions.

**Method**

**Participants and procedures.** Three-hundred and 66 undergraduate students (78.7% females, 21.3% males) participated in a questionnaire for course credit. Participants were recruited from communication courses at a large university in the Northeastern region of the United States and ranged in age from 19 to 25 years (M = 20.77, SD = 1.04). Participants responded to a series of questions assessing their general TV viewing habits on a traditional TV set and online streaming platforms, affinity toward TV,

Table 4  
Target Characteristics in Commonly Binge-Watched Online Original TV Series as a Function of Justification of Violence

| Target characteristics | Making advantageous comparison | Defending the powerless | Fighting for the greater good | Displaying empathy |
--- | --- | --- | --- | ---
Not making advantageous comparison | | | | |
Male | 84.7 (n = 149) | 91.2 (n = 52) | 86.1 (n = 192) | 90.0 (n = 9)
Female | 15.3 (n = 27) | 8.8 (n = 5) | 13.9 (n = 31) | 10.0 (n = 1)
White | 65.1 (n = 114) | 64.9 (n = 37) | 65.8 (n = 146) | 50.0 (n = 5)
Non-White | 34.9 (n = 61) | 35.1 (n = 20) | 34.2 (n = 76) | 50.0 (n = 5)
Adults | 95.4 (n = 166) | 93.0 (n = 53) | 94.6 (n = 209) | 100.0 (n = 10)
Children | 4.6 (n = 5) | 7.0 (n = 4) | 5.4 (n = 12) | 0.0 (n = 0)

Note. Within each row, percentages in bold with no letter in common in their subscripts differ at p < .05 and by 10%. Cell n’s are reported in parentheses.

Study 2

While sundry studies have investigated the relationship between TV consumption and mean world perceptions, no research to date has investigated second-order cultivation effects of binge-watching online original TV programming. To address this gap, Study 2 considers how exposure to the five online original TV series investigated in Study 2 will be positively related to perceptions of the world as a scary place in the real world (Gerbner, 1998) by uniquely applying cultivation theory to the new media landscape (Morgan et al., 2015). Historically, cultivation analysis has found a positive association between TV viewing and judgments of the world as a scary place (Gerbner et al., 1980). Heavy TV viewers have been more likely to demonstrate the mean world syndrome, reporting fear of crime and lack of trust in others as compared with light TV viewers.

Findings demonstrate that the mean world syndrome has persisted as TV evolved. Nabi and Sullivan (2001) found increased TV viewing directly influenced the perception of violence in society and the need to take necessary protective precautions. In a time-series analysis, Jamieson and Romer (2014) found depictions of violence in popular U.S. TV shows from 1972 to 2010 predicted the public’s fear of crime, holding constant national crime rates. While these findings emerged within a traditional TV context, Study 2 investigates mean world perceptions in light of today’s digital climate:

**Hypothesis 1 (H1):** Exposure to commonly binge-watched online original TV programs will be positively related to mean world perceptions.
prior viewing of the most commonly binge-watched online original TV series during Fall 2015, and social reality perceptions.

Measures.

General TV viewing. Using Shrum et al.’s (1998) procedures to measure TV viewing, participants reported an average of .59 hr per day (SD = .04) of watching TV content on a traditional TV set and 2.06 hr per day (SD = .13) of watching any TV content on online streaming platforms.

TV affinity. Participants’ attraction toward TV was measured using Rubin and Rubin’s (1982) TV affinity scale. The scale comprises five Likert-type items ranging from 1 (strongly disagree) to 7 (strongly agree). Example items include: “I would feel lost without TV to watch” and “If TV didn’t exist and I could easily do without TV for several days” (reverse-coded; α = .86; M = 3.64; SD = 1.39).

Viewing commonly binge-watched online original TV programs. Based on Study 1’s list of the most frequently watched programs on Netflix (TiVo Research Group, 2015; Wallenstein, 2015), participants indicated the total number of episodes in the first season of the following programs that they watched: House of Cards, The Unbreakable Kimmy Schmidt, Marco Polo, Bloodline, and Daredevil. Response categories included 1 (none), 2 (1–3 episodes), 3 (4–6 episodes), 4 (7–9 episodes), 5 (10–12 episodes), and 6 (all 13 episodes). The percentage of those who reported having seen all episodes were as follows: House of Cards (29.0%), The Unbreakable Kimmy Schmidt (19.1%), Marco Polo (17.8%), Bloodline (14.4%), and Daredevil (11.5%).

Social reality perceptions. Participants were asked a series of questions measuring their perceptions of others as trusted and altruistic (Gerbner et al., 1977; Oliver et al., 2012). A factor analysis of eight Likert-type items anchored by 1 (strongly disagree) and 7 (strongly agree) revealed two factors corresponding to mean world perceptions and kind world perceptions. Four items assessed mean world perceptions (Most people would try to take advantage of me if they get a chance; Most of the time, people are just looking out for themselves; Most of the time, I cannot be too careful in dealing with people; Most people do not care much about what happens to me; α = .76; M = 4.17; SD = 84). Four items assessed kind world perceptions (Most people do good deeds; Most of the time, people try to be helpful; Most people are kind hearted; Most people are honest; α = .81; M = 4.58; SD = .86).

Results

To test H1 and H2, a set of hierarchical regressions were employed such that gender and TV affinity were entered in Block 1 and TV viewing on a TV set, TV viewing on online streaming platforms, and viewing commonly binge watched online original TV series were entered stepwise in Block 2 with mean world perception and kind world perception as the separate dependent measures (see Table 5). The more hours per day spent watching content on online streaming platforms (β = .10, p < .05) and the number of episodes of commonly binge-watched online original TV programs viewed (β = .16, p < .01), the stronger the mean world perception, supporting H1. Conversely, the number of episodes of commonly binge-watched online original TV programs viewed resulted in weaker kind world perception (β = −.11, p < .05), supporting H2.

Discussion

Findings suggest that cultivation can be applied to understand today’s digital TV landscape. Generally, those who spend more time viewing online streaming TV and watch more episodes of the binged-watched online original series examined in Study 1 demonstrated stronger mean world perceptions. Exposure to the commonly binged-watched online original programs was also negatively associated with kind world perceptions, suggesting that the genre of the programs viewed matters (Segrin & Nabi, 2002). The sample consisted of the most popularly viewed online original TV programs; future research may consider expanding the sample to better understand the messaging prevalent within a wider array of original online programming.

Online streaming platforms offer not only innovative, on-demand methods for viewing but also new content created for digital consumption. Binge-watching represents a departure in behavior, moving away from passive consumption. While binge-watching is not necessarily a new phenomenon, the practice certainly is increasingly prevalent and accessible due to streaming.

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<th>Table 5</th>
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<td>Predictors</td>
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Note. Stepwise procedures were used with entry criterion set at *p < .05. **p < .01.
technologies. Yet despite the innovations in both technology and programming, the real-world implications of heavy viewership remain the same. Might the time spent binge-watching these online original TV series continue to reinforce pessimistic world views and reduce altruistic ones?

Study 2 is limited in that the data are cross-sectional in nature, and therefore, causality between the variables cannot be established as cultivation effects are long-term and cumulative. Due to the ability to personalize content via on-demand streaming platforms, viewers may selectively expose themselves to only programs that reinforce their existing world views (Klapper, 1960) or those that help them manage or cope with their moods (Zillmann, 2000). Perhaps individuals who already view the world as a fearful place lacking altruism choose to consume violent programming. Future research should consider social reality implications of online streaming TV by conducting experiments or longitudinal studies to more effectively test for potential causal relationships among variables of interest.

Additionally, scholars should extend this line of research by investigating the relationships between consumption of online streaming programs and perceptions of race, gender, and sexual violence. Considering the concept of mainstreaming (Gerbner, 1998), heavy viewing of online original programs may blend and produce a common outlook on the world despite individual differences and perspectives in the domains of cultural, social, and political ideologies. Personalization affordances and bingeing may potentially enhance the rate of mainstreaming effects that lead to the convergence of social realities across groups. Future research could take into account these new directions of cultivation research.

Conclusion

The present research employs cultivation analysis to examine content patterns in the most commonly binge-watched online original TV series and the association between TV viewing and social reality perceptions. Our results confirm that the messages featured in these programs are persistently violent, intense, and unjustified. Additionally, those who consume these series demonstrate increased fear and mistrust of others and decreased confidence in others to be altruistic. As technology continues to evolve, we find that even online content perpetrates traditional themes of violence well-documented in cultivation literature, and viewing these messages similarly affects perceptions of the real world.

In light of these findings, it is critical to conduct ongoing analysis of prevalent media messages within digital video platforms as the definition of TV is ever-evolving. To that end, scholars should consider extending cultivation analysis beyond “TV” by examining the message system and cultivating effects of short-form video technologies such as Snapchat and YouTube. Supporting the application of cultivation theory to emerging and new media formats can invaluably contribute to our understanding of the broader streaming TV landscape.

References


