

Article

# Transportation or Narrative Completion? Attentiveness during Binge-Watching Moderates Regret

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**Abstract:** Extant results on the binge-watching outcomes have been mixed. This study sought to examine the crucial factor of attentiveness that might help to enhance viewer experience and mitigate post-binge regret, as well as differentiate the motivation of narrative transportation from narrative completion. While narrative transportation involves a viewer getting unconsciously swept away by the story, the motivation of narrative completion is a more self-aware, cognizant effort to progress through the story. A survey ( $N = 800$ ) determined that the degree to which an individual pays attention to a show may either increase or decrease subsequent regret, depending on the motivation for binge-watching.

**Keywords:** binge-watching; streaming video; television; media effects; audience studies

## 1. Introduction

With ubiquitous digital devices and nigh constant connectivity, binge-watching is now quite the preferred method of television consumption (Deloitte 2018). Yet this proliferation of content and accessibility means that while viewers have many options of what to binge, they also have plenty of options in terms of what to do *while* they binge. How does binge-watching change when we pay more or less attention to the program? To what extent are we affected by our choices to attend certain shows more closely than others? How does our experience change when we binge specifically to get swept away by a story or to learn what happens next in a new favorite show?

This study attempts to address some of these questions. It first conceptualized narrative completion (NC) as a motivation for binge-watching that overlaps with, but is ultimately distinct from, narrative transportation (NT). It then examined how both NC and NT relate to binge-watching, specifically how they might mitigate or exacerbate post-binge regret. Third, this study looked at attentiveness as a crucial factor in moderating how NC and NT predict varying levels of regret for both shows that demand higher degrees of viewer attentiveness (HVAS) and lower degrees of viewer attentiveness (LVAS). The purpose of this study was to examine the role of attentiveness as a factor that may interact with binge-watching motivations and, more specifically, how the degree to which viewers attend a show might influence whether and to what extent they later regret their binge.

## 2. Literature Review

Binge-watching has been defined as the screening of multiple episodes or hours of a televisual program in a row (Choi 2012; Rubenking et al. 2018; Strangelove 2015). McNamara (2012) provided one of the first formalized definitions: “any instance in which more than three episodes of an hourlong drama or six episodes of a half-hour comedy are consumed at one sitting” (p. 1). As binge-watching

moved from niche behavior to ubiquitous practice, social scientists have increasingly relied on [Pittman and Sheehan \(2015\)](#) definition, “two or more episodes of the same series in a single sitting” (para. 25) for operationalization and survey design. [Steiner \(2018\)](#) found that binge-watching was often motivated by a sense of completion and desire to control how that completion was achieved. Viewers use the term “binge-watching” to describe their consistent attempts to finish a season or a series at an accelerated rate even if they watch fewer episodes or for fewer hours than would constitute “a binge”. Building on these definitions, we positioned binge-watching for this project as the viewing of three or more episodes of a show in a row (or two episodes, if it is a longer show) or watching a whole season of a show within a week.

[Steiner and Xu \(2018\)](#) viewer attentiveness spectrum organizes TV content by attentiveness required to attain specific gratifications. Viewers seeking relaxation tend to select lower VAS (LVS) programs, while those seeking an enhanced viewing experience tend to select higher VAS (HVS) programs. The literature suggests that LVS shows (often sitcoms, procedurals, reality television with fewer locations and characters, formulaic themes and in-show updates and/or repetition) and HVS shows (often prestige dramas with multiple characters and locations, and complex plots and dialogue) are both widely binge-watched, but the motives, behaviors, and outcomes of viewers vary by their content selection ([Petersen 2016](#); [Steiner 2017](#)).

#### *U&G Motives*

Scholars have often applied uses and gratifications (U&G) to understand binge-watching. Originally developed by [Katz et al. \(1973\)](#), U&G conceptualizes different gratifications or types of satisfaction obtained by using media technologies. Early U&G studies of television separated the motive by content into information seeking (news) and entertainment seeking (fictional programming). Improvements in television technology through streaming video and increases in the quantity and quality of programming have blurred the dialectic of information/entertainment seeking through user affordances of content control and selection ([Sundar and Limperos 2013](#); [Tryon 2015](#)).

To update U&G for binge-watching, [Steiner and Xu \(2018\)](#) found five overlapping motives for binge-watching: Enhanced viewing experience (EVE), sense of completion (SOC), cultural inclusion, convenience/catching-up (CC), and relaxation (p. 9). EVE and SOC are motives for gratification that differentiate binge-viewers from linear television viewers. SOC was not a practical motive for viewers with little control over their consumption schedule. Streaming technology and on-demand cultural expectations have made SOC a more attainable goal through CC ([Tefertiller 2018](#)). Similarly, EVE is a motive that exists in contrast to linear viewing; the viewing experience is enhanced by consuming more than one episode per sitting because of feelings of narrative transportation ([Erickson et al. 2019](#)).

[Choi \(2012\)](#) uses ephemeral language to describe binge-watching that transports the reader into what [Pierce-Grove \(2017\)](#) calls “a different state of consciousness” (p. 2). [Rubenking and Bracken \(2018\)](#) found that one binge-watching motivation was a desire to regulate one’s emotions, which implies anticipation of certain content. [Perks \(2015\)](#) argued that the sensations of immersion and transportation experienced by viewers are enhanced through binge-watching (pp. xii–xiii). That position aligns with the binge-watching motives of EVE and SOC ([Steiner and Xu 2018](#)). [Perks \(2015\)](#) argued that the “collective force of these postmodern elements of intertextuality and self-reflexivity blurs the line between reader and text, thus welcoming readers in the story” (p. 181).

Of the binge-watching motives, sense of completion (SOC) may be the most obvious differentiator between linear television and streaming video ([Steiner and Xu 2018](#)). This fits not only the press construction of binge-watching improving TV ([Stelter 2013](#)), but also the commercial narrative of Netflix revolutionizing TV through technology ([Lotz 2014](#)). The desire to complete a show reflects a viewer’s presumption of control gained from being able to find out what happens next through the convenience of technology and the perceived realism and narrative transportation of such consumption as an improvement over broadcast TV. EVE and SOC hybridize entertainment seeking and information

seeking. This reclamation of television flow (Williams 1974) is possible by binge-watching technology and the textual and structural advancements of TV culture and industry (Jenner 2014; Lotz 2014).

Perks (2015) described the motivation for narrative completion as a “textual appetite” for both the pleasure of immersion in the story and the use of “cognitive skills” to further the entertainment (pp. 70–71). Viewers described the pleasure and authenticity behind gaining an “enhanced viewing experience” as a feeling of becoming closer to characters and more immersed in the show’s world (Perks 2015; Petersen 2016). If each season of a show is a narrative arc, then binge-watching potentially allows viewers to experience a complete arc without many of the traditional broadcast interruptions. The motivation to seek an enhanced viewing experience through binge-watching is a quest for greater entertainment from and better information about a story. Viewers believe that this heightens a show’s realism by bringing them closer to its worlds, characters, and plots (Perks 2015, p. 63). In essence, it can create a better journey and allow viewers to complete that journey on their own schedule.

The engagement in a more immersive “world” involves viewer activation through an imaginative process of building it. Attentiveness to the process heightens viewer stimulation through discovery, creativity, and growth (Anderson and Kirkorian 2006) and allows viewers to discuss the narrative world with one another (Pittman and Tefertiller 2015). Perks (2015) compared this to “ludic media systems” (p. 4). The concept of ludic media is rooted in video game design and speaks to a player’s experience through interactive engagement and immersion in the story. Lindley (2005) used structural semiotics to model ludic media and locate connections between game design and user experience in relation to narrative. When the player has a perception of being an “active participant within the ludic world,” (Layers of Encoding Within Ludic Systems section, para. 3) there may be greater engagement through interactivity with the narrative. Perks (2015) extrapolated that connection between engagement and interactivity to binge-watching TV texts that demand greater attentiveness to enjoy. The narrative features of such texts—“long-form story arcs (Mittell), endless deferment (Hills), world building (Jenkins), overflow (Brooker), and textual excess (Gwenllian-Jones)” —she argued “are what inspire active audience engagement and immersion” (p. 4).

The present study attempts to build on these findings centered around attention and different forms of narrative engagement. To accomplish this, we compared and contrasted two different motivations for binge-watching: Narrative completion (NC) and narrative transportation (NT). NT is the unconscious feeling of getting swept away in a story (Green and Brock 2000; Perks 2015), whereas NC, like SOC, is the conscious effort to progress through a story to learn what happens next (Majkut 2005; Porter et al. 2002). However, we must first understand the demographics of binge-watching: How do age, gender, and personality (Big-Five Inventory) influence one’s proclivity to binge? As an exploratory step to understanding these motivations, we propose the first research question:

**RQ1:** How are narrative completion and narrative transportation associated with binge-watching frequency and personality?

Steiner and Xu (2018) viewer attentiveness spectrum (VAS) organizes content by attentiveness required to attain specific gratifications (p. 14). They demonstrated that the VAS can serve as a complimentary measure that clarifies the relationship between binge-viewer motive and binge-viewer content selection. Viewers seeking relaxation tend to select lower VAS (LVAS) programs, while those seeking an enhanced viewing experience tend to select higher VAS (HVAS) programs. Steiner (2017) showed that the EVE motive and SOC motive were more common among HVAS experiences than LVAS (p. 151). Perks (2015) applied narrative transportation and ludic media theory to explicate viewer NT through heightened interactivity and attentiveness. Carpenter and Green (2012) theorized that “Transported readers have imaginatively left their immediate surroundings behind and entered the narrative world. Importantly, being transported into a story has strong cognitive and emotional consequences” (p. 170). They built on Green and Brock (2000), who theorized that transportation, in reading, involves both attentiveness and emotional involvement—information and entertainment

seeking in U&G terms. Green and Brock (2000) theorized the relationship between NT in textual media and persuasion rather than in audio-visual media and motive. There exists little quantitative research to confirm the relationships of motive–content–outcome based on binge-viewer attentiveness described by Perks (2015), Steiner and Xu (2018) and other qualitative scholars. To address this, we propose the following hypothesis:

**Hypothesis 1.** *Narrative completion and narrative transportation as motivation for binge-watching will be higher for HVAS shows than LVAS shows.*

What role does attentiveness play in regret? Viewers with less regret tend to binge-watch more frequently (Merrill and Rubenking 2019), but how will regret factor in to HVAS or LVAS binges? While binge-watching affords viewers the opportunity for new and enhanced controls over their viewing experience, it has been linked with isolation, addiction, and other outcomes associated with regret (Firger 2015; Hsu 2014). Viewers' enjoyment and regret during binge-watching appears tied to how their motives and expectations for a chosen experience are met by that experience. If a great deal of attention is paid to an experience that fails to live up to expectation, then the viewer may consider the time spent bingeing as time wasted. However, if they are consciously bingeing an HVAS show to continually see the next twist or turn in the story—what we are calling narrative completion—then they are probably enjoying the show and will not regret the time spent watching it. The choice of content may, therefore, be an indication of viewers attentiveness to their own motives. If a viewer seeks narrative transportation but then selects an LVAS show, the outcome may be regret because the content is unable to provide NT, regardless of closely it is attended. In fact, the more closely it is attended, the greater the potential sensation of wasted cognitive energy. Based on this, we hypothesize the following:

**Hypothesis 2a.** *For HVAS, narrative completion (but not narrative transportation) predicts decreased regret.*

**Hypothesis 2b.** *For LVAS, both narrative completion and narrative transportation predict increased regret.*

Taatgen and Lee (2003) described multitasking as “executing multiple perceptual-motor actions at the same time” (p. 1). While inseparable from contemporary life, the behavior has been shown to impair cognitive processing depending on an individual's proficiency with the tasks and the level of attentiveness those tasks require (Sohn and Anderson 2001; Wang and Tchernev 2012). Schweidel and Moe (2016) assert that binge-viewers become “immersed in an alternate reality . . . and advertisements shown during these sessions can be seen as unwelcome reminders of the viewer's true reality” (p. 3). Therefore, if a viewer is motivated to binge for narrative transportation and narrative completion, distractions and multitasking will inhibit the viewer's ability to attain those motives causing feelings of regret.

**Hypothesis 3.** *For HVAS shows, multitasking mediates the positive effect of NC on regret.*

If a viewer seeks relaxation and distraction, s/he is more likely to select a show that allows for inattentive pleasure, and this choice will suit their needs just fine and thus result in little regret. In other words, a viewer who wants to binge a show for reasons *other than* narrative completion or narrative transportation—say, putting *Parks and Recreation* on in the background to be reminded of a few favorite jokes—will be satisfied with an LVAS show. In this case, choosing an HVAS program (one that demands a good deal of attention) might result in increased regret because situational constraints keep the viewer from paying attention. However, if a viewer seeks engagement, transportation, and immersion, then selecting a show that demands attentiveness will be the better choice, because HVAS shows are more likely to transport. Doing so will increase the probability of SOC and EVE. On the other hand, when motivation for narrative completion or narrative transportation is high, then choosing an LVAS

show is likely to lead to increased regret, because LVAS shows lack the narrative structure typically required to demand attention and facilitate engagement. Therefore:

**Hypothesis 4a.** *Attentiveness moderates regret so that for HVAS (LVAS) binge-watching, as motivation for narrative completion increases, regret decreases (increases).*

**Hypothesis 4b.** *Attentiveness moderates regret so that for HVAS (LVAS) binge-watching, as motivation for narrative transportation increases, regret decreases (increases).*

### 3. Method

#### 3.1. Sampling Procedure

To address these research questions and hypotheses, an online survey ( $N = 800$ ) was conducted on Amazon's Mechanical Turk (MTurk) platform. Due to cost effectiveness, participant diversity, expediency, and data quality, MTurk is an increasingly popular platform for academics (Sheehan and Pittman 2016). After reviewing a consent form and brief project description, participants clicked to indicate their participation in the survey and afterwards were paid \$0.56. The overall sample size of 800 yielded 400 participants apiece for the HVAS and LVAS sections, which, even after deleting a small number of incomplete responses, yields a larger sample size (Vanvoorhis and Morgan 2007) than is necessary for correlation, regression, mediation, and moderation analyses (S. B. Green 1991; Hayes 2009). Qualtrics was used to administer the survey, and SPSS (version 24) was used for all statistical analyses.

#### 3.2. Survey Instrument Development

The survey instrument included two major sections: (1) Measures of personality and overall binge-watching behavior, and (2) motivations and outcomes for a specific type of viewing behavior: HVAS or LVAS binge-watching.

*Personality.* Participants' personality was measured using the Big Five Inventory–10 item (Rammstedt and John 2007) scale that assesses extroversion ( $\alpha = 0.66$ ), openness ( $\alpha = 0.44$ ), conscientiousness ( $\alpha = 0.54$ ), agreeableness ( $\alpha = 0.70$ ), and neuroticism ( $\alpha = 0.54$ ), as well as with a six-item ( $\alpha = 0.86$ ). All 800 participants completed this section.

*Overall Binge-Watching Behavior.* Participants read an introductory statement saying researchers wanted to ask them questions about binge-watching behavior. Using an expanded version of Pittman and Sheehan (2015) definition, binge-watching was defined as "watching 3 or more episodes of a show in a row (or 2 episodes, if it's a longer show), or watching a whole season of a show within 1 week or so". Studies of TV audiences, TV journalism, and TV industry standards indicate that Americans categorize "a longer show" as one with episodes greater than 30 min in length (Choi 2012; Pierce-Grove 2017; McNamara 2012; Steiner 2017; Wolters 1955). Participants were also asked to indicate their main streaming service: Netflix, Hulu, Amazon, YouTube, or Other.

In order to better capture binge-watching behavior, a composite score was used in lieu of a single measure. Participants were asked about three different types of bingeing behavior ( $\alpha = 0.61$ ): (1) "On average, how many days per week do you deliberately binge-watch a show (where you pick the show beforehand)?", (2) *background bingeing*: "On average, how many days per week do you have a show playing in the background (while you do other stuff)?", and (3) *accidental bingeing*: "On average, how many days per week do you accidentally binge-watch a show (where you end up watching a show you hadn't planned on watching)?" Participants responded on a frequency scale ranging from zero to seven days per week for each behavior. All 800 participants completed this section. All scales were counterbalanced to reduce any order effects.

*High and Low VAS Watching.* For the final section of the survey, we asked about higher attentiveness or lower attentiveness binges. Participants all responded to the same dependent measures, with half

being prompted to think about HVAS binge-watching, and the other half prompted to think about LVAS binge-watching. The HVAS prompt read: "...think about the last show you binged where you REALLY had to pay attention. This could be because the show was interesting, or maybe it was complicated, or whatever. We are NOT talking about those times where a show is just on in the background." The other half of the participants saw the LVAS prompt: "...think about the last show you binged where you were not really paying attention. This could be because you had seen it before, or the show was kind of predictable, or whatever." Respondents then entered the name of a show that exemplified the described viewing style into a text box, answered how many episodes in a row of that show they typically watch, and then responded to several measures on motivations for and outcomes of that style of watching.

*Narrative Completion.* Narrative completion ( $M = 3.56$ ,  $SD = 1.42$ ) was measured with a single item, adapted from Steiner (2018) research on binge-watching: "When binge-watching a show like \_\_\_\_, how important is it to learn what happens next in the show?"  $1 = \text{not important at all}$ ,  $5 = \text{very important}$ ).

*Narrative Transportation.* Narrative transportation ( $M = 3.21$ ,  $SD = 1.47$ ) was measured with a single item adapted from Van Laer et al. (2013) meta-analysis of consumer narrative transportation: "When binge-watching a show like \_\_\_\_, how important is it to lose yourself in the story?"  $1 = \text{not important at all}$ ,  $5 = \text{very important}$ ).

*Multitasking.* Multitasking ( $\alpha_{\text{highVAS}} = 0.90$ ,  $\alpha_{\text{lowVAS}} = 0.87$ ): was measured with a two-item scale: "When I binge-watch a show like \_\_\_\_, I ... (" ... am often doing other things"; "usually have it on in the background";  $1 = \text{never}$ ,  $5 = \text{always}$ ).

*Regret.* Regret ( $\alpha_{\text{highVAS}} = 0.93$ ,  $\alpha_{\text{lowVAS}} = 0.92$ ) was assessed with two items adapted from O'Carroll et al. (2012): "When I binge-watch a show like \_\_\_\_, I ... (" ... typically regret it"; "later wish that I had not";  $1 = \text{strongly disagree}$ ,  $5 = \text{strongly agree}$ ).

*Demographics.* Participants also responded to measures of age ( $M = 35.28$ ,  $SD = 11.55$ ), gender, native language (100% = English), and relationship status.

#### 4. Results

After incomplete responses were excluded, a total of 781 responses were included in subsequent analyses. Among those participants, 432 (55.3%) were male, 345 (44.2%) were female, and 4 (0.5%) preferred not to disclose or self-describe. The mean age for participants was 35.38 years old ( $SD = 11.55$ ). Because it may impact one's bingeing behavior, participants also responded to a question about relationship ( $M = 2.20$ ,  $SD = 0.95$ ), answering either "1 = single (but seeking relationships)" (65, 8.3%), "2 = single (and fine with it)" (220, 28.2%), "3 = In a relationship" (160, 20.5%), "4 = married/in a domestic partnership" (320, 41%), or "5 = prefer not to disclose" (16, 2%). The average completion time for the survey was nine minutes and five seconds. Age, gender, and relationship status were entered as control variables into all subsequent analyses with no significant effects and are thus discussed no further.

To assess RQ1, a correlation analysis was performed to examine the relationships between measures of binge-watching frequency ( $M = 2.80$ ,  $SD = 1.63$ ), narrative completion ( $M = 3.56$ ,  $SD = 1.42$ ) and narrative transportation ( $M = 3.21$ ,  $SD = 1.47$ ), and Big-5 (openness,  $M = 7.25$ ,  $SD = 1.94$ ; conscientiousness,  $M = 7.66$ ,  $SD = 1.85$ ; extraversion,  $M = 5.36$ ,  $SD = 2.12$ ; agreeableness,  $M = 7.03$ ,  $SD = 1.93$ ; and neuroticism,  $M = 5.37$ ,  $SD = 2.20$ ) personality traits. As shown in Table 1, results indicated narrative completion is positively correlated with narrative transportation ( $r$  (781) 0.552,  $p < 0.001$ ;  $N = 781$  for all correlations) and conscientiousness ( $r = 0.087$ ,  $p < 0.001$ ), and narrative transportation is positively associated with binge-watching ( $r = 0.123$ ,  $p = 0.001$ ). Binge-watching is negatively associated with most personality measures, such as agreeableness ( $r = -0.101$ ,  $p = 0.005$ ), conscientiousness ( $r = -0.213$ ,  $p < 0.001$ ), and openness ( $r = -0.102$ ,  $p = 0.004$ ), but is positively associated with neuroticism ( $r = 0.100$ ,  $p = 0.005$ ). While the coefficients were small, these results suggest that people are more likely to binge-watch when they are less agreeable, less conscientious,

less open, more neurotic, and the more they binge-watch, the more narrative transportation is likely to be a motivation. Table 1 summarizes these results.

**Table 1.** Correlations between binge-watching, narrative transportation types, and personality.

	1	2	3	4	5	6	7	8
1. Binge	—	0.054	0.123 ***	0.064	−0.101 **	−0.213 ***	0.100 **	−0.102 **
2. NC		—	0.552 ***	0.029	0.061	0.087 *	−0.055	0.022
3. NT			—	−0.021	0.034	−0.020	−0.003	0.034
4. Extra				—	0.239 ***	0.147 ***	−0.365 ***	0.011
5. Agree					—	0.261 ***	−0.337 ***	0.069
6. Consc						—	−0.362 ***	0.181 ***
7. Neuro							—	−0.028
8. Open								—

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

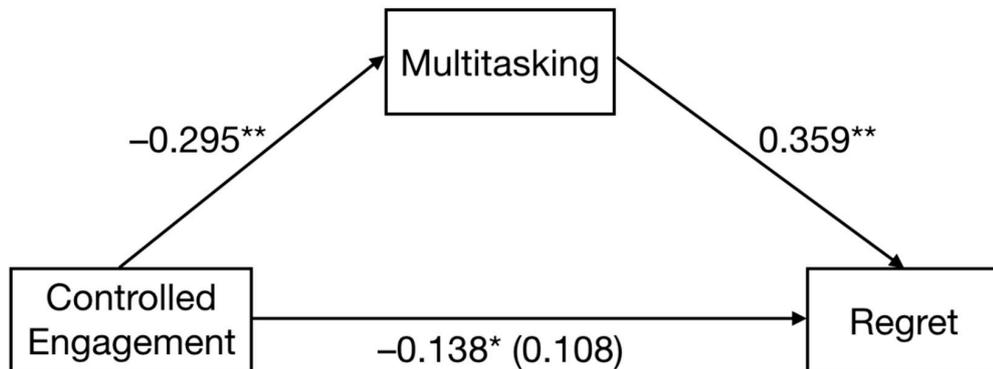
The remaining hypotheses expand on these relationships. The first hypothesis predicted that both narrative completion and narrative transportation would be higher for HVAS shows than LVAS. First, an independent-samples *t*-test was conducted to compare narrative completion (NC) as a motivating factor in HVAS and LVAS conditions. There was a significant difference in NC scores for HVAS ( $M = 4.11$ ,  $SD = 1.08$ ) and LVAS ( $M = 3.10$ ,  $SD = 1.51$ ) conditions;  $t(779) = -10.617$ ,  $p < 0.001$ . Next, an independent-samples *t*-test was conducted to compare narrative transportation (NT) as a motivating factor in HVAS and LVAS conditions. There was a significant difference in NT scores for HVAS ( $M = 3.72$ ,  $SD = 1.29$ ) and LVAS ( $M = 2.78$ ,  $SD = 1.48$ ) conditions;  $t(779) = -9.332$ ,  $p = 0.001$ . Thus, Hypothesis 1 was supported. Specifically, when people are watching HVAS shows, they are more likely to report both narrative completion and narrative transportation as motivating factors.

Hypothesis 2a stated that NC would predict decreased regret ( $M_{\text{HVASregret}} = 1.77$ ,  $SD_{\text{HVASregret}} = 1.05$ ) for HVAS binge-watching. For HVAS binge-watching, a significant regression equation was found for regret ( $F(5, 348) = 5.412$ ,  $p < 0.001$ ), with an  $R^2$  of 0.06, where NC (but not NT) was a significant predictor. The participant's predicted regret from watching HVAS shows is  $2.811 - 0.263(\text{NC})$ , where NC ( $B = -0.263$ ,  $SE = 0.062$ ,  $p < 0.001$ ) and regret range from 1 to 5. Thus, Hypothesis 2a was supported. In other words, higher attention binge-watching because of a desire for narrative completion predicts decreased regret, whereas binge-watching out of a desire for "uncontrolled" narrative transportation has no effect on regret.

Hypothesis 2b stated that both NC and NT would predict increased regret ( $M_{\text{LVASregret}} = 1.96$ ,  $SD_{\text{LVASregret}} = 1.13$ ) for LVAS binge-watching. For LVAS viewing, a significant regression equation was found for regret ( $F(5, 421) = 4.064$ ,  $p = 0.001$ ), with an  $R^2$  of 0.04, where NT (but not CE) was a significant predictor. The participant's predicted regret from watching LVAS shows is  $1.411 + 0.081(\text{NT})$ , where NT ( $B = 0.081$ ,  $SE = 0.041$ ,  $p < 0.050$ ) and regret range from 1 to 5. Thus, Hypothesis 2b was partially supported. In other words, lower attentiveness binge-watching for narrative transportation predicts increased regret, whereas lower attention binge-watching for narrative completion has no effect on regret.

Hypothesis 3 stated that multitasking would mediate the positive effects that NC had as a motivation for HVAS binge-watching. As Figure 1 illustrates, the standardized regression coefficient between NC and multitasking was statistically significant, as was the standardized regression coefficient between multitasking and regret. The standardized indirect effect was  $(-0.295)(0.359) = 0.108$ . We tested the significance of this indirect effect using 5000 bootstrapped samples (95% CI  $(-0.169, -0.060)$ ) using Hayes (2009) PROCESS macro (model 4) to determine an unstandardized indirect effect of  $-0.106$  ( $SE = 0.0256$ ),  $p = 0.005$ . The indirect effect was therefore statistically significant, and partial mediation occurred. Thus, Hypothesis 3 is supported. Specifically, when bingeing HVAS shows, NC as a motivating factor does predict decreased regret, but NC also

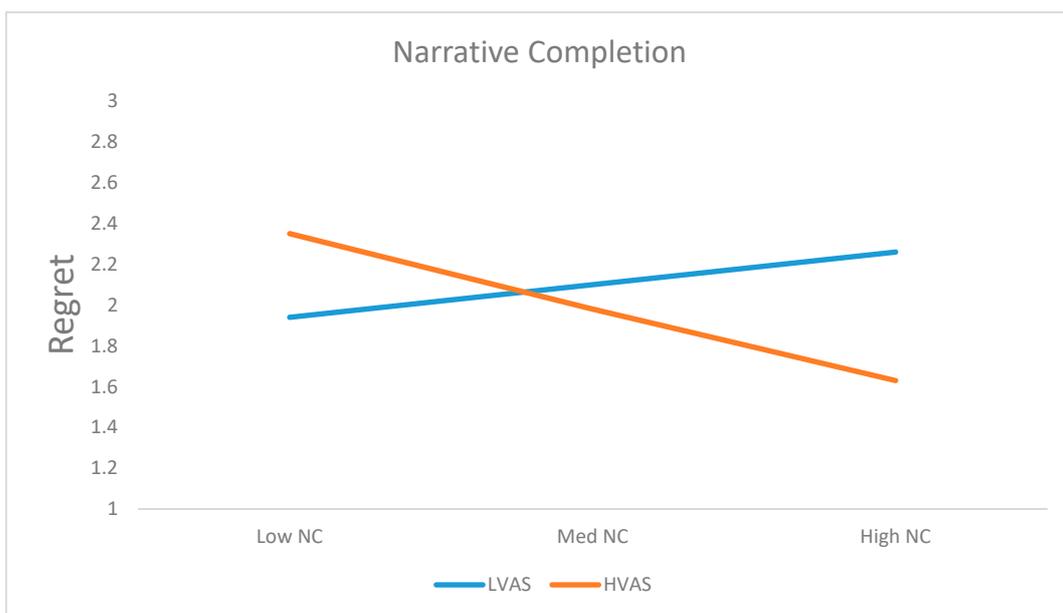
predicts decreased multitasking, which itself predicts *increased* regret, and this latter relationship is stronger than the former.



\*\*p<0.001, \*p<0.01, r<sup>2</sup> = 0.201

**Figure 1.** Mediation model for effects of narrative completion (NC) on regret via multitasking for higher degrees of viewer attentiveness (HVAS) binge-watching. Total indirect effect is in parentheses.

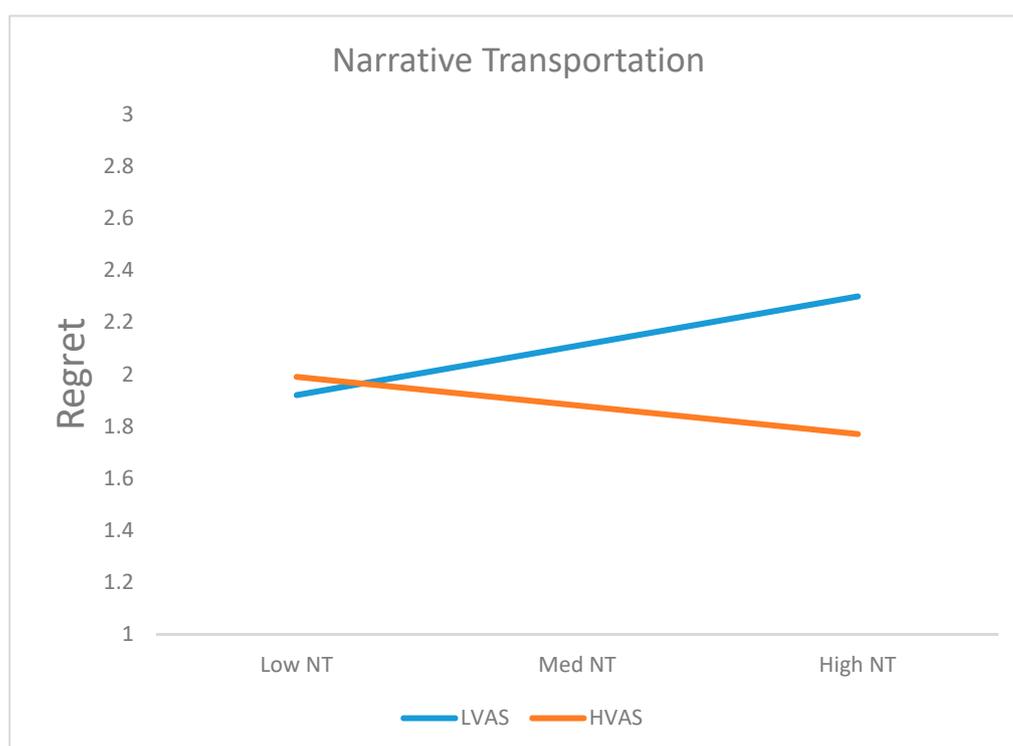
The next set of hypotheses stated that viewing attentiveness would moderate regret for both NC (Hypothesis 4a) and NT (Hypothesis 4b). Viewing attentiveness (either HVAS or LVAS) was examined as a moderator of the relation between NC (NT) and regret. NC (NT) and attentiveness were entered in the first step of the regression analysis. In the second step of the regression analysis, the interaction term between NC (NT) and attentiveness was entered, and it explained a significant increase in variance in regret,  $\Delta R^2 = 0.035$ ,  $F(1, 777) = 28.136$ ,  $p < 0.001$  (for NT,  $\Delta R^2 = 0.013$ ,  $F(1, 777) = 3.15$ ,  $p = 0.001$ ). Thus, attentiveness was a significant moderator of the relationship between NC (NT) as a motivating factor for binge-watching and regret. For narrative completion as a motivator (see Figure 2), when bingeing HVAS shows, the effect of attentiveness on regret is  $-0.257$  (SE = 0.058 ( $-0.370, -0.143$ ),  $p < 0.001$ ), and when bingeing LVAS shows, the effect of attentiveness on regret is 0.109 (SE = 0.038 (0.035, 0.183),  $p = 0.004$ ).



**Figure 2.** Attentiveness moderates narrative completion and regret.

Thus, attentiveness moderates the relationship between NC and regret, and Hypothesis 4a was supported. Specifically, when NC is a low motivation for binge-watching, lower attentiveness viewing produces the least amount of regret, but when NC is a bigger motivating factor, highly attentive viewing produces the least amount of regret.

For narrative transportation as a motivator (see Figure 3), when bingeing HVAS shows, the effect of attentiveness on regret is  $-0.071$  ( $SE = 0.049$  ( $-0.167, 0.024$ ),  $p = 0.147$ ), and when bingeing LVAS shows, the effect of attentiveness on regret is  $0.129$  ( $SE = 0.039$  ( $0.053, 0.205$ ),  $p < 0.001$ ).



**Figure 3.** Attentiveness moderates narrative transportation and regret.

Thus, attentive viewing partially moderates the relationship between NT and regret, and Hypothesis 4b was partially supported. Specifically, when NT is a low motivation for binge-watching, low and high attentiveness viewing produce roughly the same amount of regret, but when NT is a bigger motivating factor, highly attentive viewing produces the least amount of regret.

## 5. Discussion

This study had three objectives: First, it conceptualized narrative completion (NC) as a binge-watching motivation that is related to narrative transportation (NT) yet retains its own characteristics and outcomes. Second, it looked how both NC and NT related to binge-watching regret or lack thereof. Third, this study looked at attentiveness as a factor that moderates how NC and NT predict degrees of regret for either HVAS or LVAS shows.

The first research question asked if either NC, NT, personality traits were associated with binge-watching in general (Zillig et al. 2002). Small but significant correlations were detected between binge watching and openness, agreeableness, conscientiousness, and neuroticism, but not extraversion. Specifically, participants are more likely to binge-watch more frequently when they are less agreeable, less conscientious, less open, and more neurotic. Furthermore, and perhaps more importantly, the more people binge-watch, the more narrative transportation is likely to be a motivation. Further, NC and NT were strongly correlated with one another ( $r = 0.552$ ), which is perhaps unsurprising. Given that NT involves a perceived journey through a narrative world (Green et al. 2004), it makes sense that the

more time one spends on the journey, the more one is going to enjoy thinking about the destination (CT). Reaching a destination may be the goal of travelers, but what happens along the way can often affect the trip.

Interestingly, narrative completion was *not* significantly associated with binge-watching. Thus, just because binge-watching frequency increases, being motivated by NC does not necessarily increase as well. This fits with our conceptualization of NC as a self-aware state where the viewer consciously anticipates the next twist or turn in the story. It also aligns with [Steiner and Xu \(2018\)](#) findings that viewers sometimes use binge-watching to describe the completion of a show over a defined period with shorter sessions than would constitute a “binge” (p. 13). This study also determined that, with the exception of a very weak correlation between NC and conscientiousness, there were no associations between any of the big-5 inventory and NC or NT. This highlights how both NC and NT are unique constructs to which no specific personality types are predisposed. Each captures a distinctive binge-watching motivation which may incentive a wide range of viewers and personalities.

The first hypothesis found that NC and NT are more likely to be motivating factors for HVAS binge-watching than LVAS binge-watching. This is somewhat intuitive—if you want to be swept away by a story or are eager to learn what happens next, then you will probably choose a show that demands more attentiveness. Participants who were asked about HVAS binging listed dramas such as *Breaking Bad* and *Game of Thrones* that are more likely to sweep viewers up into the story emotionally (NT) and have plot twists and turns that keep them on the edge of their seats (NC). On the other hand, participants in the LVAS condition typically listed comedies (*Parks and Recreation*, *Brooklyn 99*) or reality shows (*Real Housewives* spin offs, *Fixer Upper*), all of which are more suited to casual, less attentive viewing.

The second hypotheses examined how differing motivations (NC or NT) for binge-watching predicted regret. Hypothesis 2a found that the more participants binged a show out of a cognizant desire for NC, the less likely they were to regret it. It is likely that viewers who are motivated by NC remain attentive to their own needs as they consciously progress through a show. If they get to a point where they no longer care what happens next in a story, then presumably they stop binging or change shows. In this way, remaining conscious of one’s binge throughout the process seems to be tied to greater enjoyment and less subsequent regret.

On the other hand, NC had no significant impact on regret. This may be because when you get swept up and carried away by a story, you do not know whether or not you enjoyed the show until you “return home”. Therefore, regardless of whether the binge is ultimately enjoyable or not, the viewer has spent significant time watching it but does not render judgement on the show until it is too late, if at all. The takeaway here for viewers who want to maximize their binge-watching experiences is to remain relatively cognizant of the process, sporadically asking themselves, “Do I care what happens next? Am I actually enjoying this show?”

Hypothesis 2b looked at LVAS motivations and found relationships opposite to HVAS shows (Hypothesis 2a). For shows that demand little attention, watching to achieve narrative completion has no impact on regret. This may be because one can “view” one of these shows while accomplishing other tasks (email, folding laundry, etc.) and still get the gist of what is going on in the story. It offers little emotional or cognitive payout but requires little effort to buy in in the first place. However, LVAS binge-watching to achieve narrative transportation predicts increased regret. This is likely because the two are fundamentally opposed: LVAS shows are, in the viewer’s own estimation, ones that require little attention and to which *little attention is given*, whereas narrative transportation requires at least some emotional and/or cognitive involvement in order to be sufficiently swept away and forget about one’s surroundings, at least temporarily. This complements [Rubenking \(2017\)](#) finding that emotional content led to greater enjoyment: Because an emotional, engaging narrative is likely to be one which the viewer gives more attention (Hypothesis 2a), this engagement may simultaneously facilitate greater reception of emotion and be prompted by anticipation of emotion in the first place.

The third hypothesis looked at multitasking as one particular mechanism for the impact of NC on decreased regret. This mediation proceeds as follows: For HVAS shows, the more viewers watch for NC, the less likely they are to regret the binge (Hypothesis 2a). This relationship was significant. Yet NC also predicts decreased multitasking, which itself is a large predictor of regret. This makes sense—if you are doing other stuff around the house or fiddling with your smartphone while trying to binge a show that demands your full attention, it is harder to enjoy that show and you are more likely to regret it. As the mediation model (Figure 1) shows, once these relationships are accounted for (multitasking predicts increased regret, and NC decreases multitasking), the original direct effect of NC on regret is less significant, and with a smaller coefficient. In other words, one of the ways NC appears to decrease regret is by making you multitask less, which allows you to pay greater attention to (and receive more enjoyment from) the show.

The final set of hypotheses dealt with how attentiveness moderates the relationship between regret, NC, and NT. Hypothesis 4a found that when NC is low, bingeing LVAS shows produces the least amount of regret, but when NC is a large motivation, bingeing HVAS shows produces the least amount of regret. Hypothesis 4b found a similar (but less pronounced) relationship for narrative transportation. When NT is low, there is no significant difference between bingeing HVAS or LVAS shows. However, when desire for NT is high, there is much less regret when bingeing HVAS shows.

Most viewers seem to understand that if they want to be swept away or kept on the edge of their seat, they are better off choosing a high-quality drama, suspense, or fantasy show than a reality program that puts attractive couples on an island to see who will have sex with whom. Of course, television is highly subjective, and one viewer's LVAS trash might be another's HVAS treasure. This is one of the reasons this study let the participant enter in whatever show he or she deemed to fit the description of HVAS or LVAS.

One of the contributions of this study is clear: If you want to enjoy binge-watching more, pay attention to the show. Across all hypotheses, the degree to which a viewer focused on a show was somehow related to decreased post-binge regret. This may be the product of specific content. Shows that require greater attentiveness to enjoy (HVAS) are often shows with greater narrative and textual complexity, which drives emotional and parasocial buy-in (Erickson et al. 2019). Viewers motivated by SOC and EVE are more likely to find them in shows that they have to closely attend. Additionally, such content is often positioned by critics and networks as “prestige” shows, which offer viewers the benefit of culture inclusion (Steiner and Xu 2018).

This study also provides quantitative results for the connection between binge-watching motives, attentiveness, and content selection based on NT and NC. As theorized by Perks (2015) and Steiner and Xu (2018), viewers' desired experience—whether that be relaxation, NT, or NC—is tied to the degree of attentiveness they are willing to commit to specific content. This also extends Green and Brock (2000) theory of narrative transportation, as a dual function of attentiveness and emotional involvement, to the binge consumption of audio-visual content. These findings further complicate 20th century U&G theories that TV viewers seek entertainment *or* information (Sundar and Limperos 2013).

The other main contribution of this study is the conceptualization of narrative completion as a motivation for binge-watching. NC is related to NT but has a few distinct characteristics. It is more cognizant, self-aware states that allow one to binge-watch while remaining in touch with one's own needs and/or tastes. NT has to do with enjoying the journey, but NC is popping your head out of the window every now and then to make sure you are headed in the right direction. The motivation to find out what happens next is driven by the pursuit of knowledge about an imagined world. Being captivated by that world is entertaining, and that captivation can often be driven by mysteries that readers seek to unravel. The unravelling process requires knowledge, and its acquisition, when artfully done, can both satisfy curiosity and bring viewers closer to the world (Perks 2015). Similarly, an unsatisfying completion disrupts the narrative transportation (Steiner 2018).

This study had limitations. First, it was a cross-sectional survey, which limits its predictive capability because all questions were assessed at the same time. Future studies should attempt to measure binge-watching habits and styles over time, particularly as HVAS or LVAS viewing might be related to satisfaction, regret, or overall well-being. Second, it relied on participants' self-reported data, which are relatively reliable but not as accurate as field reports or physiological measurements. Binge-watching nearly unlimited content represents a substantial shift in media consumption, and there are many reasons one may have for choosing the show, time, place, and platform. Differentiating narrative completion from narrative transportation is but one of the first steps scholars are taking to understand binge-watching. Future studies should explore how other aspects of the experience, such as social/co-viewing or planning a binge ahead of time, affect the overall experience.

## 6. Conclusions

Despite its negative stigma (Downey 2018; Gregoire 2015; Hsu 2014), binge-watching clearly has benefits. Whether because of emotional modification (Rubenking and Bracken 2018), pleasure from enhanced viewing (Steiner and Xu 2018), being swept away into another world (Erickson et al. 2019), aesthetic appreciation (Pittman and Sheehan 2015), or simply because it is entertaining (Sung et al. 2018), viewers binge-watch all kinds of content for many reasons. The present study adds an important qualifier to this growing body of research: Whatever viewers binge-watch, they will probably regret it less if they actually pay attention.

This study conceptualized narrative completion (NC) as a motivation for binge-watching that overlaps with, but is ultimately distinct from, narrative transportation (NT). By examining how NC and NT relate to binge-watching—particularly how they might mitigate regret—we hope to change the cultural stigma of binge-watching as a strictly negative, unhealthy behavior. Furthermore, this study looked at attentiveness as a crucial factor in moderating how NC and NT might influence regret, and by setting up a distinction between HVAS and LVAS shows, we hope to similarly move the conversation away from binge-watching as a single behavior that works the same for all people, all the time. Overall, this study demonstrates the importance of attentiveness as a factor that, depending on their motivations for bingeing in the first place, can influence whether or not they later regret the experience.

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