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Seeking Spoilage: The Impact of Content Challenge, Self-Control, and Traits on Spoiler Selection

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ABSTRACT

Two experiments examined whether perceived content challenge, self-control, and trait variables predicted participants' choice of a spoiled/unspoiled movie review. Study 1 found that perceived content challenge influenced spoiler selection as a function of need for cognition. Self-control had no effect. In Study 2, participants chose spoilers when content was perceived to be cognitively challenging but not affectively challenging. Need for affect moderated these effects. Choosing spoiler-laden reviews was also associated with reduced anticipated enjoyment and intention to watch the full film. The results point to the importance of trait and content variables in spoiler selection.

Spoilers are "the premature release of salient information about a narrative" (Johnson & Rosenbaum, 2018, p. 583). Spoilers in reviews, online discussions, promotions, and other media often disclose important outcomes of the media content they describe. Lay publications and public fora have debated the merits and detriments of spoilers on entertainment experiences, while scholars have investigated how spoilers have the capacity to improve or degrade media experiences, depending on a variety of audience and story factors (Johnson & Rosenbaum, 2015; Johnson et al., 2020; Leavitt & Christenfeld, 2011, 2013). Yet little research examines under what circumstances spoilers are sought out or avoided (Gray & Mittell, 2007; Rosenbaum

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& Johnson, 2016). This is surprising because potential exposure to spoilers produces the most heated responses from prospective audiences (e.g., on social media).

The broader research on media selection would also benefit from understanding spoiler mechanisms because spoilers play a prominent role in how media content is valued and anticipated by potential audiences. Choosing or avoiding spoilers affects other media entertainment processes, as spoilers may guide audiences in selecting particular media that gratify desires such as mood management, challenge, or depictions of morality. Yet not enough is known about why this information accrual process occurs and how it impacts subsequent selection and enjoyment of media offerings.

In the present investigation, we focus on state and trait factors – identified in adjacent entertainment literatures – that have the potential to shape the selection of spoilers. In particular, we draw from Bartsch and Hartmann's (2017) model of media challenge to suggest that spoilers are preferred when stories present cognitive and affective demands. We also implicate personal self-control resources, as they predict immediate versus delayed gratification (Exelmans & Van den Bulck, 2021) as well as the capacity to process psychological challenges (Eden et al., 2018) from media entertainment. Two experiments examined how these variables play a role in the selection of a spoiled versus unspoiled film review, and how exposure to this review affects anticipated enjoyment and intention to view the film. The results are discussed in terms of existing theory and research regarding spoilers, media selection, and enjoyment, as well as models of challenging media (Bartsch & Hartmann, 2017) and self-control resources (Baumeister et al., 2018; Wagner & Heatherton, 2013). Understanding spoiler selection is consequential for media entertainment research because navigating spoilers often precedes media use and can shape patterns of selective exposure and narrative appeal.

Understanding Spoiler Selection

Little is known about the factors that impact spoiler selection, despite multiple studies examining how spoilers impact media appraisal. Spoilers are popularly perceived to negatively impact enjoyment. Yet, previous experimental research on the impact of spoilers has reported conflicting findings (Johnson & Rosenbaum, 2015; Leavitt & Christenfeld, 2011). Spoiler impact varies depending on the genre and medium in question (Daniel & Katz, 2019; Johnson & Rosenbaum, 2018), the type of spoiler (e.g., major versus minor; Johnson et al., 2020), and the audience's connection to the characters or investment in a storyline (Ellithorpe & Brookes, 2018). Preliminary evidence also found that interest in reading a story was unaffected by exposure to a spoiled versus unspoiled preview (Johnson & Rosenbaum, 2015).

Spoilers may provide contextual information that improves the ability to make sense of and fully experience narratives. This information could signal the nature and relevance of impending events and stimuli (informational utility; Hastall, 2009), thereby increasing audiences' knowledge and *processing fluency* (i.e., ease of understanding the message; Reber et al., 1998), improving the narrative experience. However, research on the possibility that spoilers could increase fluency has produced contradictory results (Ellithorpe & Brookes, 2018; Johnson & Rosenbaum, 2018, Study 3; Levine et al., 2016; Leavitt & Christenfeld, 2013). The information provided by spoilers can also be valuable in that spoilers can, under certain circumstances, reduce uncertainty and anxiety about media experiences, helping audiences avoid anticipated negative emotions (cf., Ellithorpe & Brookes, 2018; Lehne & Koelsch, 2015). If this is the case, viewers who value heightened anticipation, arousal, or other emotional states may deliberately avoid spoilers, as they could reduce the affective responses contingent on surprise. Taken together, research to date suggests that media users may seek out or avoid spoilers based on several factors (e.g., the type of narrative and the user's perceptions of content), yet no research to date has explicitly studied whether these factors actually affect spoiler selection.

Predicting Spoiler Seeking: Content Challenge and Self-Control

If media users seek out and select spoilers because they provide information about what to expect from a narrative, including enjoyment and other effects (Perks & McElrath-Hart, 2017), spoiler selection should be influenced by individuals' perceptions of media content's affective and cognitive demands or challenge (Bartsch & Hartmann, 2017). That is, spoilers provide pertinent information about challenging storylines by allowing users to reduce their uncertainty about media experiences and anticipate the emotional impact of narrative events that will unfold.

Cognitively challenging content makes greater intellectual or processing demands on its users (Bartsch & Hartmann, 2017; Lee & Lang, 2015), while affectively challenging content involves highly arousing emotions such as intense negative affect (Oliver & Bartsch, 2010; Zillmann & Bryant, 1985). Both are the result of the interaction between the content and the media user, particularly the extent to which self-regulatory resources are required by the user to process content. Entertainment can be challenging along one, both, or neither of these dimensions. Content perceived as challenging may be easier to process with the cognitive and affective scaffolding afforded by spoilers; and as a result, spoiler selection may be likelier when content is perceived to be challenging. This leads to the first two hypotheses:

H1: High perceived affective challenge will positively predict spoiler selection.

H2: High perceived cognitive challenge will positively predict spoiler selection.

Perceptions of challenge may also vary based on the self-control resources available to the viewer (Eden et al., 2018). Individuals' self-regulatory powers are a limited resource, a changing state rather than a stable trait (Baumeister et al., 1998). Fluctuations in state self-control have been shown to influence media selection (Johnson et al., 2021; Reinecke et al., 2014) such that depleted self-regulatory resources heighten affective reactivity to content (Wagner & Heatherton, 2013). Spoilers may ease processing demands (Ellithorpe & Brookes, 2018; Leavitt & Christenfeld, 2013) and be valuable when self-control is low. Self-control may also facilitate an impulsive desire to learn the outcome of a storyline rather than delay gratification. Therefore, an individual experiencing low state self-control (SSC) should choose a spoiler to reduce content's impact on their limited resources and ease processing, such that:

H3: State self-control will be a negative predictor of spoiler selection, such that those low in state self-control will be more likely to select a spoiler.

Challenging media require focus and take effort to consume. Therefore, when people lack self-control, they are less likely to seek out and select challenging content, and also more likely to perceive content as challenging (Eden et al., 2018). We expect spoilers to be most appealing if SSC is low and content is perceived as challenging and least appealing when state SSC is high:

H4: There will be a moderating effect of state self-control on the effect of (a) perceived affective and (b) perceived cognitive challenge on spoiler selection, such that the effect of challenge on spoiler selection becomes more positive as self-control decreases.[1]

Predicting Spoiler Seeking: Individual Differences

Prior research has focused on need for cognition and need for affect to explain differences in how audience members respond to spoilers. We examine these and add trait self-control as potential moderators of spoiler selection.

Need for cognition (NFC), the desire to engage in cognitively demanding activities (Cacioppo & Petty, 1982), influences viewers' preference for thinking about and elaborating on narratives (Knobloch-Westerwick & Keplinger,

[1]The wording of this hypothesis differs slightly from preregistration but describes the same hypothesized effect. Changes were made to ensure clarity.

2008). Those low in NFC have been found to prefer spoiled short written fiction (Rosenbaum & Johnson, 2016), although this did not hold up for film and television (Johnson & Rosenbaum, 2018). Considering the role of media challenge may remedy these conflicting results. Low-NFC individuals may value the cognitive infrastructure provided by spoilers when content is perceived to be challenging, as spoilers may facilitate story processing and reduce cognitive demand. High NFC individuals might avoid spoilers, as they enjoy the cognitive complexity of a challenging narrative, but also might prefer spoilers, as the additional information may increase opportunities for cognitive elaboration (Dai & Wang, 2007).

Need for affect (NFA) is the desire to experience emotions (Maio & Esses, 2001). People high in NFA value or seek out emotional highs and lows, and people low in NFA tend to avoid intense emotions. Those high in NFA have been shown to enjoy unspoiled written stories more than spoiled (Rosenbaum & Johnson, 2016) but not television and film clips (Johnson & Rosenbaum, 2018). Horror fans with high NFA have been found to enjoy minor spoilers (Johnson et al., 2020), suggesting that for people who enjoy intense emotions, the anticipation of knowing a minor scare is coming can enhance enjoyment. Based on the literature, perceived emotional and cognitive challenge in content may play a different role for high- and low-NFA individuals in spoiler-seeking behavior. Those high in NFA could prefer unspoiled emotionally challenging content while preferring to spoil cognitively challenging content, and low NFA individuals might prefer to spoil emotionally challenging content to mitigate extreme emotional reactions.

In contrast to state self-control, *trait self-control* (TSC) is the chronic level of available self-regulatory resources, which is relatively stable within individuals (Baumeister et al., 1998). That is, there are both between- and within-person differences in self-control. Reinecke and Hofmann (2016) point out that when it comes to procrastination, people with low TSC are less capable of "resolving conflicts among long-term desires and short-term goals" (p. 446), suggesting that people with low TSC may be more likely to seek out and select a spoiler, especially if content is perceived as challenging. Since we could not make directional predictions, we posed the following research questions:

RQ1: What effect do trait variables (a) need for affect, (b) need for cognition, and (c) trait self-control have on spoiler selection?

RQ2: How do the trait variables (a) need for affect, (b) need for cognition, and (c) trait self-control moderate the effect of challenge on spoiler selection?

Outcomes of Spoiler Selection

Previous work examining the impact of spoilers on narrative enjoyment, appreciation, and subsequent media selection (e.g., Ellithorpe & Brookes, 2018; Leavitt & Christenfeld, 2011, 2013; Rosenbaum & Johnson, 2016) did not allow participants to self-select into spoiled or unspoiled conditions. As a result, the relationship between *self-selected* spoilers and subsequent enjoyment, appreciation, and intention to consume content has not been tested. Though past spoiler research considered both enjoyment and appreciation as components of enjoyment (Johnson & Rosenbaum, 2015), when consumption experiences are wrought with arousal or affective conflict, audiences can experience enjoyment (fun, unqualified positive affect) *or* appreciation (positive experiences associated with deliberation and meaningfulness), while the other is largely absent (Bartsch & Hartmann, 2017; Lewis et al., 2014). We therefore pose the following research question:

RQ3: How will exposure to a self-selected spoiler affect (a) anticipated enjoyment, (b) anticipated appreciation, and (c) intention to watch the full film?

Figure 1 includes a conceptual model representing these hypotheses and research questions. To test our hypotheses, we conducted two online experiments using the same manipulation and measures.[2] Preregistration details, power calculations, data, and all materials are available at https://osf.io/pgshq.

Study 1

Method

Participants

Amazon Mechanical Turk was used to recruit participants who had a 95% approval rate and spoke English. Excluding five participants for failing the attention check yielded a final sample of N = 120 (64.71% male; M_{age} = 36.66, SD_{age} = 10.61; 70.8% White, 14.2% African American, 5.8% Asian, 5.0% Hispanic). All procedures were approved by the university IRB, and participants were paid 2.40 USD, meeting minimum wage requirements.

[2]In a deviation from preregistration, which specified N = 413 from a combination of Mechanical Turk and student participants, we instead conducted two studies, one from each population.

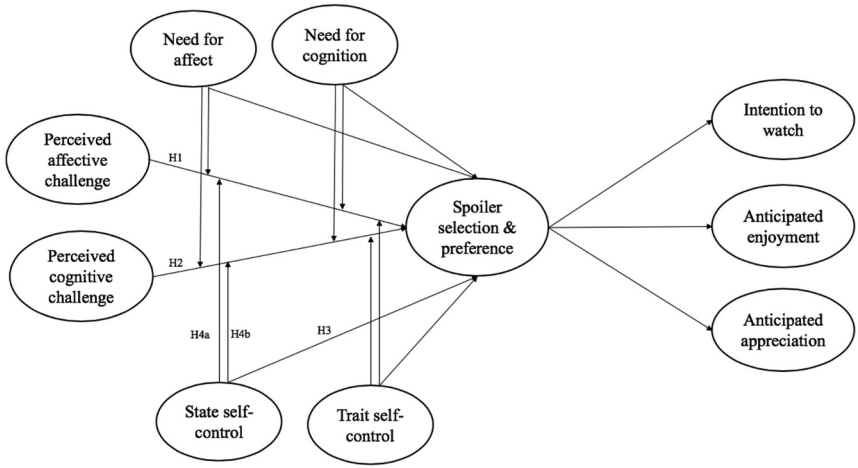

Figure 1. Hypothesized model. RQ1 examines the main effects of NFC, NFA & TSC on selection. RQ2 examines these traits as moderators of perceived challenge. RQ3 examines outcomes of self-selected spoilers.

Procedure

A between-subjects experiment manipulated content challenge through randomly assigned movie trailers (either no challenge, affective only, cognitive only, or both affective and cognitive challenge) and measured SSC, spoiler selection, outcomes (anticipated enjoyment and appreciation, intention to watch), and the traits NFA, NFC, and TSC. All procedures were conducted online via Qualtrics. After providing informed consent, participants' SSC was measured, and they were randomly assigned to watch one of the eight movie trailers. They then rated the trailer's perceived cognitive and affective challenge and indicated whether they wanted to read a spoiled or an unspoiled review of the full film and their preference for the review they selected on the same screen. After reading the (un)spoiled review, they completed a manipulation check and dependent measures, followed by trait scales, demographic measures, and other covariates (including if they had seen the film before). Participants were then dismissed and received compensation. Two attention checks (e.g., "Please select 'Neither agree nor disagree' on this question") featured in the experiment and timers ensured that participants had to watch through the whole trailer and read the review.

Stimuli

We consulted *IMDb.com* to select films released since 2017 that were from the "most popular" lists for movies overall (n = 51), as well as genres of documentary (n = 21), horror (n = 16), musical (n = 4), and romance (n = 11). The official trailer for each film was collected from YouTube

(N = 103). Three trained coders independently rated these for affective challenge (1 = *no affective challenge*, 7 = *high affective challenge*) and cognitive challenge (1 = *no cognitive challenge*, 7 = *high cognitive challenge*). Three trailers for each condition (no challenge, affective challenge, cognitive challenge, both) were initially selected for the main study. Intercoder reliability for selected films was high (n = 12; Krippendorff's α_{aff} = .91; Krippendorff's α_{cog} = .85). However, we would eventually drop one trailer from each condition based on the pretest for un/spoiled reviews (see below), resulting in eight trailers in Study 1.

Spoiled and Unspoiled Reviews. We created reviews with and without spoilers for each film. In each case, the content (aside from the final sentence) was similar, and reviews were nearly equal in length (maximum difference between spoiled and unspoiled = 24 words) and readability (Flesch-Kincaid test scores: range: 43.1–74.9). The reviews were pretested using a separate sample recruited from Mechanical Turk to check that the spoiled reviews were sufficiently revealing and reviews were comparable on a range of other dimensions (see OSF for all stimuli and summary of the pretest). Based on the results, we dropped one trailer from each challenge condition, resulting in two films for each of the four challenge conditions: e.g., *Late Night* (no challenge), and *Under the Wire* (both affective and cognitive challenge). All stimuli are available on OSF (Pretest Summaries).

Measures

Means, standard deviations, and reliability coefficients for all measures are also in Table 1; for further details see the OSF repository. Scores range from 1 (low) to 7 (high) unless otherwise mentioned.

Table 1. Means, standard deviations, and reliabilities for Study 1 measures.

Variables	Mean	SD	Cronbach's α	Min.	Max.
Review selection (1 = spoiled)	.48	.50	n.a.	0	1
Review selection preference (−100 to +100)	−7.80	82.40	n.a.	−100	100
Perceived cognitive challenge	4.23	1.90	n.a.	1	7
Perceived affective challenge	4.93	1.88	n.a.	1	7
State self-control	5.26	1.41	.95	1	7
Need for cognition	4.64	1.60	.91	1	7
Need for affect	4.93	1.07	.84	1	7
Trait self-control	3.58	.91	.92	1	5
Enjoyment	5.01	1.48	.92	1	7
Appreciation	4.97	1.41	.85	1	7
Behavioral intention	4.69	1.87	.98	1	7
Extent of spoiling	3.97	1.63	.87	1	7
Seen before	1.96	1.55	n.a.	1	5

N = 120.

State Self-Control. SSC was measured before exposure to the trailer using the 16-item State Self-Control Capacity Scale (Ciarocco et al., 2007), e.g., "I feel drained" (reversed; $M = 5.26$, $SD = 1.41$).

Perceived Challenge. We measured perceived affective ($M = 4.93$, $SD = 1.88$) and cognitive challenge ($M = 4.23$, $SD = 1.90$) of the film trailer using 2 one-item semantic differentials (Bartsch & Hartmann, 2017): *No intellectual/emotional challenge* to *High intellectual/emotional challenge*.

Spoiler Selection and Spoiler Preference. Participants then indicated whether they wanted to read a spoiled review labeled "Review (Spoiler Alert!)" (coded 1) or a spoiler-free review with "Review (Spoiler Free!)" (coded 0; $M = .48$, $SD = .50$). On the same screen, participants reported the strength of this preference (0 = *Did not prefer*, 100 = *Strongly prefer*) before advancing to their selected review. This score was multiplied by 1 if a participant selected a spoiled review and by −1 if a participant selected an unspoiled review to indicate spoiler preference ($M = -7.80$, $SD = 82.40$).

Extent of Spoiling. As in the pretest, participants completed the spoiler scale ($M = 3.97$, $SD = 1.63$; Johnson & Rosenbaum, 2015) as a manipulation check, e.g., "I know what to expect in the movie."

Enjoyment and Appreciation. Enjoyment and appreciation were measured using Oliver and Bartsch's (2010) scales, e.g., "The movie would be fun for me to watch" (enjoyment; $M = 5.01$, $SD = 1.48$) and "I would find the movie very meaningful" (appreciation; $M = 4.97$, $SD = 1.41$), adapted to refer to anticipated experiences. Each scale contains three items.

Intention to Watch. A modified version of Park and Smith's (2007) behavioral intent scale was administered regarding the full film (e.g., "I will watch this movie in the near future"; $M = 4.69$, $SD = 1.87$).

Need for Affect. NFA was measured using Appel et al.'s (2012) 10-item need for affect short-form scale ($M = 4.93$, $SD = 1.07$; e.g., "If I reflect on my past, I see that I tend to be afraid of feeling emotions").

Need for Cognition. NFC was measured using the six-item very efficient need for cognition scale ($M = 4.64$, $SD = 1.60$; e.g., "I prefer complex to simple problems"; Lins de Holanda Coelho et al., 2018).

Trait Self-Control. TSC was measured using the 13-item brief trait self-control scale (Tangney et al., 2004), using a 1 (*Not at all*) to 5 (*Very much*) scale ($M = 3.58$, $SD = 0.91$; e.g., "I am good at resisting temptation").

Demographic and Other Covariates. Finally, we measured participants' age, gender, education, whether they had seen the movie before (1 = *Extremely unlikely*, 5 = *Extremely likely; M* = 1.96, *SD* = 1.55), media behaviors (movies watched per month, hours watched per week, genre preferences), and trait tendency to seek spoilers (single-item).

Results

Manipulation Check

Ratings for perceived challenge by condition indicated that affective challenge showed the expected differences across conditions, $F(3, 116) = 6.46$, $p < .001$, $\eta^2 = .14$ (Table 2). However, cognitive challenge was not perceived differently across conditions, $F(3, 116) = 1.48$, $p = .22$, $\eta^2 = .04$. Therefore, our analyses relied on participants' *perception* of challenge (see our OSF repository for analysis by condition).

Tests of Hypotheses

Although our hypotheses suggested path model analysis, we did not achieve sufficient sample size to test all our hypotheses in one model. Therefore, to test H1 through H3 and RQ1, we conducted a logistic regression analysis with selection of spoilers as a dependent variable (1 = spoiler, 0 = no spoiler). Neither perceived challenge (H1 and H2) nor state self-control (H3) predicted spoiler selection when controlling for demographics, having seen the movie before, or trait tendency to seek spoilers, $p > .10$ (Table 3). There were also no effects of trait variables on spoiler selection (RQ1). To test H4, we created interaction terms representing the product of the perceived challenge and self-control responses and added these terms to our model. First, we analyzed the two-way interactions between state self-control and affective and cognitive challenge, respectively, before adding the three-way interaction. None of the models or interaction effects were significant (full analysis in Supplement); H4 was not supported.

Table 2. Manipulation checks for Study 1.

	Summary of perceived cognitive challenge		Summary of perceived affective challenge		
Trailer challenge categories	Mean	SD	Mean	SD	*n*
No challenge	3.76	1.99	4.07[a]	2.03	29
Affective only	4.03	1.87	5.63[b]	1.63	30
Cognitive only	4.38	1.95	4.34[a]	1.93	29
Both affective and cognitive	4.72	1.76	5.59[b]	1.43	32

Means denoted with different superscript letters are significantly different at $p < .05$ within-columns according to Tukey HSD pairwise post-hoc analysis on ANOVA.

Table 3. Logistic regression on review selection for Study 1.

Predictors	Odds ratio	SE	z	$p > z$	95% CILB	95% CIUB	Standardized Coef.
(Constant)	.17	.30	−1.03	.30	.01	4.89	
Gender	1.48	.63	.93	.35	.65	3.40	.10
Age	1.03	.02	1.40	.16	.99	1.07	.15
Education	1.03	.17	.19	.85	.75	1.41	.02
Perceived cognitive challenge	1.04	.13	.36	.72	.82	1.33	.04
Perceived affective challenge	.94	.11	−.51	.61	.75	1.19	−.06
State self-control	1.04	.23	.18	.86	.67	1.61	.03
Need for cognition	.86	.12	−1.06	.29	.65	1.14	−.12
Need for affect	1.01	.24	.05	.96	.64	1.61	.01
Trait self-control	.83	.24	−.62	.53	.47	1.48	−.08
Seen before	1.23	.18	1.43	.15	.93	1.63	.16
General spoiler seeking	**1.28**	**.15**	**2.16**	**.03**	**1.02**	**1.61**	.23

$N = 119$ (listwise). Logistic regression $\chi^2(11) = 16.82$, *pseudo* $R^2 = .10$, $p = .11$.
p-values < .05 bolded. *Review Selection: (Spoiled* = 1,*Not Spoiled* = 0). Reported SE and CI are of the odds ratio.

To test RQ2, three separate multiple logistic regressions were run to test the interactions of challenge and traits. Only one of the logistic regression models approached a significant effect, such that the interaction between need for cognition and perceived cognitive challenge had a positive effect on spoiler selection, *odds ratio* = 1.15, $p = .052$; $\chi^2(12) = 20.80$, *pseudo* $R^2 = .13$, $p = .053$ (Figure 2). In other words, when people low on NFC perceive

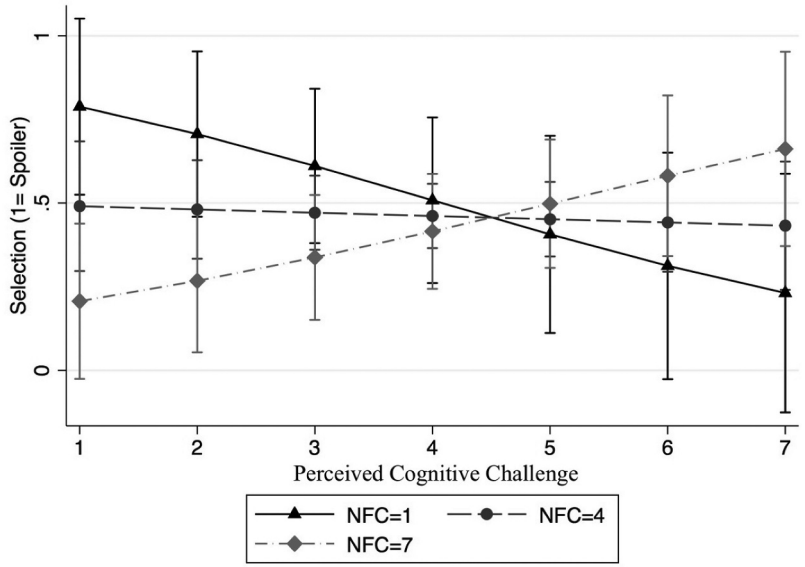

Figure 2. Interaction Effect of Perceived Cognitive Challenge and Need for Cognition on Spoiler Preference (Study 1).
Note: The point comparison showed a significant difference at the lowest point of the perceived cognitive challenge. Other relationships were not significant.

content as cognitively non-challenging, they are more likely to choose a spoiler compared to those who are high in NFC. The effect of NFC was significant in the lower levels of perceived cognitive challenge, but not for higher levels of perceived cognitive challenge. The other interactions were not close to significance.

Regarding RQ3, we found that people who did not select a spoiler reported higher expected enjoyment (M = 5.34, SD = 1.16) of the film than people who selected the spoiler (M = 4.65, SD = 1.70), $t(118) = 2.64$, $p = .01$, $d = .47$. Two-sample t-test comparisons showed the no-spoiler group also had a stronger intention to watch the full movie (M = 5.18, SD = 1.56) than the spoiler group (M = 4.15, SD = 2.05), $t(118) = 3.12$, $p = .002$, $d = .57$. However, there was no significant difference in anticipated appreciation, $t(118) = 1.18$, $p = .24$, $d = .22$.

Although the results from Study 1 were promising, the small sample size meant we lacked adequate power to test the hypothesized model in full, including both spoiler selection and effects of spoilers. Study 2 therefore replicated Study 1 using a larger sample.

Study 2

Method

Participants

A total of 576 students from large Midwestern and Northeastern American universities participated in this study. All procedures were approved by university IRBs. After removing 39 respondents who did not finish the survey and 64 who failed an attention check, N = 473 participants' data were used for further analysis (female, 61.52%; M_{age} = 19.72, SD_{age} = 1.57; 77.17% White, 8.03% African American, 7.19% Asian, 4.01% Mixed, 2.54% Hispanic). Participants received course credit for their participation.

Procedure and Measurement

Procedures and measurements were the same as in Study 1 (Table 4 for descriptive statistics).

Results

Manipulation Check

Similar to Study 1, our manipulations did not succeed as planned (Table 5). Therefore, we again used perceived levels of content challenge rather than manipulated levels of challenge to test hypotheses.[3]

[3]Additional analyses were conducted using manipulated challenge and are available at (https://osf.io/pgshq).

Table 4. Means, standard deviations, and reliabilities for Study 2 measures.

Variables	Mean	SD	Cronbach's α	Min.	Max.
Review selection (1 = spoiled 0 = not)	.61	.49	n.a.	0	1
Review selection preference (−100 to +100)	14.77	69.70	n.a.	−100	100
Perceived cognitive challenge	4.15	1.75	n.a.	1	7
Perceived affective challenge	4.56	1.90	n.a.	1	7
State self-control	4.35	1.04	.92	1	7
Need for cognition	4.54	.90	.78	1	7
Need for affect	4.92	.79	.77	1	7
Trait self-control	3.07	.65	.84	1	5
Enjoyment	4.48	1.44	.92	1	7
Appreciation	4.50	1.41	.85	1	7
Behavioral intention	3.69	1.84	.98	1	7
Extent of spoiling	4.26	1.39	.83	1	7
Seen before	1.58	1.04	n.a.	1	5

$N = 473$ (except Review selection, $N = 471$).

Table 5. Manipulation checks for Study 2.

	Summary of perceived cognitive challenge			Summary of perceived affective challenge		
Trailer challenge categories	Mean	SD	*n*	Mean	SD	*n*
No challenge	2.68[a]	1.59	114	3.17[a]	1.84	114
Affective only	4.41[b]	1.52	117	5.44[b]	1.44	117
Cognitive only	4.62[b]	1.56	124	4.35[c]	1.84	124
Both affective and cognitive	4.82[b]	1.48	118	5.25[b]	1.57	118

Means denoted with different superscript letters are significantly different at $p < .05$ within-columns according to Tukey HSD pairwise post-hoc analysis on ANOVA.

Tests of Hypotheses

To test hypotheses and answer research questions, we conducted path analysis using the lavaan package in R. The overall model with interaction variables (between NFC, NFA, SSC, TSC, and perceived challenge) and without other control variables showed a poor fit, $\chi^2(42) = 194.98$, $p < .001$, CFI = .77, RMSEA = .09, SRMR = .08. Once nonsignificant interactions were dropped, the fit slightly improved, $\chi^2(24) = 159.07$, $p < .001$, CFI = .80, RMSEA = .11, SRMR = .08. Dropping the nonsignificant appreciation path resulted in acceptable model fit, $\chi^2(16) = 52.57$, $p < .001$, CFI = .91, RMSEA = .07, SRMR = .04 (see Table 6 for all paths and Figure 3 for the model with significant paths).

H1 and H2 stated that high perceived affective and cognitive challenge would positively predict spoiler preference. Results show that perceived affective challenge negatively predicted spoiler preference (measured −100 to +100; $b = -29.07$, $SE = 13.02$, $p = .03$), so H1 was not supported. Perceived cognitive challenge positively predicted spoiler preference ($b = 33.45$, $SE = 13.9$, $p = .02$), thus supporting H2.

Table 6. Path model for Study 2.

DV	Predictors	Estimate	SE	*z*-value	*p* (>|z|)	Standardized Coef.
Selection preference						
	PCC	**33.45**	**13.90**	**2.41**	**.02**	.84
	PAC	**−29.07**	**13.02**	**−2.23**	**.03**	−.79
	SSC	4.62	3.40	1.36	.17	.07
	INX1	**6.13**	**2.61**	**2.35**	**.02**	.92
	INX2	**−6.60**	**2.78**	**−2.37**	**.02**	−.89
	NFA	−2.38	12.18	−.20	.85	−.03
	NFC	−1.11	3.88	−.29	.78	−.01
	TSC	−4.28	5.37	−.80	.43	−.04
Enjoyment						
	Selection preference	**−.003**	**.001**	**−3.55**	**.00**	−.16
Intention						
	Selection preference	**−.01**	**.001**	**−5.97**	**.00**	−.27

N = 471 (listwise), PCC: perceived cognitive challenge; PAC: perceived affective challenge; SSC: state self-control; INX1: interaction between PAC and NFA; INX2: interaction between PCC and NFA; NFC: need for cognition; NFA: need for affect; TSC: trait self-control. *p*-values < .05 bolded.

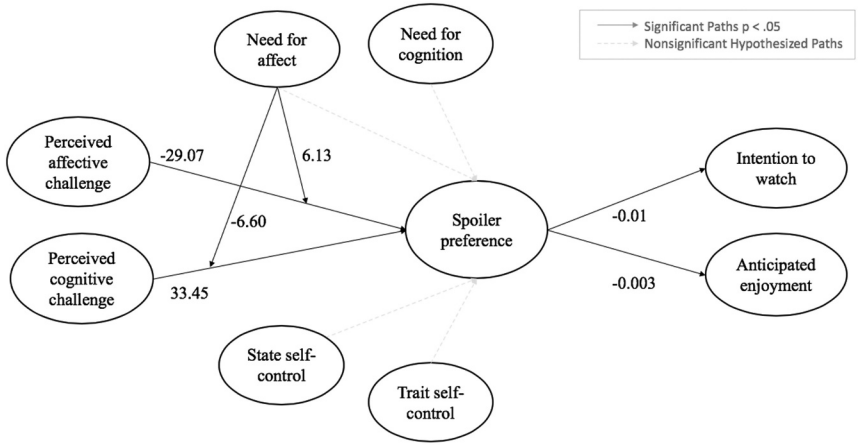

Figure 3. Final path model (Study 2). The point comparison showed a significant difference at the lowest point of the perceived cognitive challenge. Other relationships were not significant.

H3 posited state self-control would be a negative predictor of spoiler selection, whereas H4 expected that there would be a moderating effect of state self-control on the effect of (a) perceived affective and (b) perceived cognitive challenge on spoiler selection. Both interaction terms were dropped due to their non-significant relationship with spoiler preference. Hence, neither H3 nor H4 was supported.

Regarding RQ1 and RQ2, trait self-control was non-significant in all tests. Neither NFA nor NFC alone was a significant predictor of selection preference. However, there was a significant negative interaction between perceived cognitive challenge and NFA in predicting spoiler preference, $b = -6.60$, $SE = 2.78$, $p = .02$ (Figure 4). Among individuals who perceived content as high in cognitive challenge, those who were high in NFA were less likely to prefer spoiled content than those who were low in NFA.

By contrast, the interaction between perceived affective challenge and NFA positively predicted spoiler preference, $b = 6.13$, $SE = 2.61$, $p = .02$ (Figure 5), suggesting that among those who perceived content as low in affective challenge, those with lower levels of NFA showed a higher preference for spoiled content than those with higher levels of NFA. Examining the conditional effects revealed that the relationship was again in the opposite direction, though insignificant, for the individuals who perceived content high in affective challenge. Hence, individuals showed a trend for preferring spoiler information less when they had higher levels of NFA compared to lower levels of NFA.

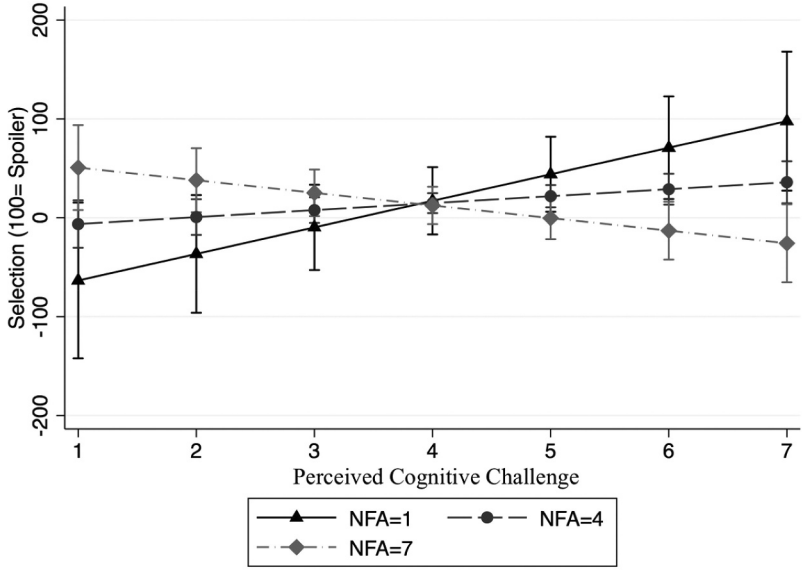

Figure 4. Interaction Effect of Perceived Cognitive Challenge and Need for Affect on Spoiler Preference (Study 2). The relationship between perceived cognitive challenge and selection of a spoiled review was significantly moderated by NFA. However, the point comparison showed no significant differences.

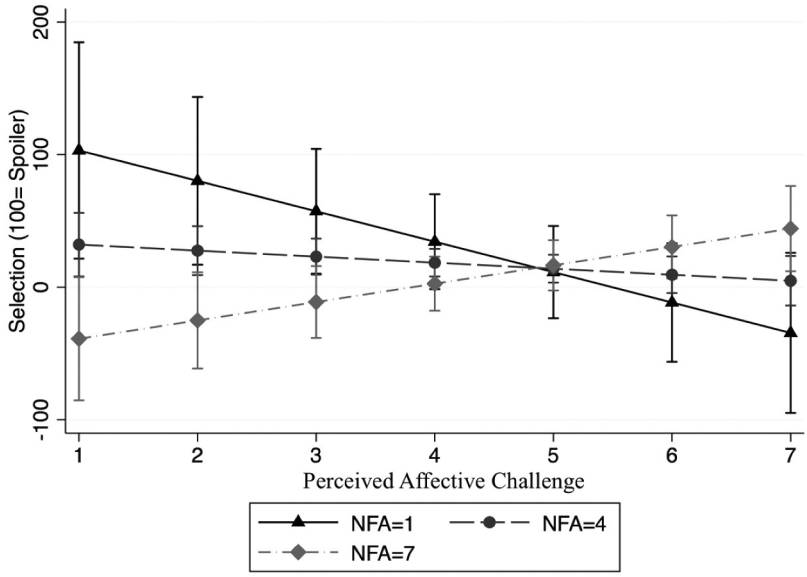

Figure 5. Interaction Effect of Perceived Affective Challenge and Need for Affect on SpoilerPreference (Study 2). The point comparison showed a significant difference at the lowest two points of the perceived affective challenge. Relationships at other scale points were not significant.

Preference for non-spoiled reviews predicted expected enjoyment, $b = -0.003$, $SE = 0.001$, $p < .001$, and intention to watch, $b = -0.01$, $SE = 0.001$, $p < .001$ (RQ3). However, spoiler preference did not significantly predict anticipated appreciation.

Post-hoc Path Model

To mimic the regression analyses in Study 1, we ran the full model with all interactions and included three control variables (general spoiler seeking, whether participants have seen the movie before and age). This model showed a poor fit, $\chi^2(51) = 223.68$, $p < .001$, CFI = .75, RMSEA = .085, SRMR = .07. As with prior analyses, we incrementally dropped nonsignificant interaction terms (those not implicating NFA), controls (e.g., gender, seen before), and anticipated appreciation ($p < .1$), resulting in an acceptable fit: $\chi^2(18) = 53.114$, $p < .001$, CFI = .91, RMSEA = .06, SRMR = .04. Results were extremely similar to the hypothesized model reported above, except that age was a significant negative predictor of spoiler preference ($b = -4.81$, $p < .05$). All paths are reported in Table 7.

Table 7. Path model for Study 2 with controls.

DV	Predictors	Estimate	SE	z-value	p (>|z|)	Standardized Coef.
Selection preference						
	PCC	**33.78**	**13.82**	**2.44**	**.02**	**.85**
	PAC	**−29.06**	**12.94**	**−2.25**	**.03**	**−.79**
	SSC	4.42	3.38	1.31	.19	.07
	INX1	**6.19**	**2.59**	**2.39**	**.02**	**.93**
	INTX2	**−6.78**	**2.77**	**−2.45**	**.01**	**−.92**
	NFA	−2.94	12.11	−.24	.81	−.03
	NFC	.27	3.90	.07	.95	.00
	TSC	−4.65	5.36	−.87	.39	−.04
	Age	**−4.81**	**2.35**	**−2.04**	**.04**	**−.10**
Enjoyment						
	Selection preference	**−.003**	**.001**	**−3.55**	**.00**	**−.16**
Intention						
	Selection preference	**−.01**	**.001**	**−5.97**	**.00**	**−.26**

$N = 470$ (listwise), $\chi^2(18) = 53.114$, $p < .001$, CFI = .91, RMSEA = .06, SRMR = .04. PCC: perceived cognitive challenge; PAC: perceived affective challenge; SSC: state self-control; INX1: interaction between PAC and NFA; INX2: interaction between PCC and NFA; NFC: need for cognition; NFA: need for affect; TSC: trait self-control. p-values < .05 bolded.

Discussion

This investigation examined how individual differences, state self-control, and perceptions of media content affect spoiler selection, and what effect these factors and self-selected spoilers have on subsequent anticipated enjoyment and appreciation of a film. Few studies have examined both selection of spoilers and outcomes of spoiler exposure in one model. Our study helps clarify the effects of content challenge, viewer states, and viewer traits on spoiler-seeking behavior and subsequent effects. Notably, NFA moderated the effects of content challenge on spoiler selection, and in line with past research, spoiler selection was overall predictive of decreased anticipated enjoyment and decreased intention to watch films. We discuss these significant findings in detail below. Contrary to predictions, however, we did not find significant main effects on spoiler selection of state self-control. Although prior work on self-control depletion suggests that self-control can play an important role in media preferences (e.g., Eden et al., 2015, 2018), our data do not show state or trait self-control as a predictor of spoiler selection. Future work may consider how spoilers are a potentially unique case of media selection (in that they are media *about* other media content) and also consider manipulating state self-control to examine this potential link further.

Examining the entire predicted model sheds some light on the mechanisms underpinning spoiler selection. First, in Study 2, the model showed that perceived cognitive challenge positively predicts spoiler selection, supporting past research on spoilers as a tool to increase fluency (Leavitt & Christenfeld, 2013). Spoilers may thus facilitate the processing of cognitively demanding content (cf., Ellithorpe & Brookes, 2018) and therefore be particularly appealing when content is perceived to be cognitively challenging. Second, the model in Study 2 also demonstrated that perceived affective challenge negatively predicts spoiler selection. Viewers seeking affective challenges may be averse to spoiling this anticipated effect (which would be consistent with Johnson et al., 2020). However, further research is warranted to better understand the effect of different types of content challenge on spoiler selection in various contexts.

Trait variables also seem to play a role in spoiler selection. Need for cognition moderated the effect of perceived cognitive challenge, but only in Study 1. When content was perceived to be cognitively challenging, there were no differences in spoiler selection. However, when content was perceived to be non-challenging, those low in NFC chose to spoil the plot of their film and those high in NFC avoided spoilers. This finding appears to underscore the notion that spoilers are seen to increase fluency. At least in some circumstances, spoilers may help provide cognitive scaffolding to help individuals low in NFC make sense of a narrative, while spoilers are less appealing for people who prefer cognitive challenge because these individuals do not need or want the additional processing aids. The fact that NFC interacted with perceived cognitive challenge, but not affective challenge, also serves to validate the affective–cognitive dimensional nature of challenge.

In the previous research, NFA has been the most consistent moderator of spoiler effects (e.g., Johnson et al., 2020; Rosenbaum & Johnson, 2016). Likewise, Study 2 found that high-NFA people selected spoilers when affective challenge was high and avoided spoilers when affective challenge was low. This finding reflects previous work suggesting that viewers who seek out emotion want to know more about the excitement that lies ahead, to ensure that their emotional needs will be met. Conversely, low-NFA people were more likely to select a spoiler when affective challenge was low and less likely to select a spoiler when affective challenge was high. This finding would benefit from replication but could suggest that low-NFA individuals seek confirmation that content perceived as non-challenging is indeed as advertised (i.e., there are no massive twists or unexpectedly intense emotions they did not anticipate). In essence, spoilers for non-challenging content may serve as a reassurance for individuals hoping to avoid noxious emotional states.

NFA also moderated the effect of cognitive challenge on spoiler selection. Low-NFA individuals were more likely to select a spoiled review if the film was cognitively challenging and avoided spoilers if it was not cognitively challenging. High-NFA individuals, on the other hand, sought out spoilers for non-cognitively challenging films, but were less inclined to choose spoilers for cognitively challenging films. This moderating effect of NFA may be accounted for by the relationship between affective and cognitive challenge. Viewers who dislike overwhelming emotion in their media may want preemptory details about seemingly complex films so their resources are saved for possible emotional demands, whereas emotion-seeking viewers may prefer that cognitively challenging films are left unspoiled, in the hope that these will create the affect they desire.

In both studies, spoiler selection and preference were negatively associated with anticipated enjoyment and intention to watch the full film. The present findings are generally consistent with the literature suggesting that spoilers have a negative, though negligible, effect on anticipated enjoyment, and these effects are contingent – to some extent – on individual traits.

Limitations and Future Directions

First, perceived challenge did not always align with manipulated challenge. In Study 1, there were no significant differences in perceived cognitive challenge across trailer conditions. In Study 2, perceived cognitive challenge was associated with manipulated cognitive challenge but also varied as a function of affective challenge in the trailers. Perhaps longer clips or full film exposures would have increased perceived cognitive challenge, something future research should explore. Further theoretical and empirical development may also consider potential dimensions of cognitive challenge as well as the interplay of cognitive and affective challenges.

Second, we cannot discount that some differences between studies can be attributed to sample differences. For example, the students in Study 2 had a slightly higher preference for spoiled reviews compared to Study 1's adult sample, but less self-control than their older counterparts. Likewise, there are differences in statistical power; post-hoc power analysis for logistic regression, $OR = 1.5$, found Study 1's power = .56 and Study 2's = .99. Statistical power or differences in socio-demographics or media consumption may have influenced the results. However, many findings are replicated across samples (e.g., the role of cognitive challenge and NFC in spoiler selection). Future work should continue to examine trait and demographic variables and their role in spoiler preferences as this area of work progresses.

Third, while the first part of our conceptual model focuses on the selection of a spoiled or unspoiled review, we did not measure selection behavior for the full film, which could have impacted the results. Future research should

allow participants to watch full-length films to examine whether the results differ when individuals actually consume media content, which might shed light on anticipated versus actual enjoyment after spoiler exposure (cf., Yan & Tsang, 2016).

Conclusion

The current study examined factors influencing the selection of media content about other media (i.e., spoilers), particularly the mechanisms and conditions that underpin spoiler selection and spoilers' subsequent impact on anticipated enjoyment and viewing intention. In this research, we drew from aligned theoretical perspectives to test potential reasons why people might seek spoilage, considering state self-control, perceived affective and cognitive challenge of the movie in question, and various personality traits. Spoilers were more likely to be selected when media presented cognitive or affective challenges that require effortful processing. Spoilers appear to help audiences confront those challenges. This supports Bartsch and Hartmann's (2017) challenging media framework and provides new insight into how challenges are assessed, showing that audiences want to know more in advance about challenging fare. However, spoilers were not more appealing to individuals with momentarily or chronically low self-control. Consistent with previous research, differences in need for affect moderated responses to spoilers, and spoilers diminished interest in, and expectations about, the film.

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References

Appel, M., Gnambs, T., & Maio, G. R. (2012). A short measure of the need for affect. *Journal of Personality Assessment*, *94*(4), 418–426. https://doi.org/10.1080/00223891.2012.666921

Bartsch, A., & Hartmann, T. (2017). The role of cognitive and affective challenge in entertainment experience. *Communication Research*, *44*(1), 29–53. https://doi.org/10.1177/0093650214565921

Baumeister, R. F., Bratslavsky, E., Muraven, M., & Tice, D. M. (1998). Ego depletion: Is the active self a limited resource? *Journal of Personality and Social Psychology*, *74*(5), 1252–1265. https://doi.org/10.1037//0022-3514.74.5.1252

Baumeister, R. F., Tice, D. M., & Vohs, K. D. (2018). The strength model of self-regulation: Conclusions from the second decade of willpower research. *Perspectives on Psychological Science*, *13*(2), 141–145. https://doi.org/10.1177/2F1745691617716946

Cacioppo, J. T., & Petty, R. E. (1982). The need for cognition. *Journal of Personality and Social Psychology*, *42*(1), 116–131. https://doi.org/10.1037/0022-3514.42.1.116

Ciarocco, N., Twenge, J. M., Muraven, M., & Tice, D. M. (2007). *The state self-control capacity scale: Reliability, validity, and correlations with physical and psychological stress* [Paper presentation]. The annual meeting of the Society for Personality and Social Psychology, San Diego.

Dai, D. Y., & Wang, X. (2007). The role of need for cognition and reader beliefs in text comprehension and interest development. *Contemporary Educational Psychology*, *32*(3), 332–347. https://doi.org/10.1016/j.cedpsych.2006.05.002

Daniel, T. A., & Katz, J. S. (2019). Spoilers affect the enjoyment of television episodes but not short stories. *Psychological Reports*, *122*(5), 1794–1807. https://doi.org/10.1177/0033294118793971

Eden, A., Hartmann, T., & Reinecke, L. (2015). Tuning in versus zoning out: The role of ego-depletion in selective exposure to challenging media. In H. Wang (Ed.), *Communication and "the good life"* (International communication association theme book series, Vol. 2) (pp. 107–127). Peter Lang.

Eden, A., Johnson, B. K., & Hartmann, T. (2018). Entertainment as a creature comfort: Self-control and selection of challenging media. *Media Psychology*, *21*(3), 352–376. https://doi.org/10.1080/15213269.2017.1345640

Ellithorpe, M. E., & Brookes, S. E. (2018). I didn't see that coming: Spoilers, fan theories, and their influence on enjoyment and parasocial breakup distress during a series finale. *Psychology of Popular Media Culture*, *7*(3), 250–263. https://psycnet.apa.org/doi/10.1037/ppm0000134

Exelmans, L., & Van den Bulck, J. (2021). "Glued to the tube": The interplay between self-control, evening television viewing, and bedtime procrastination. *Communication Research*, *48*(4), 594–616. https://doi.org/10.1177/0093650216686877

Gray, J., & Mittell, J. (2007). Speculation on spoilers: *Lost* fandom, narrative consumption and rethinking textuality. *Particip@tions*, *4*(1), 1–46. http://www.participations.org/Volume%204/Issue%201/4_01_graymittell.htm

Hastall, M. R. (2009). Informational utility as determinant of media choices. In T. Hartmann (Ed.), *Media choice: A theoretical and empirical overview* (pp. 149–166). Routledge.

Johnson, B. K., Eden, A., Reinecke, L., & Hartmann, T. (2021). Self-control and need satisfaction in primetime: Television, social media, and friends can enhance regulatory resources via perceived autonomy and competence. *Psychology of Popular Media*, *10*(2), 212–222. https://doi.org/10.1037/ppm0000286

Johnson, B. K., & Rosenbaum, J. E. (2015). Spoiler alert: Consequences of narrative spoilers for dimensions of enjoyment, appreciation, and transportation. *Communication Research*, *42*(8), 1068–1088. https://doi.org/10.1177/0093650214564051

Johnson, B. K., & Rosenbaum, J. E. (2018). (Don't) tell me how it ends: Spoilers, enjoyment, and involvement in television and film. *Media Psychology*, *21*(4), 582–612. https://doi.org/10.1080/15213269.2017.1338964

Johnson, B. K., Udvardi, A., Eden, A., & Rosenbaum, J. E. (2020). Spoilers go bump in the night: Impacts of minor and major reveals on horror film enjoyment. *Journal of Media Psychology*, *32*(1), 14–25. https://doi.org/10.1027/1864-1105/a000252

Knobloch-Westerwick, S., & Keplinger, C. (2008). Murder for pleasure: Impacts of plot complexity and need for cognition on mystery enjoyment. *Journal of Media Psychology*, *20*(3), 117–128. https://doi.org/10.1027/1864-1105.20.3.117

Leavitt, J. D., & Christenfeld, N. J. S. (2011). Story spoilers don't spoil stories. *Psychological Science*, *22*(9), 1152–1154. https://doi.org/10.1177/0956797611417007

Leavitt, J. D., & Christenfeld, N. J. (2013). The fluency of spoilers: Why giving away endings improves stories. *Scientific Study of Literature*, *3*(1), 93–104. https://doi.org/10.1075/ssol.3.1.09lea

Lee, S., & Lang, A. (2015). Redefining media content and structure in terms of available resources: Toward a dynamic human-centric theory of communication. *Communication Research*, *42*(5), 599–625. https://doi.org/10.1177/0093650213488416

Lehne, M., & Koelsch, S. (2015). Tension-resolution patterns as a key element of aesthetic experience: Psychological principles and underlying brain mechanisms. In M. Nadal, J. P. Huston, L. Agnati, F. Mora, & C. J. Cela-Conde (Eds.), *Art, aesthetics, and the brain* (pp. 285–302). Oxford University Press.

Levine, W. H., Betzner, M., & Autry, K. S. (2016). The effect of spoilers on the enjoyment of short stories. *Discourse Processes*, *53*(7), 513–531. https://doi.org/10.1080/0163853X.2016.1141350

Lewis, R. J., Tamborini, R., & Weber, R. (2014). Testing a dual-process model of media enjoyment and appreciation. *Journal of Communication*, *64*(3), 397–416. https://doi.org/10.1111/jcom.12101

Lins de Holanda Coelho, G., Hanel, P., & Wolf, L. J. (2018). The very efficient assessment of need for cognition: Developing a six-item version. *Assessment*, *27*(8), 1870–1885. https://doi.org/10.1177/1073191118793208

Maio, G. R., & Esses, V. M. (2001). The need for affect: Individual differences in the motivation to approach or avoid emotions. *Journal of Personality*, *69*(4), 583–614. https://doi.org/10.1111/1467-6494.694156

Oliver, M. B., & Bartsch, A. (2010). Appreciation as audience response: Exploring entertainment gratifications beyond hedonism. *Human Communication Research*, *36*(1), 53–81. https://doi.org/10.1111/j.1468-2958.2009.01368.x

Park, H. S., & Smith, S. W. (2007). Distinctiveness and influence of subjective norms, personal descriptive and injunctive norms, and societal descriptive and injunctive norms on behavioral intent: A case of two behaviors critical to organ donation. *Human Communication Research*, *33*(2), 194–218. https://doi.org/10.1111/j.1468-2958.2007.00296.x

Perks, L. G., & McElrath-Hart, N. (2017). Television spoilers recast as narrative teasers. *Qualitative Research Reports in Communication*, *18*(1), 1–7. https://doi.org/10.1080/17459435.2016.1247110

Reber, R., Winkielman, P., & Schwarz, N. (1998). Effects of perceptual fluency on affective judgments. *Psychological Science*, *9*(1), 45–48. https://doi.org/10.1111/1467-9280.00008

Reinecke, L., Hartmann, T., & Eden, A. (2014). The guilty couch potato: The role of ego depletion in reducing recovery through media use. *Journal of Communication*, *64*(4), 569–589. https://doi.org/10.1111/jcom.12107

Reinecke, L., & Hofmann, W. (2016). Slacking off or winding down? An experience sampling study on the drivers and consequences of media use for recovery versus procrastination. *Human Communication Research*, *42*(3), 441–461. https://doi.org/10.1111/hcre.12082

Rosenbaum, J. E., & Johnson, B. K. (2016). Who's afraid of spoilers? Need for cognition, need for affect, and narrative selection and enjoyment. *Psychology of Popular Media Culture*, *5*(3), 273–289. https://doi.org/10.1037/ppm0000076

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality*, *72*(2), 271–324. https://doi.org/10.1111/j.0022-3506.2004.00263.x

Wagner, D. D., & Heatherton, T. F. (2013). Self-regulatory depletion increases emotional reactivity in the amygdala. *Social Cognitive and Affective Neuroscience*, *8*(4), 410–417. https://doi.org/10.1093/scan/nss082

Yan, D., & Tsang, A. S. (2016). The misforecasted spoiler effect: Underlying mechanism and boundary conditions. *Journal of Consumer Psychology*, *26*(1), 81–90. https://doi.org/10.1016/j.jcps.2015.05.003

Zillmann, D., & Bryant, J. (1985). Affect, mood, and emotion as determinants of selective exposure. In D. Zillmann & J. Bryant (Eds.), *Selective exposure to communication* (pp. 157–189). Erlbaum.