Do Spoilers Change a Person's Enjoyment of a Television Show?

Olivia M. Leal

Follow this and additional works at: https://digital.usfsp.edu/masterstheses

Recommended Citation
Do Spoilers Change a Person's Enjoyment of a Television Show?

by

Olivia M. Leal

A thesis submitted in partial fulfillment of the requirements for the degree of Master of the Arts
Department of Psychology
College of Arts and Sciences
University of South Florida, St. Petersburg

Major Professor: Mark Pezzo, Ph.D.
Dr. Rodriguez, Ph. D.
Dr. O'Brien, Ph. D.

Date of Approval:
March 22, 2018

Keywords: Story, Media, Plot, Ending, Rating

Copyright © 2018, Olivia Leal
# TABLE OF CONTENTS

List of Tables ................................................................................................................... iii

Abstract ............................................................................................................................... iv

Introduction ......................................................................................................................... 1
   Current Study .................................................................................................................. 8
   Predictions ....................................................................................................................... 9

Method .................................................................................................................................. 12
   Participants .................................................................................................................... 12
   Materials ....................................................................................................................... 12
   Procedure ..................................................................................................................... 13
   Data Analysis ............................................................................................................. 15

Results ................................................................................................................................ 16
   Data Cleaning ............................................................................................................ 16
   Composite Variable and Preliminary Analyses ............................................................... 17
   Main Analysis ............................................................................................................. 18

Discussion ......................................................................................................................... 21
   Limitations .................................................................................................................. 22
   Future Research ......................................................................................................... 23

References .......................................................................................................................... 24

Appendices ....................................................................................................................... 25
   Appendix A: Need for Cognition Scale ........................................................................... 26
   Appendix B: Need for Affect Scale ................................................................................ 28
   Appendix C: Informed Consent Form ............................................................................ 30
   Appendix D: Condition: EX-SP (Explicit with a Spoiler) .............................................. 32
   Appendix E: Condition: EX-NO (Explicit with no Spoiler) ......................................... 33
   Appendix F: Condition: UN-SP (Unexplicit with a Spoiler) ......................................... 34
   Appendix G: Condition: UN-NO (Unexplicit with no Spoiler) .................................... 35
   Appendix H: Enjoyment Ratings .................................................................................... 36
   Appendix I: Results Tables ........................................................................................... 37

Table 3: Regression predicting LIKE from spoiler, explicit, and Need for Cognition (NFC) ................................................................................................................. 37
Table 4: Regression predicting LIKE from spoiler, explicit, and Need for Affect (NFA) .................................................. 37
Table 5: Regression predicting sense from spoiler, explicit, and Need for Cognition (NFC) .......................................................... 38
Table 6: Regression predicting sense from spoiler, explicit, and Need for Affect (NFA) .......................................................... 38
Table 7: Regression predicting recommend from spoiler, explicit, and Need and Cognition (NFC) .................................................. 39
Table 8: Regression predicting recommend from spoiler, explicit, and Need for Affect (NFA) .................................................. 39
Appendix J: Correlation Table of Variables .......................................................... 40
Table 9: Correlation table of NFC, NFA, LIKE, sense, and recommend .......................................................... 40
LIST OF TABLES

Table 1: Conditions ........................................................................................................16
Table 2: Table of Means and Standard Deviations ..........................................................21
Table 3: Regression predicting LIKE from spoiler, explicit, and Need for Cognition (NFC) .................................................................................................................37
Table 4: Regression predicting LIKE from spoiler, explicit, and Need for Affect (NFA) .........................................................................................................................37
Table 5: Regression predicting SENSE from spoiler, explicit, and Need for Cognition (NFC) ......................................................................................................................38
Table 6: Regression predicting SENSE from spoiler, explicit, and Need for Affect (NFA) ...........................................................................................................................38
Table 7: Regression predicting RECOMMEND from spoiler, explicit, and Need for Cognition (NFC) .............................................................................................................39
Table 8: Regression predicting RECOMMEND from spoiler, explicit, and Need for Affect (NFA) ..................................................................................................................39
Table 9: Correlation table of NFC, NFA, LIKE, sense, and recommend .........................40
Abstract

Previous research has demonstrated that story spoilers - explaining how a story ends before the person has had a chance to discover it themselves - can either make the story more enjoyable or less enjoyable. This study examined the potential moderating effects of individual differences regarding need for cognition and need for affect. In this study, participants complete 2 individual difference measures and watched an episode of The Twilight Zone. Participants were randomly assigned into one of four conditions: spoiler and explicit, no spoiler and explicit, spoiler and not explicit, no spoiler and not explicit. There was no effect found of spoilers on liking, the extent to which the show made sense, or the likelihood of the viewer recommending the show to another person. This study also manipulated the effect of spoilers being explicit (made known) on enjoyment. Additionally, neither need for cognition, nor need for affect qualified this finding. Potential limitations of the study are discussed.
Do Spoilers Change a Person’s Enjoyment of a Television Show?

Story spoilers are often viewed as something that will ruin the suspense and enjoyability of a story. With digital video recording (DVR) and on-demand television options now widely available (e.g., Netflix, Hulu), many people worry that their favorite television shows will be ruined if they see a spoiler on social media. So great is this fear that a mobile application has been designed for people to download onto their phones to identify and then filter any Facebook posts that might give away their favorite television show’s ending (Loew & Solt, 2013). Sometimes, however, a spoiler can function as a teaser that actually heightens an individual's curiosity about, and thus desire to watch, a new show (Perks & McElrath-Hart, 2016). Furthermore, anecdotal evidence suggests that some people actually prefer spoilers. For example, it is not difficult to find someone who reads the end of a book first, or who will watch the same movie repeatedly without seeming to lose any sense of enjoyment. Perks and McElrath-Hart (2016) found that some people seek out spoilers to decrease anxiety or sadness when an ending is intense (e.g., if a favorite character is killed), while others attempt to avoid spoilers because they enjoy the suspense or because they wish to watch the series as it is created. Other people enjoy spoilers when they are impatient for the next episode to air or if they do not wish to finish the series but wish to know how it ends.

Very little research has been conducted on this topic, and what does exist focuses on spoilers in literature. If spoilers really do alter a person’s enjoyment of a story, then that could dramatically alter the way that TV and movie producers advertise their
creations. Often, people are unknowing as to how their day will end. If people knew how
something was going to end, then maybe they would go about their day in a different
fashion opposed to if they has no idea how something would end. In this study, I examine
existing research and conduct a study to examine the interactive effects of spoilers and
individual differences on enjoyment for a television show.

Leavitt and Christenfeld (2011) were the first to examine the effects of providing
the end of a written story on the participant’s enjoyment of the story. The short stories
used in their study were either ironic-twists, mysteries, or emotionally evocative literary
pieces, averaging between roughly 1300 to 4300 words, and written by authors such as
John Updike, Roald Dahl, and Anton Chekhov. Participants were assigned to one of three
conditions: (a) a control condition in which no ending was provided prior to the story;
(b) an experimental condition in which the ending was provided on a sheet of paper
before the story began; and, (c) a second experimental condition in which the ending was
embedded within the opening paragraph of the story. Surprisingly, the results indicated a
positive spoiler effect in which participants enjoyed the stories most when they were
provided the ending on a sheet of paper before the story began. Enjoyment in the second
experimental condition did not differ from that in the control condition, possibly because
participants in the experimental condition believed that the author would not give away
all of the information in the first paragraph. That is, participants may not have believed
that the entire ending of the story was provided.

Leavitt and Christenfeld (2013) hypothesized three explanations for these
findings. The first possibility is that spoilers may improve reading fluency -- stories that
are easy to read should produce higher enjoyment ratings. The second possibility is that
people enjoy the aesthetic properties of the story more because they are less focused on predicting the ending. The third possibility is that readers enjoy a story that ends the way that they expected. To test their hypotheses, in their first experiment each participant read two of six possible stories, each from a different genre (e.g., ironic-twist, mystery, literary genres) taken from their earlier (2011) research. A spoiler of moderate complexity was written to seemingly inadvertently provide the ending. These spoilers were provided for half of the stories, while the other half of the stories had no spoilers. Unlike Leavitt and Christenfeld (2011), participants were asked to provide their ratings at the midpoint of the story, instead of at the end to test whether enjoyment increased during reading. Participants who were provided the spoiler rated the stories higher in the middle of the story compared to participants who were not provided the spoiler prior to reading the story. In a second experiment they determined whether an increase in fluency actually affected participants enjoyment of the stories. They used four simple stories that are often read in middle or high school. The stories ranged in length from about 2000 to 4000 words and were by authors less well known than those in the first experiment. Participants read these stories either unspoiled, with “inadvertent spoilers”\(^1\) or using a third approach they called “intro spoilers.” Here, the spoiler appeared in the first paragraph of the story. Results indicated that none of the conditions had any effect on enjoyment ratings or on reading difficulty, likely because the stories were already easy to read.

\(^1\) The authors referred to this condition as “traditional” spoiler, but seemed to imply that they were using the same technique as in Experiment 1.
Finally, in a third experiment, the same simple stories were used, but the spoilers were also shorter and more simple (33% fewer words, 32% shorter sentences, and 16% fewer “cognitive process” related words). The results suggested that participants preferred the simply spoiled stories. Combined with the findings of Experiment 2, it seems that if the story were already easy to read, the spoiler also had to be simple and easy to read in order for the enjoyment ratings to increase. In both Experiment 2 and 3, participants rated the stories at the end, rather than in the middle as in Experiment 1.

Following an attempt to replicate Leavitt and Christenfeld’s (2011, 2013) findings, Johnson and Rosenbaum (2015) actually found the opposite results. First, participants were asked to read short (~63 words) previews, some that either gave away the ending and others that did not. All previews were pilot tested to have similar scores on the Flesch Reading Ease Scale (Flesch, 1948). For each preview, participants rated how much they would like to read the full story at that very moment. Results indicated no preference between spoiled and unspoiled conditions. In a second task participants read two complete short stories, chosen to be brief, to include a protagonist in danger and to have a twist or surprise ending. Each story began with a preview, again, that either spoiled the story or that did not. Results from this task showed that unspoiled stories were significantly more enjoyable, moving, and thought-provoking than were the spoiled stories.

Rosenbaum and Johnson (2016) examined the extent to which need for cognition (Petty, Cacioppo & Kao, 1984) might moderate the effect of spoilers on an individual’s enjoyment of a story. In particular, they hypothesized that individuals low in the need for cognition would prefer spoilers. A person with high need for cognition should gain
enjoyment from trying to predict the ending, and thus would wish to avoid knowing the outcome. Those low in the need for cognition, however, would benefit from knowing the outcome, because it would reduce their cognitive load while reading the story. Closely following the method used in their 2015 study, participants read eight short story previews, half that gave away the ending and half that did not. Participants were asked to indicate how much they would like to read each story at that very moment. Although need for cognition did qualify the effect on spoilers (high need for cognition participants expressed a stronger desire to read stories in the unspoiled condition than did low need for cognition participants), this effect, however, was only marginally significant. In the second phase, again, similar to the 2015 study, participants read a preview that either did or did not spoil the story, and then read the story in its entirety. Here, need for cognition did not qualify participants’ enjoyment of the story. Finally, Rosenbaum and Johnson examined the extent to which need for affect (Maio & Esses, 2001) qualified the spoiler effect. Appel and Richter (2010) described need for affect as an “affective counterpart to the need for cognition” (p. 107). People with high need for affect have a greater desire to understand their own and other’s emotions and do not feel uncomfortable when placed in an emotional or uncertain situation. For this reason, Rosenbaum and Johnson predicted that high need for affect individuals would enjoy the suspense of not knowing how the stories would end. Indeed, participants high in need for affect enjoyed unspoiled stories more than spoiled stories.

Levene, Betzner, and Autry (2016) continued the research of Leavitt and Christenfeld (2011, 2013) and Johnson and Rosenbaum (2015) and added new variables into their research such as transportability (getting lost in a book), and print-exposure
(ART). They also measured need for cognition. They used two different types of spoilers in their research: a beginning spoiler and a middle spoiler. The middle spoiler measures a reader's investment in a story. The beginning spoilers appeared as part of the story, the middle spoilers did not (they were both on their own page). They compared reading times to measure fluency. Participants were randomly assigned 3 stories (out of 6) and read them on a computer. Each participant had a control condition, a beginning spoiler, and a middle spoiler. Participants enjoyed unspoiled stories and middle-spoiled stories more than stories with the spoilers at the beginning. Middle spoilers elicited the highest enjoyment ratings. Need for cognition was positively related to how much a participant enjoyed a story in the unspoiled condition and participants who spent a longer amount of time reading often enjoyed the stories more.

Johnson and Rosenbaum (2017) were the only researchers to include film into the research on story spoilers. In their first experiment, they used 5-6 minute video clips of either television shows or movies and was conducted online. The genres used were comedy, fantasy thriller, and mystery. At the beginning of the study, participants were shown a poster displaying the main character and were shown a short preview of what the video was about. Prior to watching each clip (both of the same genre), participants were either provided with text that spoiled the ending or that left the ending unknown. They measured enjoyment of the clip, transportation, processing fluency, need for cognition, need for affect, and familiarity. Results showed no effect of spoilers on enjoyment. One possible explanation for this finding is that the enjoyment scale might have used items that may have been confusing to a participant who had only watched a 5-6 minute clip (e.g., "the movie left me with a lasting impression," "I found this movie to be very
meaningful," "this movie was suspenseful"). Additionally, because the study was conducted online, participants may not have been completely involved in watching the clips. Finally, they took a rather unusual statistical approach that could have obscured some of the findings (e.g., including uncorrelated dependent variables's in a MANOVA).

In a second experiment, participants were shown 8 movie posters and were asked to state whether they had seen the movie before, heard of it, or never heard of it. Participants were then given a summary (either spoiled or unspoiled) for a movie that they had never seen before. Participants were also randomly assigned to a frame condition in which the participants were either warned before receiving a spoiler or told that there was not going to be a spoiler. Participants never actually watched the film; they filled out questionnaires regarding the movie and their demographics. The only significant finding was that participants who were in the spoiler condition expressed having been more angry/annoyed about being told the outcome. Importantly, even this finding could have been a type 1 error, because as it was the only significant 1 of 28 separate statistical tests.

In a third, correlational, study, participants who had previously viewed an episode of *Game of Thrones* completed an online survey soliciting their opinions of the episode. The goal of this study was to measure involvement and the effect of spoilers on popular TV shows. Seventeen unique predictors, not counting interactions, were included in a regression model that predicted respondents' enjoyment of the episode. They were often correlated with each other, therefore, interpretation is difficult.

To summarize, Leavitt and Christenfeld (2011, 2013) found a positive effect of spoilers, where readers enjoyed a story more if they were first told the spoiler. On the
contrary, Johnson and Rosenbaum (2015), Levine, Betzner and Autry (2016), and Rosenbaum and Johnson (2016), all found a negative effect of spoilers, where readers enjoyed a story less if they were first told the spoiler. The only researchers that have conducted spoiler research relating to film were Johnson and Rosenbaum (2017), and they did not find a significant effect of spoilers on enjoyment. The current study attempts to replicate Johnson and Rosenbaum’s (2017) study by using a TV show instead of a printed story. Johnson and Rosenbaum’s (2017) study used only 5-6 minute clips of a movie while our study uses the whole TV show to gather data. It may be possible that their results were not significant because they did not use the whole video and only showed a clip.

**Current Study**

This study will more closely examine the role of expectations of the negative effect of spoilers. Previous studies are divided into two groups: those that presented the entire story and those that only provided only a teaser before asking participants whether they would like to finish the story or not. Johnson and Rosenbaum (2017) measured whether or not participants would want to watch the movie just from viewing a poster and being told a little about the film. A more complete understanding of how spoilers affect a person’s enjoyment of a movie would require the participants to view the whole movie. This study will examine the effect of making explicit that a spoiler is or is not going to be presented to participants. In the present study, I created two conditions relating to the variable ‘explicit’: one in which participants were told nothing about whether they would receive a spoiler or not (not explicit), and one in which participants
were told whether they would be receiving the spoiler or not (explicit). I also created two
conditions relating to the variable 'spoiler': one in which participants receive the ending
of the story, and one in which they do not receive the ending. This creates a total of four
conditions: explicit with a spoiler, explicit without a spoiler, not explicit with a spoiler,
and not explicit without a spoiler. I am testing whether making a spoiler explicit or not
matters because it may alter a person's enjoyment if they know that they are receiving a
spoiler and if they are high in the need for cognition or need for affect. People high in the
need for cognition enjoy figuring out a problem themselves and would not be very happy
about being told that they are going to receive a spoiler. Similarly, people high in the
need for affect enjoy the feeling of suspense and will also not be very happy about being
told that they will receive a spoiler. Additionally, because there have been mixed findings
concerning need for cognition, and only one study has examined need for affect, I
included both of these measures in my study. Both people high in the need for cognition
and need for affect should enjoy a story less if they are told that they will receive a
spoiler. Accordingly, they should enjoy the story more if they are in the explicit condition
that is told that they will not receive the spoiler because then they will feel like there is
something waiting for them to figure out.

Predictions

Leavitt and Christenfeld (2011, 2013) used spoilers that were somewhat vague
and buried within additional background information. When spoilers were clear and
concise (e.g., Levine, Betzner, & Autry, 2016), the opposite findings resulted. I predict
no overall effect of spoilers, but a significant interaction between whether a spoiler is
explicit or not and need for cognition. Spoilers should have a negative effect on enjoyment for those high in the need for cognition because the spoiler ruins the fun of trying to figure out how the TV show will end. For those low in need for cognition, however, the opposite effect should occur. Because these people do not enjoy effortful processing, the spoiler makes the "job" of watching the TV show easier, and therefore should increase enjoyment, at least by a small amount. I also predict that individuals who are high in the need for affect will enjoy the television show more if it is not spoiled. I also predict that there will be a significant interaction between whether a spoiler is explicit or not and need for affect. People low in need for affect should enjoy spoiled television shows more because they do not need to feel anxious or upset about being surprised. People high in need for affect would likely enjoy a television show more when the ending is not provided because they enjoy the suspense of not knowing and do not feel uncomfortable when they are surprised.

I predict a significant three-way interaction between spoiler, explicit, and need for cognition on enjoyment ratings. People high in need for cognition, who know that they are going to receive a spoiler and who actually do, should enjoy the show less because they should feel unhappy that they are receiving a spoiler and will not be able to figure out the show for themselves. I predict a similar three-way interaction with people high in need for affect because they enjoy the suspense of not knowing how the plot will end and therefore would be upset if they were told the ending in advance. I predict that people high in need for affect and need for cognition would be more likely to both recommend the show to a friend if they are in the unspoiled condition and to find the show to make more sense if they are in the unspoiled condition. Also, I predict that people in the
explicit condition (told whether or not they will receive a spoiler) will be less likely to recommend the show, but will be more likely to find the show to make sense.
Method

Participants

All participants were students recruited from the University of South Florida St. Petersburg (USFSP). The age of participants ranged from 18 to 48 years old, M = 24.14 (SD= 6.90). Forty-two participants (79.8% female) were recruited via classroom announcements. An additional fifty-eight participants (87.9% female) were recruited in an online Psychological Statistics class. All participants were offered extra credit in their psychology course. Those recruited from the statistics class completed an online version of the study, and the remaining students participated in an in-person version of the study on USFSP campus. To encourage participation, campus participants were also provided with snacks. All participants were asked if they had seen the particular episode of The Twilight Zone TV show in the past or if they had prior knowledge of the nature of the study. Those who indicated in the affirmative were allowed to participate, but their data were excluded from the analysis (n=7).

Materials

Need for cognition was measured with the Need for Cognition scale (Petty, Cacioppo, & Kao, 1984, Appendix A). This scale has 18 items and measures how much a person enjoys thinking and figuring out problems. The reliability of this scale for this study was acceptable, a=.890. Need for affect was measured with the Need for Affect scale (Appel & Richter, 2010) (Appendix B). This scale has 26 items and measures how much a person enjoys feeling and viewing emotions. The reliability of this scale for this
study was also acceptable, a=.874. Both the need for cognition and the need for affect items are measured on a 1 to 7 Likert scale. Enjoyment ratings included the following items: “How good was the show?”, “How enjoyable was the show?”, “How interesting was the plot?”, and “How interesting was the dialog?”. These four ratings were combined to create a composite measure called “LIKE”. A second item, called “sense” measured fluency (“To what extent does the show make sense?”) and a third and final item, called “recommend” asked participants “How likely are you to recommend this show to a friend?”

Procedure

Campus Collection. A classroom at USFSP was used to run this study. Upon arrival, participants were instructed to sign their names on a sheet of paper (to allow us to give them credit for participating) and then allowed to choose where they sat. The classroom had a pull-down projector upon which the television show “The Silence”, an episode from the television show The Twilight Zone, was played. This show was used because it has an ironic twist, is an older show that most college students may not have seen before, and is short at 24 minutes long.

All participants were given a paper packet which included a consent form to read, and a brief description of the TV show they were about to watch. There were four different packets which created the four different conditions. Each packet included the following items in order: Consent form (Appendix C), Need for Cognition scale (Petty, Cacioppo, & Kao, 1984); Need for Affect scale (Appel & Richter, 2010); Study summary (Appendix D-G), Description page (Appendix B-E); and, Enjoyment Rating Scale (Appendix H). The enjoyment rating scale included questions concerning participants
enjoyment, familiarity, and preference for the show that they just watched (all items used a 1-7 scale). One half of the participants (randomly assigned) will also be told the outcome of the episode, while the other half were not. This variable will be called “Spoiler.” I will be using clear and concise spoilers, rather than the lengthy ones utilized by Leavitt and Christenfeld (2011, 2013). I also will measure the effect of whether the spoiler is explicit or not explicit. This variable will be called “Condition.” Half of all participants will receive a brief overview which states whether or not they will receive a spoiler, and in either case explicitly mentions the possibility of a spoiler. For the remaining half of the participants no mention of getting or not getting a spoiler will be made. This allows us to measure whether a person’s beliefs about spoilers will affect their experience of watching the show. It will also let us determine whether a person’s beliefs about spoilers can affect their overall enjoyment of a show if they know that they are going to receive a spoiler. Participants were given these papers immediately before the show started and were told not to talk to other participants until after the study has ended. Participants were asked to complete the packet in the order that the items appeared. After completing the packet, participants were instructed to place it in a pile at the front of the room, but to keep the consent form. Participants were then free to leave.

Online Collection. A second set of students were recruited from a statistics class and participated online using Qualtrics Survey Software®. Subjects who participated online were provided with the same packet that the in-person participants were given, but in an online format. Qualtrics® randomly assigned each participant to one of the four conditions. After participants completed the need for cognition and need for affect scales,
they were assigned to a condition and then offered access to the show, which was stored on Dropbox™. Participants clicked this link and the show popped up in a new window. After viewing the show, participants went back to the Qualtrics® window and completed the finishing questionnaire. Participants were provided with a unique code when they completed the study and then entered that code in on the Canvas website for USFSP to receive extra credit in their psychological statistics course.

**Data Analysis**

A total of six regression analyses were conducted using SPSS. The first analysis predicted the composite LIKE variable from spoiler, explicit, need for cognition, and associated interactions. A second analysis used the same predictor variables, but replaced LIKE with “sense”. A third analysis again used the same predictor variables, but predicted “recommend”. The remaining three analyses also predicted LIKE, “sense,” and “recommend,” but replaced need for cognition (and associated interactions) with need for affect. Variables for all six regression analyses, variables were entered in blocks: (1) need for cognition (or need for affect), explicit, spoiler; (2) spoiler x explicit, spoiler x need for cognition (or need for affect), explicit x need for cognition (or need for affect); (3) need for cognition (or need for affect) x explicit x spoiler. The variables need for cognition and need for affect were centered according to their means. A mediation analysis between the three dependent variables was also conducted using PROCESS (Hayes, 2012).
Results

Data Cleaning

A total of 100 responses were collected (42 in-person, 58 online). Data from 12 online participants were dropped because they completed the study in less than 26 minutes. Pilot testing indicated that the minimum time required to fully complete the survey in an engaged matter was 26 minutes. The remaining online participants took a median of 40 minutes to complete the study.\(^2\) Data from 4 participants were not used because they had previously seen this particular episode of *The Twilight Zone* before. Therefore, data from 84 participants remained for analysis, with cell sizes as follows:

Table 1: Conditions

<table>
<thead>
<tr>
<th>Spoiled</th>
<th>Explicit</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>19</td>
</tr>
<tr>
<td>Yes</td>
<td>No</td>
<td>16</td>
</tr>
<tr>
<td>No</td>
<td>Yes</td>
<td>25</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>24</td>
</tr>
</tbody>
</table>

\(^2\)Note that completion times were not recorded for data collected in person, but informal observation suggests that these participants were all very engaged.

The last of seven ratings scales on the final page of the questionnaire (“Was the story easy to follow?”) was not included in the analyses reported below. The scale for this item was opposite that of the other six items (1 = VERY EASY, whereas 1 = NOT AT ALL/TERRIBLE on the other 6 items). Many, though not all participants chose a
relatively high number for the item (indicating that it was not easy to follow). Those same participants, however, indicated that the story did make sense. Because it is impossible to know which participants noticed the change to response fields felt that the story was not easy to follow, this item was rendered unusable.

**Composite Variable and Preliminary Analyses**

Table 1 shows means and standard deviations for four items from the remaining six scales ("How good was the show?", "How enjoyable was the show?", "How interesting was the plot?", "How interesting was the dialog?") were all strongly correlated with each other (r's ranged from .59 to .85). As these variables were conceptually related, a new composite variable (LIKE) was created by using the mean of the four individual items. Cronbach's alpha was good, \( \alpha = .89 \), and all items appeared to contribute equally to the composite variable.

Two additional variables remained (RECOMMEND: "How likely are you to recommend this show to a friend" and SENSE: "To what extent does the show make sense"). LIKE was correlated with both SENSE, \( r (84) = .49, p < .001 \), and with RECOMMEND, \( r (84) = .30, p = .006 \), SENSE was not correlated with RECOMMEND, \( r (84) = .14, p = .20 \).

Finally, the need for cognition and need for affect scales were only weakly correlated, \( r (84) = .19, p = .08 \). Previous research by Maio and Esses (2001) found a similar correlation of \( r = .21 \). A smaller but similar correlation of \( r = .15 \) was found by Haddock and Huskinson (2004).
Main Analysis

A regression analysis was conducted to determine the effect of spoilers on enjoyment. Whether or not the spoiler condition was explicit or not was also examined on the enjoyment rating of the show. The independent variables of need for cognition and need for affect were also examined. A three-way analysis was conducted with spoiler, explicit, and need for cognition/need for affect on enjoyment.

Need for cognition, spoiler, and explicit were not significantly related to how much a person liked the TV show, $B = -.53$, $t = -1.13$, $p = .26$. Need for cognition, spoiler, and explicit were not significantly related to how likely a person was to recommend the TV show, $B = -.35$, $t = -.46$, $p = .65$. Need for cognition, spoiler, and explicit were not significantly related to how much the TV show made sense, $B = .57$, $t = 1.29$, $p = .20$.

3 The correlation was considerably lower when only online participants were used, $r = .40$, $p = .03$, $N = 24$.

Need for affect, spoiler, and explicit were not significantly related to how much a person liked the TV show, $B = .03$, $t = .07$, $p = .94$. Need for affect, spoiler, and explicit were not significantly related to how likely a person was to recommend the TV show, $B = -.17$, $t = -.26$, $p = .80$. Need for affect, spoiler, and explicit were not significantly related to how much the TV show made sense, $B = .33$, $t = .73$, $p = .47$. Tables of each dependent variable
with each independent variable are displayed in Appendix I. A correlation table displaying need for cognition and the dependent variables are located in Appendix J.

A mediation analysis was conducted using PROCESS (Hayes, 2012). If the show made sense, the participant was more likely to like the show, which created a higher chance of recommending the show to a friend. When a person finds the show to make sense, they have a higher chance of liking the show, $B=.52$, $p<.001$, 95%CI [.31, .73]. When a person likes a show, they are more likely to recommend the show to a friend, $B=.49$, $p=.02$, 95% CI [.09, .90]. There was not a significant direct effect of sense on recommendation, $p=.98$.

There were some differences between the online participants and the in-person participants' scores when analyzed separately. The main effect of spoiler on LIKE was significant for the online only participants when in the model with need for affect and explicit, $B=-.67$, $t=-2.08$, $p=.04$. The main effect of spoiler on sense was significant for the online only participants when in the model with need for affect and explicit, $B=-.68$, $t=-2.16$, $p=.04$. The three-way interaction between need for affect, spoiler, and explicit was significant with the dependent variable of sense, $B=1.64$, $t=2.19$, $p=.04$. However, these effects were not significant for the in-person participants, or when both groups were combined and analyzed together.

For the in-person participants, the main effect of explicit on LIKE was significant when in the model with spoiler and need for cognition, $B=.89$, $t=2.44$, $p=.02$. The main effect of explicit on sense was significant when in the model with spoiler and need for cognition, $B=.70$, $t=2.13$, $p=.04$. The main effect of explicit on recommend was significant when in the model with spoiler and need for cognition, $B=1.06$, $t=2.11$, $p=.04$. 

The main effect of explicit on LIKE was significant when in the model with spoiler and need for affect, $B=.85$, $t=2.34$, $p=.03$. The two way interaction of need for affect and explicit was significant on the dependent variable of LIKE, $B=-.81$, $t=-2.37$, $p=.02$. The main effect of explicit on sense was significant when in the model with spoiler and need for affect, $B=.68$, $t=2.07$, $p=.05$. However, these effects were not significant for the online participants, or when both groups were combined and analyzed together.

It is not very likely that these effects were due to manipulation since there were only 42 online participants' data that we analyzed.

Table 2: Table of Means and Standard Deviations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFC</td>
<td>1.25</td>
<td>1.18</td>
</tr>
<tr>
<td>NFA</td>
<td>1.24</td>
<td>1.10</td>
</tr>
<tr>
<td>Duration (minutes)</td>
<td>119.57</td>
<td></td>
</tr>
<tr>
<td>GOOD</td>
<td>5.44</td>
<td>1.21</td>
</tr>
<tr>
<td>ENJOY</td>
<td>5.61</td>
<td>1.19</td>
</tr>
<tr>
<td>PLOT</td>
<td>5.57</td>
<td>1.27</td>
</tr>
<tr>
<td>DIALOGUE</td>
<td>4.77</td>
<td>1.43</td>
</tr>
<tr>
<td>LIKE</td>
<td>5.35</td>
<td>1.11</td>
</tr>
<tr>
<td>RECOMMEND</td>
<td>3.90</td>
<td>1.85</td>
</tr>
<tr>
<td>SENSE</td>
<td>5.93</td>
<td>1.04</td>
</tr>
</tbody>
</table>
Discussion

This is the first study to examine the effect of spoilers using a complete TV episode. I failed to replicate the spoiler effect reported by Johnson and Rosenbaum (2015, 2016) and Levine, Betzner and Autry (2016). There was no effect of spoiler on liking of the show, likelihood of recommending the show, or the extent to which the show was perceived to make sense. The findings are similar to those of Johnson and Rosenbaum (2017) that found no significant main effect of spoilers when they attempted to replicate the study using media instead of print. More important, the effect of spoiler was not qualified by either condition or need for cognition. That is, there was no evidence of a two-way interaction between need for cognition and spoiler, nor of a three-way interaction between spoiler, condition, and need for cognition. The same is true when need for cognition was replaced with need for affect.

The findings of this study also do not replicate Leavitt and Christenfeld’s (2011, 2013), who found that spoilers actually improve a person’s enjoyment. They hypothesized that their findings were due to an increase in fluency while reading the stories. One possible reason as to why we did not find a positive effect of spoilers may be because TV shows are easier to follow than printed stories, so the fluency effect was not

<table>
<thead>
<tr>
<th>SPOILER</th>
<th>.42</th>
<th>.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPLICIT</td>
<td>.52</td>
<td>.50</td>
</tr>
</tbody>
</table>

\(^a\) Median value
\(^b\) Composite variable combining GOOD, ENJOY, PLOT, and DIALOGUE.
present. The TV show chosen was also a very interesting show in which a man is offered $500,000 if he can stay in a glass room for one year without speaking. At the end of the episode we find out that the man who made the bet does not have the money and that the man who remained silent for a year did so by cutting out his vocal cords. However, it is possible that the plot would have been interesting to participants whether or not the spoiler was included.

Limitations

With 7 predictors in each regression analysis, and a total of 84 participants, I have 12 participants per predictor. Although the generally accepted rule in regression is to have at least 10 participants per predictor, when causal analysis (rather than merely prediction) is the goal a greater sample size is desirable (Darlington & Hayes, 2017). Therefore, my study is somewhat under powered.

One additional possible explanation for the lack of any significant effects is that the show that was chosen was found to be extremely enjoyable by most viewers. Indeed, 29.8% gave it the highest possible rating on the “ENJOY” scale. Thus, group difference could have been minimized by a ceiling effect. Future research should include shows that are somewhat less enjoyable to create “room” for enjoyment ratings to change across conditions.

Also, the explicit condition may not have been as explicit as it could have been. It would have been more explicit if “SPOILER ALERT!!!” was written at the top of the page and followed by the spoiler.
Finally, there is the possibility that participants did not take the task seriously. Recall that the data were collected both in person and online. Informal observation during the in-person collection suggests that these participants did take the task seriously. However, it is impossible to know if participants of the online survey were equally engaged. Although 12 of the online participants rushed through the study so fast that they could not possibly have watched the entire TV show, that data was not used. Unfortunately, completion times for the in person collection were not recorded, and therefore cannot be compared to those of online participants.

Future Research

Future directions for this research would include collecting more data and sticking with just a two-way interaction of need for cognition/need for affect and Spoiler on enjoyment rather than also including the variable “explicit.” The “explicit” variable did not appear to have any effect on the data. Participants would also be asked how they feel about spoilers. This was not done in this study due to the explicit condition, participants would have known that they were participating in a study about spoilers.
References


APPENDICES
APPENDIX A: Need for Cognition Scale

Using the following scale, indicate how your agreement with each item below

<table>
<thead>
<tr>
<th>-4</th>
<th>-3</th>
<th>-2</th>
<th>-1</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly DISAGREE</td>
<td>Strongly AGREE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

____ I prefer complex to simple problems.
____ I like the responsibility of handling a situation that requires a lot of thinking.
____ Thinking is not my idea of fun.
____ I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.
____ I try to anticipate and avoid situations where there is likely a chance I will have to think in depth about something.
____ I find satisfaction in deliberating hard and for long hours.
____ I only think as hard as I have to.
____ I prefer to think about small, daily projects to long-term ones.
____ I like tasks that require little thought once I’ve learned them.
____ The idea of relying on thought to make my way to the top appeals to me.
____ I really enjoy a task that involves coming up with new solutions to problems.
____ Learning new ways to think doesn’t excite me very much.
____ I prefer my life to be filled with puzzles that I must solve.
____ The notion of thinking abstractly is appealing to me.
____ I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.
____ I feel relief rather than satisfaction after completing a task that required a lot of mental effort.
____ It’s enough for me that something gets the job done; I don’t care how or why it
works.

I usually end up deliberating about issues even when they do not affect me personally.
### APPENDIX B: Need for Affect Scale

Using the following scale, indicate how your agreement with each item below

<table>
<thead>
<tr>
<th>Strongly DISAGREE</th>
<th>Strongly AGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>-4</td>
<td>4</td>
</tr>
<tr>
<td>-3</td>
<td>3</td>
</tr>
<tr>
<td>-2</td>
<td>2</td>
</tr>
<tr>
<td>-1</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

- It is important for me to be in touch with my feelings.
- I think that it is important to explore my feelings.
- I am a very emotional person.
- It is important for me to know how others are feeling.
- Emotions help people get along in life.
- Strong emotions are generally beneficial.
- I feel that I need to experience strong emotions regularly.
- I approach situations in which I expect to experience strong emotions.
- I feel like I need a good cry every now and then.
- I like to dwell on my emotions.
- We should indulge our emotions.
- I like decorating my bedroom with a lot of pictures and posters of things emotionally significant to me.
- The experience of emotions promotes human survival.
- I do not know how to handle my emotions, so I avoid them.
- I find strong emotions overwhelming and therefore try to avoid them.
- Emotions are dangerous—they tend to get me into situations that I would rather
I would prefer not to experience either the lows or highs of emotion.

If I reflect on my past, I see that I tend to be afraid of feeling emotions.

I would love to be like "Mr. Spock," who is totally logical and experiences little emotion.

I have trouble telling the people close to me that I love them.

Displays of emotions are embarrassing.

Acting on one's emotions is always a mistake.

I am sometimes afraid of how I might act if I become too emotional.

Avoiding emotional events helps me sleep better at night.

I wish I could feel less emotion.

People can function most effectively when they are not experiencing strong emotions.
APPENDIX C: Informed Consent Form

Informed Consent to Participate in Research

Information to Consider Before Taking Part in this Research Study

Pro # 00031210

Researchers at the University of South Florida (USF) study many topics. To do this, we need the help of people who agree to take part in a research study. This form tells you about this research study. We are asking you to take part in a research study that is called: TV Shows.

The person who is in charge of this research study is Olivia Leal. This person is called the Principal Investigator.

She is being guided in this research by Dr. Mark Pezzo

Purpose of the Study

This study examines attitudes towards television shows. In particular, we are interested in studying the psychological factors that affect how much a person will enjoy a TV show. You will watch an episode from an old TV show and then we will ask you a series of questions concerning your perception of the show.

Why are you being asked to take part?

We are asking you to take part in this research study because you fit into our criteria by being a student at USFSP.

Study Procedures

If you take part in this study, you will be asked to watch a short film and then fill out two questionnaires. This study should take about 45 minutes to complete. This study is completely anonymous and will be conducted on USFSP campus. Your data will not be shared with anybody except for the Principal Investigator and Dr. Pezzo. All data collected will be destroyed 5 years after we publish a summary of the findings in a scientific journal.

Alternatives / Voluntary Participation / Withdrawal

You have the alternative to choose not to participate in this research study. Your professor will have other extra credit opportunities available if you do not wish to participate in this study.
You should only take part in this study if you want to volunteer; you are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. Your decision to participate or not to participate will not affect your student status, course grade, recommendations, or access to future courses or training opportunities.

Benefits and Risks

You will receive no benefit(s) from this study.

This research is considered to be minimal risk.

Compensation

We will not pay you for the time you volunteer while being in this study.

Participants will be offered food and drink for their time.

If you are a student recruited via SONA, you will receive 4 extra credit points for participating. If you are not recruited via SONA, you will not be receiving any extra credit points.

Privacy and Confidentiality

Certain people may need to see your study records. By law, anyone who looks at your records must keep them completely confidential. The only people who will be allowed to see these records are: Olivia Leal, Dr. Mark Pezzo, and The University of South Florida Institutional Review Board (IRB).

Contact Information

If you have any questions about your rights as a research participant, please contact the USF IRB at (813) 974-5638 or contact by email at RSCH-IRB@usf.edu. If you have questions regarding the research, please contact the Principal Investigator at olivialeal@mail.usf.edu.

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are. You have been given a copy of this form.

I freely give my consent to take part in this study. I understand that by proceeding with this survey that I am agreeing to take part in research and I am 18 years of age or older.
APPENDIX D: Condition: EX-SP (Explicit with Spoiler)

Study Summary

Gender: ___________

Age: ___________

Please do not talk to anyone during the experiment. If you have a question, please raise your hand.

Please also do not talk to anybody about this experiment until the end of the semester.

You will be watching an episode from The Twilight Zone and then completing a few questionnaires.

If you are not familiar with this show, The Twilight Zone depicts unusual and/or strange situations that people find themselves in. Sometimes the audience doesn’t even understand what’s happening until the very end of the show. In this study, however, we will provide you with both the plot of this particular episode and how it ends.

Please read the following carefully.

You may be asked questions about the content later.

Story Plot with Ending

PLOT: Jamie Tennyson is an overly talkative member of a private men's club. He is challenged by fellow member Col. Archie Taylor to keep his mouth shut for one year. Should he do so, he would win $500,000 (which is equivalent to $4 million today). Taylor dislikes Tennyson and if nothing else, finds this a way to get a bit of peace and quiet at the club. Tennyson will live in a glass room in the club, under auditory and visual observation and will communicate in writing only. As the months go by, Taylor begins to worry that Tennyson may just succeed.

ENDING: After Tennyson remained silent for an entire year, Taylor admits that he had lost his fortune and cannot pay him. The distraught Tennyson scribbles furiously on a sheet of paper. The other men tell him that the year is over and he can now speak. Taylor reads the note aloud: "I knew that I would not be able to keep my part of the bargain, so one year ago I had the nerves to my vocal cords severed!" Tennyson displays the scar on his throat from the operation, which he has concealed for the past 12 months under scarves and turtlenecks.
APPENDIX E: Condition: EX-NO (Explicit without a Spoiler)

Study Summary

Gender: __________

Age: __________

Please do not talk to anyone during the experiment. If you have a question, please raise your hand.

Please also do not talk to anybody about this experiment until the end of the semester.

You will be watching an episode from The Twilight Zone and then completing a few questionnaires.

If you are not familiar with this show, The Twilight Zone depicts unusual and/or strange situations that people find themselves in. Sometimes the audience doesn’t even understand what’s happening until the very end of the show. In this study, we will only provide you with the plot of this particular episode. But, not how it ends.

Please read the following carefully.

You may be asked questions about the content later.

Story Plot, No Ending

PLOT: Jamie Tennyson is an overly talkative member of a private men's club. He is challenged by fellow member Col. Archie Taylor to keep his mouth shut for one year. Should he do so, he would win $500,000 (which is equivalent to $4 million today). Taylor dislikes Tennyson and if nothing else, finds this a way to get a bit of peace and quiet at the club. Tennyson will live in a glass room in the club, under auditory and visual observation and will communicate in writing only. As the months go by, Taylor begins to worry that Tennyson may just succeed.

ENDING: ???
APPENDIX F: Condition: UN-SP (Unexplicit with a Spoiler)

Study Summary

Gender: ____________

Age: ____________

Please do not talk to anyone during the experiment. If you have a question, please raise your hand.

Please also do not talk to anybody about this experiment until the end of the semester.

You will be watching an episode from The Twilight Zone and then completing a few questionnaires.

Please read the following carefully.

You may be asked questions about the content later.

Jamie Tennyson is an overly talkative member of a private men's club. He is challenged by fellow member Col. Archie Taylor to keep his mouth shut for one year. Should he do so, he would win $500,000 (which is equivalent to $4 million today). Taylor dislikes Tennyson and if nothing else, finds this a way to get a bit of peace and quiet at the club. Tennyson will live in a glass room in the club, under auditory and visual observation and will communicate in writing only. As the months go by, Taylor begins to worry that Tennyson may just succeed. After Tennyson remained silent for an entire year, Taylor admits that he had lost his fortune and cannot pay him. The distraught Tennyson scribbles furiously on a sheet of paper. The other men tell him that the year is over and he can now speak. Taylor reads the note aloud: "I knew that I would not be able to keep my part of the bargain, so one year ago I had the nerves to my vocal cords severed!" Tennyson displays the scar on his throat from the operation, which he has concealed for the past 12 months under scarves and turtlenecks.
APPENDIX G: Condition: UN-NO (Unexplicit with no Spoiler)

Study Summary

Gender: __________
Age: __________

Please do not talk to anyone during the experiment. If you have a question, please raise your hand.

Please also do not talk to anybody about this experiment until the end of the semester.

You will be watching an episode from The Twilight Zone and then completing a few questionnaires.

Please read the following carefully.

You may be asked questions about the content later.

Jamie Tennyson is an overly talkative member of a private men's club. He is challenged by fellow member Col. Archie Taylor to keep his mouth shut for one year. Should he do so, he would win $500,000 (which is equivalent to $4 million today). Taylor dislikes Tennyson and if nothing else, finds this a way to get a bit of peace and quiet at the club. Tennyson will live in a glass room in the club, under auditory and visual observation and will communicate in writing only. As the months go by, Taylor begins to worry that Tennyson may just succeed.
APPENDIX H: Enjoyment Ratings

How much did you enjoy this show?
NOT AT ALL  1  2  3  4  5  6  7  VERY MUCH

How good was the story?
TERRIBLE  1  2  3  4  5  6  7  VERY GOOD

How interesting was the plot?
TERRIBLE  1  2  3  4  5  6  7  VERY GOOD

How interesting was the dialog?
TERRIBLE  1  2  3  4  5  6  7  VERY GOOD

Would you recommend this show to a friend?
Definitely NOT  1  2  3  4  5  6  7  Definitely YES

How much did the story make sense?
NOT AT ALL  1  2  3  4  5  6  7  VERY MUCH

Was the story easy to follow?
VERY EASY  1  2  3  4  5  6  7  VERY HARD

Did you know anything about this study prior to your participation?  YES  NO

If yes, please tell us what you knew?

Have you ever seen this episode before?
### Table 3: Regression predicting LIKE from spoiler, explicit, and Need for Cognition (NFC)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explicit</td>
<td>.266</td>
<td>.239</td>
<td>.120</td>
<td>1.116</td>
<td>.268</td>
</tr>
<tr>
<td>Spoiler</td>
<td>-.186</td>
<td>.245</td>
<td>-.083</td>
<td>-.758</td>
<td>.450</td>
</tr>
<tr>
<td>NFC</td>
<td>.215</td>
<td>.103</td>
<td>.227</td>
<td>2.077</td>
<td>.041</td>
</tr>
<tr>
<td><strong>Model 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFC x Spoiler</td>
<td>.044</td>
<td>.225</td>
<td>.029</td>
<td>.196</td>
<td>.845</td>
</tr>
<tr>
<td>Spoiler x Explicit</td>
<td>-.025</td>
<td>.508</td>
<td>-.010</td>
<td>-.050</td>
<td>.960</td>
</tr>
<tr>
<td>NFC x Explicit</td>
<td>-.099</td>
<td>.220</td>
<td>-.082</td>
<td>-.450</td>
<td>.654</td>
</tr>
<tr>
<td><strong>Model 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFC 3way</td>
<td>-.528</td>
<td>.466</td>
<td>-.293</td>
<td>-1.132</td>
<td>.261</td>
</tr>
</tbody>
</table>

### Table 4: Regression predicting LIKE from spoiler, explicit, and Need for Affect (NFA)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explicit</td>
<td>.220</td>
<td>.244</td>
<td>.100</td>
<td>.903</td>
<td>.369</td>
</tr>
<tr>
<td>Spoiler</td>
<td>-.262</td>
<td>.247</td>
<td>-.117</td>
<td>-1.058</td>
<td>.293</td>
</tr>
<tr>
<td>NFA</td>
<td>.077</td>
<td>.112</td>
<td>.076</td>
<td>.690</td>
<td>.492</td>
</tr>
<tr>
<td><strong>Model 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFA x Spoiler</td>
<td>.194</td>
<td>.224</td>
<td>.122</td>
<td>.866</td>
<td>.389</td>
</tr>
<tr>
<td>Spoiler x Explicit</td>
<td>-.219</td>
<td>.483</td>
<td>-.083</td>
<td>-.454</td>
<td>.651</td>
</tr>
<tr>
<td>NFA x Explicit</td>
<td>-.571</td>
<td>.228</td>
<td>-.447</td>
<td>-2.508</td>
<td>.014</td>
</tr>
<tr>
<td><strong>Model 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFA 3way</td>
<td>.033</td>
<td>.462</td>
<td>.015</td>
<td>.071</td>
<td>.944</td>
</tr>
</tbody>
</table>
### Table 5: Regression predicting SENSE from spoiler, explicit, and Need for Cognition (NFC)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explicit</td>
<td>.129</td>
<td>.228</td>
<td>.062</td>
<td>.563</td>
<td>.575</td>
</tr>
<tr>
<td>Spoiler</td>
<td>-.068</td>
<td>.234</td>
<td>-.033</td>
<td>-.291</td>
<td>.772</td>
</tr>
<tr>
<td>NFC</td>
<td>.141</td>
<td>.099</td>
<td>.159</td>
<td>1.420</td>
<td>.160</td>
</tr>
<tr>
<td><strong>Model 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFC x Spoiler</td>
<td>.040</td>
<td>.213</td>
<td>.028</td>
<td>.189</td>
<td>.850</td>
</tr>
<tr>
<td>Spoiler x Explicit</td>
<td>.164</td>
<td>.482</td>
<td>.067</td>
<td>.341</td>
<td>.734</td>
</tr>
<tr>
<td>NFC x Explicit</td>
<td>.237</td>
<td>.209</td>
<td>.209</td>
<td>1.136</td>
<td>.259</td>
</tr>
<tr>
<td><strong>Model 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFC 3way</td>
<td>.571</td>
<td>.442</td>
<td>.339</td>
<td>1.293</td>
<td>.200</td>
</tr>
</tbody>
</table>

### Table 6: Regression predicting SENSE from spoiler, explicit, and Need for Affect (NFA)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explicit</td>
<td>.096</td>
<td>.231</td>
<td>.046</td>
<td>.416</td>
<td>.678</td>
</tr>
<tr>
<td>Spoiler</td>
<td>-.115</td>
<td>.234</td>
<td>-.055</td>
<td>-.493</td>
<td>.624</td>
</tr>
<tr>
<td>NFA</td>
<td>.069</td>
<td>.106</td>
<td>.072</td>
<td>.648</td>
<td>.519</td>
</tr>
<tr>
<td><strong>Model 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFA x Spoiler</td>
<td>.219</td>
<td>.221</td>
<td>.147</td>
<td>.992</td>
<td>.324</td>
</tr>
<tr>
<td>Spoiler x Explicit</td>
<td>-.033</td>
<td>.475</td>
<td>-.014</td>
<td>-.070</td>
<td>.944</td>
</tr>
<tr>
<td>NFA x Explicit</td>
<td>-.051</td>
<td>.224</td>
<td>-.043</td>
<td>-.228</td>
<td>.820</td>
</tr>
<tr>
<td><strong>Model 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFA 3way</td>
<td>.332</td>
<td>.453</td>
<td>.164</td>
<td>.733</td>
<td>.466</td>
</tr>
</tbody>
</table>
Table 7: Regression predicting RECOMMEND from spoiler, explicit, and Need for Cognition (NFC)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explicit</td>
<td>.247</td>
<td>.405</td>
<td>.067</td>
<td>.610</td>
<td>.544</td>
</tr>
<tr>
<td>Spoiler</td>
<td>.644</td>
<td>.416</td>
<td>.173</td>
<td>1.550</td>
<td>.125</td>
</tr>
<tr>
<td>NFC</td>
<td>.115</td>
<td>.176</td>
<td>.073</td>
<td>.655</td>
<td>.514</td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFC x Spoiler</td>
<td>.995</td>
<td>.362</td>
<td>.394</td>
<td>2.746</td>
<td>.008</td>
</tr>
<tr>
<td>Spoiler x Explicit</td>
<td>.898</td>
<td>.819</td>
<td>.205</td>
<td>1.096</td>
<td>.276</td>
</tr>
<tr>
<td>NFC x Explicit</td>
<td>.115</td>
<td>.355</td>
<td>.057</td>
<td>.323</td>
<td>.748</td>
</tr>
<tr>
<td>Model 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFC 3way</td>
<td>-.350</td>
<td>.757</td>
<td>-.117</td>
<td>-.462</td>
<td>.646</td>
</tr>
</tbody>
</table>

Table 8: Regression predicting RECOMMEND from spoiler, explicit, and Need for Affect (NFA)

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explicit</td>
<td>.225</td>
<td>.406</td>
<td>.061</td>
<td>.555</td>
<td>.580</td>
</tr>
<tr>
<td>Spoiler</td>
<td>.600</td>
<td>.411</td>
<td>.161</td>
<td>1.459</td>
<td>.148</td>
</tr>
<tr>
<td>NFA</td>
<td>.023</td>
<td>.186</td>
<td>.014</td>
<td>.123</td>
<td>.903</td>
</tr>
<tr>
<td>Model 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFA x Spoiler</td>
<td>.317</td>
<td>.387</td>
<td>.120</td>
<td>.819</td>
<td>.415</td>
</tr>
<tr>
<td>Spoiler x Explicit</td>
<td>.378</td>
<td>.833</td>
<td>.086</td>
<td>.454</td>
<td>.651</td>
</tr>
<tr>
<td>NFA x Explicit</td>
<td>-.329</td>
<td>.393</td>
<td>-.155</td>
<td>-.838</td>
<td>.405</td>
</tr>
<tr>
<td>Model 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFA 3way</td>
<td>-.111</td>
<td>.797</td>
<td>-.031</td>
<td>-.139</td>
<td>.890</td>
</tr>
</tbody>
</table>
### APPENDIX J: CORRELATION TABLE OF VARIABLES

#### Table 9: Correlation table of NFC, NFA, LIKE, sense, and recommend

<table>
<thead>
<tr>
<th></th>
<th>REC</th>
<th>SENSE</th>
<th>LIKE</th>
<th>NFC</th>
<th>NFA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REC</strong>&lt;br&gt;Pearson</td>
<td>1</td>
<td>0.141</td>
<td>0.295**</td>
<td>0.038</td>
<td>0.006</td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.201</td>
<td>0.006</td>
<td>0.731</td>
<td>0.953</td>
<td></td>
</tr>
<tr>
<td><strong>SENSE</strong>&lt;br&gt;Pearson</td>
<td>0.141</td>
<td>1</td>
<td>0.486**</td>
<td>0.160</td>
<td>0.079</td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.201</td>
<td>0.000</td>
<td>0.145</td>
<td>0.474</td>
<td></td>
</tr>
<tr>
<td><strong>LIKE</strong>&lt;br&gt;Pearson</td>
<td>0.295**</td>
<td>0.486**</td>
<td>1</td>
<td>0.233*</td>
<td>0.091</td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.006</td>
<td>0.000</td>
<td>0.033</td>
<td>0.410</td>
<td></td>
</tr>
<tr>
<td><strong>NFC</strong>&lt;br&gt;Pearson</td>
<td>0.038</td>
<td>0.160</td>
<td>0.233*</td>
<td>1</td>
<td>0.193</td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.731</td>
<td>0.145</td>
<td>0.033</td>
<td>0.079</td>
<td></td>
</tr>
<tr>
<td><strong>NFA</strong>&lt;br&gt;Pearson</td>
<td>0.006</td>
<td>0.079</td>
<td>0.091</td>
<td>0.193</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>0.953</td>
<td>0.474</td>
<td>0.410</td>
<td>0.079</td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.05 level (2-tailed).<br>**. Correlation is significant at the 0.01 level (2-tailed).