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**What movie will I watch today? The role of online review ratings, reviewers' comments,
and user's gratification style**

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**What movie will I watch today? The role of online review ratings, reviewers' comments,
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Abstract

Browsing online ratings and viewers' comments is an integral part of the experience of choosing and watching a movie. Current theories have broadened the concept of entertainment beyond amusement (hedonic motives) to include experiences of meaning, value, and self-development (eudaimonic motives). With a between-subjects design, we examined the role of reviewer's rating (medium rating vs high rating), comments (hedonic vs. eudaimonic) and participant's gratification style on their interest in watching a movie. Results showed that participants (N = 383) reported a higher preference for the high rating movie. Results also revealed a match between comment type and individual gratification style, with participants with hedonic motives reporting more interest for the movie with hedonic comments, and those reporting eudaimonic motives for the movie with eudaimonic comments.

Keywords: eudaimonic, gratification style, hedonic, review comment, review rating

What movie will I watch today? The role of online review ratings, reviewers' comments, and user's gratification style

In the last decade, the rapid technological growth brought profound changes to the way people consume entertainment media, including for the movie industry. For many individuals, reading movie reviews is currently an integral part of the experience for choosing a movie. Although movie reviews are a practice that predates the internet by decades, the advent of digital platforms and social media has transformed it. Taking the form of star ratings, numerical scales or written comments, online movie reviews have become an important source of information for movie viewers (e.g., Gavilan, Fernández-Lores, and Martínez-Navarro 2019; Tsao 2014). This is a common behavior in the context of experience goods (i.e., products that are difficult to test or evaluate before purchase), where potential consumers tend to search and rely on the opinion of others to make their decisions (Klein 1998; Nelson 1970).

The study of how online reviews impact consumers' behavior has been framed as an extension of the traditional Word of Mouth (WoM) effect (Huete-Alcocer 2017; Westbrook 1987) and has been explained through social influence processes (Deutsch and Gerard 1955; see Rimal and Lapinski 2015 for a review of models). Research exploring the effects of online reviews has addressed the role of review valence and volume (e.g., Basuroy, Chatterjee, and Abraham Ravid 2003; Chevalier and Mayzlin 2006), review source (e.g., Boatwright, Basuroy, and Kamakura 2007; Tsao 2014), and perceived review quality and helpfulness (e.g., Hong et al. 2017; Koh, Hu, and Clemons 2010; Zhao, Stylianou, and Zheng 2018). Although these studies highlight the influence of reviews in movie selection and consumption, and hint at some interaction between reviews and social norms, they leave unanswered the question about why people appraise movies differently (Wallisch and Whritner 2017). This question has been

explored mostly by media psychology scholars. Overall, it has been found that people watch and enjoy movies for a diverse number of reasons. Some watch for self-escape, others for self-development, while others watch movies for their entertainment value (Tesser, Millar, and Wu 1988). Current theories highlight the need to encompass this multidimensional characteristic of entertainment (e.g., Vorderer 2001; Vorderer and Reinecke 2015). In this line of thought, several authors have argued that we must move beyond the dominant idea that most people have hedonic motivations, such as preference for entertainment providing fun or pleasure, and consider other motivations and needs, such as those related to being entertained by media that is expected to bring meaning and purpose to one's lives (Bartsch and Viehoff 2010; Janicke and Oliver 2017; Oliver et al. 2018).

Based on this assumption, when a person is searching for a movie, s/he may be guided by her/his needs and interests. Therefore, to predict a person's interest for watching a movie, we must consider a potential match between the content that is offered and the type of gratification that motivates the consumer (Kim 2020). In this line of reason, our study extends this discussion, examining not only the effects of movie ratings and comments provided by others (unknown reviews), but also how individuals' gratification style (i.e., preference for hedonic/fun vs. preference for eudaimonic/meaning movies) interacts with these factors, to predict the level of interest in watching and/or recommending a movie.

Online reviews and consumer choices

A metric frequently used to assess the influence of reviews on consumers' choices and behavior is their predictive power regarding revenue (King 2007; T. Liu et al. 2016). Reviews have been used to predict entertainment choices such as movies (e.g., Boatwright, Basuroy, and Kamakura 2007; Dellarocas, Zhang, and Awad 2007), books (e.g., Chevalier and Mayzlin 2006),

and music (e.g., Dhar and Chang 2009). Revenue prediction, however, does not explain why people follow review recommendations.

Looking at what makes a review relevant, researchers have highlighted two important aspects. One is valence, whether the reviews are positive or negative. The other is volume, the number of reviews and comments a product receives (Liu 2006). Regarding valence, research has shown that both positive and negative reviews affect revenue. However, positive reviews increase revenue by a smaller degree than negative reviews decrease revenue. Notwithstanding their stronger effect, negative review consequences fade faster (Basuroy, Chatterjee, and Abraham Ravid 2003). Valence has also been associated with the perception of review usefulness, with reviews with positive emotional content being judged as more useful, while negative content seems to not affect perceived usefulness (Ullah, Zeb, and Kim 2015); and these effects of review valence have been confirmed through meta-analysis (e.g., Floyd et al. 2014). A second determinant that drives consumer behavior is review volume (e.g., Duan, Gu, and Whinston 2008; Y. Liu 2006), with high volume of reviews being associated with box-office performance (Hu et al. 2018). The effect of volume was found to be mediated by review uniformity and coherence (Khare, Labrecque, and Asare 2011), with reviews high in uniformity perceived as more informative, than reviews with low uniformity. Volume also seems to mediate the perception of valence, with positive reviews with more volume being perceived as more positive, than similarly positive reviews with less volume (Khare, Labrecque, and Asare 2011). Meta-analytic studies (e.g., Floyd et al. 2014; Purnawirawan et al. 2015) have confirmed the interaction between valence and volume on perception of helpfulness of the review, attitude towards the product, and the intention to recommend the product reviewed.

Reviews as social influence

Attempts to explain the effects of online reviews on consumer behavior frequently draw from Deutsch and Gerard (1955) classical social influence model. This model distinguishes between two sources of social influence: informational and normative. In the former case, other consumers' opinions are taken as information and evidence about the product or service's qualities (Burnkrant and Cousineau 1975). Others' opinions are instrumental to solve a problem; for example, choosing a quality movie to watch (e.g., Koh, Hu, and Clemons 2010). This would be particularly useful in contexts where the product quality and characteristics cannot be assessed before use. In the latter, normative social influence, the opinions of others or a reference group are a norm that ought to be followed, in order to be praised or avoid chastising (Burnkrant and Cousineau 1975). In the context of movie choice, normative influence has been framed as what one thinks acquaintances and friends judge worth watching (e.g., Park, Kryston, and Eden 2020). Other authors (e.g., Cialdini 2007; Reno, Cialdini, and Kallgren 1993), argue that social influence is always informative, as such it should instead be framed in terms of descriptive norms (i.e., what others do) and injunctive norms (i.e., what others think it should be done).

Regardless of the terminology adopted, there is growing evidence of the influential role social norms perform in the context of online reviews. For example, Yaniv, Choshen-Hillel, and Milyavsky (2011) asked participants to predict, based on previous listeners' judgements, how much they would enjoy a piece of music. Their results confirmed the effects of majority opinion, but with a caveat. Listeners with higher taste discrimination (i.e., more aware of their musical preferences) relied less on the majority opinion and more on listener similarity. For movies, Lee, Hosanagar, and Tan (2015) compared the effects of prior ratings by friends and strangers. They found that although both previous ratings were influential, friends ratings had a stronger effect, thus highlighting the role of the reference group. Park, Kryston, and Eden (2020), studied further the role of the reference group, examining the role of identity, ingroup preference and social

norms in movie selection and enjoyment. Their participants, who self-identified as White American, Asian/Asian American, or Black/African American, when choosing from a list of movies showed a preference for those featuring actors of the same origin, showing an in-group preference. However, within the chosen movies, anticipated enjoyment, and willingness to watch the movie was predicted by what the participants perceived as being their friends' expectations, regarding the movie they should see, that is, injunctive social norms. These results confirm the relation hypothesized by Denham (2004) between social norms, viewing situation and program content in the construction of the enjoyment experience of viewing a television show or a movie.

In summary, online reviews represent not only a source of information for consumers, but also a metric for the success (or failure) of products (Gunter 2018), with research showing, for example, a relation between movie pre-release number of comments and ticket sales on the opening weekend (Craig, Greene, and Versaci 2015). Aspects like volume and valence of product ratings were found to contribute to the diagnosticity of the review (i.e., ability to convey information relevant for the judgment of the product quality), and thus, being considered useful (Filiari 2015) and trustworthy (Tsang and Prendergast 2009). Research has also shown that the source of these reviews (e.g., strangers vs. friends; Lee, Hosanagar, and Tan 2015) is an important factor, thus highlighting the role of social influence. Social influence was found to produce both informative and normative effects, however, in some cases, these effects seem to be mediated by individual differences (e.g., taste discrimination; Yaniv, Choshen-Hillel, and Milyavsky 2011).

Gathering information from review comments

One consequence of the internet age in movie consumption is the availability of large collections of titles through streaming platforms like Amazon Prime Video, Disney + or Netflix. The need to curate these vast libraries, in order to offer a meaningful selection to users, has

encouraged researchers to look beyond traditional movie classifications (e.g., genre, director) and explore online sources of viewers comments and opinions (e.g., social media, blogs) resulting in a growing number of approaches and methodologies in terms of recommendation systems (Silveira et al. 2019). Current recommendation systems frequently base their suggestions on the person's previous views or the views of similar users (e.g., age, movie choice). This, however, creates what researchers call filter bubbles (Pariser 2012), confining people into a recommendation loop of similar content. To overcome this, researchers are exploring online opinions and reviews as potential sources of more targeted suggestions. Viewer reviews, however, are prone to a very broad spectrum of opinions, which obscures their utility. This problem is amplified by the dissemination of opinions and comments through social media outlets like Facebook or Twitter (Gunter 2018).

Drawing from earlier research that identified review valence as a significant factor underlying review effects on consumer's behavior (e.g., Basuroy, Chatterjee, and Abraham Ravid 2003; Ullah, Zeb, and Kim 2015), researchers are exploring methods that allow the identification and labeling of the affective content present in online movie reviews and social media postings (e.g., Wu et al. 2020). One approach, sentiment analysis, tries to automatically identify and extract the affective states and emotions present in texts (Mohammad 2016). For example, examining IMDb movie reviews, researchers were able to identify and distinguish positive and negative reviews (e.g., Kumar, Harish, and Darshan 2019; Singh et al. 2013). Other researchers have focused on the development of standardized stimuli and data sets, representative of various affective states, that can be used to test and improve classification and recommendation systems (e.g., Baveye et al. 2015; Douglas-Cowie et al. 2007; Korovina et al. 2018).

Although promising, these approaches still leave unanswered the question of why viewers choose that movie in particular, and why enjoyment of a movie varies so broadly (e.g., Wallisch and Whritner 2017).

Understanding movie enjoyment

Entertainment is generally equated with fun, leisure, or joyful moments (Vorderer 2001). The result of this intuited overlap is that entertainment is frequently viewed as the satisfaction of the desire to have “a good time”, a shallow activity, devoid of intellectual value. However, the concept of pleasure is multilayered, and can describe pleasure derived from the senses, emotions, knowledge and mastery (use of cognitive abilities) (Bosshart and Macconi 1998). As such, having “a good time” can encompass a variety of activities, emotional experiences, motivations, and goals.

Notwithstanding the importance of a pleasurable moment, or the affect regulation people may experience from watching a movie (e.g., mood management theory; Zillmann 1988), current theories are broadening the meaning of entertainment, contending that movies can also be a source of meaningful and inspiring experiences (Bartsch, Kalch, and Oliver 2014; Oliver and Raney 2011; Oliver et al. 2018; Vorderer and Reinecke 2015). Movies offer narratives that resonate with peoples’ private experiences and values (e.g., Nabi et al. 2006), by providing meaning, coherence and a sense of shared experiences and community (e.g., Rubin 1983; Rubin and Perse 1987), opportunities to practice empathy (e.g., Mills 1993), to experience adversity, and to rehearse resilience and coping (e.g., Grodal 2008; Nabi et al. 2006).

This deliberate search for insight and reflection through the consumption of entertainment content has been described as appreciation, that is, “an experiential state that is characterized by the perception of deeper meaning, the feeling of being moved, and the motivation to elaborate on thoughts and feelings inspired by the experience” (Oliver and Bartsch 2010, p. 76). To further

clarify the distinction between enjoyment and appreciation, some authors borrow from positive psychology literature the concepts of hedonic and eudaimonic motivations (e.g., Oliver and Raney 2011). These concepts stretch back to early Greek philosophers, and the discussion about what counts as a “the good life”. The hedonist view asserting that “the good life” is the result of a collection of pleasurable and happy experiences. The eudaimonic view contends that there is more to a “good life” than the sum of pleasurable experiences; a “good life” coming to fruition through the actualization of human potential (see Ryan and Deci 2001, for a review).

Following this line of thought, Bartsch (2012) contends that the entertainment experience is best characterized through two non-exclusive forms of gratification: Rewarding feelings (akin to enjoyment and hedonic motives), and social and cognitive needs (akin to appreciation and eudaimonic motives). The author identified three factors related to rewarding feelings, such as fun, thrill and empathic sadness; and four factors related to social and cognitive needs, such as contemplative emotional experiences, emotional engagement with characters, social sharing of emotions, and the vicarious release of emotions. More recently, Arriaga et al. (2020) identified social sharing, contemplative emotional experiences and need for affect as predictors of movie recommendation; while social sharing, thrill and extroversion were identified as predictors of re-watching interest, underlining the importance of gratification style in the early stages of choosing which movie to watch.

In short, current entertainment theories conceive the entertainment experience as an intrinsically motivated activity (Vorderer 2011). An opportunity for the viewers to pursue their goals and needs, be it enjoyment, serenity, or self-development.

Aim of the current study.

The present research extends previous studies on the effects of movie reviews and viewers preferences and motivations when choosing movies to watch. By examining the interaction

between audience reviews, both in terms of quantitative ratings and type of comments, and participant's gratification style, we expect to further clarify this process.

<Callout 3 about here>

In this study, audience review was manipulated through movie rating scores (expressed by the aggregated number of stars the movie received: medium [3.5] vs. high [5]) and by the type of reviews' comments (hedonic vs eudaimonic). Participants' gratification style followed the distinction between hedonic and eudaimonic motivations (Oliver and Raney 2011) and was measured using Bartsch's (2012) emotional gratification scale. To examine the role of these variables on individuals' interest in watching a movie, we used a 2 (review rating) x 2 (review comment) x 3 (participant's gratification style) between-subjects design.

Based on prior findings regarding movie review rating and comments (e.g., Floyd et al. 2014) we hypothesize that participants will report more interest in a movie receiving high than medium review ratings (H1). In addition, prior findings have also highlighted the role of viewer's motivations and gratification style (e.g., Oliver and Raney 2011). Therefore, we hypothesized a match-mismatch between reviewers' comments and participant's gratification style (H2) and predicted that participants with a higher hedonic gratification style would report more interest in a movie displaying a review with hedonic than eudaimonic comments (H2a), whereas participants with a higher eudaimonic gratification style would report more interest in a movie that displays eudaimonic reviews than hedonic review comments (H2b).

Method

Participants

To estimate the sample size, a power analysis was conducted using G*Power (V. 3.1.9.7; Faul et al. 2007). A minimum sample size of 251 participants would be required to conduct a three-way between-subjects analysis of variance (ANOVA), considering a medium effect size (f

= 0.25), alpha of .05, and power of .95. Of the 483 participants who registered to complete the survey, 100 participants were excluded due to i) not providing information about their age ($n = 4$); ii) completing less than 60% of the survey ($n = 31$), iii) providing the same response to every item of the fun and contemplative experience scales - straightlining (i.e. $SD = 0$; $n = 7$); iv) failing to respond to the attention check ($n = 57$); and v) not completing the items for the dependent variable ($n = 1$). The final sample is composed of 383 participants, representing a 79.3% completion rate, of which 238 (62.1%) are female and 145 (37.9%) male. Participants' mean age was 28.05 ($SD = 9.75$, range: 18-70). The majority had completed senior high school ($N = 174$), followed by 139 with a college degree, 63 a master's degree, and 7 with less than junior high school. The majority were students ($N = 169$), followed by 54 student-workers, 115 workers, 43 unemployed, and 2 already retired.

Procedure and material

Data was collected online using a survey built with Qualtrics XM (www.qualtrics.com). A total of 483 responses were obtained, of which 234 participants were recruited through the crowdsourcing Clickworker platform (www.clickworker.com), and 249 among students and acquaintances through snowball sampling recruitment procedures. Students were compensated with course credits or could participate in a lottery worth of 20€. Participants were informed about the voluntary and anonymous nature of their participation and data collection. At the end, participants were debriefed regarding the main aims of the study. The research procedure was approved by the ethical committee of the University in which the study took place.

To *manipulate audience movie review rating and type of comment*, all participants were first presented with the following vignette:

“The MovieExperts company conducted a study in March 2017, in which 200 individuals were asked to provide opinions about a movie. After viewing the movie,

information about the movie was collected, which could vary from the attribution of a star (minimum rating, very negative) to five stars (maximum rating, very positive). Fifty comments were also collected, of which we highlight the most representative in terms of content evaluation. Please take a look at the following image presenting some of the comments”.

Participants were then randomly assigned to one of four conditions in which they were presented the following information about reviewer's aggregated rating score and six comments of a movie: 1) medium rating (3.5 stars) with hedonic comments ($n = 89$); 2) medium rating (3.5 stars) with eudaimonic comments ($n = 101$); 3) high rating (5 stars) with hedonic comments ($n = 99$); and 4) high rating (5 stars) with eudaimonic comments ($n = 94$). The reviewer's comments were built following Oliver and Raney's (2011) eudaimonic and hedonic motivations scale, and included a set of six hedonic, or six eudaimonic, comments (see table 1 for full description).

Although the review comments present similar number of sentences (Hedonic= 9; Eudaimonic= 8), they have different average lengths (Hedonic= 5.67 words; Eudaimonic= 10 words), syllable counts (Hedonic= 97; Eudaimonic= 157) and other linguistic features often associated with complexity (more detailed analyses see Tables S1 of the supplementary material), which were kept to reflect the different hedonic and eudaimonic motivations that were adapted from Oliver and Raney's (2011). Nevertheless, the total number of words in each was reduced (less than 100 words) and we included a *manipulation check* after evaluating the dependent variable, to control for its effectiveness. Thus, the effectiveness of the manipulation of review comments was evaluated using the following two items: “Viewers’ comments mentioned that the movie was funny and enjoyable” and “Viewers’ comments mentioned that the movie was meaningful and led them to reflect about life”. The items were rated on a 5-point scale (1= strongly disagree; 5 = strongly agree). In addition, we also checked the manipulation of the movie review ratings using

the following item: “The evaluation reported by the viewers of the movie (number of stars) was...”, which could be rated on a 5-point scale (1= very negative; 5 = very positive).

Table 1

English and the Portuguese versions of the hedonic and eudaimonic comments.

English	Portuguese
Eudaimonic comments	
“I have always liked movies that challenge my way of thinking about life and the world in general.”	“Sempre gostei de filmes que me desafiam a pensar sobre o modo como encaro a vida e o mundo em geral.”
”It was interesting to reflect about the movie.”	“Foi interessante refletir sobre o filme.”
”A movie with immense meaning and a symbolic message. The industry was already in need of this.”	“Um filme com imenso significado e uma mensagem simbólica. A indústria de filmes já estava a precisar disto.”
”Nothing better than focusing on a meaningful human cause.”	“Nada melhor do que focar numa causa humana com significado.”
“I have a list of movies that speak about a better understanding of life, I finally saw this movie.”	“Tenho uma lista de filmes que falam sobre uma melhor compreensão da vida, finalmente vi este filme.”
“This movie made me think. Very good!”	“Fiquei a pensar sobre o filme. Muito bom.”
Hedonic comments	
“It was fun.”	“Foi divertido.”
“A simple and enjoyable film.”	“Um filme simples e agradável.”
“A childish movie, it made me laugh a lot.”	“Um filme infantil, mas que me fez rir imenso.”
“I was amused! That is crucial for me.”	“Fiquei entretido! Isto para mim é crucial.”
“For me, the best movies are the ones that make laugh, and this was clearly a good example. Approved!”	“Para mim os melhores filmes são os que fazem rir e este foi claramente um bom exemplo. Aprovado!”
“I laughed and felt optimistic after seeing this movie. There is nothing better!”	“Ri-me e senti-me otimista após ver este filme. Nada melhor!”

After reading the vignette, participants completed the dependent variable *Interest for the movie*, measured with three items, following Khare, Labrecque, and Asare (2011): “I would consider watching the movie”, “I think the movie is very appealing to me”, and “I would recommend the movie to my friends”. Items were rated with a 9-point scale (1 = strongly

disagree; 9 = strongly agree). This measure showed good internal consistency (Cronbach's α of .89).

We used the Portuguese version of the emotional gratification scale (Arriaga et al. 2020; see Bartsch 2012 for original) to measure *hedonic and eudaimonic gratification styles*. Although participants completed the full scale, for the purpose of our study, only the two dimensions related to these emotional gratifications are used. Thus, to assess participant's preference for hedonic gratification we used the dimension of fun, which includes 4 items ("I enjoy watching a movie because it is funny"; "...it amuses me"; "...it makes me laugh"; "...it puts me in a good mood"), and for eudaimonic gratifications we used the contemplative dimension, which includes 3 items (e.g. "I enjoy watching a movie because it makes me think about myself"; "...it encourages me to focus on things that are important to me"; "...it inspires me to think about meaningful issues"). Items were rated on a 5-point scale (1 = strongly disagree; 5 = strongly agree). Both measures of fun and contemplative experience showed acceptable internal consistency ($\alpha = .86$ and $.69$, respectively).

Finally, we measured *participants' attention* with the item: "If you understood the question choose the option totally agree". Items were rated on a 5-point scale (1 = strongly disagree; 5 = strongly agree).

Results

Preliminary analysis

Data was screened for outliers, skewness, and kurtosis. Based on the Median Absolute Deviation (MAD) method recommended by Leys et al. (2013), no univariate outliers were identified. Univariate skewness and kurtosis values were also below the threshold recommended by Schumacker and Lomax (2004) for skewness ($-1 < sk < 1$) and kurtosis ($-1.5 < ks < 1.5$). Table 2 shows the descriptive statistics for the scales used in the study.

Table 2
Descriptive Statistics (N = 383)

	Min- Max	Cronbach alpha	<i>M</i>	<i>SD</i>	Skewness	Kurtosis
Hedonic Gratification /Fun (EGS)	1-5	.86	4.05	0.74	-0.70	0.26
Eudaimonic Gratification /Contemplative (EGS)	1-5	.69	3.91	0.79	-0.90	1.20
Interest for the movie	1-9	.89	6.43	1.71	-0.67	0.05

Note. EGS = emotional gratification scale.

Manipulation check

To determine the effectiveness of our manipulation, three ANOVAs with a 2 (review ratings) X 2 (review comments) were conducted, one for each item of the manipulation check. Results for the perceived review ratings confirmed the effects of the movie rating manipulation, $F(1, 379) = 109.74, p < .001, \eta^2 = .225$, with participants in the medium rating condition reporting a medium score ($M = 3.82; SD = 0.82$), and those in the high rating condition reporting higher ratings ($M = 4.61; SD = 0.63$). As expected, this evaluation was found regardless of review comment, $F(1, 379) = .95, p = .331, \eta^2 = .002$.

Results for participants' perception about how funny and enjoyable the comments were by reviewers showed an effect of the reviewer's comment manipulation, $F(1, 379) = 370.52.74, p < .001, \eta^2 = .494$, with participants in the hedonic condition reporting higher level of agreement ($M = 4.62; SD = 0.75$) than those in the Eudaimonic condition ($M = 2.82, SD = 1.04$). No differences were found for review rating, $F(1, 379) = .63, p = .426, \eta^2 = .002$. In contrast, and as expected, participants agreement with the reviewer's comments about how meaningful the movie is, was higher in the eudaimonic condition ($M = 4.71, SD = 0.60$) than in the hedonic condition

($M = 2.12$; $SD = 1.17$), $F(1, 379) = 756.23$, $p < .001$, $\eta^2 = .666$. No effects were found for movie ratings $F(1, 379) = 1.74$, $p = .188$, $\eta^2 = .005$. Based on these results, we conclude that our manipulation was successful.

Interest in watching a movie as a function of reviewer's rating, type of comments and participant's gratification style.

Since our goal was to differentiate participants who have more preference for hedonic movies from those who prefer to watch movies providing eudaimonic experiences, we subtracted the scores of the composite measures of contemplative/eudaimonic dimension from the composite fun/hedonic dimension. From this new variable, we were able to categorize participant's preferences in the following three groups: i) participants with high hedonic but low eudaimonic gratifications ($n = 153$), ii) participants with equal levels of hedonic and eudaimonic gratification ($n = 37$), and iii) participants with low hedonic but high eudaimonic gratification ($n = 193$). There is an uneven distribution per group, $\chi^2(2, n = 383) = 102.85$, $p < .001$, with a significant smaller proportion of participants pertaining to the group with equal levels of hedonic and eudaimonic gratifications.

To examine the effects of review ratings, type of comment, and participant's gratification style on their level of interest for the movie, a 2 (review ratings) x 2 (review comments) x 3 (participant's gratification style) between-subjects factorial ANOVA was conducted (see Table 3). The homogeneity of variances was confirmed by Levene's test.

Table 3
Interest in the Movie as a function of Reviews (Ratings and Comments) and Participant's Gratification Style.

	<i>N</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>p</i>	η^2
Review Rating				9.28	.002	.024
Medium	190	6.25	1.71			
High	193	6.93	1.69			
Review Comment				3.58	.59	.009
Eudaimonic	195	6.80	1.64			
Hedonic	188	6.38	1.78			
Gratification Style				6.32	.002	.033
Eudaimonic	153	6.11	1.66			
Hedonic	193	6.50	1.73			
Both styles	37	7.15	1.57			
Reviews Ratings X Comment				0.55	.460	.001
Reviews Ratings X Gratification style				1.73	.179	.009
Reviews Comment X Gratification style				8.44	<.001	.043

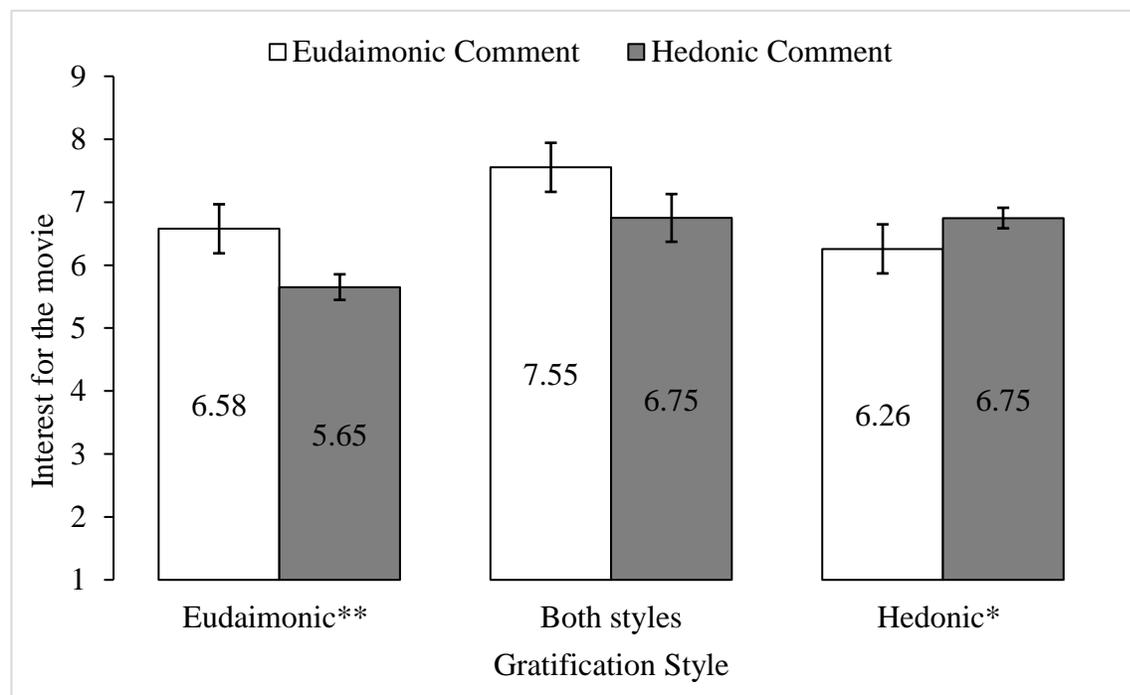
Note. Review rating: Medium = 3.5 stars; High = 5 stars.

As predicted in our H1, there was a significant main effect of review ratings, $F(1, 373) = 9.28, p = .002, \eta^2 = .024$, indicating that participants exposed to information about a movie with higher ratings ($M = 6.93, SD = 1.69$) expressed more interest than those who received information about a movie with an overall medium rating ($M = 6.25, SD = 1.71$). We also found a main effect for the participant's gratification style, $F(2, 373) = 6.32, p = .002, \eta^2 = .033$, suggesting that participants without a clearly defined gratification style expressed more interest in watching the movie ($M = 7.15, SD = 1.57$) than participants with eudaimonic ($M = 6.11, SD = 1.66$), or hedonic ($M = 6.50, SD = 1.73$) gratification styles. In addition, and in line with H2, the interaction between gratification style and type of review comment yielded a statistically significant effect, $F(2, 373) = 8.44, p < .001, \eta^2 = .043$. Univariate tests showed a match between participants' gratification style and review comment (see Figure 1). As expected (H2a),

participants with an hedonic gratification style expressed more preference for the movie with hedonic ($M = 6.75$; $SD = 1.67$) than eudaimonic comments ($M = 6.26$, $SD = 1.78$), $F(1, 373) = 4.23$, $p = .040$, $\eta^2 = .011$, whereas participants with eudaimonic gratification style showed more preference for the movie with the eudaimonic ($M = 6.58$; $SD = 1.54$) than hedonic comments (H2b) ($M = 5.65$, $SD = 1.70$), $F(1, 373) = 11.79$, $p = .001$, $\eta^2 = .031$. Participants without a clearly defined gratification style reported similar interest for the movie, regardless of review comment type, $F(1, 373) = 2.14$, $p = .145$, $\eta^2 = .006$. No main effect was found for review comments, $F(1, 373) = 3.58$, $p = .059$, $\eta^2 = .009$, and no significant interactions emerged between review ratings and comment, $F(1, 373) = 0.55$, $p = .460$, $\eta^2 = .001$, nor with gratification style, $F(2, 373) = 1.73$, $p = .179$, $\eta^2 = .009$.

Figure 1

Interaction between gratification style and review comment type



Note. * $p < .05$; ** $p < .001$. Eudaimonic gratification style: $F(1, 373) = 11.79$, $p = .001$, $\eta^2 = .031$; Both styles: $F(1, 373) = 2.14$, $p = .145$, $\eta^2 = .006$; Hedonic gratification style: $F(1, 373) = 4.23$, $p = .040$, $\eta^2 = .011$.

To further examine the independent effects of hedonic and eudaimonic gratification dimensions on the interest in watching the movie, a supplementary moderation analysis was conducted. In this analysis, instead of categorizing participant's gratification self-report in three styles, we examined the interaction between reviewers' comments and each of the two dimensions of gratifications. Overall, the results were similar confirming the match-mismatch between the type of review comment and participant's levels on each gratification. Thus, for the sake of simplicity, we present this complementary analysis in a supplementary file.

Discussion

Prior studies have highlighted the role of viewers' motives in predicting movie choices (e.g., Kim 2020; Oliver and Raney 2011), but independently of reviewers' evaluations, offering only a partial view of the experience of savoring a movie. Thus, our study tested the effects of movie ratings, movie comments, and individual gratification style. We expected that participants would report more interest in a movie receiving high than medium review ratings (H1), and a match-mismatch between reviewers' comments and participant's gratification style (H2).

Overall, our findings are aligned with our main hypothesis. On one hand, participants expressed more interest for the movie with an overall higher rating than for the movie with an overall medium rating, thus confirming H1. This result is in line with previous research on valence and volume (e.g., Filieri 2015; Floyd et al. 2014), highlighting how a highly positive review can be used by viewers to inform their decision to watch a movie (e.g., Yaniv, Choshen-Hillel, and Milyavsky 2011). The effect of review ratings on interest in watching and recommending a movie were independent of the type of review comments and participants' gratification style. Since both review rating and comment type offer a positive view of the movie, this is an expectable result.

In addition, our findings also showed that participants without a clearly defined gratification style expressed more interest in watching the movie, than participants with a particular gratification style, either eudaimonic or hedonic. Nevertheless, to interpret this result we must also consider that the participant's gratification style has shown to be dependent on the type of review comments, as we predicted in our H2. We found that participants with a hedonic gratification style showed more preference for the movie with hedonic comments than eudaimonic (H2a), whereas participants with eudaimonic gratification style expressed more preference for the movie with the eudaimonic compared to hedonic comments (H2b). Indeed, participants showed a clear preference for the movie with a review congruent with their own gratification style. In addition, participants without a clearly defined gratification style reported similar interest for the movie, regardless of review comment type, which may explain their high expression of interest in watching the movie when compared to those with an eudaimonic or with a hedonic gratification style. Thus, our results suggest that the type of comment (hedonic versus eudaimonic) a consumer reads from reviewers is a relevant factor in movie choice, however comments are more effective if they match the viewer's gratification style. In summary, these results highlight how viewers' goals and motives are the backdrop against which reviews are evaluated.

Although our study did not set out to test social norms theories (Gerard 1955; Reno, Cialdini, and Kallgren 1993), our results follow those of previous research, where participants used reviews as information and granted preference to those offered by friends or similar consumers (e.g., Lee, Hosanagar, and Tan 2015; Park, Kryston, and Eden 2020). Our results suggest that participants might have used the comments as information about a product they had not experienced, favoring the movie with the higher rating. The match between gratification style and type of review comment might also be seen as an example of the reference group effect, a

preference for the review comment that best reflected the viewer characteristics, which possibly could correspond to the opinion of the reference group.

These results can also be informative for online services and recommendation systems dedicated to entertainment and movies. First, because individual gratification style will be an active element in the process of searching and choosing a movie, interacting with review content, and movie characteristics (e.g., genre), creating a match-mismatch between viewer and movie. Second, gratification is both an element of the decision process (e.g., I am searching for a movie that entertains me) and an outcome of the viewing experience (e.g., This movie made me feel grateful). This means that individual gratification style will not only guide the choice of movie to watch, but also influence the judgment about the movie watched and subsequent recommendation to friends or online review posting. Third, recommendation systems base their suggestions on information about the movie, and information about the viewer (Ricci, Shapira, and Rokach 2015). In the first case, the system can offer information regarding film genre, or average ratings by other viewers. In the latter, it can offer suggestions based on the viewer's previous choices, or choices made by similar viewers (e.g., same age range). In either case, recommendations will only partially match the viewer's gratification motivations. Although research suggests a relation between gratification style and movie genre preference (Bartsch 2012), this relation is not explored in recommendation systems. Regarding average ratings, despite predicting box office revenue (Liu et al. 2016), their informative output is limited to a positive (high) – negative (low) rating continuum. In the case of the viewers previous choices (or similar viewers choices), besides the filter bubble problem (Pariser 2012), it assumes an unchanging viewer, lacking motives, and goals. Integrating recommendation systems with a gratification style framework would offer viewers meaningful recommendations that would closely match their preferences. On

the other hand, this information could be used by viewers to advance their knowledge about their own choices and preferences.

Limitations and future research

There are some limitations in the present study. First, participants responded to a set of reviews and comments about a hypothetical movie. It is reasonable to expect that participants draw from their previous knowledge of movie genre and movies when judging the review comments. Although there are studies associating movie genres with hedonic and eudaimonic motives (e.g., Igartua and Barrios 2013; Oliver and Bartsch 2010), many movies can also be categorized in more than one genre (e.g., R. Begnini's "Life is Beautiful" is categorized by IMDb as Comedy, Drama, Romance, and War). Since research on what deems a film meaningful points to aspects related to personal experiences, like moral value, heightened sense of compassion, or life's purpose (Oliver and Hartmann 2010; Oliver, Hartmann, and Woolley 2012), we opted to present participants only with comments regarding the experience of watching the movie. Although this limits the ecological validity of the study, it does not affect the main conclusions regarding the preference for the movie with the highest rating and the match between gratification style and the comment type. Nevertheless, future studies would benefit from having participants judging and making choices based on real movies and reviews.

Second, although review's rating and comment types were manipulated, they only offer positive appreciations of a movie. This choice was intentional, because the focus of the current study was on the type of positive motivation (hedonic vs eudaimonic) expressed in the reviews, and the use of negative ratings associated with negative comments could also sound implausible. Nevertheless, previous research has shown that review valence (positive vs negative) produces different responses in readers (e.g., Basuroy, Chatterjee, and Ravid 2003; Ullah, Zeb, and Kim 2015), with negative reviews outweighing positive review effects (Park, Lee, and Han 2007),

even when comparing moderately negative reviews with very positive reviews (Lee, Rodgers, and Kim 2009). Thus, given the salience of negative evaluations and their impact on human life (e.g., Baumeister et al. 2001; Vaish, Grossmann, and Woodward 2008), future studies ought to extend our methodology to include negative reviews (ratings and comments) and also examine sequence order (e.g., negative, positive, negative) and balance (more positive, more negative or equal).

Third, albeit our sample was diverse, both in terms of age range and occupation, participants' level of education was generally high, and thus, may not be representative of the general population. Also, higher levels of education may be associated with a higher interest in complex and challenging forms of entertainment, which could bias movie preferences. Nevertheless, when the participants were grouped by gratification style, all three gratification groups were populated, thus showing the diversity of our sample. We did have however less participants valuing equally eudaimonic and hedonic gratification. Future research ought to explore if this is also a characteristic of the general population. Are people generally drawn more to either hedonic gratifications or eudaimonic gratifications? Or people's entertainment choices flow between these two poles, with the current gratification style representing only a snapshot of current goals and motives? Nevertheless, our supplementary analysis, in which we considered the moderation of each of these two gratifications as independent dimensions, was consistent with our main analysis, thus corroborating the hypotheses of a preference for movies that are aligned with the levels of each gratification style.

Finally, our study was mainly concerned with eudaimonic and hedonic gratifications, although there are other gratifications leading people to watch movies and search for entertainment. All these other motives ought to be studied since they do not exclude each other. In the development of her emotional gratification scale, Bartsch (2012), identified five more

dimensions of gratification, such as thrill, empathic sadness, emotional engagement with characters, social sharing of emotions, and the vicarious release of emotions. Recent research (e.g., Kim 2020) found an association between hedonic and eudaimonic gratification and different movie genres. In light of these results, it is reasonable to expect that these different motivations will interact with each other, and with other factors such as review valence, volume, or source, which requires further examination.

Conclusion

Online reviews, whether in dedicated sites like IMDb, or through blogs or social media, are not only a source of information about movies, but also an opportunity for people to express their preferences and find like-minded viewers. Although aspects like review valence and volume are informative, as pointed out by Denham (2004), the enjoyment of viewing a tv show or a movie needs to be examined in context, considering social norms, viewing situation and program content. Therefore, although there is a general consensus about what is, for example a comedy, at an individual level there is a high degree of variance in how much a person found that comedy amusing (e.g., Wallisch and Whritner 2017).

In this study, we examined not only the effects of review valence and comment content, but also their interaction with viewer's gratification style. Our results are in line with previous research, providing support for the hypothesis that entertainment encompasses not only hedonic elements like fun, but also eudaimonic elements like contemplation and thoughtful experiences. Our results provide further support for this idea, showing the existence of a match between comment type and individual gratification style. Furthermore, our results also suggest that gratification style is not a binary category, identifying a third group of participants that, not only showed a higher mean interest for the movie, but also showed similar interest regardless of the type of comment they read, thus suggesting a preference for both gratification styles.

If we consider that online reviews are becoming the main source of information, not only for movie viewers searching and browsing movies, but also for recommendation systems (e.g., Kumar, Harish, and Darshan 2019), it is only suitable to underline the importance of considering factors like emotional gratification styles when studying and predicting viewers entertainment choices and behaviors.

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