

How does the Presence of Actor Names Affect People's Perceptions of Movie Posters?

Analyzing the Influence of Actor Names on Movie Posters

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Introduction

Horror movie posters are designed to evoke fear through unsettling imagery, dark color schemes, and ominous taglines. However, beyond these visual elements, textual cues - such as the presence of actor names - may also shape audience perception. Familiar actors can create a sense of recognition and comfort, potentially reducing the psychological impact of the fear-inducing elements within the poster. This effect may be particularly pronounced when the actors are not strongly associated with the horror genre. Given this, we hypothesize that the inclusion of actor names on horror movie posters decreases the perceived scariness of the film. This study aims to explore how this factor influences audience expectations and emotional responses to horror movie marketing.

Research Question

How does the presence of actor names on movie posters affect the perception of scariness of the movie?

Hypothesis

The presence of actor names on movie posters will decrease the perceived scariness of the movie, as compared to the actor names being absent from the movie poster.

H_0 : There is no effect of including actor names on horror movie posters

H_a : There is an effect of including actor names on horror movie posters

Literature Review

While comprehensive literature on the impact of actor names on movie poster perception is limited, research in marketing and psychology suggests that familiar names can shape audience expectations. In the realm of horror, movie posters are designed to evoke fear through specific visual and textual cues; however, the inclusion of well-known actor names may counteract this

effect. Recognizable actors, particularly those associated with genres outside of horror or known for their mainstream appeal, could create a sense of familiarity and comfort among viewers. This familiarity may temper the inherent fear-inducing cues of a horror poster. Therefore, it is reasonable to hypothesize that the presence of actor names on movie posters decreases the perceived scariness of the movie, thereby influencing audience expectations and emotional responses.

Methodology

Experimental Design & Randomization

The team chose 5 horror movie posters: Companion, Midsommar, Rings, Saw, and Unfriended, and kept their original form, which means that the actor names were absent, as the control group (*Figure 1*). The team then edited the same 5 horror movie posters by adding the names of the starring actors and assigned them as the treatment group (*Figure 2*). The team also planned to utilize covariates across different demographic groups including age and gender.

Pre-Experiment Check for n_obs & Randomization

The team calculated a preliminary power analysis to see how many observations would be necessary for them to achieve statistical power in the experiment and received the following outcome:

Experimental Level	n_obs Needed	n_obs Received
Total Experiment	638	835
Total per Group (Treatment & Control)	319	417
Total per Poster per Group	64	83
Minimum Number of Respondents	128	167

Data Collection

The team decided to randomize at the movie poster level, and found the best experimentation method for this randomization level to be conducted in a confidential survey. The software utilized for the survey was Qualtrics, which allowed the team to randomize which posters were seen by each participant of the experiment when they took the survey. Each participant's survey had a different mix of which poster group they were exposed to (control or treatment version - actor names absent or actor names present), for the 5 posters. For example, participant 1 may have seen:

Movie	Experiment Group
Companion	Control (no actor name present)
Midsommar	Control (no actor name present)
Rings	Treatment (actor name present)
Saw	Treatment (actor name present)
Unfriended	Treatment (actor name present)

whereas Participant 2 may have seen:

Movie	Experiment Group
Companion	Treatment (actor name present)
Midsommar	Control (no actor name present)
Rings	Treatment (actor name present)
Saw	Treatment (actor name present)
Unfriended	Control (no actor name present)

...and so on. Participants were not informed of this randomization to prevent spillovers and selection bias.

Post-Experiment Analytical Procedure

The team conducted the survey for 48 hours due to time constraints and collected 167 responses at the individual level, and 835 observations at the poster level across both treatment and control groups. Responses were received from individuals across 5 genders including male, female, & non-binary. Additionally, responses were received from ages 18 to 65+, with the majority (69%) coming from ages 18 to 34. Notably, participants spanned across 13 different countries (*Figure 3*), adding value to the diversity of the experiment.

The team then extracted the data from Qualtrics into a CSV file and made minor adjustments in Excel after a quick data quality check. From there, the team uploaded the file into a shared Google Drive folder and loaded the data into a Google Colab coding environment.

Next, the team moved into the data cleaning phase and dropped unnecessary and sensitive columnar data, after exploring the data structure and formatting. For the final cleaning step, the team found it necessary to expand the data to reflect the 835 observations, so the data could be analyzed statistically at the movie poster level rather than individual level. This was achieved by transposing the original data so that each response at the movie poster level was given a row.

The team then shifted focus towards exploratory data analysis. It was highly beneficial to observe some of the variable interactions and answers that participants gave during the survey. The box plot visualizing "Scary" ratings across different movie posters reveals that "Saw" is perceived as the scariest, followed by "Unfriended" and "Midsommar" with similar median ratings but less variation. "Companion" has a lower median scary rating, while "Ring" exhibits the least perceived scariness and the most agreement among ratings. These differences highlight varying perceptions of scariness based on the movie poster (*Figure 4*).

Comparing "Likely to Watch" ratings between the treatment and control groups, the box plot suggests a potential marginal positive effect of the treatment (with companion) on viewers' likelihood to watch. While both groups have similar interquartile ranges, the treatment group displays a slightly higher median "Likely to Watch" rating. However, further investigation using statistical modeling is needed to confirm this observation and its significance (*Figure 5*).

Data Analysis & Results

Covariates and Assumptions:

For our statistical analysis, we focused on two outcome variables - "Scary", measuring perceived scariness of the poster, and "Likely", measuring the likelihood of watching the movie. To account for potential confounding and increase precision, we controlled for key demographic and behavioral variables, specifically gender, age group, social media usage, and social media preference. Several key assumptions underpinned our analysis. We assumed that each participant responded independently, meaning their reaction to the poster was unaffected by the responses of other participants, ensuring no interference. We also assumed that participants may respond differently to the treatment (poster shown) based on their individual characteristics, which we captured through the conditional average treatment effect (CATE) analysis. Finally, we assumed that the selected covariates sufficiently captured relevant individual differences, enabling a fair comparison between treatment and control groups. Together, these assumptions form the foundation of our analysis, ensuring that any observed treatment effects can be attributed to the posters themselves, rather than to external or pre-existing factors.

Statistical Methods Used

- Proportion tests to check for balance:

We conducted a proportions test to ensure the treatment and control groups were balanced. This check covered key covariates - gender, age group, social media usage, and social media preference. The null hypothesis (H_0) assumed that the proportion of each covariate level was the

same across both groups. The results showed that all p-values exceeded 0.05 (lowest p = 0.19), meaning we fail to reject the null hypothesis.

This confirms that the treatment and control groups are well-balanced, so any differences in outcomes can be more confidently attributed to the treatment itself, rather than pre-existing differences between the groups.

- T-test to check for significant difference:

To assess whether the treatment had a statistically significant effect on participants' responses, we conducted a two-sample t-test. Our primary outcome was "Scary," measuring how frightening participants found the poster, and our secondary outcome was "Likely," measuring how likely they were to watch the movie. We tested the null hypothesis (H_0) that there is no difference in average scores between the treated and control groups.

The results showed t-statistics of 0.097 for "Scary" and 0.322 for "Likely," both very close to zero, indicating minimal difference between the groups. This is further supported by p-values of 0.923 and 0.748, both well above 0.05. Therefore, we fail to reject the null hypothesis, concluding that the treatment had no statistically significant effect on either outcome.

- ATE without covariates:

When calculating the Average Treatment Effect (ATE) for the outcome variables "Scary" and "Likely", we used a simple difference in means approach to compare the treatment and control groups.

The results showed an ATE of 0.018 for "Scary" ($p = 0.923$) and 0.067 for "Likely" ($p = 0.748$) (*Figure 6*). Both ATEs are very small, and the high p-values indicate that these differences are not statistically significant, further confirming that the treatment had no measurable effect on either outcome.

- ATE with covariates:

To account for potential baseline differences between the treatment and control groups, we conducted a regression-based analysis controlling for key covariates: age group, gender, social media usage, and social media preference. This allowed us to obtain a clearer estimate of the treatment effect on our outcomes.

For the Scary model (measuring perceived scariness), the estimated Average Treatment Effect (ATE) was 0.016 with a p-value of 0.93, indicating no statistically significant effect. Similarly, for the Likely model (measuring likelihood to watch), the ATE was 0.062 with a p-value of 0.76, once again showing no significant effect. These results - very small ATEs combined with high p-values - reinforce that the treatment had no meaningful impact on either outcome.

Among the covariates, age group, gender, and social media usage were all statistically significant predictors in the Likely model ($p < 0.01$), indicating that these factors influence participants' likelihood to watch the movie. However, none of the covariates were significant in the Scary model, suggesting that perceived scariness was not meaningfully shaped by demographic or behavioral differences. (*Figure 7*)

Overall, this analysis further confirms that the treatment itself was ineffective at shifting participants' perceptions of how scary the poster was or how likely they were to watch the movie.

- ATE at a poster level analysis (with & without covariates):

Since randomization occurred at the poster level, we tested whether treatment (poster shown) had poster-specific effects on the outcomes "Scary" and "Likely" using regression analysis with covariates.

For scariness, baseline levels were significantly above zero for all posters, but no significant treatment effects were found. Gender was only significant for the *Unfriended* poster ($p < 0.1$), suggesting that perceived scariness depends more on personal factors (like fear tolerance or past experiences) than the poster itself. For likelihood to watch, baseline levels were also significantly above zero across all posters, but no treatment effects emerged. Instead, covariates like age, gender, and social media usage were significant, but inconsistently across posters - indicating that who the participant is matters far more than which poster they saw.

When measuring ATE at the poster level without covariates, treatment had no statistically significant effect on either outcome (all $p > 0.1$). This reinforces that personal characteristics - age, gender, and media habits - are stronger drivers of outcomes than poster design itself (*Figure 9a, 9b*).

- CATE:

After analyzing the overall treatment effects, we further examined how treatment effects varied across age group and gender, both overall and at the poster level. This Conditional Average Treatment Effect (CATE) analysis helped us identify whether the posters had differential impacts based on demographic characteristics, providing insight into how different subgroups responded differently to the same treatment.

For perceived scariness, treatment had no significant effect for males or females, meaning the posters themselves did not substantially alter scariness perceptions for these groups. However, for the 'Other' gender group, treatment significantly reduced scariness ($p < 0.1$) (*Figure 10a*). Higher social media usage was also associated with lower perceived scariness for females and the 'Other' gender group, possibly due to desensitization from frequent exposure to online horror content. When looking at CATE by age group, treatment was not significant for any age group, confirming the posters did not meaningfully influence scariness across age (*Figure 12b*). However, gender significantly influenced scariness for participants Below 18, 35-44, and 55+, showing that fear perception varies by age and gender (*Figure 12a*).

At the poster level, treatment increased scariness for males seeing *Unfriended* ($p < 0.1$) and for females seeing *Companion* ($p < 0.1$), suggesting some creative elements resonate differently across genders (*Figure 11a*). For likelihood to watch, treatment was not significant for any gender group, but age significantly reduced likelihood to watch for older females and the 'Other' gender group (*Figure 11b*). Social media usage increased likelihood to watch for younger males and females, particularly those aged 18 to 24, while for participants aged 55+, higher social media usage reduced likelihood to watch.

Overall, age, gender, and social media usage have a much stronger influence than the posters themselves, highlighting the need for targeted audience segmentation in future marketing strategies.

Limitations

The study faced several limitations that may have impacted the findings. Due to time constraints, the experiment was focused over only 2 days, limiting the diversity of responses and potential for a broader participant pool. Expanding the participant pool would have helped us capture a wider variety of perspectives. Another challenge was ensuring consistency in how actor names were displayed on the posters, standardizing the text format could have removed any unintended design effects. We also realized that many participants might have been familiar with the movies we chose, which could have shaped their perceptions of how scary they were or whether they wanted to watch them. In hindsight, using upcoming horror films instead of well known movies would have provided a more neutral way to measure audience interactions.

Additionally we did not ask if the participants prefer to watch or enjoy horror movies, which could have played a role in their willingness to watch. If we had included that as a factor in our analysis, we could have explored how personal preferences interact with the presence of actor names. Keeping these points in mind for future research would help us get a clearer understanding of the effects we are studying.

Conclusion

This study explored whether adding actor names to horror movie posters influences how scary people perceive the movie to be and their likelihood of watching it. The results showed that actor names didn't significantly impact either perception, suggesting that simple name recognition isn't enough to change audience expectations. Instead, factors like age, gender, and social media habits played a bigger role in influencing interest in watching a movie. These findings highlight that audience engagement with horror films is shaped more by personal preferences and exposure to movie marketing rather than just the presence of familiar actors.

The results showed no significant difference between the treatment and control groups, leading us to **fail to reject the null hypothesis**, meaning that the presence of actor names did not have a measurable impact on either perception.

Future research could explore how actor names interact with other poster elements like design, typography, and marketing strategies to better understand what draws audiences in and influences their movie choices.

Appendix

Google Drive Link:

<https://drive.google.com/drive/folders/1LGbpmbPArp-KljZjpLSGVIuNWw8k9RKj?usp=sharing>

Figures & Tables



Figure 1: Control Group Posters



Figure 2: Treatment Group Posters

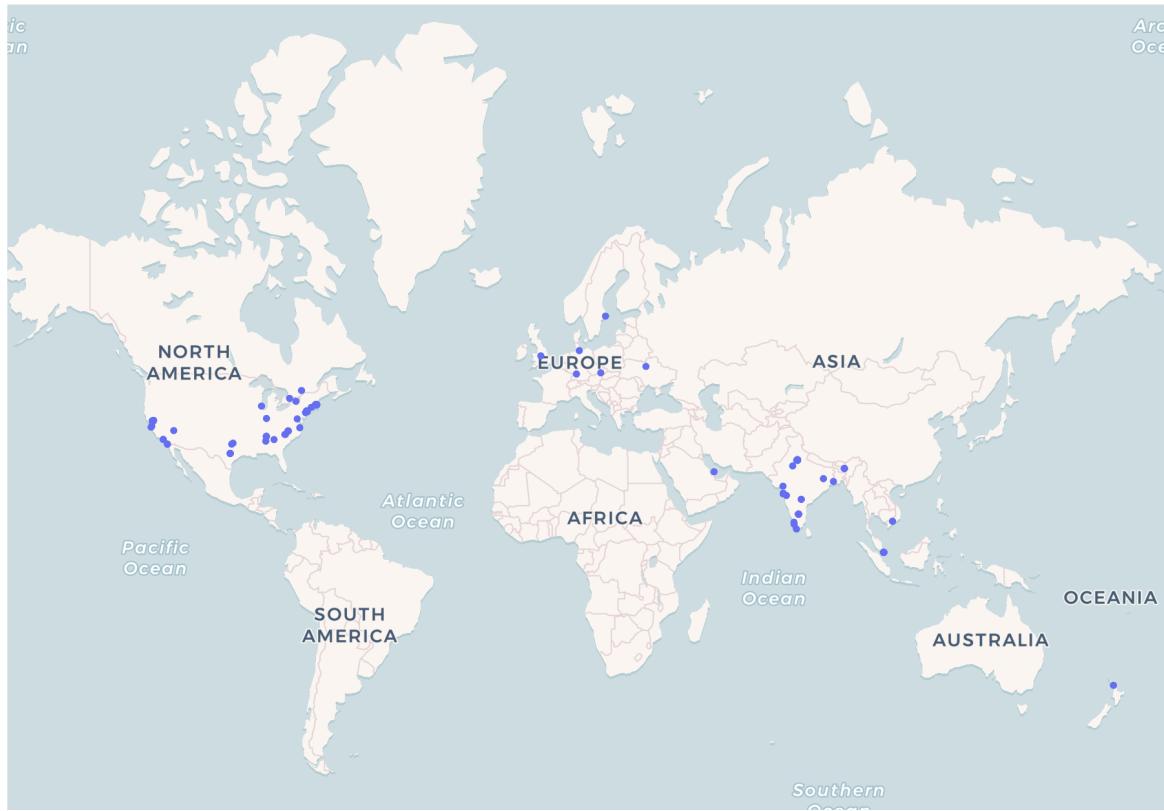


Figure 3: Participant locations

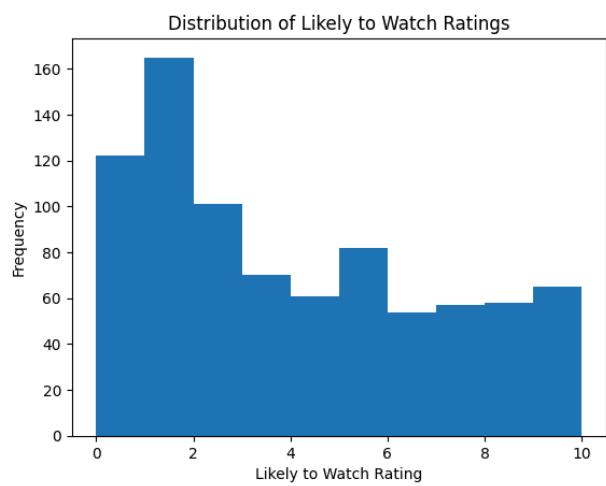


Figure 4: Distribution of Likely to Watch Ratings

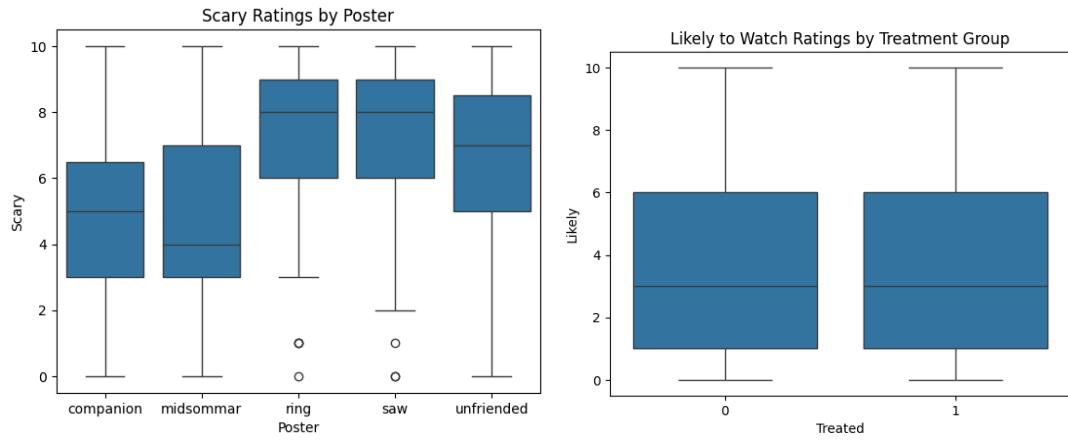


Figure 5: Spread of Scary & Likely to Watch Ratings for Treatment Group

Overall Average Treatment Effect without Covariates

	Scariness (1)	Likelihood to Watch (2)
Treated	0.018 (0.185)	0.067 (0.208)
const	6.167*** (0.131)	3.601*** (0.147)
p-value	0.923	0.748
Observations	835	835
R ²	0.000	0.000
Adjusted R ²	-0.001	-0.001
Residual Std. Error	2.680 (df=833)	3.004 (df=833)
F Statistic	0.009 (df=1; 833)	0.103 (df=1; 833)

Note: *p<0.1; **p<0.05; ***p<0.01

Figure 6: Overall ATE of Actor Name on Poster without Covariates at Individual (Participant) Level

Overall Average Treatment Effect with Covariates

	Scariness (1)	Likelihood to Watch (2)
Treated	0.016 (0.186)	0.062 (0.203)
age_group	-0.064 (0.077)	-0.311 *** (0.084)
const	6.379 *** (0.434)	4.439 *** (0.472)
gender	0.103 (0.171)	-0.569 ** (0.186)
social_prefer	-0.010 (0.036)	-0.010 (0.039)
social_usage	-0.052 (0.084)	0.394 *** (0.091)
p-value	0.93	0.759
Observations	835	835
R ²	0.001	0.059
Adjusted R ²	-0.005	0.053
Residual Std. Error	2.685 (df=829)	2.921 (df=829)
F Statistic	0.227 (df=5; 829)	10.377 *** (df=5; 829)

Note: *p<0.1; **p<0.05; ***p<0.01

Figure 7. Overall ATE of Actor Name on Poster with Covariates at Individual (Participant) Level

Overall Average Treatment Effect without Covariates Per Poster

	Dependent variable: Scary				
	companion (1)	midsommar (2)	ring (3)	saw (4)	unfriended (5)
Treated	0.106 (0.358)	-0.044 (0.423)	-0.257 (0.331)	-0.016 (0.359)	0.318 (0.378)
const	4.786*** (0.252)	4.675*** (0.300)	7.643*** (0.233)	7.361*** (0.255)	6.365*** (0.265)
Observations	167	167	167	167	167
R ²	0.001	0.000	0.004	0.000	0.004
Adjusted R ²	-0.006	-0.006	-0.002	-0.006	-0.002
Residual Std. Error	2.312 (df=165)	2.732 (df=165)	2.136 (df=165)	2.320 (df=165)	2.441 (df=165)
F Statistic	0.087 (df=1; 165)	0.011 (df=1; 165)	0.606 (df=1; 165)	0.002 (df=1; 165)	0.709 (df=1; 165)

Note:

*p<0.1; **p<0.05; ***p<0.01

Figure 8a: Overall ATE of Actor Name on Poster on Perceived Scariness of the Movie without Covariates at Poster Level

Overall Average Treatment Effect without Covariates Per Poster

	Dependent variable: Likely				
	companion (1)	midsommar (2)	ring (3)	saw (4)	unfriended (5)
Treated	0.050 (0.416)	0.538 (0.474)	-0.793 (0.489)	-0.127 (0.489)	0.656 (0.442)
const	3.131*** (0.293)	3.783*** (0.336)	4.143*** (0.345)	3.699*** (0.347)	3.259*** (0.310)
Observations	167	167	167	167	167
R ²	0.000	0.008	0.016	0.000	0.013
Adjusted R ²	-0.006	0.002	0.010	-0.006	0.007
Residual Std. Error	2.690 (df=165)	3.065 (df=165)	3.161 (df=165)	3.160 (df=165)	2.857 (df=165)
F Statistic	0.014 (df=1; 165)	1.287 (df=1; 165)	2.630 (df=1; 165)	0.068 (df=1; 165)	2.199 (df=1; 165)

Note:

*p<0.1; **p<0.05; ***p<0.01

Figure 8b: Overall ATE of Actor Name on Poster on Likelihood to Watch the Movie without Covariates at Poster Level

Average Treatment Effect Per Poster

	Dependent variable: Scary				
	companion (1)	midsommar (2)	ring (3)	saw (4)	unfriended (5)
Treated	0.096 (0.363)	-0.125 (0.433)	-0.264 (0.337)	0.053 (0.366)	0.389 (0.381)
age_group	-0.040 (0.150)	-0.185 (0.178)	-0.089 (0.137)	-0.120 (0.150)	0.115 (0.156)
const	4.618*** (0.832)	5.103*** (1.009)	8.546*** (0.773)	7.921*** (0.843)	5.672*** (0.884)
gender	0.210 (0.332)	-0.290 (0.390)	-0.241 (0.307)	0.246 (0.334)	0.616* (0.345)
social_prefer	-0.040 (0.070)	0.075 (0.082)	0.023 (0.064)	-0.038 (0.070)	-0.076 (0.073)
social_usage	0.041 (0.163)	0.148 (0.191)	-0.126 (0.151)	-0.181 (0.164)	-0.149 (0.170)
Observations	167	167	167	167	167
R ²	0.008	0.022	0.018	0.012	0.041
Adjusted R ²	-0.023	-0.009	-0.012	-0.019	0.011
Residual Std. Error	2.333 (df=161)	2.736 (df=161)	2.147 (df=161)	2.334 (df=161)	2.426 (df=161)
F Statistic	0.246 (df=5; 161)	0.708 (df=5; 161)	0.593 (df=5; 161)	0.395 (df=5; 161)	1.376 (df=5; 161)

Note:

*p<0.1; **p<0.05; ***p<0.01

Figure 9a: Overall ATE of Actor Name on Poster on Perceived Scariness of the Movie with Covariates at Poster Level

Average Treatment Effect Per Poster

	Dependent variable: Likely				
	companion (1)	midsommar (2)	ring (3)	saw (4)	unfriended (5)
Treated	0.071 (0.414)	0.265 (0.472)	-0.667 (0.492)	-0.273 (0.473)	0.687 (0.442)
age_group	-0.184 (0.171)	-0.490** (0.194)	-0.290 (0.201)	-0.323* (0.193)	-0.220 (0.181)
const	3.345*** (0.947)	4.775*** (1.100)	4.402*** (1.131)	5.567*** (1.089)	4.079*** (1.026)
gender	-0.314 (0.378)	-0.319 (0.426)	-0.290 (0.450)	-1.340*** (0.432)	-0.569 (0.401)
social_prefer	-0.053 (0.079)	0.055 (0.089)	0.036 (0.094)	-0.017 (0.091)	-0.069 (0.085)
social_usage	0.383** (0.186)	0.373* (0.208)	0.345 (0.221)	0.499** (0.211)	0.359* (0.197)
Observations	167	167	167	167	167
R ²	0.049	0.083	0.053	0.111	0.065
Adjusted R ²	0.019	0.054	0.024	0.084	0.036
Residual Std. Error	2.656 (df=161)	2.983 (df=161)	3.139 (df=161)	3.017 (df=161)	2.815 (df=161)
F Statistic	1.647 (df=5; 161)	2.913** (df=5; 161)	1.799 (df=5; 161)	4.027*** (df=5; 161)	2.237* (df=5; 161)

Note:

*p<0.1; **p<0.05; ***p<0.01

Figure 9b: Overall ATE of Actor Name on Poster on Likelihood to Watch the Movie with Covariates at Poster Level

Overall Average Treatment Effect Conditional on Gender

	Dependent variable: Scary		
	Male (1)	Female (2)	Other (3)
Treated	0.020 (0.254)	-0.029 (0.270)	-2.176* (1.207)
age_group	-0.161 (0.113)	0.042 (0.106)	-5.110*** (1.525)
const	6.014*** (0.502)	7.414*** (0.634)	30.005*** (8.868)
social_prefer	0.038 (0.045)	-0.046 (0.061)	1.649*** (0.465)
social_usage	0.165 (0.113)	-0.376*** (0.125)	-3.223** (1.395)
Observations	430	375	30
R ²	0.011	0.031	0.447
Adjusted R ²	0.002	0.020	0.358
Residual Std. Error	2.603 (df=425)	2.605 (df=370)	3.146 (df=25)
F Statistic	1.195 (df=4; 425)	2.938** (df=4; 370)	5.043*** (df=4; 25)

Note:

*p<0.1; **p<0.05; ***p<0.01

Figure 10a: Overall CATE on Individual Level on Perceived Scariness of the Movie with Covariates based on Genders

Overall Average Treatment Effect Conditional on Gender

	Dependent variable: Likely		
	Male (1)	Female (2)	Other (3)
Treated	-0.074 (0.293)	0.166 (0.287)	1.265 (1.078)
age_group	-0.070 (0.130)	-0.446*** (0.113)	-3.394** (1.363)
const	3.411*** (0.579)	3.602*** (0.675)	20.947** (7.927)
social_prefer	-0.055 (0.051)	0.073 (0.065)	0.394 (0.415)
social_usage	0.415*** (0.130)	0.277** (0.133)	-2.071 (1.247)
Observations	430	375	30
R ²	0.031	0.075	0.482
Adjusted R ²	0.022	0.065	0.399
Residual Std. Error	3.000 (df=425)	2.773 (df=370)	2.812 (df=25)
F Statistic	3.423*** (df=4; 425)	7.522*** (df=4; 370)	5.821*** (df=4; 25)

Note:

*p<0.1; **p<0.05; ***p<0.01

Figure 10b: Overall CATE on Individual Level on Likelihood to Watch the Movie with Covariates based on Genders

Average Treatment Effect Conditional on Gender

	Dependent variable: Scary														
	companion (Male)	midsommar (Male)	ring (Male)	saw (Male)	unfriended (Male)	companion (Female)	midsommar (Female)	ring (Female)	saw (Female)	unfriended (Female)	companion (Other)	midsommar (Other)	ring (Other)	saw (Other)	unfriended (Other)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Treated	-0.557 (0.536)	-0.338 (0.608)	0.011 (0.410)	-0.113 (0.491)	0.907* (0.539)	0.873* (0.476)	0.283 (0.614)	-0.198 (0.497)	-0.137 (0.527)	-0.432 (0.508)	-4.600 (4.000)	-3.000 (3.000)	66.870*** (0.000)	1.924 (1.888)	3.000*** (0.000)
age_group	-0.099 (0.235)	-0.447 (0.271)	-0.222 (0.183)	-0.128 (0.215)	0.084 (0.234)	-0.135 (0.185)	0.082 (0.241)	0.034 (0.185)	-0.047 (0.207)	0.229 (0.199)	-3.435 (4.376)	-1.239 (3.497)	-10.739*** (0.000)	-4.659 (4.588)	-2.565*** (0.000)
const	4.698*** (1.034)	4.565*** (1.231)	7.684*** (0.804)	7.846*** (0.951)	5.325*** (1.042)	5.725*** (1.066)	4.978*** (1.453)	8.449*** (1.159)	9.111*** (1.197)	8.659*** (1.196)	22.217 (24.556)	4.870 (20.265)	26.829 (27.221)	11.783*** (0.000)	
social_prefer	-0.037 (0.093)	0.141 (0.105)	0.097 (0.072)	-0.023 (0.085)	-0.015 (0.094)	-0.060 (0.105)	0.091 (0.135)	-0.034 (0.106)	-0.019 (0.118)	-0.175 (0.114)	1.878 (1.275)	0.478 (1.083)	2.478*** (0.000)	1.318 (1.180)	1.130*** (0.000)
social_usage	0.323 (0.238)	0.499* (0.267)	0.059 (0.183)	-0.080 (0.218)	0.098 (0.231)	-0.270 (0.215)	-0.372 (0.277)	-0.222 (0.228)	-0.384 (0.242)	-0.650*** (0.235)	-2.217 (3.924)	1.130 (2.934)	-9.870*** (0.000)	-2.829 (4.268)	0.217*** (0.000)
Observations	86	86	86	86	75	75	75	75	75	6	6	6	6	6	6
R ²	0.038	0.083	0.036	0.008	0.037	0.075	0.040	0.020	0.037	0.182	0.786	0.927	1.000	0.484	1.000
Adjusted R ²	-0.009	0.038	-0.012	-0.041	-0.011	0.022	-0.014	-0.036	-0.018	0.135	-0.669	0.634	1.000	-0.290	1.000
Residual Std.	2.419	2.755	1.888	2.218	2.392	2.004	2.592	2.023	2.262	2.189	4.000	2.121	4.472		
Error	(df=81)	(df=81)	(df=81)	(df=81)	(df=81)	(df=70)	(df=70)	(df=70)	(df=70)	(df=70)	(df=1)	(df=1)	0.000 (df=2)	0.000 (df=1)	0.000 (df=1)
	0.886	1.838	0.753	0.158	0.767	1.416	0.738	0.351	0.667	3.897***	0.919	3.167	0.625	68950429759706346900000143360.000***	
F Statistic	(df=4; 81)	(df=4; 81)	(df=4; 81)	(df=4; 81)	(df=4; 81)	(df=4; 70)	(df=4; 70)	(df=4; 70)	(df=4; 70)	(df=4; 70)	(df=4; 1)	(df=4; 1)	(df=3; 2)	(df=3; 2)	(df=4; 1)

Note:

*p<0.1; **p<0.05; ***p<0.01

Figure 11a: Overall CATE on Scariness of the Movie with Gender as the Covariate at Poster Level

Average Treatment Effect Conditional on Gender

	Dependent variable: Likely														
	companion (Male)	midsommar (Male)	ring (Male)	saw (Male)	unfriended (Male)	companion (Female)	midsommar (Female)	ring (Female)	saw (Female)	unfriended (Female)	companion (Other)	midsommar (Other)	ring (Other)	saw (Other)	unfriended (Other)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Treated	-0.288 (0.611)	0.333 (0.687)	-0.548 (0.696)	0.067 (0.721)	-0.009 (0.624)	0.515 (0.598)	0.435 (0.687)	-1.552** (0.724)	-0.412 (0.619)	1.453** (0.640)	5.500 (3.500)	-8.000* (1.000)	13.413 (6.826)	2.203 (1.335)	0.000 (1.000)
age_group	0.112 (0.268)	-0.221 (0.307)	-0.033 (0.312)	-0.176 (0.316)	0.020 (0.270)	-0.390* (0.233)	-0.706** (0.270)	-0.350 (0.270)	-0.413* (0.243)	-0.393 (0.251)	-2.152 (0.289)	-8.196* (1.166)	-2.326 (1.188)	-5.243 (3.244)	-9.022* (0.927)
const	2.743** (1.180)	3.182** (1.391)	4.062*** (1.365)	3.726*** (1.397)	3.193*** (1.206)	2.814** (1.338)	5.635*** (1.625)	4.217** (1.689)	3.194** (1.405)	2.745* (1.507)	8.576 (21.481)	47.348* (6.755)	34.122 (19.248)	57.761* (5.571)	
social_prefer	-0.086 (0.106)	0.061 (0.118)	-0.046 (0.122)	-0.117 (0.125)	-0.083 (0.109)	-0.002 (0.132)	0.065 (0.151)	0.204 (0.154)	0.157 (0.138)	0.002 (0.144)	0.054 (1.116)	2.391* (0.361)	0.152 (0.356)	0.486 (0.834)	1.543* (0.241)
social_usage	0.278 (0.272)	0.533* (0.302)	0.225 (0.310)	0.659** (0.320)	0.386 (0.268)	0.414 (0.270)	0.081 (0.310)	0.100 (0.332)	0.229 (0.284)	0.350 (0.296)	-0.326 (3.433)	-5.348 (0.978)	0.087 (1.087)	-4.122 (3.018)	-8.261* (0.863)
Observations	86	86	86	86	86	75	75	75	75	75	6	6	6	6	6
R ²	0.027	0.052	0.018	0.078	0.038	0.098	0.126	0.115	0.094	0.135	0.807	0.991	0.972	0.682	0.994
Adjusted R ²	-0.021	0.005	-0.031	0.032	-0.010	0.046	0.076	0.064	0.042	0.086	0.035	0.954	0.930	0.204	0.971
Residual Std.	2.759	3.112	3.206	3.258	2.770	2.518	2.899	2.948	2.654	2.758	3.500	0.707	1.118	3.162	0.707
Error	(df=81)	(df=81)	(df=81)	(df=81)	(df=81)	(df=81)	(df=70)	(df=70)	(df=70)	(df=70)	(df=1)	(df=1)	(df=2)	(df=2)	(df=1)
	0.567	1.106	0.367	1.712	0.789	1.902	2.522**	2.272*	1.818	2.736**	1.046	26.750	23.156**	1.428	43.417
F Statistic	(df=4; 81)	(df=4; 81)	(df=4; 81)	(df=4; 81)	(df=4; 81)	(df=4; 70)	(df=4; 70)	(df=4; 70)	(df=4; 70)	(df=4; 70)	(df=4; 1)	(df=4; 1)	(df=3; 2)	(df=3; 2)	(df=4; 1)

Note:

*p<0.1; **p<0.05; ***p<0.01

Figure 11b. Overall CATE on Likelihood to Watch the Movie with Gender as the Covariate at Poster Level

Overall Average Treatment Effect Conditional on Age Group

	Dependent variable: Scary					
	Below 18 (1)	18 to 24 (2)	25 to 34 (3)	35 to 44 (4)	45 to 54 (5)	55+ (6)
Treated	-0.831 (0.952)	-0.106 (0.313)	-0.044 (0.318)	0.034 (0.669)	0.328 (0.504)	0.351 (0.926)
age_group	7.014*** (1.494)	3.467*** (0.271)	2.011*** (0.167)	1.166*** (0.260)	1.153*** (0.138)	1.032*** (0.212)
social_prefer	0.035 (0.186)	0.010 (0.075)	-0.026 (0.058)	0.287 (0.347)	0.004 (0.075)	-0.117 (0.149)
social_usage	-0.105 (0.277)	-0.157 (0.139)	-0.020 (0.146)	0.373 (0.315)	0.051 (0.210)	0.296 (0.487)
Observations	30	280	300	70	105	50
R ²	0.043	0.006	0.001	0.032	0.005	0.023
Adjusted R ²	-0.067	-0.005	-0.009	-0.012	-0.025	-0.041
Residual Std. Error	2.420 (df=26)	2.600 (df=276)	2.747 (df=296)	2.666 (df=66)	2.571 (df=101)	3.232 (df=46)
F Statistic	0.392 (df=3; 26)	0.517 (df=3; 276)	0.080 (df=3; 296)	0.719 (df=3; 66)	0.167 (df=3; 101)	0.364 (df=3; 46)

Note:

*p<0.1; **p<0.05; ***p<0.01

Figure 12a. Overall CATE on Scariness of the Movie with Age Group as the Covariate at Individual Level

Overall Average Treatment Effect Conditional on Age Group

	Dependent variable: Likely					
	Below 18 (1)	18 to 24 (2)	25 to 34 (3)	35 to 44 (4)	45 to 54 (5)	55+ (6)
Treated	-0.231 (0.962)	-0.543 (0.343)	0.343 (0.350)	1.172* (0.676)	0.480 (0.564)	-0.994 (0.650)
age_group	7.567*** (1.508)	1.201*** (0.297)	1.234*** (0.184)	0.506* (0.262)	0.110 (0.154)	0.516*** (0.149)
social_prefer	-0.385* (0.187)	-0.041 (0.082)	-0.064 (0.064)	0.660* (0.350)	0.184** (0.084)	-0.088 (0.105)
social_usage	-0.365 (0.279)	0.630*** (0.153)	0.125 (0.160)	-0.367 (0.318)	0.750*** (0.235)	-0.493 (0.342)
Observations	30	280	300	70	105	50
R ²	0.165	0.076	0.009	0.137	0.128	0.095
Adjusted R ²	0.068	0.066	-0.001	0.098	0.103	0.036
Residual Std. Error	2.444 (df=26)	2.851 (df=276)	3.025 (df=296)	2.694 (df=66)	2.875 (df=101)	2.267 (df=46)
F Statistic	1.709 (df=3; 26)	7.615*** (df=3; 276)	0.885 (df=3; 296)	3.501** (df=3; 66)	4.964*** (df=3; 101)	1.606 (df=3; 46)

Note:

*p<0.1; **p<0.05; ***p<0.01

Figure 12b. Overall CATE on Likelihood to Watch the Movie Age Group as the Covariate at Individual Level

Note:

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Figure 13a. Overall CATE on Scariness of the Movie with Age Group as the Covariate at Poster Level

Note:

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$