Shifting evaluations: The impact of status increase on quality evaluations in the movie industry

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ABSTRACT

Contrary to the belief that higher status automatically improves quality evaluations, the purpose of this study was to investigate the effects of status on perceived quality in the movie industry. The research hypothesizes that Academy Award-winning films receive less favorable evaluations post-award and that increased popularity post-award exacerbates this effect compared to their nominated-only counterparts. By analyzing over 47,000 reviews from IMDB, covering both winning and nominated-only movies from 2008 to 2019, the study finds that ratings of award-winning movies significantly decline post-award, while those of nominated-only movies do not experience a similar decline. Despite the decline in ratings, sentiment scores in reviews for award-winning movies do not show a significant drop post-award. Additionally, the study observes that the increase in review volume post-award correlates with lower ratings for winning movies, underscoring the impact of varied audience tastes on evaluations. This phenomenon highlights the divergence in evaluation criteria between experts and the general public. The findings emphasize the complexity of status dynamics and suggest that higher status, as conferred by awards, does not necessarily translate to sustained positive evaluations. This research underscores the need for further exploration into the dynamics of status, popularity, and evaluation, particularly in fields where public perception plays a crucial role. Such insights are valuable for understanding how public recognition and increased visibility can influence the longevity of perceived quality in cultural products.

Contribution/Originality: This study uniquely combines sentiment analysis with a large dataset of over 47,000 IMDB reviews to reveal how increased popularity post-award affects evaluations, providing new insights into the interplay between status, public perception, and evaluation criteria.

1. INTRODUCTION

Occupying a higher position in the social hierarchy is commonly seen as both desirable and beneficial. High-status social actors, whether individuals or organizations, enjoy numerous advantages over their lower-status counterparts. Notably, high-status organizations often experience increased revenue for comparable levels of performance and benefit from reduced costs in certain areas. Their esteemed status also frequently affords them easier access to opportunities that are vital for survival and growth. For example, in the wine industry, wineries of high status are capable of commanding higher prices for the same quality of wine, leading to increased profits. These profits can subsequently be invested in superior quality grapes, culminating in the production of finer wines (Benjamin & Podolny, 1999). Beyond financial gains, social actors with higher status also enjoy the privilege of deviating from established norms with minimal repercussions. In the business world, for instance, investors tend to
be more forgiving of transgressions committed by firms with a high category status (Sharkey, 2014). Additionally, high-status social actors often inherently possess a higher true quality, a direct result of their prestigious standing. This prestige helps them attract more valuable resources, which in turn empowers the organization to create products of genuinely superior quality (DiPrete & Eirich, 2006).

While high status can offer significant advantages, research has shown that it also comes with its own set of challenges, effectively making it a double-edged sword. High-status social actors often face constraints on their behavior and can experience suboptimal performance outcomes. They are subjected to intensified scrutiny, evidenced by increased media coverage of scandals (Graffin, Bundy, Porac, Wade, & Quinn, 2013) and more severe judgments for unethical behaviors. Additionally, the consequences they face for deviating from norms can be more severe. For example, while prestigious organizations might have a lower likelihood of being found liable in employment discrimination suits, they tend to receive harsher penalties when found liable (McDonnell & King, 2018). Regarding quality, high-status organizations or objects might actually exhibit lower true quality, as they may allocate disproportionate effort towards maintaining their status. This often leaves fewer resources and energy for improving performance. Furthermore, a sense of complacency can develop within these organizations, diminishing their motivation to advance their performance (Bothner, Kim, & Smith, 2012).

The aggregation of literature suggests that holding a high status can yield both benefits and drawbacks. This paper delves into the role of high status (recognized by film professionals) on perceived quality, a crucial factor in the success of social actors (Simcoe & Waguespack, 2011). It is widely assumed that high status, especially when endorsed by an authoritative third party, leads to a more favorable quality assessment. Awards play a pivotal role in this evaluation process, with audiences, who are not experts in the fields of these awards, often depending on them for judgment (Sauder, 2006). Therefore, it is reasonable to infer that social actors and objects that have received awards would be regarded with higher overall evaluations.

However, it is feasible that an elevation in status may lead to a decrease in perceived quality. At the individual level, when tastes are controlled for, individual evaluators who are not professionally linked to the award-granting sectors might assess expert-recognized social actors or award-winning objects less favorably. Such a trend could arise from a desire to intentionally differentiate their tastes from expert opinions or due to a potential negative stigma associated with award-winning objects. At the aggregate level, a rise in status is likely to attract a more diverse audience. With this increase in audience size comes a corresponding growth in the diversity of their evaluation criteria and preferences. This diversification might result in a higher chance of unfavorable evaluations, as it becomes increasingly difficult to satisfy the wide array of tastes present within a larger audience (Kovács & Sharkey, 2014).

The primary aim of this research is to explore how an increase in status influences the collective evaluation of quality. Specifically, the study focuses on examining the changes in quality assessment and popularity of award-winning objects before and after the announcement of their awards. The emphasis is not on whether individual reviewers alter their ratings post-award but rather on the overall shift in evaluation at an aggregate level. To investigate this, the study analyzes the impact of Academy Awards (commonly known as the Oscars) announcements on the subsequent evaluations of the winning movies. In this study, perceived quality is assessed by two primary indicators: viewer ratings, which directly reflect viewers’ evaluations, and the emotional tone of reviews, quantified using sentiment scores. This study will delve into the movie reviews of Oscars-winning movies from 2008 to 2019 post-award announcement, aiming to reveal the effects of heightened status on perceived quality.

2. LITERATURE REVIEW

2.1. Status and Social Determinants of Status

Status refers to the position of a social actor or object within a social hierarchy. High-status actors, such as Nobel laureates (Merton, 1968) companies ranking highly on the Fortune Most Admired Companies list...
(McDonnell & King, 2018) and award-winning books (Kovács & Sharkey, 2014) occupy prestigious positions within their respective fields.

A key focus of status research is to understand the social determinants that influence a social actor’s or object’s status. Scholars have established that a social actor’s status is affected by its association with other high-status entities. For instance, if an organization is affiliated with high-status peers, it is generally perceived as having a higher status. Washington and Zajac (2005) using the National Collegiate Athletic Association (NCAA) postseason basketball tournament as an empirical example, demonstrate that the more high-status teams a team competes against, the greater its likelihood of receiving an invitation to the postseason NCAA tournament, even when accounting for the team’s performance. Additionally, when social actors are categorized (Hsu & Hannan, 2005) prestigious awards can enhance the overall legitimacy of the category (Zuckerman, 1999) thereby elevating the status of social actors within that category.

Another critical determinant of status is the evaluation by external arbiters. Research consistently shows that ratings and awards from reputable third-party arbiters significantly influence perceptions of status across various empirical contexts. Rao (1994) investigates the effect of certification contests on organizational status. These contests, involving third-party evaluations such as Moody’s ratings of insurance companies, Michelin’s and the American Automobile Association (AAA)’s ratings of restaurants, and James David Power’s ranking of automobiles, create perceptions of an organization’s status that impact its survival likelihood. Moreover, magazine rankings of schools can alter perceptions of status by formalizing and consolidating the status hierarchy to which they belong (Sauder, 2006).

2.2. Effects of Status on Perceived Quality

For years, scholars across disciplines such as sociology, organizational behavior, and marketing have explored the benefits and drawbacks of status. However, there has been relatively limited research focused on understanding how status affects perceived quality. This area of study presents methodological challenges, particularly in establishing a causal relationship between status and perceived quality. The complexity arises because high perceived quality can contribute to elevated organizational status, while at the same time, high status can lead to favorable quality evaluations from audiences for various reasons. Despite these challenges, investigating the relationship between status and perceived quality remains a compelling area of research. This is largely due to the existence of two contrasting theories: one advocating for a positive correlation between status and perceived quality, and the other arguing against it.

According to the signaling mechanism, status is perceived as an indicator of quality, where high-status social actors are seen as possessing desirable qualities. This can lead to a cognitive bias in audiences, resulting in more positive evaluations. Name-based signals account for a significant portion of the disparity in publication rates between high- and low-status authors, as much as three-quarters according to Simcoe and Waguespack (2011). Cultural sociologists have noted that awards given by experts serve as critical judgment devices (Karpik, 2010). Audiences often delegate their judgment, relying on evaluations from these experts and believing in their impartiality, which further increases their dependence on such judgment devices when evaluating cultural products (Hirsch, 1972).

There are numerous advantages to possessing higher status. One such advantage is the symbolic effect of status on pricing; organizations tend to charge more for higher-status products due to increased demand (Malter, 2014). Various studies have demonstrated a positive correlation between the status of a product and its price, attributed to a greater perceived value (Roberts, Khaire, & Rider, 2011; Wade, Porac, Pollock, & Graffin, 2006). In situations where there is uncertainty about the quality of an organization, those with awards tend to receive heightened attention for a certain period (Azoulay, Stuart, & Wang, 2014). Collectively, these studies indicate that receiving awards attracts appreciative audiences. The favorable perceptions of these audiences are further amplified by the
increased popularity of the organization. Consequently, more audiences, influenced by status bias, are likely to evaluate the quality of high-status social actors favorably, leading to higher overall evaluations.

The alternative explanation posits that the publicity surrounding awards draws a larger and more diverse audience with varying, and often opposing, tastes, potentially affecting evaluations of award-winning entities. If a status increase is triggered by an external arbiter, such as an award, the ensuing publicity may attract a mass audience. As popularity increases, so does the diversity of audience tastes, which might result in high-status actors being evaluated less favorably due to their inability to cater to these diverse preferences (Kovács & Sharkey, 2014). This effect is believed to be more pronounced when the audience predominantly consists of lay, non-expert individuals.

In reality, lay audiences typically have different tastes and evaluation criteria compared to external arbiters, who are often experts or elites in the field. Bourdieu (1993) notes that cultural elites possess substantial cultural capital, derived from social origin and education, leading to tastes and evaluative standards distinct from those of the lay public, who generally have less cultural capital. However, current literature often assumes that audiences invariably concur with the judgments of external arbiters, presuming that they surrender their own evaluative agency to align with elite arbiters. In contrast, lay audiences are active agents with their own diverse evaluation criteria, distinct from those of the elites (Kovács & Sharkey, 2014). The discrepancy between elite arbiter and public opinion is not uncommon, but it has often been overlooked in scholarly research. Given these conflicting findings, it is imperative to meticulously examine the role of status in the evaluation of quality.

2.3. Research Context

This research evaluates the impact of Academy Award wins (Oscars) on movie reviews and ratings. The Oscars, presented by the Academy of Motion Picture Arts and Sciences, are a set of awards given annually for artistic and technical merit in the film industry. It recognizes artistic and technical merit in the film industry through a distinct two-phase voting system by film industry professionals. Esteemed globally, winning an Oscars is often seen as a career highlight. The study considers the Oscars’ huge influence, noting that their announcements, broadcast live worldwide, attract millions of viewers. This extensive reach positions the Oscars as an ideal setting to study the effects of award wins on movie evaluations, especially since these awards can significantly elevate a film’s status, impacting public perception and critiques. Movies, as static objects, offer a unique chance to observe changes in evaluations pre- and post-status change, akin to social actors who gain status through external recognition.

2.4. Research Significance

Despite intriguing, conflicting views on the consequences of gaining high status, few studies explore how it affects audience perceptions of quality. This research aims to investigate the impact of increased status on perceived quality, using static objects like movies to distinguish changes in quality perception from behavioral changes in social actors. It has been previously noted that high-status social actors may disproportionately focus on maintaining their status. This emphasis on status conservation can potentially lead to a decline in their true quality, which, in turn, may result in a diminished perceived quality. Drawing inspiration from Kovács and Sharkey (2014) analysis of reader reviews on Goodreads.com, this study extends into the realm of movie reviews to explore the aggregate effects of status elevation. Rather than focusing on individual perception changes towards award-winning movies, it compares the collective evaluations of these movies before and after award announcements. The study then offers an initial exploration into the possible shifts in overall evaluation, broadening the understanding of how audience perceptions evolve in response to status changes in the film industry.

In this study, building on top of Kovács and Sharkey (2014) analysis approach, I employ a dual-method approach, utilizing both movie ratings and sentiment scores as tools to assess perceived quality. This
comprehensive methodology is designed to yield a thorough understanding of how an increase in status affects both the explicit ratings given by viewers and the subtler emotional tones expressed in movie reviews. Additionally, while Kovács and Sharkey (2014) textual analysis focuses on assessing readers’ expectations, the study focuses on identifying significant language patterns, particularly bigrams, to offer an in-depth view of how audiences respond to a status increase, whether positively or negatively. By analyzing movie reviews spanning 12 years, this research extends beyond existing studies, providing a more comprehensive examination of the impact of status on quality evaluations in the film industry.

2.5. Hypotheses

This study aims to analyze the impact of a status increase on the perceived quality evaluation. Specifically, it focuses on understanding the changes in ratings of movies that win awards, with a particular emphasis on the aftermath of Academy Award announcements. Receiving an Academy Award significantly boosts a movie’s profile, drawing a broader spectrum of viewers. This expanded viewership often includes individuals who might not typically gravitate towards the movie’s specific genre or style. It is hypothesized that when viewers whose tastes do not align with the movie’s content are exposed to it due to its elevated status, it could lead to increased dissatisfaction. This dissatisfaction, stemming from the mismatch between what the viewers prefer and what the movie offers, may result in a higher volume of negative reviews. Consequently, this could manifest as a decline in the overall rating of the movie and a more critical tone in reviews. Therefore, I predict that:

Hypothesis 1(a): Award-winning movies receive less favorable evaluations and, hence, a lower rating after the award announcement.

Hypothesis 1(b): Award-winning movies receive less favorable evaluations and, hence, a lower sentiment score after the award announcement.

Numerous studies, including those by English (2008) have shown that an elevation in status tends to draw in a larger consumer and audience base. Research by Ginsburgh (2003) shows that winning movies are linked to greater revenue success, suggesting that more audiences are inclined to pay and view these award-winning films. This influx of consumers is critical in determining the outcome of product evaluations. A key finding from Kovács and Sharkey (2014) research highlights that with the expansion of the evaluator pool, there is a corresponding diversification in their tastes and preferences. This diversity poses a significant challenge, particularly for high-status actors or products, as they now have to meet a wider array of preferences. In light of these insights, I propose the following:

Hypothesis 2: An increase in popularity following the award announcement contributes to the negative or positive effects of a status increase.

3. METHODOLOGY AND DATA

3.1. Methodology

To test Hypotheses 1(a) and (b), I compare changes of ratings and sentiment scores over time between movies that won awards and those that were only nominated, using the difference-in-differences (DD) method. The rationale for using movies that were nominated but did not win as control movies is to adhere to the parallel pre-trend assumption. This assumption is crucial because any inherent differences in qualities (e.g., perceived quality) of the movies could result in non-parallel rating trajectories prior to the award announcement. If such non-parallel trends exist, it becomes challenging, if not impossible, to determine whether post-award differences in ratings and sentiment scores are attributable to the impact of the awards themselves or to pre-existing differences between the two groups of movies. By selecting nominated movies as controls, which presumably share similar inherent characteristics with the award-winning movies, I aim to ensure that the parallel trend assumption is maintained. This approach should help isolate the effect of winning an award from other variables. The methodology I use is
based on the rigorous approach adopted in Kovács and Sharkey (2014) paper, ensuring a robust and established methodological framework for the analysis.

In the study, the sentiment score serves as a tool to evaluate perceived quality. Sentiment scores quantify the emotional tone of text, offering insights into the attitudes or feelings expressed in various written forms, such as reviews, social media posts, or any textual content. The challenge in assessing attitudes or feelings in written language lies in their subjective nature, which is difficult to measure both objectively and consistently. Sentiment scores address this by providing a standardized method to quantify these subjective elements.

To calculate sentiment scores, I utilize the Natural Language Toolkit (NLTK) program, and more specifically, its VADER (Valence Aware Dictionary and sEntiment Reasoner) module. This module is designed to determine the overall sentiment of a text, providing a score that ranges from -1, indicating extremely negative sentiment, to +1, signifying extremely positive sentiment, with a score of 0 representing a neutral stance. VADER is especially adept at interpreting the subtleties of sentiment as expressed in texts typically found on social media platforms, including online reviews. This makes it a suitable tool for analyzing the emotional tone conveyed in such texts.

To testify hypotheses 1(a) and (b), the following regression model is utilized:

\[ Y_{ikjt} = \alpha + \beta_1 \text{Winning}_{kj} + \beta_2 \text{Post}_t + \beta_3 (\text{Winning}_{kj} \times \text{Post}_t) + \mu_h + \epsilon_{ikjt}, \quad h = \{k,j\} \]

In this model:
- \(Y\) signifies either the rating or the sentiment score.
- \(i\) represents an individual review.
- \(k\) denotes a specific movie.
- \(j\) signifies the award.
- \(t\) indicates the time relative to the award announcement.
- \(\mu_h\) represents the fixed effects.

To account for inherent variations, both award fixed effects (award FE) and movie fixed effects (movie FE) are incorporated into the model. This approach ensures that the model accurately captures the influence of these fixed characteristics on the dependent variable.

Hypothesis 2 is examining whether an increase in popularity following the award announcement contributes to the negative or positive effects of a status increase. I transform the originally review-level dataset to the movie-level\(^2\), and operationalize popularity as the percentage change in the number of reviews three months before and after the award announcement. To test Hypothesis 2, I first examine the correlation between winning and percentage change in the number of reviews using the regression model below:

\[ Y_{kj} = \alpha + \beta_1 \text{Winning}_k + \mu_j + \epsilon_{kj} \]

In the model:
- \(Y\) signifies the percentage change in the number of reviews.
- \(k\) denotes a specific movie.
- \(j\) signifies the award.
- \(\mu_j\) represents the award fixed effects.

Subsequently, I investigate the correlation between the interaction of winning status and the percentage change in the number of reviews, and the percentage change in ratings. The dependent variable, \(Y\), is

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1 The definition of a winner is established at the level of individual movie awards, not at the overall movie level. This distinction is important because a single movie can receive nominations and win in various award categories. For instance, "Toy Story 3" was a nominee for the Best Picture Award and a winner of the Best Animated Feature Award at the 83rd Academy Awards. Given this scenario, the inclusion of a movie-level fixed effect in the regression model remains a viable and pertinent methodological decision.

2 For movies that received both nominations and awards within the same year, such as "Toy Story 3", the analysis categorizes these films as winning movies.
operationalized as the percentage change in ratings three months before and after the award announcement. This relationship is analyzed using the following model:

\[ Y_{kj} = \alpha + \beta_1 \text{Winning}_k + \beta_2 \text{Percentage change in review}_k + \beta_3 (\text{Winning}_k \times \text{Percentage change in review}_k) + \mu_j + \epsilon_{kj} \]

In the model:
- \( Y \) signifies the percentage change in ratings.
- \( k \) denotes a specific movie.
- \( j \) signifies the award.
- \( \mu_j \) represents the award fixed effects.

After examining the two hypotheses, I conduct textual analysis to study the commonly appeared bigrams in reviews. For this analysis, I utilize the NLTK package in Python, specifically designed for generating bigrams - sequences of two consecutive words. The process begins with the exclusion of common stopwords, including articles, pronouns, and prepositions, as well as punctuation, based on a predefined list. The subsequent steps involve tokenizing the text into individual words and lemmatizing each word, refined by part-of-speech tagging for precise base forms. Such preprocessing is vital for the effective generation of meaningful bigrams. Utilizing the bigrams function from NLTK, these word pairs are then created from the processed text. The final stage involves calculating the frequency of each bigram, thereby identifying the most common word pairs. This frequency data illuminates the dominant linguistic patterns and themes present in the movie reviews.

3.2. Data

In this study, I extracted movie ratings and reviews from the Internet Movie Database (IMDB), a premier global source for movie-related content. IMDB's extensive database, offering detailed information such as ratings, reviews, and the dates they were posted, presents a significant advantage for comprehensive analysis.

The selection of films for analysis was based on a list of award-winning and nominated movies from oscars.org. To gain an in-depth understanding of audience perceptions, I compiled reviews for each movie that either won an award or was nominated in seven categories: Best Picture, Best Animated Feature, Best Animated Short Film, Best Documentary Feature, Best Documentary Short Subject, Best International Feature Film, and Best Live Action Short Film. This collection encompassed reviews posted in the three months preceding and following each award announcement, covering films from 2008 to 2019. The timeframe was specifically chosen to avoid the influence of the pandemic on movie-watching and review-writing behaviors, ensuring a more representative sample of typical audience reactions. The extraction of this data was facilitated using Beautiful Soup, a Python library.

To ensure consistency and reliability, the study concentrated on reviews that provided a numerical rating on a scale of 10. This selection criterion was pivotal, as these ratings represent a key dependent variable within the research framework. They offer a quantifiable metric of audience evaluation, integral to the analysis. Such a focus on quantified ratings facilitates a more objective assessment of viewer responses and allows for a robust examination of the relationships being investigated.

3.3. Descriptive Statistics

In the data cleaning phase, reviews lacking a rating were excluded. Following this process, the dataset comprised a total of 379 movies, encompassing 47,085 reviews. Table 1 presents the descriptive statistics, encompassing the mean, standard deviations, variance, minimum, and maximum values. Additionally, the last three columns of the table display the pairwise Pearson correlations between the variables.
Table 1. Descriptive statistics and pairwise Pearson correlations (N = 47,085).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. dev.</th>
<th>Var.</th>
<th>Min.</th>
<th>Max.</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating</td>
<td>7.044</td>
<td>2.886</td>
<td>8.33</td>
<td>1</td>
<td>10</td>
<td>0.398***</td>
<td>0.029***</td>
<td>0.331***</td>
</tr>
<tr>
<td>Sentiment score</td>
<td>0.569</td>
<td>0.675</td>
<td>0.46</td>
<td>-1</td>
<td>1</td>
<td>0.398***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winner</td>
<td>0.229</td>
<td>0.42</td>
<td>0.18</td>
<td>0</td>
<td>1</td>
<td>0.070***</td>
<td>0.029***</td>
<td></td>
</tr>
<tr>
<td>Review % change</td>
<td>-50.895</td>
<td>46.22</td>
<td>2138.83</td>
<td>-100</td>
<td>1300</td>
<td>0.001</td>
<td>-0.045***</td>
<td>0.331***</td>
</tr>
</tbody>
</table>

Note: *** p<0.01, * p<0.05,  p<0.1.

Table 2 demonstrates that prior to the award announcements, the average rating of winning movies stands at 7.78, which is 0.77 points higher than the average rating of 7.01 for movies that were only nominated. However, post-award announcement, there is a noticeable decline in ratings for both categories: nominated-only movies drop to an average rating of 6.74, while winning movies decrease to 6.87. This reduced disparity in ratings post-award indicates a more pronounced drop for winning movies compared to their nominated-only counterparts. Figure 1 graphically presents the distribution of these ratings. The subsequent section of this study will delve deeper into this trend through DD regression analyses.

Table 2. Mean and standard deviation of rating for movies across periods.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Number of reviews</th>
<th>Number of movies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominated-only, before</td>
<td>7.01</td>
<td>2.86</td>
<td>26,403</td>
<td>299</td>
</tr>
<tr>
<td>Winner, before</td>
<td>7.78</td>
<td>2.61</td>
<td>6,455</td>
<td>69</td>
</tr>
<tr>
<td>Nominated-only, after</td>
<td>6.74</td>
<td>2.94</td>
<td>9,920</td>
<td>256</td>
</tr>
<tr>
<td>Winner, after</td>
<td>6.87</td>
<td>3.092</td>
<td>4,307</td>
<td>68</td>
</tr>
</tbody>
</table>

Figure 1. Number of reviews by rating.

Figure 2 demonstrates that during the 30-day period preceding the award announcement, the average ratings of both winning and nominated movies follow a roughly parallel trend. Nevertheless, immediately after the award announcement, there is a discernible decline in the ratings of the winning movies.
Figure 2. Ratings of winning and nominated-only movies across time.

Figure 3 illustrates that the average sentiment score for award-winning movies peaked before the Oscars at 0.65, but subsequently fell by 16.012% to 0.54 following the ceremony. By contrast, the sentiment score for movies only nominated experienced a more modest decline of 11.75%. This observation sets the stage for further detailed analyses in the subsequent section of the study, aimed at understanding the underlying factors contributing to these sentiment shifts in both award-winning and nominated-only movies.

Figure 3. Sentiment scores of winning and nominated-only movies in different periods.

4. RESULTS

Three Difference in Differences (DD) models were employed to investigate the impact of winning an award on movie ratings, contrasting nominated-only movies with award-winning ones. Table 3 presents the estimated causal effects of award victories on movie ratings post-announcement. Model 1 is devoid of any fixed effects, Model 2 incorporates award fixed effects, and Model 3 includes movie fixed effects. The R-squared terms in all models are
Across all models, the findings consistently indicate that award-winning movies attain higher ratings than their nominated-only counterparts, as evidenced by p-values below 0.01. Additionally, the ratings for both groups are projected to decline following the award announcement, supported by p-values less than 0.01 in all models. The negative coefficients of the Winner x Period interaction term in each model (-0.655, -0.612, and -0.429) suggest a more pronounced reduction in ratings for winning movies post-award compared to nominated-only movies. As depicted in Figure 4, the curve representing winning movies is steeper than that for the nominated-only movies. This trend persists irrespective of the inclusion of fixed effects, with the interaction terms in all three models being statistically significant (p-values < 0.01). Therefore, these results corroborate Hypothesis 1(a), which posits that award-winning movies are subject to less favorable evaluations and subsequently lower ratings after the award announcement.

Table 3. Effect of winning an award on the rating before and after the award announcement.

<table>
<thead>
<tr>
<th>Variables</th>
<th>(1) Rating</th>
<th>(2) Rating</th>
<th>(3) Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winner (Winner = 1)</td>
<td>0.779***</td>
<td>0.560**</td>
<td>0.107***</td>
</tr>
<tr>
<td></td>
<td>(0.275)</td>
<td>(0.267)</td>
<td>(0.035)</td>
</tr>
<tr>
<td>Period (After = 1)</td>
<td>-0.262***</td>
<td>-0.282***</td>
<td>-0.282***</td>
</tr>
<tr>
<td></td>
<td>(0.063)</td>
<td>(0.066)</td>
<td>(0.050)</td>
</tr>
<tr>
<td>Winner x period</td>
<td>-0.655***</td>
<td>-0.612***</td>
<td>-0.429***</td>
</tr>
<tr>
<td></td>
<td>(0.180)</td>
<td>(0.169)</td>
<td>(0.130)</td>
</tr>
<tr>
<td>Constant</td>
<td>7.005***</td>
<td>7.672***</td>
<td>9.064***</td>
</tr>
<tr>
<td></td>
<td>(0.107)</td>
<td>(0.289)</td>
<td>(0.017)</td>
</tr>
<tr>
<td>Observations</td>
<td>47,085</td>
<td>47,085</td>
<td>47,085</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.012</td>
<td>0.021</td>
<td>0.113</td>
</tr>
<tr>
<td>Award FE</td>
<td>x</td>
<td>√</td>
<td>x</td>
</tr>
<tr>
<td>Movie FE</td>
<td>x</td>
<td>x</td>
<td>√</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses. *** p<0.01.

Figure 4. The adjusted predictions of period x winner with 95% Cls.

The relatively low R-squared figures might suggest the presence of noise within the data. Alternatively, these values could be indicative of the influence of other unobservable factors not directly pertinent to this study, yet potentially impacting the variability of movie ratings. For example, external factors like gossip news about lead actors or actresses might have a bearing on movie ratings. Notably, the inclusion of movie fixed effects in Model 3 results in a significant increase in the R-squared value to 0.113. Despite the low R-squared values, their significance is secondary in the context of this research. The primary objective is to elucidate the relationships between the variables, rather than to precisely predict the ratings. R-squared is a measure of the proportion of variance in the dependent variable that is predictable from the independent variables in the model. However, in this study, the focus is on understanding variable interrelations rather than on exhaustive prediction. Consequently, the low R-squared values do not diminish the validity of the relationships and coefficients identified within the research.
An additional analysis at the movie-time level was performed to examine the effect of winning an award on ratings, with the daily average rating for each movie serving as the dependent variable. The outcomes of this analysis are presented in Table 4. Consistent with Hypothesis 1(a), the results from all models demonstrate a significant decrease in the average daily rating for each winning movie following the award announcement, as indicated by p-values less than 0.05. This finding aligns with and reinforces the initial observations reported in Hypothesis 1(a), further substantiating the impact of award victories on movie ratings.

Table 4. Effect of winning an award on the daily average rating by movie before and after the award announcement.

<table>
<thead>
<tr>
<th>Variables</th>
<th>(4) Daily average rating</th>
<th>(5) Daily average rating</th>
<th>(6) Daily average rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winner (Winner = 1)</td>
<td>0.638*** (0.160)</td>
<td>0.470*** (0.163)</td>
<td>-0.788*** (0.044)</td>
</tr>
<tr>
<td>Period (After = 1)</td>
<td>-0.253*** (0.050)</td>
<td>-0.292*** (0.049)</td>
<td>-0.210*** (0.048)</td>
</tr>
<tr>
<td>Winner x Period</td>
<td>-0.315** (0.131)</td>
<td>-0.341*** (0.128)</td>
<td>-0.310*** (0.120)</td>
</tr>
<tr>
<td>Constant</td>
<td>7.163*** (0.074)</td>
<td>7.581*** (0.149)</td>
<td>9.070*** (0.016)</td>
</tr>
<tr>
<td>Observations</td>
<td>16,509</td>
<td>16,509</td>
<td>16,509</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.014</td>
<td>0.031</td>
<td>0.171</td>
</tr>
<tr>
<td>Award FE</td>
<td>x</td>
<td>√</td>
<td>x</td>
</tr>
<tr>
<td>Movie FE</td>
<td>x</td>
<td>x</td>
<td>√</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses.*** p<0.01, ** p<0.05, * p<0.1.

Table 5 displays the outcomes of three different models that investigate the causal impact of winning an award and the time period on sentiment scores within movie reviews using the DD approach. Model 7 operates without the inclusion of any fixed effects, whereas Model 8 integrates award fixed effects, and Model 9 encompasses movie fixed effects. In all models, the interaction term between winner status and post-award period exhibits a negative coefficient, indicating a tendency for winning movies to exhibit lower sentiment scores following the award announcement.

Table 5. Effect of winning an award on sentiment scores before and after the award announcement.

<table>
<thead>
<tr>
<th>Variables</th>
<th>(7) Sentiment score</th>
<th>(8) Sentiment score</th>
<th>(9) Sentiment score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winner (Winner = 1)</td>
<td>0.070 (0.059)</td>
<td>0.035 (0.061)</td>
<td>0.001 (0.004)</td>
</tr>
<tr>
<td>Period (After = 1)</td>
<td>-0.068*** (0.015)</td>
<td>-0.066*** (0.015)</td>
<td>-0.056*** (0.009)</td>
</tr>
<tr>
<td>Winner x Period</td>
<td>-0.036* (0.020)</td>
<td>-0.012 (0.021)</td>
<td>-0.003 (0.017)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.577*** (0.028)</td>
<td>0.737*** (0.043)</td>
<td>0.985*** (0.003)</td>
</tr>
<tr>
<td>Observations</td>
<td>47,085</td>
<td>47,085</td>
<td>47,085</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.004</td>
<td>0.017</td>
<td>0.132</td>
</tr>
<tr>
<td>Award FE</td>
<td>x</td>
<td>√</td>
<td>x</td>
</tr>
<tr>
<td>Movie FE</td>
<td>x</td>
<td>x</td>
<td>√</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses.*** p<0.01, ** p<0.05, * p<0.1.

* For movies that received both nominations and awards within the same year, such as "Toy Story 3", the analysis categorizes these films as winning movies. Consequently, any reviews pertaining to their status as nominated-only movies are excluded from the dataset. The approach is consistently applied in subsequent movie-level analyses throughout the study.
Regarding the statistical significance, Model 7 reveals a marginally statistically significant effect for the interaction term (p-value < 0.1), while Models 8 and 9 do not achieve statistical significance, with their respective p-values exceeding 0.1. Consequently, these findings do not corroborate Hypothesis 1(b), which posits that award-winning movies are likely to experience a decrease in sentiment scores post-award. The broader implications of these findings would be explored in the Discussion section. Proceeding to Hypothesis 2, the study first examines whether winning an award correlates with increased popularity relative to movies that only received nominations following the award announcement. Presented in Table 6, Model 10 does not incorporate any fixed effects, whereas Model 11 includes award fixed effects. The findings from both models suggest a significant association. Specifically, being an award winner is associated with a predicted increase in the number of reviews by 60.4 percentage points in Model 10 and 58.54 percentage points in Model 11 compared to nominated-only movies, with a p-value of less than 0.01 for each model. These findings suggest that winning movies experience a substantial rise in popularity following the award announcement, markedly exceeding that of movies which were only nominate.

Table 6. The correlation between winning an award and the percentage change in the number of reviews after the award announcement.

<table>
<thead>
<tr>
<th>Variables</th>
<th>(10) Review % change</th>
<th>(11) Review % change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winner (Winner = 1)</td>
<td>60.40*** (23.16)</td>
<td>58.54*** (21.30)</td>
</tr>
<tr>
<td>Constant</td>
<td>-10.64*** (4.492)</td>
<td>-10.22*** (4.590)</td>
</tr>
<tr>
<td>Observations</td>
<td>367</td>
<td>367</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.046</td>
<td>0.173</td>
</tr>
<tr>
<td>Award FE</td>
<td>x</td>
<td>✓</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 7 presents an analysis of the correlation between the increased popularity associated with winning an award and the subsequent percentage change in ratings. In this context, Model 12 is executed without any fixed effects, while Model 13 incorporates award fixed effects. For instance, Model 13 reveals that a one percentage point increase in the number of reviews for nominated-only movies corresponds to a 0.0590 percentage point increase in rating, with a p-value less than 0.01. However, the interaction term between winner status and percentage change in review number displays a negative effect. This implies that for winning movies, a one percentage point increase in review numbers is predicted to result in a decrease of 0.0216 percentage points (calculated as 0.0590 - 0.0806) in rating post-award. These results are statistically significant at the 0.01 level. This finding supports Hypothesis 2, suggesting that greater popularity in winning movies, as opposed to nominated-only movies, is associated with lower average ratings. This observation may partly account for the more pronounced decline in ratings of winning movies following the award announcement.

Table 7. The correlation between popularity associated with winning and the percentage change in rating.

<table>
<thead>
<tr>
<th>Variables</th>
<th>(12) Rating % change</th>
<th>(13) Rating % change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winner (Winner = 1)</td>
<td>-6.137*** (3.058)</td>
<td>-6.382*** (3.001)</td>
</tr>
<tr>
<td>Review % change</td>
<td>0.063*** (0.017)</td>
<td>0.059*** (0.018)</td>
</tr>
<tr>
<td>Winner x review % change</td>
<td>-0.078*** (0.022)</td>
<td>-0.081*** (0.029)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.554* (1.468)</td>
<td>2.797 (2.967)</td>
</tr>
<tr>
<td>Observations</td>
<td>311</td>
<td>311</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.052</td>
<td>0.135</td>
</tr>
<tr>
<td>Award FE</td>
<td>x</td>
<td>✓</td>
</tr>
</tbody>
</table>

Note: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.
4.1. Bi-Grams

Following the regression analyses, I explored the 25 most frequently occurring bigram pairs in reviews of award-winning movies. As depicted in Figure 5, before the award ceremony, the analysis uncovered numerous complimentary phrases, with ('one', 'best') and ('have', 'seen') ranking as the foremost bigrams. This pattern suggests a common sentiment among viewers, often phrased as "one of the best movies I have seen." Moreover, the reviews consistently featured expressions of acclaim, including ('best', 'movie'), ('best', 'film'), ('good', 'movie'), and ('great', 'movie'). Notably, the bigrams included references to specific movies, such as ('shape', 'water') for "The Shape of Water," and ('king', 'speech') for "The King's Speech"; names of directors, like ('del', 'toro') referring to Guillermo del Toro, and ('coen', 'brother') for Joel and Ethan Coen; as well as actors, such as ('michael', 'keaton') for Michael Keaton and ('tommy', 'lee') for Tommy Lee Jones. These instances pertain to the names of the winning films or the directors and actors involved in those films that were the subject of the reviews. It is a common practice for audiences to cite well-known directors and actors in their critiques of award-winning films. While this paper does not delve into the direct impact of high-status individuals on organizational quality assessments, it raises an intriguing avenue for future research to examine if affiliations with prominent social figures contribute to positive quality evaluations of the associated organizations.

![Figure 5](image.png)

*Figure 5*. The 25 most frequent bigrams in winning movie reviews before the award announcement.

Following the award announcements, Figure 6 showcases a shift in the prevalent bigrams found in movie reviews. Common phrases such as 'best movie', 'best film', and 'good movie' persisted, but there was a notable decline in the usage of bigrams like 'one best' and 'have seen', which may reflect a reduction in accolades or enthusiasm. Additionally, there was a marked increase in references to "academy award" and the "best picture" category, indicating that the awards themselves became a focal point in the reviews. Notably, two films—'The Hurt Locker' and '12 Years a Slave', referenced by the bigrams ('hurt', 'locker') and ('year', 'slave') respectively—featured prominently in the top bigrams following the ceremony. These movies, both significant Academy Award winners, emerged in the discourse, underlining the influence of award recognition on audience attention. This trend supports the hypothesis that an award win attracts more viewers to watch and review the films. Moreover, when aligned with the regression analysis findings on ratings and sentiment, there is a discernible pattern that an award win
correlates with an increase in the volume of less positive reviews.

![Figure 6. The 25 most frequent bigrams in winning movie reviews after the award announcement.](image)

5. DISCUSSION

High status is often perceived as beneficial, providing access to essential resources, recognition, and the liberty to diverge from established norms. Thus, one might anticipate that social actors and entities receiving awards would be favorably evaluated in terms of quality. Nevertheless, a review of existing literature reveals inconsistent findings, prompting the inquiry into whether award-winning individuals and objects indeed receive more favorable evaluations post-award announcement. This question forms the core of the present study.

In this research, the impact of award wins on the ratings of Oscars-winning movies was investigated, particularly whether these ratings decline post-announcement. The study was guided by two principal research questions: 1) What is the effect of heightened status on the quality evaluation of winning movies post-award announcement? 2) How is a surge in popularity post-win correlated with the overall negative effects associated with winning an award? Given the potential broadening of the audience and the accompanying diversity in preferences, it was hypothesized that award-winning movies might receive less favorable evaluations, leading to lower ratings and sentiment scores after the award announcement. With the Oscars being the film industry’s most prestigious accolade and a magnet for public attention, it was also predicted that award-winning movies would enjoy increased popularity post-announcement. This popularity surge was anticipated to play a role in the hypothesized negative impact of elevated status. To enrich the analysis, a textual examination of the most commonly occurring bigrams in movie reviews was conducted to provide deeper insight into the nature of the evaluations.

In my comparative analysis of ratings between award-winning and nominated-only films, I observe that both categories exhibit a decline in ratings following the award announcements. Notably, award-winning films show a more pronounced reduction. Contrasting this, sentiment analysis of reviews reveals that the sentiment scores for award-winning films do not decrease significantly, unlike their ratings. To elucidate the substantial decline in ratings observed for award-winning movies, my findings suggest that the heightened popularity stemming from the award win contributes to a lower review rating.

The sharper decline in ratings for award-winning films can be attributed to several factors. Firstly, winning an award, especially one as prestigious as the Academy Awards, elevates a film's status, drawing a broader, more
diverse audience. Ginsburgh (2003) research establishes a link between award-winning movies and their financial success, suggesting that winning movies tend to attract more audiences for viewing them. The findings from Kovács and Sharkey (2014) study on Goodreads.com, as well as the present study, also lend support to the explanation that winning an award is associated with an increase in popularity. Those viewers, attracted more by the film's award-winning status than by a genuine interest in its genre or content, may have varied tastes that the movie might not cater to. The diverse audience profile of these celebrated movies implies a higher likelihood of not meeting the wide range of viewer preferences. This mismatch could lead to viewers assigning lower ratings.

Expanding on the notion that award-winning movies attract a broader audience, it is important to consider the variance in tastes between expert and non-expert viewers. Bourdieu (1993) theory posits that elites, with their greater cultural capital and extensive cultural knowledge, tend to apply a distinct set of evaluation standards. These standards often diverge from those used by consumers with less cultural capital (Holbrook, 1999). The Oscars, selected by film industry professionals, are a case in point. These professionals are generally assumed to have deeper电影knowledge than the general public. Kremp (2010) research indicates a divergence in appreciation; experts value solid technical skills and high creativity, while general consumers might not prioritize these attributes as much, and might even be averse to them. Therefore, the prestige associated with an award draws audiences who are not necessarily movie experts and who may not align with the preferences of film industry professionals. Attracted by the award's allure, these lay audiences might rate award-winning movies less favorably post-announcement, owing to their differing tastes from those of the elite film industry professionals. This phenomenon underscores the complex dynamics at play in the reception and evaluation of award-winning films by a more diverse audience.

My analysis supports the notion that the increased popularity of winning films correlates with a steeper decline in ratings—a trend not observed in films that were only nominated. This implies that the prestige associated with the award attracts audiences with distinct preferences, increasing the probability of the films failing to meet these varied preferences and consequently resulting in more negative evaluations post-award announcement. It is noteworthy that while the Academy Awards are globally renowned, it is important to recognize that they primarily honor the U.S. film industry. Consequently, the results of studies focusing on these awards may not directly translate to or be representative of the film industries in other countries. This distinction is crucial for understanding the scope and applicability of any research based on the Academy Awards.

One of the key additions of the current study compared to Kovács and Sharkey (2014) study is the analysis of the sentiment scores and the textual analysis. The analysis reveals that award-winning movies do not exhibit a statistically significant decrease in sentiment scores post-award announcement. Despite a discernible drop in ratings for these movies, the tone of the reviews does not consistently shift towards negativity. This disparity suggests that while ratings might reflect immediate, overall judgments of a film's quality, review sentiments delve into more detailed feelings and perspectives. Viewers may rate a film lower due to a mismatch between their tastes and the film's attributes, yet still express positive remarks or a balanced viewpoint in their reviews, leading to a less negative sentiment score. Although the original hypothesis is not fully supported, this does not necessarily undermine the value of studying the sentiment scores in this research. This study establishes a foundation for understanding the differing dynamics between ratings and reviews. It emphasizes the necessity for future research to explore the causes of the disparity between ratings and sentiment scores and how audiences perceive these distinct evaluation methods. Such insights are pivotal for researchers in determining the most appropriate evaluation measures, considering that ratings and reviews are not interchangeable. A deeper understanding of these aspects will contribute to a more thorough comprehension of evaluative behaviors.

This paper's overall contribution is significant in two ways. In alignment with Kovács and Sharkey (2014) research, this study confirms the negative impact of increased status on perceived evaluations in the movie industry. This could be due to the increased audience diversity following an award win, where the tastes of audiences are diverse, and theirs and expert judges may not align. While movies are objects and the associated organizations (i.e.,
movie studios and distributors) may not be concerned about a decline in ratings when winning status boosts viewership and most likely revenue, a similar negative impact might be observed in other industries. Organizations where perceived quality plays a crucial role in long-term benefits or even survival might pay attention to the potential negative impact on perceived quality. Furthermore, the study broadens the scope of current literature by incorporating sentiment scores and textual analysis into an innovative research context, making it one of the few to examine sentiment scores in relation to status increase and quality evaluation. The findings regarding sentiment scores, while not significant, suggest that different evaluation methods might hold varying meanings for reviewers or address different aspects of evaluation. It raises the need for further research to understand why ratings and sentiment scores yield different results and how audiences perceive these different evaluation tools, thereby contributing to a more holistic measurement of evaluation.

Despite the contributions, the research faces several limitations. One major concern is the representativeness of online reviewers on IMDB, who may not accurately reflect the broader audience demographics. This discrepancy can lead to biases in understanding audience reactions. While the study offers insights into the negative impacts of increased status on online evaluations, it does not directly delve into whether the preferences of the audience attracted post-award differ from those reviewing before the award. Furthermore, the lack of relevant control variables, such as box office performance, release dates relative to the Oscars, and budget, could potentially lead to biased estimations, as the difference-in-differences approach assumes comparable treatment and control groups except for the treatment factor. Including such variables could enhance the accuracy and depth of the analysis.

Future research in this field could expand in three key directions. Firstly, a longitudinal study of movie reviews could provide a more comprehensive understanding of the lasting impact of award wins on movie ratings. Investigating ratings over a year or more post-award would offer insights into whether initial declines in ratings for award-winning movies are transient or sustained. This could help to clarify the endurance of the status effect and its long-term influence on public evaluations. Secondly, exploring cultural taste differences between general audiences and cultural elites could be insightful. It would be interesting to compare audience ratings with Metascore trends over time. Metascore is a weighted average of reviews from top critics and publications. This would help identify if the decline in public evaluations is due to a misalignment in taste preferences between the general audience and cultural elites. Moreover, this research could reveal the diversity in critical opinions within the elite group, enriching our understanding of the complexities in film evaluation. Thirdly, examining audience heterogeneity might shed light on the impact of increased audience size and diversity on movie evaluations. A more nuanced analysis of the audience could include studying the demographic and psychographic profiles of reviewers. Understanding the backgrounds, preferences, and movie-watching habits of those who are drawn to high-status movies post-award could illuminate the dynamics of audience expansion and its effects on movie evaluations. This could involve a detailed exploration of reviewers’ histories and preferences, potentially available through public profiles on IMDB, to discern patterns in viewing and review behavior that correlate with changes in movie status.

6. CONCLUSION

This study challenges the common assumption that higher status automatically translates into better perceived quality, particularly within the movie industry. An analysis of Oscars-winning movie ratings from 2008 to 2019 indicates a significant decline in ratings for these films after winning awards. Interestingly, the study reveals an inverse relationship between the popularity of these movies and their ratings. This phenomenon can be attributed to the diverse preferences within the audience and a disparity between the tastes of expert judges and lay audiences. While focused on the film industry, these findings may have broader implications for other sectors where diverse evaluative perspectives are crucial. This research underscores the importance of further exploration into the complex relationship between status and public evaluation, which holds significant implications across various industries.
REFERENCES


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