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A Matter of Taste: The Negative Welfare Effect of Expert Judgments

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A Matter of Taste: The Negative Welfare Effect of Expert Judgments

Abstract

We study how experts influence consumer behavior and welfare by focusing on the Booker Prize. Leveraging the discontinuity created by the attribution of the prize, we show that readers receive the signal sent by the jury of the Booker and are persuaded to buy the awarded book but experience lower satisfaction due to a misalignment between their tastes and those of the jury. Calibrating a structural model of demand, we find that the prize reduces consumer surplus by \$70,039 annually, meaning that a consumer buying an awarded book experiences a loss in surplus of 8% of the book's average price.

JEL-Codes: D120, D830, L150, L820, Z110.

Keywords: awards, prizes, welfare, sales, experts, books, consumer surplus.

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1 Introduction

From the glitz and glamor of film festivals to the sophistication of wine or culinary awards, expert judgments can drive consumers to or away from the products they review (Ginsburgh, 2003, Ashenfelter and Jones, 2013, English, 2014). Those judgments are particularly important for experience goods, the utility of which consumers, by definition, cannot know prior to consumption. By assessing those goods and sharing their judgments with the public, experts send a quality signal that may be received by consumers and persuade them to choose better goods, thereby delivering welfare gains.

However, the view of experts' work as welfare-enhancing rests on the assumption that their judgments reflect the tastes of consumers or, to put it simply, that they can tell consumers what they will like. This assumption is questionable on several grounds. First, telling others what they will like supposes an interpersonal comparison of likes and dislikes, against which both economics and psychology warn. Robbins (1938, p. 637), citing Jevons, reminds us, "Every mind is inscrutable to every other mind and no common denominator of feeling is possible." Bartoshuk (2014) makes the same point and emphasizes that psychological research shows systematic differences across individuals in the perception of pleasure.

Second, expert taste may differ from those of laypeople in a systematic way, as the sociological analysis of Bourdieu (1979, 1983) suggests. He argues that "experts have specific dispositions (*habitus*) shaped by their social trajectory" (Bourdieu, 1983, p. 311). In other words, people's tastes are not exogenously given but determined by their personal history and their position in society. Insofar as the personal history and the position in society of experts differ from those of laypeople, their tastes are likely different, too. What is more, the objective of experts may not be so much to put their approval on the goods that laypeople will like but to foster their own legitimacy in their field (Bourdieu, 1983), which may give them an incentive to support products that are at odds with the tastes of most of the public. The political economy of experts further suggests that signaling what the public will like may not be their main objective. Experts are closer to the industries that they assess than laypeople, which can influence their judgment (Dobrescu et al., 2023). Firms, advertisers, or commercial interests can try to capture experts' attention and praise (Cameron, 1995). Members of the juries awarding prizes are notoriously courted or lobbied by filmmakers, writers, or publishers (English, 2014).

As a result, the alignment of the tastes of experts and laypeople cannot be taken for granted, especially for goods, like wine and art, that cannot be objectively assessed (Ginsburgh,

2016). In line with that presumption, there is evidence of systematic discrepancies between the judgment of experts and that of laypeople about classical music (Asmat et al., 2023), popular music (Haan et al., 2005), movies (Holbrook, 1999), architecture (Coeterier, 2002), landscape (Rogge et al., 2007), and books (Lagios and Méon, 2024).

If the tastes of experts are indeed poorly aligned with those of consumers, the latter may end up consuming products they do not like and would not have initially consumed, hence leading consumers to experience lower utility. Contrary to conventional wisdom, expert judgments may, therefore, decrease consumer welfare. The aim of this paper is to determine whether this is the case and, if so, to quantify the resulting welfare loss.

To address that question, we focus on the Booker Prize, an internationally known literary prize awarded annually since 1969 by a committee of literary experts. Literary prizes provide an ideal case to study the welfare effects of expert judgments for at least two reasons. First, literary prizes are one of the main sources of expert judgments in the book industry and are central to the production and reception of books (English, 2014). Second, the book industry is characterized by a wide range of choices which, combined to the experience good nature of books, makes purchasing decisions complex and hazardous for consumers. This means that pre-purchase information, such as prizes, affects consumption choices (Ponzo and Scoppa, 2015, Lagios and Méon, 2024). In an online survey conducted for this study, nearly one half of respondents reported that they were more likely to buy a book when it had been awarded and the figure exceeded 58 percent when they were asked whether they took prizes into account when hesitating between two books.

We begin our analysis by investigating how the Booker affects the demand for books, as the prize will affect consumer surplus only if it influences consumption choices. To that end, we construct a rich dataset that covers the quasi-universe of books published between 2015 to 2021, which is the period over which we can track the entire daily sales of a book on Amazon. Our dataset includes daily information on Amazon sales ranks, prices, and ratings for over 155,000 editions coming from more than 58,000 books. As Amazon’s market share in physical and electronic books in the US is 42% and 89%, respectively, our data capture a significant part of the US book market.¹

When estimating the effect of the Booker on sales, the main challenge is that a book’s unobservable characteristics may drive both the probability of winning an award and commercial success. The jury may, for example, deliberately pick books that will likely be successful

¹ See <https://www.t4.ai/companies/amazon-market-share> and <https://wordsrated.com/book-sales-statistics>.

or incidentally reward characteristics that make a book successful. A naive regression of sales ranks on the Booker is therefore unlikely to reflect a causal effect.

We address endogeneity by examining whether the discontinuity over time in public attention to a book prompted by the attribution of the Booker leads to a discontinuity in daily sales for that book. We find that it does and that the impact is substantial. In particular, in the first 10 days following its attribution, the Booker raises book sales by 99%; over the course of a year, winning the prize leads to a 27% boost in sales.

We then leverage the customer reviews posted on Amazon to investigate the causal impact of the Booker on consumer satisfaction, as the impact of the prize on consumer surplus depends on its ability to redirect consumers toward books they will enjoy. Our sample consists of 9 million reviews. We measure consumer *ex post* satisfaction from reading a book in two ways. First, we perform a sentiment analysis on the textual content of each review. Sentiment analysis is a natural language processing technique that extracts the sentiment valence of an opinionated text, which can range from negative to positive (Pang and Lee, 2008), thereby providing a measure of satisfaction. We then confirm the results obtained with the sentiment analysis by using the review rating (number of stars), whereby a higher rating indicates a higher consumer *ex post* satisfaction.

We gauge the effect of the Booker on consumer satisfaction using a difference-in-differences design, where we compare how sentiments and ratings for awarded and non-awarded books change after the attribution of the prize. In line with the presumption that experts may redirect consumers to products that they do not enjoy, we observe that the Booker increases the probability of a book receiving a negative review and decreases its rating. Accordingly, the Booker negatively affects consumer *ex post* satisfaction and, hence, surplus. These findings stand up to a series of robustness checks, including the use of alternative econometric approaches that do not rely on the parallel trend assumption, such as a regression discontinuity design. Furthermore, we show that those results are not driven by a change in the population composition of reviewers, by the fact that awarded books are more expensive, or by a publicity effect.

We then report a series of findings suggesting that the negative effect of the Booker on consumer satisfaction is indeed driven by a misalignment in taste between the members of the jury and the public. We first replicate our baseline analyses, but this time we focus on a prize awarded by readers: the Goodreads Choice Award for Fiction. Like the Booker, the Goodreads prize provides visibility to a book and is a signal of quality. Unlike the Booker, however, the prize is awarded by a jury of laypeople whose tastes are arguably closer to those of the average

reader, which should therefore result in less consumer dissatisfaction. Supporting this idea, our results show that the Goodreads prize has no negative effect on satisfaction despite boosting sales.

We then leverage the variations in the Booker jury across editions to assess how its composition affects consumer satisfaction. Specifically, as many jury members are authors themselves, we can condition the effect of the prize on the rating given by readers to the books written by those jury members. The idea is that if judges are able to write books that appeal to consumers, these judges might be more likely to select a book that consumers will also like. In other terms, we use the rating of the books written by the jury as a proxy for their ability to award a book consumers will enjoy, either because the judges have the same taste as consumers or because they can correctly predict consumer preferences. Our findings confirm this premise: When a given year's judges' books receive higher ratings by readers, the effect of the prize on satisfaction is less negative and even becomes indistinguishable from zero for very high ratings. Furthermore, we show that when the cultural proximity of the jury members with the readers is higher — which can be interpreted as implying closer tastes with readers — the effect of the prize is also less negative.

In a third series of tests, we use an online survey to document that respondents often report being disappointed in awarded books and that many of them blame their discontent on a misalignment of the tastes of jury members with theirs. Overall, this series of findings suggests that the negative effect of the Booker on satisfaction is driven by the distance between the tastes of the jury members and those of readers. This is consistent with a model where prizes, regardless of the composition of their jury, attract readers to consumption, but the latter may be disappointed if their tastes are too far from those of the jury.

Last but not least, we quantify the loss in welfare induced by the Booker. To do so, we calibrate a structural model of demand for books in which the surplus of consumers depends on the difference between their expectations regarding the utility a book will give them (“decision utility”) and the true utility they get from it (“experienced utility”; Kahneman, 1994, Allcott, 2011, 2013). Specifically, our welfare analysis rests on the comparison of consumer surplus under two scenarios: a status quo scenario where consumers can use the prize to gauge the book and a counterfactual scenario in which the prize does not exist. Our lower bound and most conservative estimates, which assume that consumers correctly assess a book's utility absent the Booker, suggest that the prize reduces consumer surplus by \$70,039 each year. This means that on average each consumer buying a Booker Prize-winning book experiences a loss in her surplus of \$1.33, which is non-negligible as it corresponds to 8 percent of the average price of

a book. We further show that this loss in welfare mainly arises from consumers switching from non-awarded to awarded books that they expect to enjoy more — that is, a business-stealing effect — rather than from consumers expanding their total book consumption.

This paper contributes to several strands of literature. The first is the literature on experts (Ginsburgh & van Ours, 2003, Reinstein & Snyder, 2005, Hilger et al., 2011, Friberg and Grönqvist, 2012, Loeper et al, 2014, Ginsburgh et al. 2019, Reimers & Waldfogel, 2021), to which we contribute by showing how their judgments can affect commercial success and consumer welfare. In particular, we document that if the tastes of experts diverge from those of consumers, the recommendations of the former can result in a welfare loss for the latter. To the best of our knowledge, this paper is the first to document and quantify that welfare loss. Our analysis, therefore, supports the view of experts as the agents of consumers who are the principals (Cameron, 1995) and documents that this principal-agent relationship can be suboptimal if their interests are not aligned.

This paper also contributes to the literature on awards and prizes by confirming that awards increase commercial success (Ashworth et al., 2010, Ponzo and Scoppa, 2015, Ginsburgh, 2003, Lagios and Méon, 2024). More importantly, we provide additional evidence on a more recent finding of that literature, which is that awards can lead to a decrease in sentiment and ratings from online reviews posted by users (Rossi, 2021, Lagios and Méon, 2024), thereby also contributing to the literature on online reviews and rating systems (Hörner and Lambert, 2021, Reimers and Waldfogel, 2021, Acemoglu et al., 2022).

At a deeper theoretical level, this paper empirically illustrates the Bayesian persuasion and information design literature (Kamenica and Gentzkow, 2011, Bergemann and Morris, 2019). In line with that literature, an award can be interpreted as a persuasion game where a single sender — the jury — sends a public signal to a large number of receivers — the consumers or readers — whose preferences may not be aligned with those of the sender. In line with the prediction of Kamenica and Gentzkow (2011), we observe that the jury of the Booker can persuade some readers to buy the awarded book, even though the preferences of the readers may not be aligned with those of the jury. Our findings also speak to the Bayesian persuasion model proposed by Shin and Wang (2024), which discusses how choosing common people instead of high-profile experts, celebrities, or models to endorse a product affects the incentive of consumers to update their beliefs about how well it fits their needs. The authors find that in some cases, low-profile messengers can be more effective than high-profile ones in drawing consumer attention. As our paper shows that a high-profile jury can prompt consumers to buy

a book that does not match their tastes whereas a lower-profile jury draws consumers to books that better match their tastes, our paper empirically echoes Shin and Wang’s (2024) findings.

More generally, our findings qualify the notion of quality when applied to experience goods. Previous research has proxied quality by sales (Deuchert et al., 2005) or best-of lists (Ginsburgh, 2003, Ginsburgh and Weyers, 2014). Our findings underline, by contrast, that quality can only be assessed with respect to a given set of preferences and tastes. Moreover, our findings show that commercial success does not guarantee quality, defined as the capacity to maximize consumer utility, because goods that are imperfectly aligned with the tastes of consumers can nonetheless be commercially successful.

The remainder of the paper is organized as follows. Section 2 describes our theoretical framework. Section 3 provides background information on the Booker and how it functions. Section 4 presents the data sources and detailed descriptives. Section 5 investigates the effect of the Booker on sales, while Section 6 explores its impact on consumer satisfaction. Section 7 reports evidence that the negative effect of the prize on satisfaction is driven by a misalignment of the tastes of the jury with those of readers. Section 8 calibrates a structural demand model to quantify the loss in consumer surplus induced by the Booker. Section 9 concludes.

2 How Prizes Can Affect Consumer Welfare: Theoretical Background

To describe the potential welfare effects of literary prizes, we follow Jin and Sorensen (2006), Allcott (2011), Train (2015), and Reimers and Waldfogel (2021) and distinguish between *ex ante* expected utility, or decision utility following Kahneman (1994), and *ex post* experienced utility.

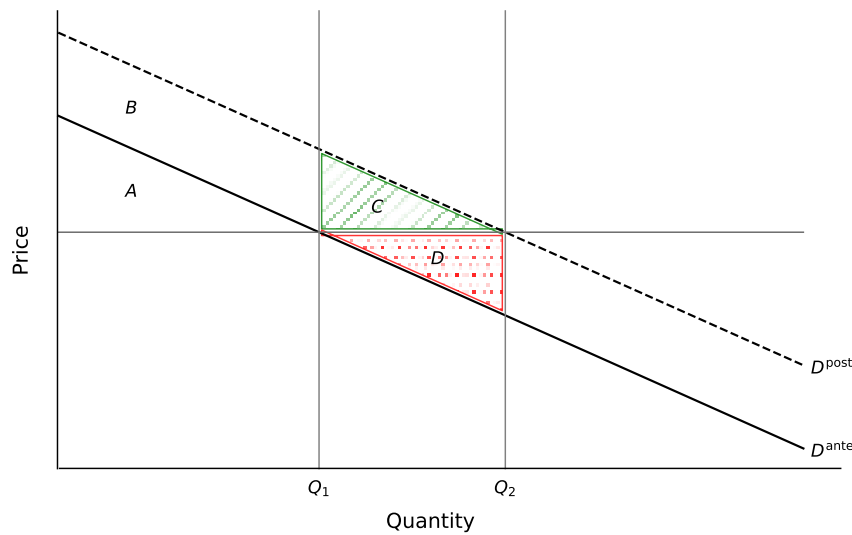
Because books are experience goods, consumers are *ex ante* imperfectly informed of the utility they will get from a book that they are planning to purchase (Nelson, 1974). They therefore form a demand that is based on their *a priori* expected utility. The resulting *ex ante* demand function is described by the solid line in Figure 1, D^{ante} . Accordingly, the consumer consumes quantity Q_1 .

Now let us assume that the book receives a prize. If the consumer interprets it as a quality signal, she revises her expected utility upwards, shifting the demand curve upwards from D^{ante} to D^{post} . The consumer therefore unambiguously increases her consumption from Q_1 to Q_2 . However, the consequence of the shift for the consumer surplus depends on the alignment of the prize with her true taste. Specifically, her surplus depends on whether the prize is awarded

to a book that she will enjoy more than she initially expected or to a book on which she had correct priors.

If the prize is aligned with the consumer's taste, then the dotted curve is the consumer true demand function. Without the prize, her surplus would have been the sum of Regions *A* and *B*. The consumer would have consumed Q_1 but obtained more utility from it than expected. Thanks to the prize, the consumer increased her consumption to Q_2 . Her surplus is now given by the whole triangle under the dotted curve, which is the sum of regions *A*, *B*, and *C*. The prize has therefore increased her utility by the dashed triangle *C*, which is the value of the prize for the consumer.

Figure 1: The Welfare Effect of a Prize



Note. The solid line indicates consumer *ex ante* demand (absent the prize), and the dashed line indicates consumer *ex post* demand (in the presence of the prize). If consumers and experts have similar tastes, consumer surplus is given by $A + B + C$; if their tastes differ, the surplus is equal to $A - D$.

The prize may, however, be poorly aligned with the consumer's taste. In the worst-case scenario, the consumer would have correctly anticipated the utility she will get from the book, and her true demand curve would correspond to D^{ante} . If she interpreted the prize as signaling a greater utility, she still shifted her demand upwards to D^{post} and increased her demand from Q_1 to Q_2 ; however, this shift was driven by overoptimistic expectations. As a result, the consumer surplus is equal to Region *A* minus Region *D*. The prize therefore reduced consumer utility by the dotted triangle *D*.

In summary, a prize increases the surplus of consumers whose tastes are aligned with the prize and decreases the surplus of consumers whose tastes are not aligned with it. Overall, the welfare effect of the prize is the sum of the variations in the surpluses of all consumers. In a nutshell, it is the sum of all *Cs* and *Ds*. It therefore depends on the share of consumers whose

tastes are aligned or misaligned with the prize. It also depends on the magnitude of the *ex ante* underestimation of utility by consumers whose tastes are aligned with the prize — the size of their *Cs* — and on the *ex post* misalignment of the expectations of consumers whose tastes are misaligned with the prize — the size of their *Ds*.

The impact of the prize on welfare is therefore *a priori* ambiguous. In the following sections, we leverage the specificities of the Booker to estimate its welfare effect.

Figure 1 considers each book individually. In reality, consumers choose from many books at once. The welfare effect of the Booker might therefore depend on both a substitution effect, whereby consumers switch from non-awarded books to awarded and supposedly better books, and a market expansion effect, whereby consumers increase their total book consumption. In Section 8, we calibrate a model of consumer demand for books where we allow for substitution between books. This makes it possible to study the respective roles of substitution and market expansion in the overall welfare change.

We must also underline that Figure 1 focuses only on the intrinsic utility of reading a book. However, readers may also receive extrinsic utility from discussing the book with other readers, which is the basic premise of Adler’s (1985) theory of superstars, whereby consumers have an incentive to coordinate to consume the same cultural products to maximize the probability of being able to discuss them. In addition, prizes may also act as trouble-saving devices for people wishing to give a present to someone they do not know well enough to give a personalized present. Awarded books are an easy option providing some guarantee to the giver that she will make no major faux pas. Such a guarantee increases the giver’s utility. We do not take those effects into account in this paper, and our results must therefore be understood as pertaining specifically to the effect of prizes on the intrinsic utility of purchasing a book.

3 A Brief Overview of the Booker Prize

Created in the United Kingdom in 1969, the Booker is one of the most prestigious English-language literary awards (Moseley, 2019). The prize is bestowed annually by a jury of five experts to the “best sustained work of fiction written in English.”² The jury members — usually prominent figures in the literary scene (authors, academics, critics, etc.) — change each year

² See <https://thebookerprizes.com/the-booker-prize>. Originally, the Booker was awarded to authors from the Commonwealth, the Republic of Ireland, or Zimbabwe. Nowadays, the prize is open to authors from all over the world, provided that their work is written in English and published in the UK and Ireland.

and are elected by an advisory committee appointed by the Booker Prize Foundation (Butler et al., 2016).

The award is bestowed after several selection stages. From January to July, the judges meet once a month to establish a longlist of 12 to 13 books worthy of winning the prize; in September, the jury announces a shortlist of six books; in October, the winning book is announced. The laureate receives £50,000, while shortlisted authors are awarded £2,500.

Although bestowed by literary experts, the Booker officially aims to award the prize to books that will appeal to the widest possible audience. In a 2022 interview, Gaby Wood, director of the Booker Prize Foundation, stated about the Booker jury: “Essentially what you’re looking for is people that are going to read on behalf of the general public, but not second guess them.” Neil MacGregor, chairman of the 2022 jury, further stated, “We’ve been looking for books we’d like to recommend to friends.”³

The key argument of our paper is precisely that the tastes of the jury, or those of its friends, lay at the core of the effect of the prize on welfare. If its tastes are representative of those of the public, the prize will redirect readers to books that they will enjoy. However, if the jury’s tastes are specific in some way and not aligned with those of readers, the prize may prompt readers to read books they will not enjoy or will enjoy less than the books they would have otherwise read, thereby reducing welfare.

4 Data

To assess the welfare effect of the Booker, we need information on sales, prices, and consumer satisfaction for a representative sample of books. To that end, we leveraged several data sources to construct a dataset of titles released over the 2015-2021 period.⁴ The first consists of the titles that were longlisted for the Booker during that period (91 titles). Then, we added the titles appearing in the *USA Today best-selling books* ranking (5,865 titles). To avoid having only popular books in our dataset, we supplemented it by including all titles featured in the *Goodreads’ yearly book release* lists⁵ (6,755 titles) and titles reviewed by the magazine *Publishers Weekly* (45,303 titles), which consist of both popular and less popular titles. Finally, we collected all the editions of the titles in our dataset, as our data are available at the level of book edition. We ended up with a dataset of 155,156 editions across 58,014 titles.

³ See <https://thebookerprizes.com/the-booker-library/features/what-its-really-like-to-be-a-booker-prize-judge>.

⁴ We focus on the 2015-2021 period as sales records and pre-purchasing information are not available prior to 2015.

⁵ Goodreads is a platform dedicated to book lovers. See <https://www.goodreads.com>.

To collect data on sales and prices, we extracted information on quantities and pre-purchasing characteristics from Amazon.com. Specifically, we observe the daily sales rank, price, average rating, and number of consumer reviews on Amazon of each edition in our dataset from its release date until May 5, 2023. Amazon sales rank is a metric that gauges the sales performance of a product relative to other products listed in the same category. As a result, it moves inversely with actual sales, meaning that a higher rank indicates lower sales.

The main advantage of using Amazon data is frequency: By having daily observations, we can both identify the impact of the Booker through a sales-based discontinuity strategy and exploit fine-grained variations in prices across editions and over time to assess their impact on consumer demand. In addition, as Amazon represents 42% of the physical book market and 89% of the e-book market in the US (see footnote 1), our data capture a consequential part of the US book market. On the other hand, the main difficulty of using that data is that we observe sales ranks instead of actual sales, as Amazon does not disclose the latter. This raises two issues. First, it makes our results quantitatively difficult to interpret. Second, it makes it impossible to directly compute the price elasticity of demand of a book and the percentage change in sales induced by the Booker that are needed to calibrate our structural model. However, we can circumvent that difficulty by following Brynjolfsson et al. (2003) and Chevalier and Goolsbee (2003). Specifically, the idea is to estimate a regression that relates the actual sales of an edition to its sales rank on Amazon by assuming that this relationship follows a power law. We can implement this method for a small subset of books for which we have true sales.⁶

Finally, to assess whether the Booker prompts consumers to read books they enjoy, we need a measure of consumer *ex post* satisfaction from reading a book. We calculate this metric by performing a sentiment analysis on the textual content of the reviews posted on Amazon. A sentiment analysis is a natural language processing technique for extracting the sentiment valence of an opinionated text (Pang and Lee, 2008). It classifies each review as either negative or positive, thereby providing a measure of the reviewer satisfaction from reading a particular book.⁷ As an alternative measure of satisfaction, we also used the review star rating (number of

⁶ We describe the method in detail in Section 5.2. To obtain data on true sales, we leveraged the bestseller lists published by Publishers Weekly (see <https://www.publishersweekly.com/pw/nielsen/index.html>). Specifically, we collected all the weekly bestseller lists from 2015 to 2023, and we matched them with our data on Amazon ranks. We were able to match 7,379 editions.

⁷ To perform our sentiment analysis, we use the “Flair” natural language processing framework (Akbik et al., 2019). Flair offers two main advantages. First, it has been shown to produce very accurate predictions (Lien et al., 2022, Villanes and Healey, 2023). Second, the model has been trained on a corpus of movie and product reviews,

stars), whereby a higher rating indicates a higher consumer *ex post* satisfaction. Although ratings do not consider all the subtleties of a text’s content, ratings have the advantage of being a more straightforward measure as they are not algorithm-based. Our dataset contains all consumer reviews written for the books included in our dataset — that is, 9,024,635 reviews.

Table 1 presents summary statistics for the main variables of interest in our sample, separately for awarded and non-awarded titles. Panel A focuses on the daily pre-purchasing information extracted from Amazon, which are available at the level of edition. It shows that awarded editions are, on average, more expensive, sell more (as they have a lower sales rank), and have a higher number of ratings than non-awarded editions. Somewhat more surprisingly, we observe that awarded editions are less well rated. In Panel B, we focus on the individual reviews posted by consumers on Amazon that are available at the title level. We again observe that consumers are more likely to post a negative review for awarded books, both in terms of sentiment and rating. Those findings can be interpreted as suggestive preliminary evidence of lower consumer satisfaction with awarded books.

Table 1. Summary Statistics

	(1) Awarded	(3) Non-awarded	(3) Difference
<i>A. Quantities and pre-purchasing information</i>			
Sales rank	558,047.4 (6,244.3)	1,042,144.7 (147.8)	-484,097.3*** (6,246.0)
Price (dollars)	18.12 (0.0406)	16.60 (0.00426)	1.516*** (0.0408)
Number of ratings	7,044.2 (56.77)	981.2 (1.205)	6,063.0*** (56.78)
Star rating	4.050 (0.00207)	4.428 (0.0000377)	-0.378*** (0.00207)
<i>B. Consumer individual reviews</i>			
Negative	0.315 (0.0575)	0.177 (0.00137)	0.138** (0.0538)
Positive	0.685 (0.0575)	0.823 (0.00137)	-0.138** (0.0538)
Star rating	3.966 (0.228)	4.406 (0.00423)	-0.440** (0.213)

Note. The variables and the data sources are described in Section 4. In Panel A, the unit of observation is a day. Figures show averages across days for the estimation sample. Standard errors clustered at the edition level are reported in parentheses. In Panel B, the unit of observation is a review. Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **Significant at 5% level; *Significant at 10% level.

which means that it is particularly suited to our goal of predicting the sentiment of book reviews on Amazon. In Table A1 of Appendix A1, we replicate our results with two other popular sentiment analyzers — TextBlob and VADER (Mahrukh et al., 2023) — and obtain very similar results. Our findings are therefore not driven by the type of model used.

5 The Impact of the Booker Prize on Sales

As the Booker will only affect consumer surplus if it attracts readers to consumption in the first place, the first purpose of this section is to determine whether the prize improves a book's sales rank. We then infer the estimates of the price elasticity of a book and the percentage change in sales induced by the Booker; we leverage these to calibrate the structural model used in Section 8 to gauge the welfare effect of the Booker.

5.1 Identification and Results

To address endogeneity, we take advantage of our very high-frequency dataset and elaborate on the method used by Reimers and Waldfogel (2021), who study the effect of reviews, and we implement a discontinuity-based approach. Specifically, the idea is to track the sales of books over time and test whether the attribution of the Booker to a book leads to a jump in its daily sales, conditional on controlling for each edition's unobserved quality through the inclusion of fixed effects. This boils down to estimating the following equation:

$$\ln(Rank_{it}) = \kappa \ln(p_{it}) + \tau_v 1(Booker = 1)_{iv} + \beta' X_{it} + \mu_i + f(d_{it}) + \epsilon_{it}, \quad (1)$$

where

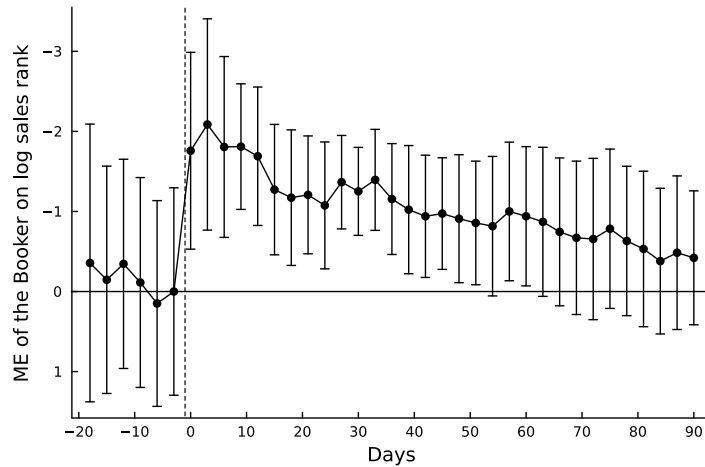
- $Rank_{it}$ is the Amazon sales rank of edition i on day t ;
- p_{it} is the prize of edition i on day t ;
- $1(Booker = 1)_{iv}$ is an indicator that takes the value one for Booker-winning editions v days after the prize is bestowed. The parameter τ_v hence measures the impact of the Booker on sales v days following its attribution;
- X_{it} is a vector of control variables (average rating and number of reviews on Amazon and an indicator for whether the edition won another prize⁸);
- μ_i are edition fixed effects. Their inclusion allows us to control for the edition quality (and, by extension, the book quality), as well as for other edition- and book-specific unobservables that do not vary over time;
- $f(d_{it}) = \sum_{j=1}^3 d_{it}^j$ and d_{it} refers to the number of days that elapsed since the publication of edition i . As such, $f(d_{it})$ flexibly controls for each edition's sales patterns.

⁸ Specifically, we focus on the Pulitzer Prize for Fiction and the National Book Award for Fiction, two very prestigious literary awards (McGowan, 2023).

Regarding inference, we allow for an arbitrary variance-covariance matrix at the edition level by clustering standard errors at that level.

As we are agnostic about the duration of the effect of Booker on sales, we start our analysis by estimating a version of Equation (1) in which we include an indicator for every three days before and after the attribution of the prize; we use the last three pre-Booker days as the baseline period. This allows us to explore the evolution of the impact of the Booker over time in a very flexible way. The results are summarized in Figure 2. While there is no trend before the attribution of the Booker, once bestowed, the prize leads to a sizable and immediate boost in book sales, as the log sales rank of an awarded book improves by 1.8. The effect then decreases over time and the log sales rank becomes indistinguishable different from its baseline value about 60 days later.

Figure 2. The Effect of the Booker on Sales over Time



Note. Figure 2 is constructed by regressing the edition's log sales rank on a series of time dummies (one for every three days before and after the attribution of the Booker), while controlling for whether the edition won other prizes, as well as its log price, log average rating, and log number of reviews. The specification also includes edition fixed effects and a flexible control (up to the third polynomial) for the number of days since date of publication of that edition. The solid horizontal lines represent 95% confidence intervals based on standard errors clustered at the edition level. The y-axis is inversed to reflect the fact that sales ranks move inversely with actual sales.

In what follows and based on Figure 2, we aggregate the effect of the Booker in two ways. First, we use a single indicator for 0-60 days after the attribution of the prize. Then, to allow for more flexibility, we use six indicators coding six ten-day periods: one for 0 to 9 days after the Booker, another for 10 to 19 days, and so on. All our specifications also include an indicator for the period from 5 days before to 60 days after the awarding of the prize so that all post-Booker sales effects are relative to the 5 days preceding its attribution.

The results are presented in Table 2. In Column (1), we model the impact of the Booker using the single 0-60 days indicator. The coefficient of the variable is significant at the one-

percent level and equal to -1.49. Accordingly, winning the Booker decreases a book's sales rank by $100 \times (e^{-1.34} - 1) = 74\%$, which means that the prize boosts the number of copies sold.

Table 2. The Impact of the Booker Prize on Amazon Sales Ranks

Outcome	OLS		2SLS	
			1 st stage	2 nd stage
	(1) Log sales rank	(2) Log sales rank	(3) Log price	(4) Log sales rank
1(Booker=1)	-1.34*** (0.488)			
Log price	0.219*** (0.00493)	0.219*** (0.00493)		2.90*** (0.0554)
Log number of sellers			-0.0496*** (0.000437)	
<i>Flexible effect of the Booker</i>				
0-9 days		-1.95*** (0.599)	-0.0051 (0.0259)	-1.99*** (0.630)
10-19 days		-1.55*** (0.570)	0.00198 (0.0253)	-1.60*** (0.574)
20-29 days		-1.29** (0.534)	0.00393 (0.0280)	-1.31** (0.551)
30-39 days		-1.32** (0.562)	-0.0497** (0.0242)	-1.20** (0.574)
40-49 days		-1.02** (0.442)	-0.0589** (0.0264)	-0.995** (0.461)
50-59 days		-0.974** (0.442)	0.00680 (0.0295)	-1.16** (0.458)
F Statistics				12,847.5
Adjusted R-squared	0.837	0.837	0.823	0.759
Observations	98,613,936	98,613,936	96,984,176	96,984,176

Notes. The unit of observation is a day. The model specification follows Equation (1). The dependent variable is reported at the top of each column: *Log sales rank* refers to the edition's daily Amazon sales rank (in log); a lower sales rank indicates more quantities sold; *Log price* refers to the edition's Amazon price (in log). The variable $1(\text{Booker} = 1)$ is an indicator that takes the value one when a book is awarded the Booker. The *Flexible effect of the Booker* rows indicate the effect of the Booker for the corresponding number of weeks following the attribution of the prize. In Column (4), the edition's log price is instrumented by the log number of sellers offering that edition on Amazon. Each specification includes controls for whether the edition won other prizes, as well as its log average rating and log number of reviews. Each specification also includes edition fixed effects and a flexible control (up to the third polynomial) for the number of days since date of publication of that edition. Standard errors clustered at the edition level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

In Column (2), we replace the Booker's unique indicator of Column (1) with the six indicators described above. The coefficients of all six indicators are negative, statistically significant at the one-percent level, and, consistent with Figure 2, decrease over time in absolute value. Specifically, the prize reduces a book's sales rank by 86% in the first 10 days following its attribution, whereas the effect drops to 62% 50 days later.

In addition to the effect of the Booker on sales, we need to causally estimate the impact of price on demand as it will allow us to infer the price elasticity of an edition and ultimately

calibrate our structural model in Section 8. As a book’s price evolves continuously, we cannot apply the discontinuity-based approach used above to assess the effect of the Booker, which is binary. To address this issue, we re-estimate Equation (1) using two-stage least squares (2SLS) with the price of an edition instrumented by the number of sellers offering that edition on Amazon. In line with Reimers (2019), we assume that the number of sellers is a proxy for the ease — and, hence, the cost — of distributing an edition.

The exclusion restriction underlying this approach rests on the assumption that the number of sellers is uncorrelated with determinants of book sales other than price. As noted by Reimers (2019), this assumption could be violated if the number of sellers was correlated with the popularity of a book or with consumer price sensitivity. Our empirical approach, however, mitigates those concerns. First, our specification includes edition fixed effects — meaning that we restrict the analysis to variations within each edition — while demand shocks are likely occurring at the title rather than edition level. Second, the first stage of our 2SLS approach, reported in Column (3) of Table 2, shows a significant negative correlation between the number of sellers offering an edition and its price. This allows us to rule out the concern that consumer price sensitivity correlates with the number of sellers because if that was the case, one would expect a positive correlation between prices and the number of sellers. In our case, this correlation is negative.

The results of the second stage are reported in Column (4) of Table 2. The coefficient of log price is equal to 2.90 and significant at conventional levels, meaning that a one-percent increase in an edition’s price leads to a 2.9% increase in its sales rank. If we turn to the six indicators of the Booker, we see that the effect of the prize is qualitatively and quantitatively similar to the previous estimates.

The findings of this section sketch a consistent picture: Being awarded the Booker fosters consumer demand for a book, while an increase in prices curbs it.

5.2 Translating Rank Estimates into Quantity Estimates

To compute demand elasticities and quantify the impact of the Booker on sales and welfare, we need to translate the sales rank estimates into sales quantity estimates. We do so by following Brynjolfsson et al. (2003) and Chevalier and Goolsbee (2003). The idea here is to estimate a regression that relates the actual sales of an edition to its sales rank on Amazon by assuming that this relationship follows a power law, that is,

$$Quantity_{iwy} = \sum_{t \in w,y} B Rank_{it}^{-\Gamma} + \eta_{iwy}. \quad (2)$$

Here, $Quantity_{iwy}$ is the actual number of copies sold by edition i during week w in year y extracted from Publishers Weekly (see footnote 6), $Rank_{it}$ is the sales rank of edition i on day t in year y , and η_{iwy} is the error term. Using nonlinear least squares to estimate Equation (2), we find that $B = 10,321.3$ (452.6) and $\Gamma = 0.346$ (0.0104), where standards errors (in parentheses) are obtained from 100 non-parametric cluster bootstrap draws.

The estimate of Γ can then be used to translate the rank elasticities obtained from Equation (1) into quantity elasticities. The price elasticity of demand for a book is thus given by

$$\epsilon_p = \frac{\partial \ln(Quantity_i)}{\partial \ln(p_i)} = \Gamma \frac{\partial \ln(Rank_i)}{\partial \ln(p_i)} = \Gamma \kappa, \quad (3)$$

where λ is the coefficient of lagged sales rank and κ the log price's coefficient in Equation (1). Both are estimated in Column (4) of Table 2. The effect of the Booker on sales can similarly be summarized by

$$(\Delta Quantity_i | Booker_{ik} = 1) = \Gamma \tau_k, \quad (4)$$

where k refers to the Booker indicator (0-1 week, 1-2 weeks, etc.) and τ_k to the associated coefficient estimated in Column (4) of Table 2.

Table 3. The Effect of the Booker on Sales – Quantity Effects

	Effect	SE
Price elasticity	-1.003	0.0281
<i>Effect of the Booker</i>		
0-9 days	0.690	0.220
10-19 days	0.556	0.200
20-29 days	0.452	0.200
30-39 days	0.416	0.204
40-49 days	0.344	0.179
50-59 days	0.401	0.168
Average % effect of the Booker on annual sales	26.63	11.14

Notes. Price elasticity indicates the percentage change in sales with respect to the percentage change in price. The *Effect of the Booker* rows show the percentage impact of the Booker on sales for the corresponding number of months following the attribution of the prize. The last row simulates the average percentage impact of the Booker on annual sales. Figures are based on the coefficients estimated in Column (4) of Table 2. Standards errors are obtained from 100 non-parametric cluster bootstrap draws on B , Γ , and the coefficients estimated in Column (4) of Table 2.

The results associated with the baseline estimates of Table 2 are reported in the upper panel of Table 3. The first noteworthy finding is that the price elasticity of demand is equal to

-1.003, in line with Reimers and Waldfogel (2017) which report a similar magnitude. The second set of findings concerns the effect of the Booker on sales, which is sizeable. For example, in the first 10 days following its attribution, the Booker increases sales by $100 \times (e^{0.690} - 1) \cong 99\%$.

The parameters B and Γ also allow us to convert each edition's daily rank into daily quantities sold to simulate the effect of the Booker on sales. As the prize is bestowed annually, simulating its impact on sales in each calendar year seems appropriate. From the power law relationship between sales and ranks described above (see Equation (2)), it follows that the sales of edition i on day t in year y is equal to

$$q_{ity} = \frac{B}{\exp\{\Gamma \ln(Rank_{ity})\}} \quad (5)$$

We can also define the counterfactual sales of edition i — i.e., its sales absent the Booker — by subtracting from its sales the effect of the Booker as defined in Equation (4). This is achieved by substituting $\ln(Rank_{it}) - \sum_{k=1}^6 \tau_k 1(Booker_k = 1)_{it}$ for $\ln(Rank_{it})$ in Equation (5):

$$q_{ity}^c = \frac{B}{\exp\{\Gamma \ln(Rank_{ity}) - \Gamma \sum_{k=1}^6 \tau_k 1(Booker_k = 1)_{ity}\}} \quad (6)$$

The percentage effect of the Booker on sales in year y is then obtained by summing q_{ity} and q_{ity}^c over all days of the year and by comparing actual annual sales with counterfactual annual sales:

$$\% \text{ effect of the Booker on edition } i' \text{ sales in year } y = \frac{\sum_{t \in y} q_{it}}{\sum_{t \in y} q_{it}^c} - 1. \quad (7)$$

We can average Equation (7) over editions and years to obtain an average annual effect.

The lower panel of Table 3 reports the results of this exercise. It shows that the Booker raises annual sales by 27%, on average, which corresponds to an increase of around 52,680 copies per year.

6 The Impact of the Booker Prize on Consumer *Ex Post* Satisfaction

Section 2 shows that the Booker could be welfare increasing or decreasing depending on the distance between the tastes of consumers and those of the jury. To assess the direction of the change in consumer surplus, we investigate how the Booker affects consumer *ex post*

satisfaction from reading a book, which we measure with both the sentiment valence and the star rating of the reviews posted on Amazon.

Given that most books are not regularly reviewed on Amazon, adopting the daily discontinuity approach used in the previous section is unappealing. Instead, as we observe the date on which each review was posted, we can compare how sentiment and ratings for awarded and non-awarded books change after the attribution of the prize using the following difference-in-differences (DD) specification:

$$Satisfaction_{ijt} = \beta^{DD} Booker_{jt} + \alpha_j + \alpha_t + X'_{ijt}\gamma + \epsilon_{ijt}, \quad (8)$$

where the variable $Satisfaction_{ijt}$ is the sentiment valence or star rating of review i of book j posted on day t . The sentiment can take two values — zero when negative and one when positive — and the rating discretely ranges from one to five stars. The variable $Booker_{jt}$ is an indicator equal to one if book j has already been awarded the Booker on day t , α_j are book fixed effects, α_t are fixed effects for the day on which the review was posted, and X_{ijt} is a vector of time-varying control variables (an indicator for whether the book won other awards and a flexible control for the number of days between the publication of the review and the publication of the book). To allow for arbitrary dependence between reviews of the same title, we cluster standard errors at the book title level.

The main parameter of interest is β^{DD} , which measures the change in sentiment or rating for awarded books relative to non-awarded books, conditional on controls. Therefore, under the assumption that awarded and non-awarded books would have followed the same trend in the absence of the Booker, β^{DD} measures the causal impact of the Booker on review sentiment and rating.

6.1 Difference-in-Differences Estimates

The DD estimates are presented in Table 4. In Column (1), we investigate the effect of the Booker on the sentiment valence of reviews by using our baseline DD specification, which only accounts for book and time fixed effects. The DD estimator is equal to -0.0297 and is significant at the five-percent level. Accordingly, when a book receives the Booker, the probability of a review being negative increases by three percentage points. In Column (4), we perform the same exercise, this time using the review star rating as our second measure of consumer satisfaction. In this case too, the DD indicator bears a negative coefficient significant beyond conventional levels, meaning that consumers give, on average, a lower rating to awarded books.

Specifically, as the coefficient is equal to -0.156 and the average rating of an awarded book before the attribution of the prize is 4.405, the Booker leads to an average star decrease of about 3.5%.

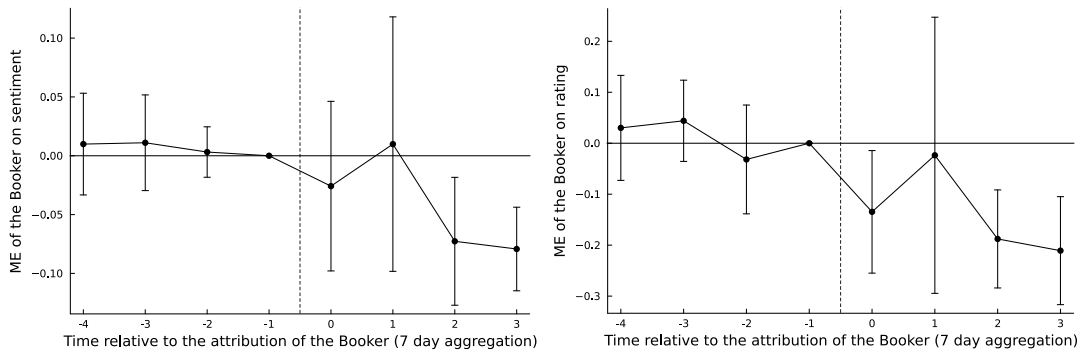
Table 4. The Impact of the Booker Prize on Consumer Ex Post Satisfaction

Outcome	Review sentiment			Review rating		
	(1)	(2)	(3)	(4)	(5)	(6)
Booker	-0.0291** (0.0126)	-0.0270** (0.0133)	-0.0377*** (0.0139)	-0.156*** (0.0395)	-0.146*** (0.0433)	-0.167*** (0.0296)
Book FEs	✓	✓	✓	✓	✓	✓
Review date FEs	✓	✓	✓	✓	✓	✓
Controls		✓	✓		✓	✓
Book linear trend			✓			✓
Outcome mean	0.823	0.823	0.823	4.405	4.405	4.405
Observations	9,023,054	9,023,054	9,023,054	9,023,054	9,023,054	9,023,054

Notes. The unit of observation is a review. The model specification follows Equation (8). The dependent variable is reported at the top of each column: *Sentiment* refers to the sentiment valence of the review (negative or positive), and *Rating* to its star rating (number of stars). The variable *Booker* is an indicator that takes the value one when a book is awarded the Booker. Controls include an indicator for whether the book won other awards and a flexible control for the number of days between the publication of the review and the publication of the book. Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

In Columns (2) and (5), we test the sensitivity of our results to the inclusion of control variables. For both outcomes, the magnitude of the effect is barely impacted. In Columns (3) and (6), we explicitly allow awarded and non-awarded books to follow differential linear trajectories by adding book-specific linear time trends. Doing so relaxes the parallel trend assumption and therefore provides an important check for the validity of our DD estimates (Angrist and Pischke, 2014). Reassuringly, the results remain quantitatively and qualitatively similar to before: The Booker increases the probability of a review being negative by 3.8 percentage points and decreases an awarded book rating by 3.8%.

Figure 3. Event Study of the Effect of the Booker Prize on Consumer Satisfaction



Note. The unit of analysis is a review. The plots are obtained by replacing the Booker indicator in Equation (8) with a series of leads and lags dummies relative to the time of treatment to obtain event study estimates. Panel A uses the review sentiment as dependent variable (negative or positive), while Panel B uses the review rating (number of stars). The vertical solid lines indicate 90% confidence intervals based on standard errors clustered at the book title level.

To further check if the pre-treatment trends are parallel, we replace the Booker indicator in Equation (8) with a series of leads and lags dummies relative to the time of treatment. The results of this approach are presented in Figure 3 for a four-week window around the attribution of the prize and show the absence of differential pre-trends in awarded and non-awarded books. This lends credence to the validity of our DD setting.

The results of this section show that the Booker leads to a deterioration in consumers’ assessment of books. This suggests that the prize redirects consumers toward books they do not enjoy, thereby negatively affecting their surplus.

6.2 Robustness Checks and Alternative Specifications

In this section, we test the robustness of the finding that the Booker leads to a deterioration in consumer sentiment and ratings. Specifically, we consider the role of staggered treatment timing and show that our results are not driven by changes in the population composition of reviewers, by the fact that awarded books are more expensive, or by a publicity effect. Additionally, we show that using a regression discontinuity instead of a DD leads to similar results.

6.2.1 *Role of Staggered Treatment Timing*

Recent research documents that the two-way fixed effects estimator can yield biased estimates when units are treated at different points in time and treatment effects are heterogeneous (Roth et al., 2023). To address that concern, we implement the imputation estimator proposed by Borusyak et al. (2024). The results are reported in Table A2 in Appendix A2 and are quantitatively and qualitatively similar to the baseline.

6.2.2 *Changes in the Population Composition of Reviewers*

Our DD estimates may capture a change in the composition of the population of reviewers if the Booker attracts reviewers who are more likely to write a negative review than pre-Booker reviewers. In that case, our estimates would reflect the fact that individuals who buy a Booker are simply more inclined to leave negative feedback regardless of their satisfaction with the book — for example, because they are more critical readers — rather than an effect of the Booker on consumer satisfaction. We address that concern by leveraging the fact that our sample includes individuals who, in addition to having reviewed an awarded book, also wrote reviews for non-awarded books. This allows us to exploit within-reviewer variations and see whether the same reviewer rated awarded books more negatively than non-awarded ones. We

find that this is the case, both in terms of sentiment and rating, as shown in Table A3 in Appendix A3.

6.2.3 *Price Effect*

If publishers or (online) retailers react to the awarding of the Booker by setting higher prices, then our DD estimates may simply reflect the fact that awarded books are more expensive than non-awarded ones, which decreases consumer utility. To rule out such a possibility, we perform two additional analyses. First, we document that the Booker has no effect on a book’s price (Column [1] of Table A4 in Appendix A4). Second, we show that re-estimating our baseline DD specification (Equation (8)) while controlling for the book’s price at the time the review was written leads to very similar estimates as the baseline specification (Columns [2] and [3] of Table A4).

6.3.4 *Publicity Effect*

By putting a book in the spotlight, prizes may raise consumers’ awareness of its existence and increase the pool of potential buyers (Lagios and Méon, 2024). This means that some consumers may buy a Booker winner not because they follow the judgement of experts but simply because they have become aware of the existence of the book, without the prize having any actual impact on their decision utility. To discriminate those consumers from those who buy an awarded book specifically because it has received a prize, we investigate anew the effect of the Booker on sales and satisfaction, but this time restricting the sample to books that were already selling well prior to the attribution of the award.⁹ The idea is that if a book is already popular and known to many readers when the Booker is awarded (as measured by pre-Booker sales), then the prize will contribute little information as to the existence of the book, thus reducing the scope of the publicity effect. The results, reported in Column (1) (sales) and Columns (2) and (3) (satisfaction) of Table A5 in Appendix A5, remain similar to the baseline, which suggests that our findings are not driven by a publicity effect.

6.2.5 *Regression Discontinuity in Time*

In Appendix A6, we move away from our DD setup and implement a regression discontinuity in time, which is an application of the canonical regression discontinuity framework where time is used as the running variable (Hausman and Rapson, 2018). As RD designs do not rely on the parallel trend assumption, this allows us to explore whether our DD results are driven by

⁹ Specifically, we re-estimate Equations (1) and (8) excluding “unpopular” awarded books, defined as those with pre-Booker sales in the lowest quartile.

violations of the parallel trend. The results are reported in Appendix A6 and are in line with the baseline, which bolsters our confidence in the robustness of DD estimates.

7 Mechanism: A Matter of Taste

The theoretical section suggests that the negative welfare impact of the prize may be driven by a misalignment between the tastes of the jury and those of consumers. However, the finding could also be driven by alternative, potentially concurrent mechanisms. Specifically, one could argue that the jury and consumers have similar tastes but that the prize disappoints consumers because it raises expectations that the book subsequently does not meet (Rossi, 2021). Alternatively, consumers who receive utility from exclusiveness (Leibenstein, 1950) may dislike a book due to its increased popularity regardless of its intrinsic quality and of their tastes.

In this section, we provide three series of tests to support our initial interpretation that prizes deteriorate reviews due to a mismatch between the prize and the tastes of consumers. In the first, we focus on the Goodreads Choice Award for Fiction, which is a prize bestowed by a jury of laypeople. This prize arguably goes to books that are closer to the tastes of consumers than a prize that is awarded by practitioners, like the Booker. If the mechanism that we emphasize is at work, the Goodreads prize should increase sales but generate no dissatisfaction. In a second series of tests, we exploit the variations in the composition of the jury of the Booker across editions. The idea behind this approach is that variations in the composition of the jury may result in variations in the proximity of its tastes with those of consumers and, hence, in the impact of the prize on satisfaction. Finally, we provide direct survey evidence on the reactions of readers to awarded books.

7.1 The Effect of a Prize Awarded by Laypeople: the Goodreads Choice Award

The Goodreads Choice Award for Fiction is a popular prize bestowed by the users of the website Goodreads. Like the Booker, the Goodreads prize adds visibility to the awarded book and signals quality. Unlike the Booker, the Goodreads prize is awarded by several hundred thousand Goodreads users, who are laypeople whose tastes are plausibly closer to those of the average reader than are those of the Booker jury. If the negative effect of the Booker is due to the misalignment of the tastes of its jury with those of the public, the Goodreads prize should foster sales, like the Booker, but not negatively affect reviews, unlike the Booker.

Table 5. The Impact of the Goodreads Choice Award on Sales and Satisfaction

Outcome	(1) log(Sales Rank)	Consumer Satisfaction	
		(2) Sentiment	(3) Rating
Goodreads	-0.347** (0.155)	-0.00675 (0.0161)	-0.0130 (0.0289)
Observations	98,613,936	9,023,054	9,023,054

Notes. The dependent variable is reported at the top of each column: *Sales Rank* refers to the Amazon sales rank of the edition, *Sentiment* to the sentiment valence of the review (negative or positive), and *Rating* to its star rating (number of stars). The variable *Goodreads* is an indicator that takes the value one when a book is awarded the Goodreads Prize. In Column (1), the unit of observation is a day. The specification follows Equation (1) and includes controls for whether the edition won other prizes, as well as its log average price, log average rating, and log number of reviews. The specification also includes edition fixed effects and a flexible control (up to the third polynomial) for the number of days since date of publication of that edition. Standard errors clustered at the edition level are reported in parentheses. In Columns (2) and (3), the unit of observation is a review. The model specification follows Equation (8) and includes book and review date fixed effects. Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

We identify the impact of the Goodreads Choice Award for Fiction on sales and on consumer satisfaction using the same identification approaches as for the Booker; that is, we rely on Equation (1) to assess the effect on sales, and Equation (8) to investigate the effect on satisfaction. The results, presented in Table 5, confirm our hypothesis: The Goodreads prize indeed boosts sales, resulting in a lower sales rank. By contrast, it does not affect review sentiment and rating. These findings are consistent with a model where prizes attract readers to consumption, regardless of the composition of their jury, but where consumers may lose utility if their tastes are too far from those of the jury. Those findings are in line with those of Lagios and Méon (2024), who also contrasted the effect on sales and reviews of two French literary prizes awarded from the same list — one by a jury of experts and the other by highschoolers.

Finding that a prize awarded by readers increases sales but does not deteriorate review sentiment or ratings suggests that expectations and disappointment do not drive our results. If prizes disappointed consumers by raising expectations that awarded books do not subsequently meet, in line with Rossi (2021), one should observe a deterioration of review sentiment and rating for all prizes, which we do not. Likewise, the lack of effect of the Goodreads Prize on reviews is hard to reconcile with the idea that a prize may result in more negative comments because it decreases the utility that some readers receive from exclusiveness (Leibenstein, 1950). Of all prizes, a prize bestowed by readers should reduce that utility the most, as it not only increases the number of readers of the book but may also suffer from the stigma of having been selected by grassroot readers, which should diminish the book in the eyes of readers in search of exclusiveness.

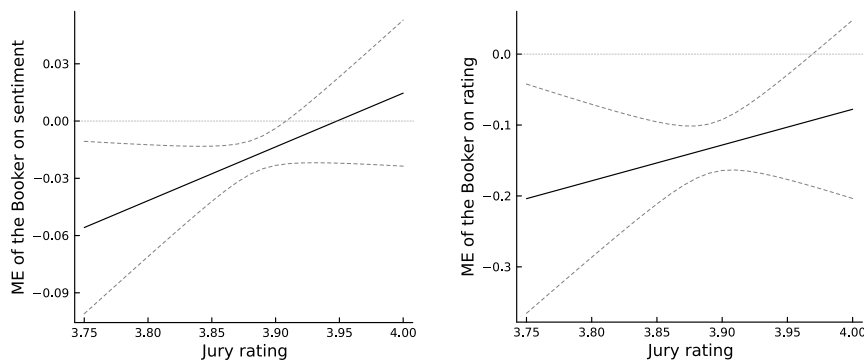
7.2 The Booker Jury's Changing Composition and Consumer Satisfaction

The Booker jury changes each year, which allows us to assess how its composition conditions its effect on consumer satisfaction. We focus on two dimensions: the ability of the jury to select a book that consumers will like and the cultural proximity of the jury with the readers.

The Jury's Ability to Select Books Readers Will Enjoy

Experts are more likely to redirect readers towards books they will enjoy if they have the same tastes as the average reader or if they can correctly predict her tastes. As the members of the Booker jury are often writers themselves, we can proxy their ability to please readers by using the readers' rating of the books the members of the jury have themselves authored. If judges can write books that appeal to consumers, then these judges might be more likely to give the award to a book that consumers will also enjoy. We measure that capacity for the jury as a whole and refer to it as the jury rating. To construct the jury rating, for each edition of the Booker, we collected all books written by the members of the jury and averaged their readers' ratings. We therefore have one jury rating per Booker edition. We expect editions where the jury's books are less well noted to have a larger negative impact on review sentiment and rating.

Figure 4. Marginal Effect (ME) of the Booker Prize on Consumer Satisfaction as a Function of the Jury Rating



Note. The unit of analysis is a review. The plots are obtained by conditioning the effect of the Booker on the jury rating in Equation (8) (see footnote 10). The left-hand side uses the review sentiment as dependent variable (negative or positive), while the right-hand side uses the review rating (number of stars). Each specification includes book and review date fixed effects. The dashed lines indicate 90% confidence intervals based on standard errors clustered at the book title level. The raw coefficients of the model are reported in Appendix B.

We test that hypothesis by conditioning the effect of the Booker on the jury rating in Equation (8).¹⁰ The results are summarized in Figure 4, which plots the marginal effect of the

¹⁰ Specifically, we extend Equation (8) by including the variable $Jury\ Rating_e$, which represents the jury rating of the prize edition e , as well as its interaction with $Booker_{jt}$, so as to estimate the following regression:

Booker on review sentiment (left-hand side) and rating (right-hand side) as a function of the jury rating. For both measures of consumer satisfaction, the absolute effect of the Booker diminishes when the jury rating increases, and the effect even becomes statistically insignificant when the average rating of the books written by the jury is high enough. In other words, when the jury's ability to select a suitable book for the average reader is high — because they have the same tastes or because they can accurately predict them — Booker-award-winning books stop dissatisfying audiences.

The Jury's Cultural Proximity with the Readers

Jury members may differ not only in terms of their capacity to write books that sell but also in terms of cultural proximity with the readers. The greater the proximity, the closer the jury's tastes are likely to be to those of readers. If the negative effect of the Booker on consumer satisfaction is driven by the distance between the tastes of the jury members and those of readers, then it should be smaller when the jury is more representative of the general population.

We measure the representativeness of the jury with three easily observable socio-demographic characteristics: the age, country of birth, and education level of its members. Specifically, for each edition of the Booker, we compute the jury's age dispersion, the share of judges born outside England, and the share of judges with a postgraduate degree. A jury exhibiting a higher age dispersion is likely to cater to the tastes of more age groups. Also, as the outcome of the Booker is covered worldwide, a higher share of members born outside England is likely more representative of consumers. Conversely, we expect editions with a higher share of postgraduates to be more disconnected from the average reader's tastes and thus to affect reviews more negatively.

Again, we test the hypothesis by interacting the effect of the Booker with each characteristic of the jury in Equation (8) (see footnote 10). Figure 5 plots the marginal effect of the Booker on review sentiment (Panel A) and rating (Panel B) against our three measures of cultural proximity. Both panels show that the higher the representativeness of the jury, the lower the negative impact of the Booker on review sentiment and ratings and, hence, on consumer satisfaction.

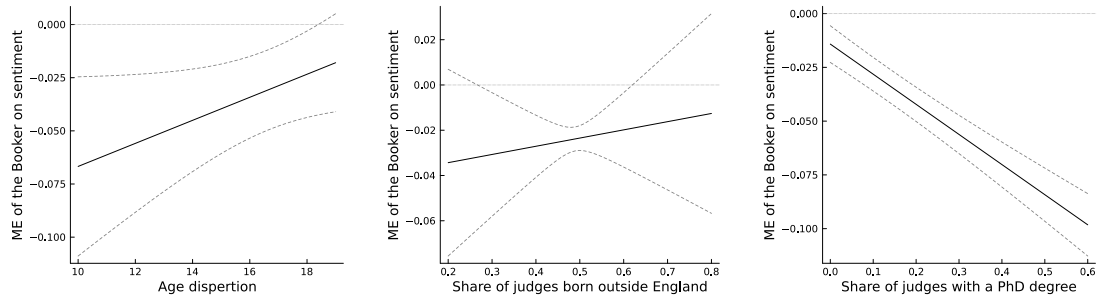
$$y_{ijt} = \beta_1 \text{Booker}_{jt} + \beta_2 \text{Jury Rating}_e + \beta_3 \text{Booker}_{jt} \times \text{Jury Rating}_e + \alpha_j + \alpha_t + X'_{ijt}\gamma + \epsilon_{ijt}.$$

We are interested in estimating the conditional marginal effect of Booker_{jt} on y_{ijt} , that is:

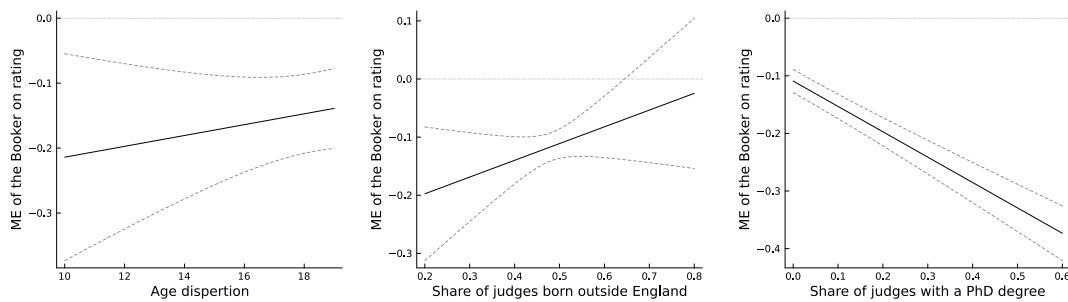
$$[\Delta y_{ijt} | \text{Booker}_{jt} = 1] = \beta_1 + \beta_3 \text{Jury Rating}_e.$$

Figure 5. Marginal Effect (ME) of the Booker Prize on Consumer Satisfaction as a Function of the Jury Characteristics

Panel A. Marginal Effect of the Booker Prize on Sentiment



Panel B. Marginal Effect of the Booker Prize on Rating



Note. The unit of analysis is a review. The plots are obtained by conditioning the effect of the Booker on our three measures of jury representativeness in Equation (8) (see footnote 10). Panel A uses the review sentiment as dependent variable (negative or positive), while Panel B uses the review rating (number of stars). Each specification includes book and review date fixed effects. The dashed lines indicate 90% confidence intervals based on standard errors clustered at the book title level. The raw coefficients of the model are reported in Appendix B.

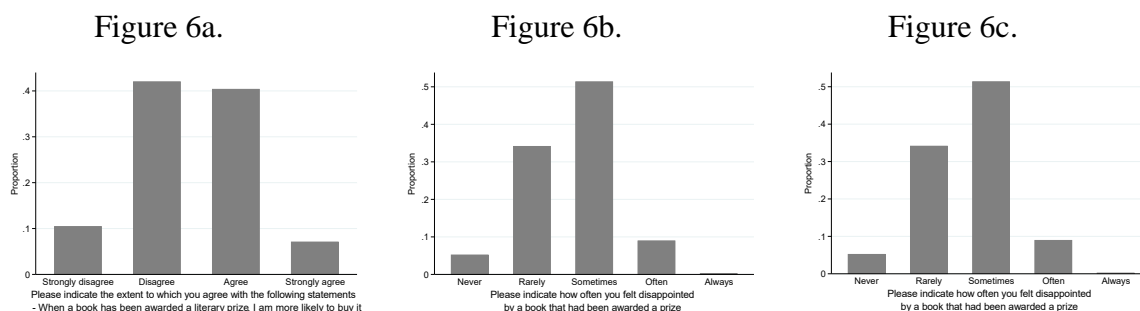
The results of this section clearly indicate that how a prize affects reviews depends on its jury's representativeness and ability to select books that will appeal to consumers. This suggests that the negative impact of the Booker on consumer satisfaction is driven, at least partly, by a divergence between the tastes of the jury and those of consumers. By contrast, those findings do not square well with the other possible mechanisms. There is no reason to expect the prize to not raise expectations as high — or to not reduce the utility of exclusiveness as much — because the members of the jury write books that are greatly appreciated by readers or because the members of the jury are more representative of readers.

7.3 Survey Evidence

To get a more direct view of the reactions of readers to prize-winning books, we leverage an online survey dedicated to consumer reading habits, which we conducted between August 21 and September 5, 2023, on Prolific Academic. The survey was taken by 1,000 native English

speakers living in the US.¹¹ The survey features several questions on literary prizes as well as questions on respondents' sociodemographic characteristics. In particular, three questions, whose outcomes are reported in Figure 6, address the influence of prizes and how they may affect consumer satisfaction.

Figure 6: Outcome of the Online Survey on Reading Habits



Note. The unit of analysis is a survey respondent.

The first question asked respondents if they agreed with the statement, “When a book has been awarded a literary prize, I am more likely to buy it.” Respondents could reply on a scale from “strongly disagree” to “strongly agree”, and the distribution of their answers is reported in Figure 6a. Although their answers are split, 47.5% of respondents agree or strongly agree with the statement. Accordingly, almost one half of respondents admit that their decision to buy a book is influenced by literary prizes. In another question, the results of which are reported in Appendix D, we asked respondents, “What makes you want to buy a particular book?” 22.7% of them consider “the literary prize(s) it has received” to be either important or very important.¹² Moreover, 58.2% of respondents agree or strongly agree with the statement, “If I hesitate between two books, I am more likely to buy the one which has received a literary prize”, which suggests that prizes not only affect the quantity of books sold but also affect which books consumers buy. Overall, those findings confirm the influence of prizes on sales.

We then asked respondents: “How often have you felt disappointed by a book that had been awarded a prize?” Their answers, reported in Figure 6b, show that one half of them report having been disappointed sometimes. This figure increases to 60.6% when including those who have often been disappointed. When respondents who reported having been disappointed by awarded books were further asked to assess the possible reasons for their disappointment (“In your opinion, why did you not like the awarded books that you read?”), 62.4% of them agreed

¹¹ Prolific Academic is a crowdsourcing platform dedicated to academic research and other endeavors.

¹² The answers to all the questions that we discuss in this section but are not plotted in Figure 6 are reported in Appendix C.

or strongly agreed with the statement “because the awarded books are too far from my tastes” (Figure 6c). This is in line with the contention that the tastes of jury members are misaligned with those of most readers.

However, the most striking pieces of evidence appeared when we asked respondents to “please briefly describe [their] experience of reading awarded books” in an open-ended question. Although anecdotal, their replies confirm a mismatch between their preferences and those of jury members. Many feature the adjective “boring”. Many others were more explicit, as demonstrated in this admittedly subjective but tasty selection: “Booker Prize winners are usually too 'literary' for me to enjoy.” Another respondent wrote, “[T]he awarded books are often corny and robotic.” More to the point, some respondents explicitly explain their dissatisfaction by a gap between their tastes and those of the jury: “I tend to find that these books are less accessible, and I feel that the Jury of prizes are disconnected from what I like.” Even more pointedly: “I think awards are given by a small group of people who have specific tastes, and chances are my tastes are not similar to the people who gave the award.” Finally: “The taste of judges are not my tastes. Its [sic] all subjective and awards are only good for marketing”.

Overall, the evidence reported in this sub-section confirms that despite being influenced by prizes when deciding what to read, consumers are often dissatisfied with prize-winning books. In addition, many of them blame their discontent on a misalignment of the tastes of jury members with theirs, in line with our theoretical contention and the estimated effect of the Booker on reviews.

8 The Effect of the Booker Prize on Consumer Welfare: A Structural Approach

In this section, we quantify the welfare loss induced by the prize (the D triangle in Figure 1) by calibrating a structural model of demand for books. Specifically, our approach consists of simulating consumer surplus in a counterfactual world where the Booker does not exist and comparing it with consumer surplus in the status quo where the Booker does exist.

8.1 Consumer Demand and Surplus

We model consumer demand for books by using a one-level nested logit model (see Berry, 1994, Train, 2015, Aguiar and Waldfogel, 2018, Reimers and Waldfogel, 2021). Such a model allows for substitution between books and for consumers to differ in their reading tastes. Define \mathcal{J}_t as the set of books available at time t and j as the book index. Each consumer makes a discrete choice between purchasing a book from the choice set \mathcal{J}_t or consuming the outside good

that consists in not buying a book from the choice set; consumers therefore face $J_t + 1$ options. Omitting the time subscript for convenience, the utility that consumer i expects to get from choosing book j , which we label “decision utility” following Kahneman (1994), is given by

$$\tilde{U}_{ij} = \tilde{\delta}_j + \zeta_i + (1 - \sigma)\epsilon_{ij}, \quad (9)$$

Where $\tilde{\delta}_j$ is the mean utility consumer i expects to get from purchasing book j , and $\sigma \in [0,1)$ measures the degree of substitution across books. As σ approaches one, books become perfect substitutes for one another, and the entry of an additional book cannibalizes demand for existing books, resulting in a complete business-stealing effect and no market expansion. When $\sigma = 0$, the model collapses to a standard logit in which books are imperfect substitutes and entry leads to an increase in the total number of books read (market expansion). The nested logit model allows for two idiosyncratic taste shock components: ζ_i , which captures consumer i ’s idiosyncratic tastes for reading books and is common across all books, and ϵ_{ij} , which represents consumer i ’s idiosyncratic taste toward book j . As shown by Cardell (1997), if ϵ_{ij} is distributed extreme value, then $\zeta_i + (1 - \sigma)\epsilon_{ij}$ is also extreme value distributed.

Our welfare analysis rests on the comparison of consumer surplus under two scenarios: the status quo in which consumers rely on the Booker as pre-purchasing information and a simulated counterfactual in which the Booker does not exist. Specifically, we define the decision mean utility of book j in the status quo, $\tilde{\delta}_j$, and in the counterfactual, $\tilde{\delta}_j^c$, as

$$\tilde{\delta}_j = -\alpha p_j + \omega_j + \xi_j \quad (\text{status quo}) \quad (10)$$

$$\tilde{\delta}_j^c = -\alpha p_j + \xi_j \quad (\text{counterfactual}) \quad (11)$$

where p_j represents the book price, ω_j captures the positive signal of receiving the Booker on expected utility, and ξ_j is a vector of unobserved demand shifters.

In the nested logit demand model, the decision mean utility $\tilde{\delta}_j$ can also be expressed in terms of market shares. Normalizing the mean utility of the outside good to 0, we have

$$\tilde{\delta}_j = \ln(s_j) - \ln(s_0) - \sigma \ln\left(\frac{s_j}{1 - s_0}\right), \quad (12)$$

where $s_j = q_j/M$ and $s_0 = 1 - Q/M$. The term s_j refers to the market share of book j , s_0 to the market share of the outside good, M to the market size, and $Q = \sum_{j \in \mathcal{J}} q_j$ to the sum of all copies sold of the books in the sample \mathcal{J} .

Consumers maximize decision utility, but given their imperfect knowledge, they may misperceive the utility they will receive from reading an awarded book. Their decision utility, \tilde{U}_{ij} , may therefore not coincide with the utility they actually experience when consuming the book, which we denote as U_{ij} and refer to as “experienced utility” (Kahneman, 1994). As in Allcott (2013), we define U_{ij} to be the same as decision utility, except that now consumers observe the true quality of an awarded book, which causes them dissatisfaction, as shown by the results of Sections 6 and 7:

$$U_{ij} = \delta_j + \zeta_i + (1 - \sigma)\epsilon_{ij}, \quad (13)$$

where

$$\delta_j = -\alpha p_j - \gamma \omega_j + \xi_j. \quad (14)$$

A convenient way to model that dissatisfaction from reading a Booker-winning book is to assume that it is proportional by a factor γ to the utility ω_j consumers were expecting to obtain, which appears in Equation (14). Doing so allows us to explore how welfare changes with γ — that is, how welfare varies as dissatisfaction increases. In our baseline and most conservative scenario, we set $\gamma = 0$, meaning that consumers’ experienced utility is equal to their decision utility absent the Booker. This approach provides a lower bound of the effect of the prize on welfare as it is equivalent to assuming that, absent the Booker, consumers have no misperceptions about quality and are the best judges of the utility they will get from purchasing a given book. However, the Booker may also redirect consumers toward books that they end up disliking even more than what they would have thought in the counterfactual, resulting in an experienced utility that is even lower than what consumers initially expected. One can capture this by setting $\gamma > 0$.

Given the nested logit demand system, the change in consumer surplus (CS) from the status quo to the counterfactual scenario is given by:

$$\Delta CS = \frac{M}{\alpha} \left\{ \ln \left(1 + \left[\sum_j \exp \left(\frac{\tilde{\delta}_j}{1-\sigma} \right) \right]^{1-\sigma} \right) - \ln \left(1 + \left[\sum_j \exp \left(\frac{\tilde{\delta}_j^c}{1-\sigma} \right) \right]^{1-\sigma} \right) + \sum_j s_j (\delta_j - \tilde{\delta}_j) - \sum_j s_j^c (\delta_j - \tilde{\delta}_j^c) \right\}. \quad (15)$$

The term s_j^c refers to the market share of book j absent the Booker, which is defined as $s_j^c = \frac{\exp\{\tilde{\delta}_j^c/(1-\sigma)\}}{D_c^\sigma(1+D_c^{1-\sigma})}$, where $D_c = \sum_{j \in \mathcal{J}} \exp\{\tilde{\delta}_j^c/(1-\sigma)\}$ (Berry, 1994). The first part of Equation (15) represents consumer's expected surplus in the presence of the Booker, which is based on her decision utility (that is, the utility she anticipates). The second part reflects consumer's expected surplus absent the prize. The third part is an adjustment to account for the fact that experienced utility may differ from decision utility. The last part is an adjustment that reflects the fact that, in the counterfactual, consumers make decisions based on $\tilde{\delta}_j^c$ (decision utility absent the Booker) but actually obtain a mean utility equal to the mean utility under the status quo, δ_j . In the baseline, $[s_j(\delta_j - \tilde{\delta}_j)] < 0$, and as we assume that consumers have no misperceptions absent the Booker, $[s_j^c(\delta_j - \tilde{\delta}_j^c)] = 0$. When we allow for imperfect knowledge, then the expression $[s_j^c(\delta_j - \tilde{\delta}_j^c)]$ becomes negative. We provide more details on the derivation of Equation (15) in Appendix E.

The change in net revenues induced by the Booker is given by the following formula:

$$\Delta Net \text{ Revenues} = M \left\{ \sum_j p_j s_j - \sum_j p_j s_j^c \right\}. \quad (16)$$

8.2 Estimation Procedure

The calibration of Equation (15) requires estimates for the market size M , the substitution parameter σ , the price utility parameter α , and the Booker utility parameter ω_j . We compute them as follows.

The market size M . Consistent with previous research (Aguilar and Waldfogel, 2019, Reimers, 2019, Reimers and Waldfogel, 2021), we assume that every American makes a bi-monthly discrete decision between buying a book or consuming the outside good.

The substitution parameter σ . As in Berry (1994), we obtain σ by estimating the following regression $\ln(s_{jt}) - \ln(s_{0t}) = \sigma \ln \left(\frac{s_{jt}}{1-s_{0t}} \right)$, where the variables are defined as above.

Since $\ln\left(\frac{s_{jt}}{1-s_{0t}}\right)$ is by construction endogenous, we instrument it by using the standard BLP instrument, which is the number of available titles (e.g., Nevo, 2000, Aguiar and Waldfogel, 2018, 2019, Reimers, 2019, Berry and Haile, 2021). We obtain σ equal to 0.379, confirming that books are imperfect substitutes for one another, in line with previous research (Reimers and Waldfogel, 2021). We provide more details on the estimation of σ in Appendix E. We also show in Section 8.3 that our welfare estimates are only slightly sensitive to the value of σ .

The price utility parameter α . The nested logit allows us to obtain a consistent estimate of the utility parameter α . Given our modelling assumptions, the market share of each edition is given by $s_j = \frac{\exp\{\tilde{\delta}_j/(1-\sigma)\}}{D^{\sigma(1+D^{1-\sigma})}}$, where $D = \sum_{j \in J} \exp\{\tilde{\delta}_j/(1-\sigma)\}$ (see Berry, 1994). It follows that the price elasticity of demand can be computed as

$$\hat{\epsilon}_p = -\alpha_j \frac{1}{1-\sigma} \left(1 - \sigma \frac{s_j}{1-s_0} - (1-\sigma)s_j\right) p_j. \quad (17)$$

Given $\hat{\eta}_p$ that has been estimated in Table 3, s_j , s_0 , and p_j that are observed or can easily be computed in the data, and σ that has been derived above, we can solve for α_j for each edition j , and then average it over all editions to obtain α .

The Booker utility parameter ω_j . We estimate the utility parameter ω_j following Reimers and Waldfogel (2021). In the empirical approach of Section 5.2, we have identified the impact of the Booker on sales by comparing a book's actual sales q_j with its sales absent the Booker q_j^c (i.e., in the counterfactual). That is, $\ln\left(\frac{q_j}{q_j^c}\right)$. The equivalent in our nested logit model is given by $\ln\left(\frac{s_{j,B}}{s_{j,B}^c}\right) - \left(\frac{s_{j,B'}}{s_{j,B'}^c}\right)$, where $s_{j,B}$ is the sales of awarded books, $s_{j,B}^c$ the sales of awarded books absent the Booker, $s_{j,B'}$ the sales of non-awarded books, and $s_{j,B'}^c$ the sales of non-awarded books absent the Booker.¹³ Equating the two expressions, a few lines of algebra show that

$$\omega_j = \ln\left(\frac{q_j}{q_j^c}\right)(1-\sigma), \quad (18)$$

which means that given q_j , q_j^c , and σ , which we know, we can estimate ω_j .

¹³ The expression $\left[\ln\left(\frac{s_{j,B}}{s_{j,B}^c}\right) - \left(\frac{s_{j,B'}}{s_{j,B'}^c}\right)\right]$ can be interpreted as the percentage change in sales for awarded books induced by the Booker with respect to the percentage change in sales of non-awarded books induced by the Booker.

8.3 Results

The results of our welfare analysis are reported in Table 6. We compute the standard errors by using 100 non-parametric cluster bootstrap draws on B , Γ , σ , and the coefficients estimated in Column (4) of Table 2. We first focus on the net revenue generated by the Booker in the book industry to get a glimpse of the impact of the prize on producers, which is the difference between the extra revenues accruing to the awarded book and the loss in the revenues of other books to which readers substitute the awarded one. Our simulation exercise shows that US publishers would be worse off absent the prize as they would have had lower revenues. Specifically, each year, the Booker raises the net book industry revenue by \$368,743 on average.

We then turn to the impact of the Booker on consumer surplus. Our welfare computations based on the baseline estimates of α , ω , σ , and γ show that the existence of the Booker decreases consumer surplus by \$70,039 each year. Since the Booker leads to an average increase in yearly book sales of 52,680 copies, this means that each consumer buying a book because it has received the Booker experiences a loss in her surplus of \$1.33, or 8% of the average price of a book.

Table 6. The Welfare Effect of the Booker Prize

	Effect	SE
Change in net revenues	368.743	94.292
Change in consumer surplus (baseline)	-70.039	34.895
Change in consumer surplus ($\sigma = 0$)	-70.046	34.899
Change in consumer surplus ($\sigma = 0.95$)	-70.028	34.889

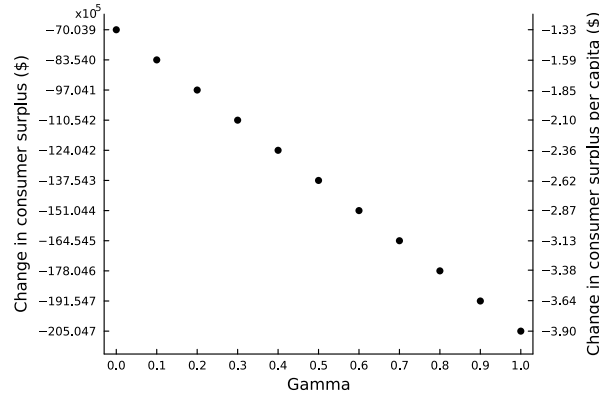
Notes. All figures are in thousands of dollars. The change in consumer surplus is computed following Equation (15). The empirical implementation is explained in Section 8.2. Figures are based on the coefficients estimated in Column (4) of Table 2. Standards errors are obtained from 100 non-parametric cluster bootstrap draws on B , Γ , σ , and the coefficients estimated in Column (4) of Table 2.

Table 6 also reports the change in consumer surplus for alternative $\sigma \in [0,1)$, specifically for $\sigma = 0$ and $\sigma = 0.95$. When $\sigma = 0$, books are imperfect substitutes; when σ approaches one, books become perfect substitutes for one another, and the entry of an additional book cannibalizes the demand for existing books. Varying the parameter σ therefore allows us to determine the extent to which the welfare effect of the Booker arises from consumers switching from non-awarded to awarded books or from consumers increasing their total book consumption. As shown by Table 6, our welfare results are insensitive to σ , meaning that our results mainly arise from consumers switching from non-awarded to awarded books, which they expect to enjoy more.

Finally, we assess how our welfare results vary with the parameter γ , which we use in Equation (14) to model consumer dissatisfaction from reading a Booker Prize-winning book.

The results are documented in Figure 7. The lower bound of the welfare effect of the Booker is represented by our baseline estimates reported in Table 6, where we set $\gamma = 0$. When we assume that $\gamma = 1$ in order to have a symmetric case in which the absolute value of consumer dissatisfaction equals the marginal gain in utility ω_j she was expecting to get when buying the book, we obtain a loss in welfare that is three times larger and that now accounts for 23.7% of the average price of a book.

Figure 7. The Welfare Effect of the Booker Prize as a Function of Consumer Dissatisfaction (γ)



Notes. The change in consumer surplus is computed following Equation (15). The empirical implementation is explained in Section 8.2. Figures are based on the coefficients estimated in Column (4) of Table 2.

9 Conclusion

Expert opinions are ubiquitous, influential, and usually believed to help consumers make better informed decisions. However, they may also draw consumers to products that imperfectly suit consumers. Experts' effect on consumer welfare is therefore *a priori* ambiguous. In line with that argument, we observe that the Booker Prize increases sales but decreases the satisfaction of consumers as measured by the sentiment and ratings of online reviews. Moreover, we report an array of evidence that the negative effect of the prize on consumer satisfaction is driven by a misalignment between the tastes of the members of the jury of the prize and those of readers. Finally, by calibrating a structural model of demand for books, we estimate a negative and substantial welfare effect of the prize, which questions the role of awards and experts, especially when they concern experience and cultural goods. In the terminology of the literature on Bayesian persuasion, we find a real-life example of senders — the members of the jury — who can persuade receivers — the readers — to buy a book that may or may not match the receivers' tastes.

These findings imply that the notion of product quality can be misleading when applied to those goods and that the stakes of prizes and experts go beyond signaling the “best” products

and may call for a qualification of the way we think about quality. As there are many literary prizes besides the Booker (the Pulitzer, the National Book Award, etc.) and prizes are just one of the ways in which experts can influence consumers, our estimate likely gives a lower bound to the total impact of experts on consumer welfare.

The argument that we apply to books and prizes equally applies to many types of goods and forms of expert judgments. What matters for our argument to hold is that quality is imperfectly observable before consumption and that the preferences of experts potentially is misaligned with those of buyers, be they individual consumers, firms, or governments. Our analysis therefore ought to be performed in other industries and with other forms of expert judgments.

Regardless, our finding that consumers follow expert judgements but are subsequently disappointed raises two questions: Do consumers continue to follow experts despite their previous disappointment? If so, why? Addressing the first question can be a way to assess, in a real-life setting, the extent to which consumers are naive or, on the contrary, the extent to which they learn from their previous mistakes, for example through Bayesian updating. More generally, understanding why consumers follow the recommendations of experts despite the suspicion that they may direct them to products that do not correspond to their tastes is a way to get a better picture of the role of experts and how they shape consumer behavior.

One possibility would be to interpret the behavior of readers in a model of Bayesian persuasion à la Kamenica and Gentskow (2011), where it is rational for readers to react to the signal sent by the experts of the jury despite their different preferences. Another interpretation is that, in addition to being a quality signal, awards can play the role of coordination devices if consumers get utility from consuming products that are also consumed by others, in line with the mechanism of Adler’s (1985) model of superstars and the findings of Lagios and Méon (2024). Consumers may accordingly trade off intrinsic utility for extrinsic utility, in line with Loeper et al. (2014). Empirically documenting that mechanism would be a first contribution. The next would be to estimate the welfare implications of that coordination device. We emphasize that the present paper only gauges the intrinsic utility of reading an awarded book. Taking extrinsic utility into account and estimating it would be a natural extension of our analysis and would be necessary to estimate the full effect of awards on social welfare.

That estimation notwithstanding, awards would in any case be superior coordinating devices if they directed consumers to products that give consumers more intrinsic utility. Over time, consumers should gravitate towards awards that are closer to their tastes, and misaligned awards should lose influence. Jury members should therefore have an incentive to target the tastes of the median consumer. The persistence of awards that are imperfectly aligned with the

preferences of the median consumer is a puzzle and calls for research on the political economy of awards. That research agenda will require a better understanding of the interactions of all the actors of the awards industry: producers, artists, experts, public authorities, and the very organizers of awards themselves. In a nutshell, we need a better understanding of the players, the strategies, and the rules of what French poet Stéphane Mallarmé (1945, cited by Bourdieu, 1983) referred to as “a game”.

References

- Acemoglu, D., Makhdoumi, A., Malekian, A., & Ozdaglar, A. (2022). Learning From Reviews: The Selection Effect and the Speed of Learning. *Econometrica*, 90(6), 2857-2899.
- Adler, M. (1985). Stardom and talent. *American Economic Review*, 75(1), 208-212.
- Aguiar, L., & Waldfogel, J. (2018). Quality Predictability and the Welfare Benefits from New Products: Evidence from the Digitization of Recorded Music. *Journal of Political Economy*, 126(2), 492-524.
- Aguiar, L., & Waldfogel, J. (2019). Digitization and the Welfare Effects of Motion Picture Trade.
- Akbik, A., Bergmann, T., Blythe, D., Rasul, K., Schweter, S., & Vollgraf, R. (2019, June). FLAIR: An Easy-to-Use Framework for State-of-the-Art NLP. In *Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics (Demonstrations)* (pp. 54-59).
- Allcott, H. (2011). Consumers' Perceptions and Misperceptions of Energy Costs. *American Economic Review*, 101(3), 98-104.
- Allcott, H. (2013). The welfare effects of misperceived product costs: Data and calibrations from the automobile market. *American Economic Journal: Economic Policy*, 5(3), 30-66.
- Angrist, J. D., & Pischke, J. S. (2014). *Mastering 'Metrics: The Path from Cause to Effect*. Princeton University Press.
- Ashenfelter, O., & Jones, G. V. (2013). The demand for expert opinion: Bordeaux wine. *Journal of Wine Economics*, 8(3), 285-293.
- Ashworth, J., Heyndels, B., & Werck, K. (2010). Expert judgements and the demand for novels in Flanders. *Journal of Cultural Economics*, 34, 197-218.
- Asmat, R., Borowiecki, K. J., & Law, M. T. (2023). Do experts and laypersons differ? Some evidence from international classical music competitions. *Journal of Economic Behavior & Organization*, 214, 270-290.

- Bartoshuk, L. (2014). The measurement of pleasure and pain. *Perspectives on Psychological Science*, 9(1), 91-93.
- Bergemann, D., & Morris, S. (2019). Information design: A unified perspective. *Journal of Economic Literature*, 57(1), 44-95.
- Berry, S. T. (1994). Estimating Discrete-Choice Models of Product Differentiation. *The RAND Journal of Economics*, 242-262.
- Berry, S. T., & Haile, P. A. (2021). Foundations of demand estimation. In *Handbook of Industrial Organization* (Vol. 4, No. 1, pp. 1-62). Elsevier.
- Borusyak, K., Jaravel, X., & Spiess, J. (2024). Revisiting Event-Study Designs: Robust and Efficient Estimation. *Review of Economic Studies*, 1-33.
- Bourdieu, P. (1979). *La distinction. Critique sociale du jugement*, Les Editions de Minuit, Paris.
- Bourdieu, P. (1983). The field of cultural production, or: The economic world reversed. *Poetics*, 12(4-5), 311-356.
- Brynjolfsson, E., Hu, Y., & Smith, M. D. (2003). Consumer Surplus in the Digital Economy: Estimating the Value of Increased Product Variety at Online Booksellers. *Management Science*, 49(11), 1580-1596.
- Butler, M., Hausmann, A., & Kirchhofer, A. (Eds.). (2016). *Precarious Alliances: Cultures of Participation in Print and Other Media*. Transcript Verlag.
- Cameron, S. (1995). On the role of critics in the culture industry. *Journal of Cultural Economics*, 19, 321-331.
- Cardell, N. S. (1997). Variance Components Structures for the Extreme-Value and Logistic Distributions with Application to Models of Heterogeneity. *Econometric Theory*, 13(2), 185-213.
- Chevalier, J., & Goolsbee, A. (2003). Measuring Prices and Price Competition Online: Amazon.com and BarnesandNoble.com. *Quantitative Marketing and Economics*, 1(2), 203-222.
- Coeterier, J. F. (2002). Lay people's evaluation of historic sites. *Landscape and urban Planning*, 59(2), 111-123.
- Deuchert, E., Adjamah, K., & Pauly, F. (2005). For Oscar glory or Oscar money?. *Journal of Cultural Economics*, 29, 159-176.
- Dobrescu, L. I., Luca, M., & Motta, A. (2013). What makes a critic tick? Connected authors and the determinants of book reviews. *Journal of Economic Behavior & Organization*, 96, 85-103.

- English, J. F. (2014). The Economics of Cultural Awards. In *Handbook of the Economics of Art and Culture* (Vol. 2, pp. 119-143). Elsevier.
- Friberg, R., & Grönqvist, E. (2012). Do expert reviews affect the demand for wine?. *American Economic Journal: Applied Economics*, 4(1), 193-211.
- Ginsburgh, V. (2003). Awards, Success and Aesthetic Quality in the Arts. *Journal of Economic Perspectives*, 17(2), 99-111.
- Ginsburgh, V. (2016). On judging art and wine. In I. Rizzo and R. Towse, eds. *The Artful Economist: A New Look at Cultural Economics*, 245-265, Springer.
- Ginsburgh, V., Radermecker, A. S., & Tommasi, D. (2019). The effect of experts' opinion on prices of art works: The case of Peter Brueghel the Younger. *Journal of Economic Behavior & Organization*, 159, 36-50.
- Ginsburgh, V. A., & Van Ours, J. C. (2003). Expert opinion and compensation: Evidence from a musical competition. *American Economic Review*, 93(1), 289-296.
- Ginsburgh, V. & Weyers, S. (2014). Nominees, winners, and losers. *Journal of Cultural Economics*, 38(4), 291-313.
- Haan, M. A., Dijkstra, S. G., & Dijkstra, P. T. (2005). Expert judgment versus public opinion—evidence from the Eurovision song contest. *Journal of Cultural Economics*, 29, 59-78.
- Hausman, C., & Rapson, D. S. (2018). Regression Discontinuity in Time: Considerations for Empirical Applications. *Annual Review of Resource Economics*, 10, 533-552.
- Hilger, J., Rafert, G., & Villas-Boas, S. (2011). Expert opinion and the demand for experience goods: an experimental approach in the retail wine market. *Review of Economics and Statistics*, 93(4), 1289-1296.
- Holbrook, M. B. (1999). Popular appeal versus expert judgments of motion pictures. *Journal of Consumer Research*, 26(2), 144-155.
- Hörner, J., & Lambert, N. S. (2021). Motivational Ratings. *The Review of Economic Studies*, 88(4), 1892-1935.
- Jin, G. Z., & Sorensen, A. T. (2006). Information and consumer choice: The value of publicized health plan ratings. *Journal of Health Economics*, 25(2), 248-275.
- Kahneman, D. (1994). New Challenges to the Rationality Assumption. *Journal of Institutional and Theoretical Economics*, 150(1), 18-36.
- Kamenica, E., & Gentzkow, M. (2011). Bayesian persuasion. *American Economic Review*, 101(6), 2590-2615.
- Lagios, N., & Méon, P.-G. (2024). Experts, Information, Reviews, and Coordination: Evidence on How Prizes Affect Sales, *Journal of Industrial Economics*, 72(1), 49-80.

- Leibenstein, H. (1950). Bandwagon, Snob, and Veblen Effects in the Theory of Consumers' Demand. *The Quarterly Journal of Economics*, 64(2), 183-207.
- Lewbel, A. (1997). Constructing Instruments for Regressions With Measurement Error When no Additional Data are Available, with An Application to Patents and R&D. *Econometrica*, 1201-1213.
- Lewbel, A. (2012). Using Heteroscedasticity to Identify and Estimate Mismeasured and Endogenous Regressor Models. *Journal of Business & Economic Statistics*, 30(1), 67-80.
- Lien, A. K., Randem, L. M., Taralrud, H. P. F., & Edalati, M. (2022). OSN Dashboard Tool For Sentiment Analysis. *arXiv preprint arXiv:2206.06935*.
- Loeper, A., Steiner, J., & Stewart, C. (2014). Influential Opinion Leaders. *Economic Journal*, 124(581), 1147-1167.
- Mahrukh, R., Shakil, S., & Malik, A. S. (2023). Sentiments Analysis of fMRI Using Automatically Generated Stimuli Labels Under Naturalistic Paradigm. *Scientific Reports*, 13(1), 7267.
- McGowan, F. P. (2023). The rule of tome? Longer novels are more likely to win literary awards. *Journal of Cultural Economics*, 1-19.
- Moseley, M. (2019). How the Booker Prize Won the Prize. *American, British and Canadian Studies*, (33), 206-221.
- Nelson, P. (1970). Information and Consumer Behavior. *Journal of Political Economy*, 78(2), 311-329.
- Nevo, A. (2000). A Practitioner's Guide to Estimation of Random-Coefficients Logit Models of Demand. *Journal of Economics & Management Strategy*, 9(4), 513-548.
- Pang, B., & Lee, L. (2008). Opinion Mining and Sentiment Analysis. *Foundations and Trends in Information Retrieval*, 2(1—2), 1-135.
- Ponzo, M., & Scoppa, V. (2015). Experts' Awards and Economic Success: Evidence from an Italian LITERARY prize. *Journal of Cultural Economics*, 39(4), 341-367.
- Reinstein, D. A., & Snyder, C. M. (2005). The influence of Expert Reviews on Consumer Demand for Experience Goods: A Case Study of Movie Critics. *Journal of Industrial Economics*, 53(1), 27-51.
- Reimers, I. (2019). Copyright and Generic Entry in Book Publishing. *American Economic Journal: Microeconomics*, 11(3), 257-284.
- Reimers, I., & Waldfogel, J. (2017). Throwing the Books at Them: Amazon's Puzzling Long Run Pricing Strategy. *Southern Economic Journal*, 83(4), 869-885.

- Reimers, I., & Waldfogel, J. (2021). Digitization and Pre-Purchase Information: The Causal and Welfare Impacts of Reviews and Crowd Ratings. *American Economic Review*, 111(6): 1944—1971.
- Robbins, L. (1938). Interpersonal Comparisons of Utility: A Comment. *Economic Journal*, 48(192), 635-641.
- Rogge, E., Nevens, F., & Gulinck, H. (2007). Perception of Rural Landscapes in Flanders: Looking Beyond Aesthetics. *Landscape and Urban Planning*, 82(4), 159-174.
- Rossi, M. (2021). Quality Disclosures and Disappointment: Evidence from the Academy Awards. In Proceedings of the 22nd ACM Conference on Economics and Computation (790-791).
- Roth, J., Sant’Anna, P. H., Bilinski, A., & Poe, J. (2023). What’s trending in difference-in-differences? A synthesis of the recent econometrics literature. *Journal of Econometrics*, 235(2), 2218-2244.
- Shin, J., & Wang, C. Y. (2024). The role of messenger in advertising content: Bayesian persuasion perspective. *Marketing Science*, forthcoming.
- Sorensen, A. T. (2007). Bestseller Lists and Product Variety. *Journal of Industrial Economics*, 55(4), 715-738.
- Train, K. (2015). Welfare Calculations in Discrete Choice Models when Anticipated and Experienced Attributes Differ: A guide with Examples. *Journal of Choice Modelling*, 16, 15-22.
- Villanes, A., & Healey, C. G. (2023). Domain-specific Text Dictionaries for Text Analytics. *International Journal of Data Science and Analytics*, 15(1), 105-118.

Online appendix

Appendix A. Robustness Checks for the Effect of the Booker Prize on Consumer *Ex Post* Satisfaction

Appendix A1. Alternative Sentiment Analyzers

In the main text, we use the Flair framework to predict the sentiment of each review. To make sure that our results are not driven by this specific model, we measure the review sentiment with two alternative sentiment analyzers: TextBlob (Loria, 2018) and VADER (Hutto and Gilbert, 2014). The conclusions remain unchanged, as shown in Table A1.

Table A1. The Impact of the Booker Prize on Consumer Ex Post Satisfaction — Alternative Sentiment Analyzers

Sentiment Analyzer	Outcome: review sentiment	
	(1) TextBlob	(2) VADER
Booker	-0.0432*** (0.0133)	-0.0707*** (0.0119)
Outcome mean	1.748	1.808
Observations	9,021,237	9,021,237

Notes. The unit of observation is a review. The model specification follows Equation (8). The dependent variable is *Sentiment*, which refers to the sentiment valence of the review (negative, neutral, or positive). The variable *Booker* is an indicator that takes the value one when a book is awarded the Booker. Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

Appendix A2. Role of Staggered Treatment Timing

In this section, we show that our baseline DD results are robust to the presence of heterogeneous, staggered treatment effects by using the imputation estimator proposed in Borusyak et al. (2024). The estimates are little impacted.

Table A2. The Impact of the Booker Prize on Consumer Ex Post Satisfaction — Staggered Treatment Timing

	(1)	(2)
Outcome	Sentiment	Rating
Booker	-0.0408*** (0.00494)	-0.206*** (0.0214)
Observations	9,024,634	9,024,634

Notes. The unit of observation is a review. The model specification follows Equation (8). The dependent variable is reported at the top of each column: *Sentiment* refers to the sentiment valence of the review (negative or positive), and *Rating* to its star rating (number of stars). The variable *Booker* is an indicator that takes the value one when a book is awarded the Booker. Each specification includes book and review date fixed effects. Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

Appendix A3. Changes in the Population Composition of Reviewers

Our baseline results may be driven by the fact that post-Booker reviewers have characteristics that make them more likely to leave a negative review than pre-Booker reviewers. In Table A3, we tackle that concern by exploiting within-reviewer variations. Specifically, we focus on reviewers who wrote a review for both awarded and non-awarded books and compare the sentiment and rating of the reviews of awarded and non-awarded books. The results show that awarded books receive lower ratings than non-awarded books by the same reviewer, which supports the interpretation of our baseline findings in terms of lower satisfaction for awarded books.¹⁸

Table A3. The Impact of the Booker Prize on Consumer Ex Post Satisfaction — Exploiting Within-Reviewer Variations

	(1)	(3)	(3)
	Awarded	Non-awarded	Difference
Sentiment	0.457 (0.0211)	0.647 (0.00377)	-0.191*** (0.0201)
Rating	3.267 (0.0846)	3.769 (0.00873)	-0.501*** (0.0796)
Observations	1,220	19,262	

Note. The unit of observation is a review. *Sentiment* refers to the sentiment valence of the review (negative or positive), and *Rating* to its star rating (number of stars). Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

¹⁸ The implementation of this test required us to run a new phase of review scraping to collect the unique ID of each reviewer, as that piece of information was not collected when we initially scraped the data to construct our baseline dataset in the main text. However, between these two scraping phases, Amazon implemented a limit of one hundred to the number of reviews that are shown in the review section. If we filter reviews by star rating, this means that the maximum number of reviews that can be now collected for a book is 500, or 100 per star rating. Above that number, reviews are simply “lost”. Because of this limitation, we are able to recover the reviewer unique ID for roughly 50% of the reviews in our dataset.

Appendix A4. Price Effect

Table A4 shows (i) that the Booker has no effect on the price of an edition and (ii) that controlling for the edition's price does not alter the baseline DD results reported in Table 4 in the main text.

Table A4. The Impact of the Booker Prize on Consumer Ex Post Satisfaction — Price Effect

Outcome	(1) Log price	Consumer Satisfaction	
		(2) Sentiment	(3) Rating
Booker	0.00874 (0.0314)	-0.0272** (0.0117)	-0.152*** (0.0362)
Log price		-0.00132 (0.00111)	-0.00175 (0.00356)
Observations	98,620,738	7,206,969	7,206,969

Notes. The dependent variable is reported at the top of each column: *Log price* refers to the Amazon price (in log) of the edition, *Sentiment* to the sentiment valence of the review (negative or positive), and *Rating* to its star rating (number of stars). The variable *Booker* is an indicator that takes the value one when a book is awarded the Booker. In Column (1), the unit of observation is a day. The specification follows Equation (1) and includes controls for whether the edition won other prizes, as well as its log average rating and log number of reviews. The specification also includes edition fixed effects and a flexible control (up to the third polynomial) for the number of days since date of publication of that edition. Standard errors clustered at the edition level are reported in parentheses. In Columns (2) and (3), the unit of observation is a review. The model specification follows Equation (8) and includes book and review date fixed effects. Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

Appendix A5. Publicity Effect

Table A5 shows that dropping unpopular books, for which the prize contributes little information, from the sample does not alter our results.

Table A5. The Impact of the Booker Prize on Consumer Ex Post Satisfaction — Publicity Effect

Outcome	Consumer Satisfaction		
	(1)	(2)	(3)
	log(Sales Rank)	Sentiment	Rating
Booker	-1.03* (0.584)	-0.0285** (0.0126)	-0.154*** (0.0395)
Observations	98,610,973	9,022,184	9,022,184

Notes. The dependent variable is reported at the top of each column: *Sales Rank* refers to the Amazon sales rank of the edition, *Sentiment* to the sentiment valence of the review (negative or positive), and *Rating* to its star rating (number of stars). The variable *Booker* is an indicator that takes the value one when a book is awarded the Booker. In Column (1), the unit of observation is a day. The specification follows Equation (1) and includes controls for whether the edition won other prizes, as well as its log average price, log average rating, and log number of reviews. The specification also includes edition fixed effects and a flexible control (up to the third polynomial) for the number of days since date of publication of that edition. Standard errors clustered at the edition level are reported in parentheses. In Columns (2) and (3), the unit of observation is a review. The model specification follows Equation (8) and includes book and review date fixed effects. Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

Appendix A6. Regression Discontinuity in Time

In this section, we implement a Regression Discontinuity in Time (RDiT) as an alternative to the diff-in-diff approach used in the main text. RDiT is an application of the standard Regression Discontinuity (RD) design framework where time is used as the running variable (Hausman and Rapson, 2018).

Table A6. The Impact of the Booker Prize on Consumer Ex Post Satisfaction — Regression Discontinuity in Time for Review Sentiment

	Outcome: Review sentiment		
	(1)	(2)	(3)
Discontinuity estimate	-0.0484** (0.0193)	-0.0494** (0.0209)	-0.0501** (0.0222)
Bandwidth	[141.00, 141.00]	[111.16, 193.12]	[122.75, 122.75]
Bandwidth selector	MSE	MSE	CER
Observations	5,229	5,852	4,854

Notes. Local linear RD estimates with triangular kernel. The unit of observation is a review. The dependent variable is the review sentiment valence (negative or positive). Cluster-robust bandwidth selection, point estimation, and robust bias-corrected inference are based on Calonico et al. (2017). Column (1) uses the mean square error (MSE) optimal bandwidth selector; Column (2) the mean square error (MSE) optimal bandwidth selector separately below and above the cutoff; Column (3) the coverage error probability optimal (CER) bandwidth selector. Each specification includes book fixed effects. Standard errors clustered at the book title level are reported in parentheses.

Following standard practices, we estimate our RD regression using a local linear approach where we focus only on observations close to the cutoff (Gelman and Imbens, 2019). We compute the optimal bandwidth by using the data-driven bandwidth selectors introduced in Calonico et al. (2017). The results are in Table A6 (review sentiment) and Table A7 (review rating). Regardless of the bandwidth choice, the estimates remain quantitatively and

qualitatively similar to the baseline. Accordingly, the RDiT estimates confirm that the Booker significantly decreases consumer satisfaction, both in terms of both sentiment and ratings.

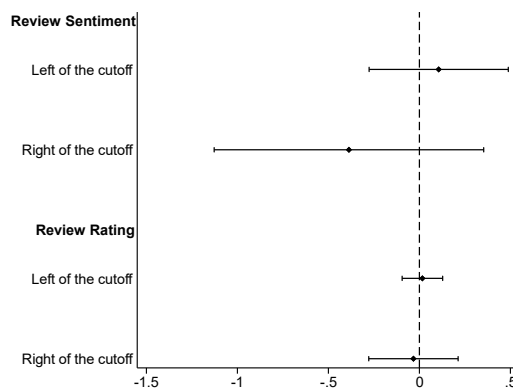
Table A7. The Impact of the Booker Prize on Consumer Ex Post Satisfaction — Regression Discontinuity in Time for Review Rating

	Outcome: Review rating		
	(1)	(2)	(3)
Discontinuity estimate	-0.113** (0.0542)	-0.0988** (0.0482)	-0.121** (0.0592)
Bandwidth	[124.59, 124.59]	[107.09, 195.76]	[108.46, 108.46]
Bandwidth selector	MSE	MSE	CER
Observations	4,897	5,872	4,498

Notes. Local linear RD estimates with triangular kernel. The unit of observation is a review. The dependent variable is the review star rating (number of stars). Cluster-robust bandwidth selection, point estimation, and robust bias-corrected inference are based on Calonico et al. (2017). Column (1) uses the mean square error (MSE) optimal bandwidth selector; Column (2) the mean square error (MSE) optimal bandwidth selector separately below and above the cutoff; Column (3) the coverage error probability optimal (CER) bandwidth selector. Each specification includes book fixed effects. Standard errors clustered at the book title level are reported in parentheses.

To show the validity of our RDiT framework, we follow Hausman and Rapson (2018) and perform a placebo test where we investigate the presence of discontinuities at placebo cut-offs — that is, cutoffs where there should normally be no jump. As recommended by Imbens and Lemieux (2008), we implement that test in two steps. First, we divide our sample into two sub-samples, resulting in one sub-sample containing only observations to the left of the cutoff and another sub-sample containing only observations to the right. We then run an RDiT on each of these sub-samples using the median of the running variable as the cutoff. The results are reported in Figure A1 and show no evidence of discontinuities.

Figure A1. RDiT – Placebo Cutoffs



Note. Local linear RD estimates with triangular kernel. The unit of observation is a review. Cluster-robust bandwidth selection, point estimation, and robust bias-corrected inference are based on Calonico et al. (2017). Each specification includes book fixed effects. The horizontal black line indicates 90% confidence intervals based on standard errors clustered at the book title level.

Appendix B. Mechanisms

In this section, we report the raw coefficients obtained when estimating the interaction effects presented in Sections 7.1 and 7.2 in the main text.

Table B1. Interaction between the Booker Prize and the Jury Rating — Raw Coefficients

Outcome	(1) Sentiment	(2) Rating
Booker	-1.11 (0.772)	-2.1 (2.64)
Booker×Jury Rating	0.282 (0.199)	0.504 (0.678)
Observations	9,023,054	9,023,054

Notes. The unit of observation is a review. The model specification follows footnote (10). The dependent variable is reported at the top of each column: *Sentiment* refers to the sentiment valence of the review (negative or positive), and *Rating* to its star rating (number of stars). The variable *Booker* is an indicator that takes the value one when a book is awarded the Booker. The variable *Jury Rating* refers to the average readers' rating of the books the members of the Booker jury have themselves authored. Each specification includes book and review date fixed effects. Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

Table B2. Interaction between the Booker Prize and the Jury's Age Dispersion — Raw Coefficients

Outcome	(1) Sentiment	(2) Rating
Booker	-0.121** (0.0585)	-0.297 (0.200)
Booker×Age Dispersion	0.00542 (0.00344)	0.00834 (0.0107)
Observations	9,023,054	9,023,054

Notes. The unit of observation is a review. The model specification follows footnote (10). The dependent variable is reported at the top of each column: *Sentiment* refers to the sentiment valence of the review (negative or positive), and *Rating* to its star rating (number of stars). The variable *Booker* is an indicator that takes the value one when a book is awarded the Booker. The variable *Age Dispersion* refers to the age dispersion of the members of the Booker jury. Each specification includes book and review date fixed effects. Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

Table B3. Interaction between the Booker Prize and the Share of Judges Born Outside England — Raw Coefficients

Outcome	(1) Sentiment	(2) Rating
Booker	-0.0416 (0.0422)	-0.255** (0.118)
Booker×Share of Judges Born outside England	0.0362 (0.0858)	0.288 (0.243)
Observations	9,023,054	9,023,054

Notes. The unit of observation is a review. The model specification follows footnote (10). The dependent variable is reported at the top of each column: *Sentiment* refers to the sentiment valence of the review (negative or positive), and *Rating* to its star rating (number of stars). The variable *Booker* is an indicator that takes the value one when a book is awarded the Booker. The variable *Share of Judges Born Outside England* refers to the share of members of the Booker jury born outside England. Each specification includes book and review date fixed effects. Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

Table B4. Interaction between the Booker Prize and the Share of Judges with a PhD Degree — Raw coefficients

Outcome	(1) Sentiment	(2) Rating
Booker	-0.0142*** (0.00519)	-0.109*** (0.0122)
Booker×Share of Judges with a PhD Degree	-0.140*** (0.016)	-0.440*** (0.0439)
Observations	9,023,054	9,023,054

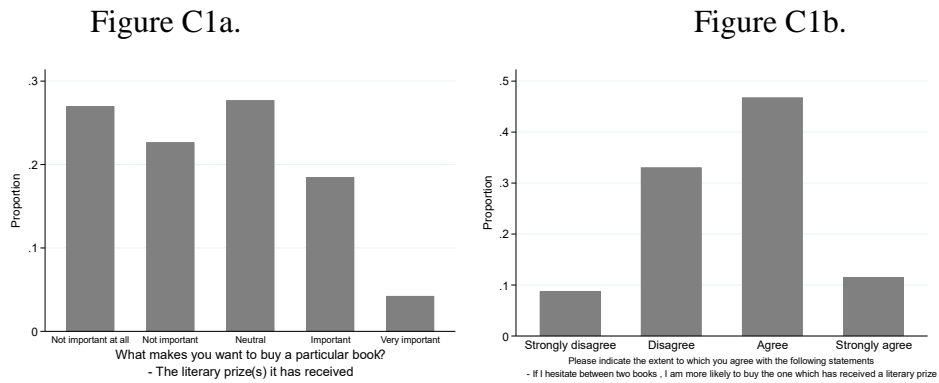
Notes. The unit of observation is a review. The model specification follows footnote (10). The dependent variable is reported at the top of each column: *Sentiment* refers to the sentiment valence of the review (negative or positive), and *Rating* to its star rating (number of stars). The variable *Booker* is an indicator that takes the value one when a book is awarded the Booker. The variable *Share of Judges with a PhD Degree* refers to the share of members of the Booker jury with a PhD degree. Each specification includes book and review date fixed effects. Standard errors clustered at the book title level are reported in parentheses. ***Significant at 1% level; **significant at 5% level; *significant at 10% level.

Appendix C. Survey Evidence

Figure C1a: *What makes you want to buy a particular book? - The literary prize(s) it has received.*

Figure C1b: *Please indicate the extent to which you agree with the following statements: - If I hesitate between two books, I am more likely to buy the one which has received a literary prize.*

Figure C1: Additional Outcomes of the Online Survey on Reading Habits



Note. The unit of analysis is a survey respondent.

Appendix D. Derivation of the Welfare Formula

Let \tilde{U}_{ij} be the utility consumer i expects to get from consuming book j (called “decision utility”) and U_{ij} the utility consumer i actually obtains from consuming book j (called “experienced utility”). The difference between experienced and decision utility is then given by d_{ij} , such that

$$d_{ij} = U_{ij} - \tilde{U}_{ij}.$$

When $d_{ij} > 0$, book j is better than what the consumer expected; when $d_{ij} < 0$, the book is worse.

Rational consumers maximize their decision utility \tilde{U}_{ij} but receive utility U_{ij} . Following Train (2015), let us assume that the book that gives the consumer the highest decision utility is j^* , and the book that gives her the highest experienced utility is k^* . If consumers have imperfect knowledge and overestimate the utility they will receive from reading a book, then $j^* \neq k^*$, and $d_{ij} < 0$. The utility loss borne by the consumer is thus $U_{j^*} - U_{k^*}$.

As Train (2015) shows, the average consumer surplus (CS) can be expressed as

$$CS = \frac{1}{\alpha} E(U_{j^*}) = \frac{1}{\alpha} E(\tilde{U}_{j^*} + d_{j^*}),$$

and the average loss in surplus due to imperfect knowledge is given by

$$\Delta CS = \frac{1}{\alpha} E(U_{j^*}) - \frac{1}{\alpha} E(U_{k^*}) = \frac{1}{\alpha} E(\tilde{U}_{j^*} + d_{j^*}) - \frac{1}{\alpha} E(U_{k^*}),$$

where $E(\tilde{U}_{j^*})$ is consumer’s expectation of the maximum value of her decision utility and $E(d_{j^*})$ is the average difference between experienced and decision utility (Train, 2015).

Absent the Booker, the loss in surplus is

$$\Delta CS^c = \frac{1}{\alpha} E(U_{j^{c*}}) - \frac{1}{\alpha} E(U_{k^*}).$$

The change in consumer surplus from the status quo where the Booker exists to the counterfactual scenario absent the Booker is therefore given by

$$\begin{aligned} \Delta CS - \Delta CS^c &= \frac{1}{\alpha} E(U_{j^*}) - \frac{1}{\alpha} E(U_{j^{c*}}) \\ &= \frac{1}{\alpha} [E(\tilde{U}_{j^*} - \tilde{U}_{j^{c*}}) + E(d_{j^*} - d_{j^{c*}})]. \end{aligned}$$

Given the modelling assumptions of our nested logit model (Train, 2009, 2015):

- $E(\tilde{U}_{j^*} - \tilde{U}_{j^{c*}}) = \ln \left(1 + \left[\sum_j \exp \left(\frac{\tilde{\delta}_j}{1-\sigma} \right) \right]^{1-\sigma} \right) - \ln \left(1 + \left[\sum_j \exp \left(\frac{\tilde{\delta}_j^c}{1-\sigma} \right) \right]^{1-\sigma} \right)$, where $\tilde{\delta}_j$ and $\tilde{\delta}_j^c$ are the mean utility consumers expect to get from consuming book j in the status quo and in the counterfactual, respectively. The first part of the expression is consumer

expected surplus in the status quo, and the second part is consumer expected surplus in the counterfactual — that is, absent the Booker.

- $E(d_{j*}) = E(U_{j*} - \tilde{U}_{j*}) = \sum_j s_j (\delta_j - \tilde{\delta}_j)$, where s_j is book j 's market share in the status quo and δ_j is the mean utility consumers actually obtain from consuming book j . The expression reflects the fact that, in the status quo, consumers take decisions based on $\tilde{\delta}_j$ (decision utility) but obtain δ_j (experienced utility).
- $E(d_{jc*}) = E(U_{j*} - \tilde{U}_{jc*}) = \sum_j s_j^c (\delta_j - \tilde{\delta}_j^c)$, where s_j^c is book j 's market share absent the Booker. The expression reflects the fact that, in the counterfactual, consumers take decisions based on $\tilde{\delta}_j^c$ (decision utility absent the Booker) but obtain a mean utility equal to the mean utility under the status quo δ_j .

Putting everything together, the average change in consumer surplus is given by the following formula:

$$\Delta CS = \frac{1}{\alpha} \left\{ \ln \left(1 + \left[\sum_j \exp \left(\frac{\tilde{\delta}_j}{1-\sigma} \right) \right]^{1-\sigma} \right) - \ln \left(1 + \left[\sum_j \exp \left(\frac{\tilde{\delta}_j^c}{1-\sigma} \right) \right]^{1-\sigma} \right) + \sum_j s_j (\delta_j - \tilde{\delta}_j) - \sum_j s_j^c (\delta_j - \tilde{\delta}_j^c) \right\}.$$

Appendix E. Estimating the Substitution Parameter σ

To estimate σ , we leverage our sales data from the bestseller lists published by Publishers Weekly, which contains weekly sales for 7,379 editions. Then, as in Berry (1994), we estimate σ by running the following regression:

$$\ln(s_{jt}) - \ln(s_{0t}) = \sigma \ln\left(\frac{s_{jt}}{1 - s_{0t}}\right) + \mu_j,$$

where $s_{jt} = q_{jt}/M$, $s_{0t} = 1 - Q_t/M$, and μ_j are edition fixed effects. The term q_{jt} refers to the sales of book j in week t , Q_t to the total book sales in week t (based on the titles in our dataset), and M to the market size. Because we assume that each American is making a bimonthly discrete decision between buying a book or consuming the outside good and our data are at the weekly level, the market size is equal to $M = \text{US population size} \times 0.5$.

Since $\ln\left(\frac{s_{jt}}{1 - s_{0t}}\right)$ is by construction endogenous, we need an instrument to consistently estimate σ . To address this issue, we follow the literature (e.g., Nevo, 2000, Aguiar and Waldfoegel, 2018, 2019, Reimers, 2019, Berry and Haile, 2021) and use the number of different titles appearing in the bestseller list as instrument. We obtain $\sigma = 0.379$.

References

- Aguiar, L., & Waldfogel, J. (2018). Quality Predictability and the Welfare Benefits from New Products: Evidence from the Digitization of Recorded Music. *Journal of Political Economy*, 126(2), 492-524.
- Aguiar, L., & Waldfogel, J. (2019). Digitization and the Welfare Effects of Motion Picture Trade.
- Berry, S. T. (1994). Estimating Discrete-Choice Models of Product Differentiation. *The RAND Journal of Economics*, 242-262.
- Berry, S. T., & Haile, P. A. (2021). Foundations of demand estimation. In *Handbook of Industrial Organization* (Vol. 4, No. 1, pp. 1-62). Elsevier.
- Borusyak, K., Jaravel, X., & Spiess, J. (2024). Revisiting Event-Study Designs: Robust and Efficient Estimation. *Review of Economic Studies*, 1-33.
- Calonico, S., Cattaneo, M. D., Farrell, M. H., & Titiunik, R. (2017). rdrobust: Software for regression-discontinuity designs. *The Stata Journal*, 17(2), 372-404.
- Gelman, A., & Imbens, G. (2019). Why High-Order Polynomials Should Not Be Used in Regression Discontinuity Designs. *Journal of Business & Economic Statistics*, 37(3), 447-456.
- Hausman, C., & Rapson, D. S. (2018). Regression Discontinuity in Time: Considerations for Empirical Applications. *Annual Review of Resource Economics*, 10, 533-552.
- Hutto, C., & Gilbert, E. (2014). VADER: A Parsimonious Rule-Based Model for Sentiment Analysis of Social Media Text. In *Proceedings of the International AAAI Conference on Web and Social Media* (Vol. 8, No. 1, pp. 216-225).
- Imbens, G. W., & Lemieux, T. (2008). Regression discontinuity designs: A guide to practice. *Journal of Econometrics*, 142(2), 615-635.
- Loria, S. (2018). textblob Documentation. *Release 0.15*, 2(8), 269.
- Nevo, A. (2000). A Practitioner's Guide to Estimation of Random-Coefficients Logit Models of Demand. *Journal of Economics & Management Strategy*, 9(4), 513-548.
- Reimers, I. (2019). Copyright and Generic Entry in Book Publishing. *American Economic Journal: Microeconomics*, 11(3), 257-284.
- Train, K. E. (2009). *Discrete Choice Methods with Simulation*. Cambridge University Press.
- Train, K. (2015). Welfare calculations in discrete choice models when anticipated and experienced attributes differ: A guide with examples. *Journal of Choice Modelling*, 16, 15-22.