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Consumer Responses to Premium Services: The Role of Zero-Sum Beliefs

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**CONSUMER RESPONSES TO PREMIUM SERVICES:
THE ROLE OF ZERO-SUM BELIEFS**

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ABSTRACT

Many firms offer premium services that provide an enhanced customer experience for those who can afford them, benefiting both users and companies. However, premium services are not universally accepted. Across six studies ($N = 4,186$), we find that under certain conditions, consumers respond more negatively to premium (vs. non-premium) service growth strategies. This negative response is driven by zero-sum beliefs—beliefs that the introduction of premium services detracts from the experience of basic service users. Notably, these beliefs influence consumer reactions to premium service introductions, independently of considerations related to the affordability of the premium offerings. The negative effect of premium service introductions is most pronounced among individuals with weak beliefs in social mobility and those who identify with a liberal political ideology. Our research demonstrates that firms can alleviate the negative response to the introduction of premium services by designing premium services with non-zero-sum features or by using profits from these services to subsidize non-premium options. By highlighting the role of zero-sum beliefs, we contribute to the literature on vertical line extensions, showcasing when and why non-premium consumers react negatively to premium service innovations.

Key words: zero-sum beliefs, fairness, vertical line extensions, premium services

CONSUMER RESPONSES TO PREMIUM SERVICES: THE ROLE OF ZERO-SUM BELIEFS

“Here's why the express pass is so unfair: There is only so much ride capacity. Each express pass bought (and all that money is gravy to the park!) takes 5x–10x as many rides away from other paying park-goers. I will NEVER go to a park that offers this type of 'feature'. EVER.”

– A review of Universal Studios on TripAdvisor

Vertical differentiation is a fundamental marketing strategy that enables firms to extract superior market value by offering products that are tailored to customer segments with varying levels of willingness to pay. While this form of price discrimination is an established principle in marketing (e.g., Moorthy 1984), it has been rising in recent years, with a notable increase in premium offerings in the service industry (Shwartz 2021). Premium offerings reduce friction, waiting, and inconvenience for those who can afford them. Those willing to pay the higher price can gain access to deluxe hospital rooms, skip lines at airports and entertainment venues, and hire private firefighters to protect their homes (Bernstein 2012; Maremont 2025; Wamsley and Fadel 2025). A recent survey found that as of 2024, around half of zoos, parks, and aquariums in the United States offer VIP services, and close to 20% were slated to introduce such services in 2025 (Pohle and Passy 2024). The ubiquity of these premium offerings has created a “velvet-rope economy,” in which consumers with the means and willingness to pay enjoy expedited and luxurious service and higher-quality care in many domains (Schwartz 2021).

This “premiumization,” or vertical differentiation, has become an attractive strategy for firms due to rising wealth concentration. As of 2021, the wealthiest 10% of U.S. households owned 80% of total wealth, with the top 1% holding 31%, up from 24% in the late 1980s (OECD

2021). With affluent customers' rising purchasing power, firms are increasingly motivated to introduce vertical differentiation in a bid to achieve higher profit margins. For example, Lufthansa reported in 2019 that revenues per square foot are 33% higher in its premium economy class compared to its regular economy class (Powley 2019).

While this expanding velvet-rope economy enables economically advantaged consumers to choose from an increasingly lengthy menu of ease and expedience, the rest of the consumer market is left waiting at the (actual or proverbial) back of the line for more basic offerings—and consumers are often not happy about this. Some premium offerings have drawn backlash from the public, and debates have played out in the media about the ethics of offering premium access to services like healthcare and fire safety (Bernstein 2012; Blevins 2021). For example, when Powdr, the owner of several ski resorts, unveiled a new “premium experience” that included a skip-the-line feature, local skiers launched a campaign against the company, resulting in petitions, protests at ski lifts, and a letter from a U.S. senator warning of the detrimental effects of such an offering (Blevins 2021). More recently, following the wildfires in Los Angeles at the beginning of 2025, the use of private firefighters by wealthy individuals and insurance companies sparked online scrutiny and outrage (Wamsley and Fadel 2025). Many deemed such premium services unfair, citing the belief that private firefighters overuse scarce resources—such as water—and can disrupt the work of public firefighters, resulting in increased risk to the general public (Reinstein 2025).

Even though non-premium consumers—who generally represent the mass market—may react negatively to the launch of premium offerings, managers might overlook how these consumers' experiences will be affected. To gauge the extent to which managers spontaneously acknowledge the risk of negative reactions to premiumization among non-premium consumers,

we surveyed a convenience sample of 25 experienced managers (average of 16 years of managerial experience, representing a variety of industries) enrolled in an executive MBA program at a private East Coast U.S. business school. We asked them an open-ended question about their perceptions of the main risks or challenges faced by a company launching a higher priced tier of service. Only 28% (7 out of 25) alluded to possible negative effects on the non-premium segment (e.g., reducing the quality of the regular service, creating tensions among different consumer segments).

While the premium market typically offers higher margins per unit sold, the mass market remains profitable through volume and economies of scale (Kotler and Keller 2016). Many companies strive to balance both segments, focusing on the mass market before introducing niche premium offerings (Beard and Lubel 2016). Our research provides insights to help firms achieve this balance. Specifically, we explore when and why consumers respond negatively to the introduction of premium offerings (vs. the expansion of non-premium offerings). As we uncover, negative responses to premium offerings are triggered by zero-sum beliefs that firm resources invested in a premium tier will result in fewer resources for non-premium tiers. When firms introduce premium offerings, non-premium customers are presumed to be made worse off—a zero-sum scenario that may or may not accurately reflect reality. We find that these zero-sum beliefs do not arise when firms invest resources in expanding the basic-tier customer base, even if such investment imposes costs on existing consumers. Importantly, our findings also reveal that when firms reduce consumers' zero-sum beliefs, such as by designing services with benefits that are not zero-sum or positioning premium services in ways that reduce the perceived competition for resources, consumers' fairness perceptions, attitudes toward the company, and purchasing intentions significantly improve.

Overall, our work identifies a novel mechanism—zero-sum beliefs—that influences consumer responses to vertical differentiation strategies. Previous research regarding the perceived fairness of vertical differentiation has primarily focused on pricing fairness and the extent to which price discrimination is perceived as fair or justifiable (e.g., Bolton, Warlop, and Alba 2003; Spiller and Belogolova 2017; a notable exception is Gershoff, Kivetz, and Keinan 2012, who investigate the perceived fairness of the method of production of premium products). By exploring a mechanism unrelated to pricing, the current research expands the theoretical understanding of consumer responses to vertical differentiation.

CONCEPTUAL FRAMEWORK

Fundamental marketing principles affirm that firms seeking to grow revenue can pursue horizontal or vertical growth strategies (e.g., Lancaster 1990). Horizontal growth often entails acquiring new customers for existing product offerings or engaging in horizontal differentiation of products, such as by creating product line extensions that cater to different tastes. With horizontal differentiation, there is no agreed-upon optimal choice; instead, consumer choices are determined by their heterogeneous preferences (Lancaster 1990; Spiller and Belogolova 2017). Vertical growth pertains to upward or downward product line extensions in which brands offer products at different quality and price levels, with the ordering reflecting a clear and recognizable hierarchy of objective quality (Hamilton and Chernev 2010).

Previous research explores consumer responses to vertical line extensions and the impact of these extensions on the parent brand (see Schmitz, Brexendorf and Fassnacht 2023 for a review). These extensions, also called premium extensions, signal positive attributes like brand

expertise and innovativeness (Heath, DelVecchio, and McCarthy 2011) but can also raise concerns about performance and financial risk (Lei, de Ruyter, and Wetzels 2008). Most studies on vertical line extensions focus on physical products¹ (e.g., fast-moving consumer goods, cars, apparel), and those that examine service contexts operationalize vertical differentiation as the launch of an independent business (e.g., a hotel chain launching a premium line of hotels; Lei et al. 2008). We examine premium extensions that result in different service tiers from the same provider, such as a rideshare company offering a premium service with superior benefits or an entertainment park offering VIP tickets with enhanced access and benefits. The introduction of premium service tiers has become more common across various industries (Schwartz 2021), highlighting the need to understand how consumers react to these offerings.

Premium Service Extensions Trigger Zero-Sum Beliefs

The introduction of a premium offering in service environments is likely to trigger zero-sum beliefs that benefits and resources allocated to premium consumers equate to losses for non-premium consumers (Ongis and Davidai, 2022; Davidai and Tepper 2023)—even when no actual downgrade in basic service occurs. Zero-sum beliefs are context-specific and distinct from zero-sum thinking, which refers to a broader, more static mindset (Roberts and Davidai 2022). Vertical line extensions of a service, such as offering a premium option alongside a basic service, create distinct consumer tiers that are easily observed by basic service consumers, amplifying competition and social comparison—two key antecedents of zero-sum beliefs (Davidai and

¹ Of the 59 empirical studies reviewed by Schmitz, Brexendorf, and Fassnacht (2023), only eight studies (14%) focus on services.

Tepper 2023). Three characteristics of service consumption make this especially likely. First, services are often delivered in a shared, real-time environment, which amplifies the visibility of different consumer tiers. Second, service relationships tend to be ongoing rather than limited to one-time transactions, such that consumers frequently encounter reminders of the different benefits, reinforcing their awareness of various service tiers. Third, unlike physical goods, which can be produced and stored, services often depend heavily on capacity-constrained resources such as human labor, time, and spatial resources for their delivery.

These characteristics of service contexts can heighten perceived competition and upward social comparison among consumers of basic services, which can lead to zero-sum beliefs. First, the creation of a higher tier can lead to intergroup competition (du Plessis, Nguyen, Foulk, and Schaerer 2022). People are prone to zero-sum beliefs when they think their (or their group's) resources are at risk (Davidai and Tepper 2023). Regardless of whether resources are in fact limited, consumers may infer that firm attention, budgets, and quality-of-service efforts will be selectively allocated toward the premium tier. These inferences are grounded in game-theoretic models (Schelling 1960; Neale and Bazerman 1983) and rely on a fixed-pie bias (Chaiken, Gruenfeld, and Judd 2000), where benefits are assumed to be redistributive, not expansive. Second, introducing a higher tier can trigger upward social comparisons with premium consumers. Comparisons with others who are better off can lead to an experience of relative deprivation, which has also been identified as an antecedent of zero-sum beliefs, as it fosters the belief that better-off others gain at one's expense (Davidai 2023; Davidai and Tepper 2023; Ongis and Davidai 2022). Taken together, these processes suggest that premium service growth is more likely to activate zero-sum beliefs than horizontal service growth, even when the actual impact on basic-tier consumers is ambiguous.

We theorize that compared to when firms expand non-premium services (i.e., horizontal growth), the introduction of premium services (i.e., vertical growth) will lead to perceptions of resource diversion away from the basic service. Premium services can objectively diminish basic offerings, especially in capacity-constrained situations (e.g., reducing space in economy class to expand the first-class cabin). These situations are objectively zero-sum because resources and benefits gained by one segment directly correspond to a loss of resources to another segment. However, there are instances where premium offerings have an ambiguous impact on a company's basic offerings (e.g., enhancing the amenities in first class without improving economy class). In these cases, we predict that consumers may still view premium offerings through a zero-sum lens, consistent with previous research showing that zero-sum beliefs can be activated even when resources are abundant (Meegan 2010).

Negative Consequences of Zero-Sum Beliefs

Research in psychology and sociology shows that zero-sum beliefs can have wide-ranging negative consequences for individuals, groups, and society (e.g., Davidai and Tepper 2023). These consequences span moral judgments, attitudes, and behaviors. Drawing on this research, we propose that zero-sum beliefs triggered by the introduction of a premium service impact a broad array of consumer responses including moral judgments (i.e., how fair they perceive the premium service to be), attitudes toward the firm (i.e., their overall impression of the firm introducing a premium service), and behaviors (i.e., purchase intentions and purchasing behavior).

First, we predict that zero-sum beliefs will lead consumers to perceive premium (vs. non-

premium) growth decisions as less fair. Consumers' moral judgments are determined by their moral principles and the norms they expect firms to adhere to (Bolton et al. 2003; Campbell and Winterich 2018; Xia, Monroe, and Cox 2004). While past work on moral judgments of vertical differentiation has focused on pricing norms (e.g. Anderson and Simester 2008; Bolton et al. 2003; Darke and Dahl 2003; Haws and Bearden 2006; Xia et al. 2004), the present research proposes a non-pricing norm that influences moral judgments of vertical differentiation: When a firm makes changes to a service offering, the expectation is that it should not make any customers worse off. For example, previous research shows that when tech firms produce an inferior product by subtracting features from existing products, consumers perceive the action as unfair (Gershoff et al. 2012). Therefore, while it may be seen as fair for a firm to offer services at different quality and price levels, we propose that consumers will deem it less fair for a firm to offer a premium service that is believed to have detrimental effects on non-premium services.

Second, we predict that zero-sum beliefs will have adverse effects on consumer attitudes toward the firm and diminish purchase intentions. Past research suggests that zero-sum beliefs can diminish perceptions of product quality, leading to decreased purchase intent. For example, consumers tend to prefer products that focus on a single benefit (e.g., toothpaste that fights cavities) over those that offer multiple benefits (e.g., toothpaste that fights cavities, whitens teeth, and protects gums), due to the belief that adding features compromises the primary attribute (Chernev 2007). Similar zero-sum lay theories have been shown to result in lower purchase intention of eco-friendly products. Newman, Gorlin, and Dhar (2014) observed that consumers are less likely to purchase products when they believe the firm intentionally made them more eco-friendly, because they assume such efforts divert resources away from investments in product quality. Building on these findings about the negative effect of zero-sum beliefs on

product preferences, we propose that consumer attitudes and purchase intentions will decline to the extent that consumers hold zero-sum beliefs about a firm's service offerings.

Individual Difference Moderators

Zero-sum beliefs are subjective and vary across situations and individuals (Davidai and Tepper 2023). We explore two individual differences that may influence which consumers are more likely to interpret premium service growth strategies as zero-sum: their belief in social mobility and their political ideology. We explore these moderators for three important reasons. First, past research has shown that these individual differences influence the extent to which consumers develop zero-sum beliefs about social hierarchies. Testing these moderators therefore provides additional support for our proposed process. Second, social mobility beliefs and political orientation differ across geographic regions and customer segments (e.g., Davidai and Gilovich 2015; Gelman et al. 2005). Managers can consider the prevalence of these characteristics in different markets when designing and positioning premium services, an important implication we revisit in the General Discussion. Third, these individual-level factors are evolving in the marketplace, reflecting important macro forces impacting consumer behavior. While perceived social mobility often exceeds objective social mobility (Davidai and Gilovich 2015; Kraus and Tan 2015), individual beliefs in the potential for socioeconomic advancement are declining (Wolfe 2024; Pew Research Center 2024). Further, as consumers become increasingly politically polarized—especially in the United States (Pew Research Center 2022)—political identity is emerging as a powerful driver of consumption decisions (Schoenmueller, Netzer, and Stahl 2023). Together, these trends suggest that evolving consumer beliefs may lead

to reactions to premium offerings that differ from those previously experienced by firms.

Social Mobility Beliefs. Social mobility refers to an individual's ability to move up or down the socioeconomic hierarchy, typically measured by changes in income or wealth relative to their parents (Davidai and Gilovich 2015; Wang et al. 2024). Social mobility beliefs, or perceived social mobility, are individuals' subjective perceptions or estimates of social mobility (Davidai and Gilovich 2015; Day and Fiske 2017). These lay beliefs are not always accurate (e.g., Kraus and Tan 2015); many individuals find it difficult to estimate social mobility, resulting in marked disparities between perceived and objective social mobility rates (Alesina, Stancheva, and Teso 2018; Davidai and Gilovich 2015). Importantly, perceptions of social mobility predict individual attitudes and behaviors better than objective measures of social mobility. For instance, perceived social mobility is a better predictor of support for redistribution policies than objective social mobility (Alesina et al. 2018).

According to Wang et al. (2024), perceived social mobility is a key predictor of zero-sum beliefs about social hierarchies: Individuals who perceive social mobility as low are more likely to believe economic inequality is a zero-sum game, meaning they assume one group's financial gains come at the expense of another. Wang et al (2024) propose that this occurs because low social mobility beliefs foster a scarcity mindset: a view that resources are scarce and fixed. Building on this research, we predict that social mobility perceptions will impact the extent to which consumers view premium services as zero-sum. We hypothesize that individuals who perceive social mobility as high (vs. low) will be less likely to view premium services as having zero-sum effects and will respond more positively to premium service offerings.

Political Ideology. We propose that political ideology is another individual difference variable that will moderate the effect of premium (vs. non-premium) growth strategies on zero-sum beliefs. Previous research shows that political ideology affects attitudes toward inequality: Liberals generally oppose inequality, whereas conservatives tend to be more accepting of it (Graham, Haidt, and Nosek 2009; Jost et al. 2003). This difference arises because conservatives see socioeconomic hierarchy as a legitimate outcome reflecting individual differences in effort, ability, and deservingness (Jost, Federico, and Napier 2009). Liberals are more likely to see inequality as an illegitimate outcome reflecting luck and family wealth (Jost et al. 2009; Kluegel and Smith 1981). Marketing research shows that conservatives tend to embrace vertical differentiation through products to signal that they are better than others, while liberals are more likely to engage in horizontal differentiation to signal that they are unique from others (Ordabayeva and Fernandes 2018).

Recent research has examined links between political ideology and zero-sum beliefs, finding that both conservatives and liberals can develop zero-sum beliefs when they feel their ideological values are threatened (Davidai and Ongis 2019). For example, conservatives (vs. liberals) are less likely to view a wealthy individual's economic gains as happening at the direct expense of others because they see hierarchies as more legitimate and as less driven by moral values of equality and fairness (Davidai and Ongis 2019; Graham et al. 2009). We expect the introduction of premium services to align more with conservatives' belief that hierarchies are legitimate and that these offerings are less threatening to their ideological values. Thus, conservatives (vs. liberals) should be less likely to view premium services as zero-sum and more likely to hold positive attitudes toward the firms that offer them.

Firm Interventions

While zero-sum beliefs are subjective and can emerge in ambiguous situations, we anticipate that these beliefs will be influenced by objective information regarding how a premium service's benefits affect others. Game theory and negotiation literature identify two key factors that determine whether a situation is zero-sum: resource scarcity (often referred to as a "fixed-pie" game; Bazerman 1983; Kern et al. 2020) and the presence of conflicting interests between parties (Boothby, Cooney, and Schweitzer, 2023; Von Neumann and Morgenstern 1944). These factors are often interrelated, and we predict they will affect the extent to which different premium services are seen as zero-sum and, consequently, elicit negative consumer responses.

Premium services can offer a variety of benefits that often vary in the extent to which they divert scarce resources away from non-premium customers and introduce a conflict of interest between premium and non-premium customers. Disney World's VIP tours, for example, offer benefits like a private shuttle, a guide, a personalized itinerary, and line-skipping privileges. We do not predict all benefits to be perceived as equally zero-sum and to evoke the same level of consumer backlash. Line-skipping privileges should be seen as more zero-sum, as ride seats are a limited resource; all else equal, faster access for VIPs corresponds to slower access for others in line, creating a conflict of interest between customer tiers. In contrast, a personalized itinerary is less zero-sum because it doesn't draw from a scarce resource or affect other customers. Benefits like a private shuttle are more ambiguous, making zero-sum interpretations of them more subjective. We propose that the extent to which a premium service triggers zero-sum beliefs will vary based on its design. Firms can reduce zero-sum beliefs by designing premium services that

do not draw from fixed resources (i.e., offering benefits that do not have explicit zero-sum effects) and by positioning premium services in a way that reduce perceived competition between customer tiers (i.e., positioning premium services as a way to subsidize access to the basic tier of service). We test the effect of both of these interventions.

OVERVIEW OF STUDIES

We conduct six main studies to test our predictions across various service contexts, including theme parks, hospitals, ride sharing, travel, and sports, as well as different consumer responses such as moral judgments, attitudes, and behaviors. Study 1 employs a correlational approach to demonstrate that zero-sum beliefs predict consumers' moral judgments of premium services across industries, independently of perceptions of affordability.

The remaining studies examine causality by manipulating a firm's service growth strategy as either premium or non-premium. We operationalize these strategies by comparing the introduction of a premium service alongside the existing non-premium service (i.e., a premium growth condition) with a control condition that expands only the non-premium service customer base (i.e., non-premium growth condition). This control condition is conservative for two reasons. First, it keeps firm growth constant, enabling us to rule out alternative explanations such as differential consumer demand. The non-premium growth also introduces potential zero-sum effects as more customers compete for the same resources. Second, it allows us to control for variety effects. Research indicates that horizontal extensions can enhance consumer perceptions by increasing the range of available options (e.g., different product flavors; Berger, Draganska, and Simonson, 2007). In our control condition, the non-premium service remains constant while

being offered to more customers, in comparison to the premium condition, where the non-premium offering is held constant but includes the addition of a premium service. This setup provides a conservative test of our predictions. The increased variety in the premium condition may result in more positive consumer responses, as customers might view the firm as more innovative (Berger et al. 2007; Heath et al. 2011). This potential positive effect of variety could counteract the proposed negative impacts of zero-sum beliefs on consumer responses.

Studies 2A and 2B provide support for our primary hypothesis that premium (vs. non-premium) service growth strategies are perceived as more zero-sum, even when zero-sum effects are ambiguous. These studies also test our prediction that negative consumer reactions to premium service growth strategies are less pronounced among individuals with strong beliefs in social mobility (Study 2A) and among more politically conservative consumers (Study 2B).

The remaining studies test theoretically motivated firm-level interventions that managers can implement to reduce negative consumer reactions. Studies 3A and 3B manipulate whether premium service benefits are explicitly zero-sum (vs. not), revealing that negative consumer responses—specifically lower anticipated enjoyment of the non-premium service and choice—are mitigated when firms opt for premium services with non-zero-sum (vs. zero-sum) benefits.

Study 4 demonstrates that firms can reduce negative responses to premium service growth strategies by addressing perceived competition between customer tiers: positioning a premium service as a means to subsidize access to the non-premium service increases perceived acceptability. Importantly, by showing that negative consumer responses are attenuated when the premium service benefits are non-zero-sum (vs. zero-sum; Studies 3A and 3B) and when profits from premium services subsidize services for non-premium customers (Study 4), these studies rule out inequality aversion (i.e., preference for equal distribution of resources or outcomes, Fehr

and Schmidt 1999), as viable alternative account.

A supplemental study that further enhances our discussions is detailed in the Appendix. Figure 1 summarizes the components of our proposed conceptual model, and Table 1 summarizes key study details². All main studies, along with Supplemental Study 2, were preregistered. Data, syntax, and materials for all main and supplemental studies are available on Open Science Framework (https://osf.io/vfkeb/?view_only=98b9f84e03e74f65ada3b2ae2c421037).

STUDY 1

Study 1 examined whether zero-sum beliefs predict perceived fairness of premium services across a variety of industries. Participants read about 10 different premium service offerings currently available in the United States across a variety of industries—travel and entertainment, transportation, education, safety, and health—and then rated the perceived fairness of and their zero-sum beliefs about each service. We purposely did not specify whether respondents should evaluate the target services from the perspective of a user of those services or not, allowing them to adopt whichever perspective felt more natural.

It is possible that simply by being expensive, premium offerings may be perceived as less fair than basic services. Therefore, we also asked participants to evaluate each service's perceived affordability. We expected that zero-sum beliefs would affect judgments of fairness above and beyond the effect of perceived affordability. This study was preregistered (<https://aspredicted.org/sfr6-qz5z.pdf>).

² Tables and Figures follow references throughout.

Participants and Design

A total of 503 participants were recruited through Prolific Academic and paid \$1.25 to participate in this study (inclusion criteria: U.S. residency, English fluency, Prolific approval rating $\geq 95\%$). As preregistered, we excluded 37 participants (7.2% of the sample) who failed the attention check, resulting in a final sample of 466. These participants primarily identified as male (168) or female (282), with 16 choosing not to disclose their gender identity; identified mostly as White (336 White, 79 Black, 10 American Indian, 44 Asian, 1 Native Hawaiian or Other Pacific Islander; 19 Other, and 4 who preferred not to specify); and were aged from 18 to 86 ($M = 36.45$, $SD = 12.76$). Furthermore, 52.79% held at least a bachelor's degree, and 25.32% reported an annual household income of \$100,000 or more before tax in the previous year.

Study 1 used a within-subjects design. All participants read about 10 real premium services (see Table 2 for full descriptions) in randomized order. For each service, we first measured participants' perceptions of fairness (1 = *completely unfair*, 7 = *completely fair*). We then measured, in randomized order, their perceptions of its affordability and their zero-sum beliefs about it. Participants rated the extent to which they thought the service was "something I can afford" and "in my price range" (1 = *strongly disagree*, 7 = *strongly agree*); we averaged these two items to create a composite measure of perceived affordability ($\alpha = .98$). Participants rated their agreement (1 = *strongly disagree*, 7 = *strongly agree*) with three randomized statements adapted from Wilkins et al. (2015): *Efforts to provide this premium service to a group of consumers result in a lower quality experience for other consumers in the market*; *In order for a group of consumers to benefit from this premium service, other consumers lose out*; and *As*

consumers of this premium service get a better experience, other consumers get a worse experience. We averaged these to create a composite measure of zero-sum beliefs ($\alpha = .96$).

Results and Discussion

We performed a linear mixed effects analysis of the relationships among fairness, affordability, and zero-sum beliefs (standardized variables). As fixed effects, we entered affordability and zero-sum beliefs into the model. As random effects, we had intercepts for subjects and type of service to account for intraclass correlations. As predicted, zero-sum beliefs were a significant and negative predictor of fairness ($b = -0.51$, 95% CI = [-0.54, -0.49], $p < 0.001$). Perceived affordability was a positive but weaker predictor of fairness ratings ($b = 0.18$, 95% CI = [0.15, 0.21], $p < 0.001$). There was a significant interaction between zero-sum beliefs and affordability on fairness ($b = .04$, 95% CI = [0.01, 0.06], $p < 0.001$): premium services were perceived as less fair when they were viewed as both more zero-sum and less affordable. Table 3 presents the model results.

Importantly, zero-sum beliefs and affordability were only weakly correlated ($r = -.04$, $p = .003$), suggesting that zero-sum beliefs capture an aspect of premium services that influences moral judgments that is independent of affordability. Overall, these results support our hypothesis that zero-sum beliefs influence moral evaluations of premium services: The more a premium service is believed to have detrimental effects on other customers in the market, the less fair it is perceived to be. Our results also reveal that zero-sum beliefs about premium services may vary even within industries: the Lennox Hill maternity suites were rated as a less zero-sum offering than Private Medical concierge service. These results suggest that the extent to which a

premium service evokes zero-sum beliefs may depend on its characteristics, a question to which we return in Studies 3A, 3B, and 4.

STUDIES 2A AND 2B

Studies 2A and 2B were designed to provide evidence for two key pieces of our conceptual model. First, these two studies test our prediction that even without information about the objective zero-sum effects of a new premium service, consumers will be more likely to perceive the introduction of a premium service (vs. the expansion of existing offering) as zero-sum and therefore will be more likely to respond negatively to premium (vs. non-premium) growth. Second, these two studies test two individual-level beliefs that we predict will moderate this effect: beliefs in upward mobility (study 2A) and political ideology (study 2B).

STUDY 2A

Participants and Design

Study 2A was preregistered (<https://aspredicted.org/yhp7-ny9k.pdf>). A total of 800 U.S. participants were recruited through Prolific Academic and paid \$0.65 to participate in Study 2A (inclusion criteria: U.S. residency, English fluency, Prolific approval rating $\geq 97\%$). As preregistered, we excluded 26 participants (3.25% of the sample) for failing an attention check, leaving 774 in the final sample. The remaining participants primarily identified as male (378) or female (383), with 11 nonbinary and 2 preferring not to disclose their gender; ranged in age from

18 to 82 ($M = 40.08$, $SD = 13.84$); and identified as mostly White (509 White, 147 Black, 5 American Indian, 47 Asian, 20 Other, 4 who preferred not to specify, and 40 multiracial). Furthermore, 61.63% held at least a bachelor's degree, and 29.72% reported an annual household income of \$100,000 or more before tax in the previous year.

Participants were randomly assigned to conditions in a 2 (growth strategy: premium, non-premium) \times measured social mobility beliefs between-subjects design. They completed two ostensibly unrelated studies. In the first study, they completed the social mobility beliefs scale (Day and Fiske 2017; $\alpha = .79$; items anchored at 1 = *strongly disagree*, 7 = *strongly agree*). The items were: “There are a lot of opportunities for people to move up the social ladder”; “It is common for people who are motivated enough to go ‘from rags to riches’”; “Most people end up staying in the same social class their entire lives” (reverse coded); “It is not too difficult for people to change their position in society”; “If you are born rich, it is very unlikely you will ever be poor” (reverse coded); “If you are born poor, it is very unlikely you will ever be rich” (reverse coded). Participants then evaluated Regional Hospital—described as their local hospital with standard patient rooms equipped with reclining beds, TVs, and small bathrooms—after having read a news article about it. Participants in the *premium growth* condition read that Regional Hospital had recently completed a remodeling project introducing premium hospital suites that offered five-star amenities (e.g., luxury sheets, tranquil interior design, hospitality-trained staff) and were not covered by insurance; these participants were provided with a rendering of the premium hospital suites. In contrast, participants in the *non-premium growth* condition were told that the hospital had added more standard rooms as part of the remodeling project; they were also provided with a rendering of the new standard rooms. Importantly, in both conditions there was no information about the objective effect of the hospital growth strategy (i.e., offering more

hospital beds) on the quality of patient outcomes.

Next, all participants indicated how fair they thought the introduction of these [premium suites/standard patient rooms] was (0 = *unfair*; 1 = *fair*), their general impression of Regional Hospital along a smiley face graphic slider (0 = *extremely negative face*; 10 = *extremely positive face*), and what they would do if they were given a choice between Regional Hospital and a different hospital, also covered by their insurance, slightly farther away (1 = *definitely would not go to Regional Hospital*; 7 = *definitely would go to Regional Hospital*). To assess zero-sum beliefs, we adapted the 3-item scale ($\alpha = .94$) employed in Study 1 to align with the context of the current study. The order in which these variables were measured and in which the items were presented was counterbalanced. Next, participants indicated their health level (1 = *very unhealthy*; 7 = *very healthy*) and how often they go to the hospital as a patient (1 = *never*; 7 = *very frequently*). Additionally, they assessed their perceived social status using the MacArthur scale (1 = *worst off*; 10 = *best off*).³ Finally, they provided their demographic information (e.g., gender identity, age, income, education, and race), and were debriefed.

Results and Discussion

Main Effects. An independent-samples t-test showed that participants were less inclined to choose Regional Hospital over a farther hospital when Regional Hospital introduced premium suites ($M = 4.38$, $SD = 1.76$) compared to when it added standard rooms ($M = 5.09$, $SD = 1.33$), $t(723.03) = 6.32$, $p < .001$, $d = .46$. Similarly, participants evaluated Regional Hospital less

³ Perceived social status did not differ across growth strategy conditions in this study or in Study 4 and Supplemental Study 2, where it was also measured (see Appendix).

positively when it introduced premium suites ($M = 3.26$, $SD = 1.16$) compared to when it added standard rooms ($M = 3.77$, $SD = .76$), $t(667.91) = 7.21$, $p < .001$, $d = .52$. We also examined the impact of the hospital's expansion strategy on perceived fairness. A chi-squared test showed that participants perceived the introduction of premium suites as less fair (57.58%) than the addition of standard rooms (94.55%), $X^2(1, N = 774) = 144.80$, $p < .001$, Cramer's $V = .43$.

Zero-Sum Beliefs. As predicted, an independent-samples t-test revealed that participants viewed the hospital's growth strategy as more zero-sum when the hospital introduced premium suites ($M = 4.15$, $SD = 1.63$) than when it added additional standard rooms ($M = 2.88$, $SD = 1.37$), $t(753.13) = -11.74$, $p < .001$, $d = .84$.

Moderated Mediation. As preregistered, we conducted a moderated mediation analysis (Hayes 2017, PROCESS Model 8, 5,000 simulations) with hospital growth strategy (premium = 1, non-premium = 0), social mobility beliefs (continuous measure), and their interaction as predictor variables; propensity to choose Regional Hospital as the dependent variable; and zero-sum beliefs as the mediator. The index of moderated mediation was significant (95% CI [.10, .27]). As predicted, the indirect effect of the hospital's growth strategy on choice, through zero-sum beliefs, was stronger among participants scoring low on social mobility beliefs ($b = -.67$, $SE = .11$, 95% CI [-.88, -.46]) than among those scoring high on social mobility beliefs ($b = -.22$, $SE = .06$, 95% CI [-.35, -.10]).

A similar pattern of results was observed for participants' overall impression of Regional Hospital (Index of Moderated Mediation: 95% CI [.06, .15]; Indirect effect when perceived social mobility is low: $b = -.38$, $SE = .06$, 95% CI [-.51, -.26]; Indirect effect when perceived

social mobility is high: $b = -.12$, $SE = .04$, 95% CI [-.20, -.06]) and for their perceived fairness of its actions (Index of Moderated Mediation: 95% CI [.26, .64]; Indirect effect when perceived social mobility is low: $b = -1.61$, $SE = .23$, 95% CI [-2.12, -1.21]; Indirect effect when perceived social mobility is high: $b = -.52$, $SE = .15$, 95% CI [-.84, -.25]).

When Regional Hospital introduced premium suites (vs. adding more standard rooms), participants assumed this action would disadvantage other patients. Consequently, they were less likely to choose the hospital, rated it less favorably, and perceived its actions as unfair. Notably, these effects were attenuated among participants who believed in greater social mobility, revealing a moderator of consumer reactions to premium services. Non-preregistered robustness checks show that the results remain significant when controlling for participant health, hospitalization frequency, and perceived social status.

STUDY 2B

Participants and Design

All predictions, sample size, and analyses for this study were preregistered (<https://aspredicted.org/d4tg-mspj.pdf>). A total of 1,197 participants were recruited through Prolific Academic and paid \$1.24 to participate in this study (inclusion criteria: U.S. residency, English fluency, Prolific approval rating $\geq 97\%$). As preregistered, we excluded 12 participants (1.00% of the sample) who failed the attention check (the same as in Study 2A), resulting in a final sample of 1,185. These participants primarily identified as male or female (586 male, 585 female, 11 nonbinary, and 3 choosing not to disclose their gender identity); identified mostly as

White (833 White, 179 Black, 3 American Indian, 68 Asian, 3 Native Hawaiian or Other Pacific Islander, 35 Other, 11 who preferred not to specify, and 51 multiracial); and were aged between 18 and 83 ($M = 38.44$, $SD = 12.29$). Furthermore, 61.83% held at least a bachelor's degree, and 35.44% reported an annual household income of \$100,000 or more before tax in the previous year. The sample skewed toward political liberalism with an average mean of 3.83 ($SD = 1.81$) on two 7-point scales (1 = *very liberal* to 7 = *very conservative*).

Study 2B employed a two-condition (growth strategy: non-premium, premium) \times measured political ideology between-subjects design. It used the exact same manipulations, procedures, and measures as Study 2A, with the primary difference being the measurement of participant political ideology as individual difference moderator. Participants read one of two news articles about Regional Hospital, corresponding to either the premium or non-premium growth condition. After completing the required measures and providing demographic information, they reported their political orientation using a 2-item scale that assessed conservatism on social and economic issues ($r = .81$; 1 = *very liberal* to 7 = *very conservative*). Finally, they received a debriefing.

Results and Discussion

Main Effects. Replicating study 2A, an independent-samples t-test revealed that participants were less likely to choose Regional Hospital over a competitor when Regional Hospital introduced premium suites ($M = 4.48$, $SD = 1.75$) compared to when it expanded with additional standard patient rooms ($M = 5.06$, $SD = 1.44$), $t(1138.7) = 6.18$, $p < .001$, $d = .36$. Similarly, participants rated Regional Hospital less favorably when it introduced premium suites

($M = 3.27$, $SD = 1.12$) compared to when it added additional standard patient rooms ($M = 3.80$, $SD = .86$), $t(1107.9) = 9.19$, $p < .001$, $d = .53$.

We also examined the effect of Regional Hospital's growth strategy on perceived fairness. A chi-squared test revealed that participants considered the introduction of premium suites to be less fair (59.29%) than the addition of standard patient rooms (90.39%), $X^2(1, N = 1,185) = 152.20$, $p < .001$, Cramer's $V = .36$.

Zero-Sum Beliefs. As expected, an independent-samples t-test showed that participants perceived the hospital's growth strategy as more zero-sum when it introduced premium suites ($M = 4.03$, $SD = 1.70$) compared to when it added standard patient rooms ($M = 3.02$, $SD = 1.41$), $t(1,142.8) = -11.26$, $p < .001$, $d = .65$.

Moderated Mediation. As preregistered, we performed a moderated mediation analysis (Hayes 2017, PROCESS Model 8, 5,000 simulations) using hospital growth strategy (premium = 1, non-premium = 0), political orientation (continuous measure), and their interaction as predictor variables. The propensity to choose Regional Hospital served as the dependent variable, with zero-sum beliefs acting as the mediator. The index of moderated mediation was significant (95% CI [.05, .13]). Consistent with our predictions, the indirect effect of the hospital's expansion strategy on choice, via zero-sum beliefs, was more pronounced among participants who identified as more liberal ($b = -.50$, $SE = .07$, 95% CI [-.63, -.38]) than among those who identified as more conservative ($b = -.15$, $SE = .05$, 95% CI [-.25, -.05]).

A similar pattern of results was observed for participants' overall impression of Regional Hospital (Index of Moderated Mediation: 95% CI [.04, .09]; Indirect effect when participants

identify as more liberal: $b = -.40$, $SE = .08$, 95% CI [-.55, -.24]; Indirect effect when participants identify as more conservative: $b = -.09$, $SE = .08$, 95% CI [-.25, .07]) and for perceived fairness of the hospital's actions (Index of Moderated Mediation: 95% CI [.14, .35]; Indirect effect when participants identify as more liberal: $b = -1.36$, $SE = .17$, 95% CI [-1.72, -1.06]; Indirect effect when participants identify as more conservative: $b = -.40$, $SE = .14$, 95% CI [-.68, -.13]).

Study 2B replicates the main effect from Study 2A: Respondents inferred that the hospital decision to add premium suites had more zero-sum effects than a decision to introduce additional standard patient rooms. As a result, when the hospital introduced premium suites, participants were less inclined to choose it, held less positive impressions of it, and viewed its actions as less fair. Importantly, these negative effects were attenuated among participants with more conservative views, revealing consumer political ideology as another individual-level moderating variable. Non-preregistered robustness checks confirmed that the results remain significant even after controlling for participant health and hospitalization frequency.

STUDY 3A

Study 3A used a moderation-of-process approach (Spencer, Zanna, and Fong 2005) to investigate the zero-sum beliefs mechanism. We orthogonally manipulated the premium service growth strategy—characterized as offering either zero-sum or non-zero-sum benefits—against a non-premium service extension strategy. This allowed us to tease apart the effects of adding a premium tier of service from the effects associated with zero-sum beliefs and to rule out inequality aversion as an alternative explanation for our results. We predicted that participants in the premium zero-sum service condition would perceive the firm's growth strategy as less fair

and anticipate enjoying the basic service less compared to those in the premium non-zero-sum condition and those in the non-premium growth condition. All predictions, sample size, and analyses were preregistered (<https://aspredicted.org/tf3x-jh5t.pdf>).

Participants and Design

A total of 600 participants were recruited through Prolific Academic and paid \$0.70 to participate in this study (inclusion criteria: U.S. residency, English as a primary language, Prolific approval rating $\geq 95\%$). As preregistered, we excluded 2 participants (0.3% of the sample) who failed the attention check, resulting in a final sample of 598. Participants primarily identified as male or female (297 male, 287 female, 12 nonbinary, and 2 choosing not to disclose their gender identity); identified as mostly White (461 White, 70 Black, 51 Hispanic or Latino, 49 Asian, 12 American Indian, 4 Other, and 11 who preferred not to specify); and ranged in age from 19 to 95 ($M = 40.63$, $SD = 12.77$). Furthermore, 59.13% held at least a bachelor's degree, and 35.45% reported an annual household income of \$100,000 or more before tax.

Study 3A used a three-condition (service growth strategy: non-premium vs. premium non-zero-sum vs. premium zero-sum), between-subjects design. The context of the study was entertainment parks, and the two premium conditions differed in terms of the benefits the parks offered. This allowed us to manipulate zero-sum beliefs. All participants read, "Entertainment Park A is a popular and highly rated theme park in the United States. Visitors can buy a single-day ticket to the park, which gives them access to more than 50 rides and attractions, restaurants, and stores for twelve hours. The park sells a regular single-day ticket, which provides access to the park from 7am to 7pm." Participants in the *non-premium* condition read, "To attract more

customers, Entertainment Park A recently started selling a Night Ticket, in addition to the regular single-day ticket.” The Night Ticket was described as providing access to the park from 7pm to 11pm (see Figure 2). Participants in the *premium non-zero-sum* condition read, “To attract more customers, Entertainment Park A recently started selling a VIP Ticket, in addition to the regular single-day ticket.” This non-zero-sum VIP ticket was described as providing “After hour access which allows VIP ticket holders to stay in the park for an additional 4 hours after normal closing time (until 11pm)” as well as “access to an exclusive lounge with light snacks and beverages to relax and refresh during the day at the park.” Participants in the *premium zero-sum* condition read, “To attract more customers, Entertainment Park A recently started selling a VIP Ticket, in addition to the regular single-day ticket.” This zero-sum VIP ticket was described as providing “skip the line passes that allow visitors to skip regular lines as many times as they want on selected rides and attractions” and “priority access to the best seats for shows and performances.”

All participants then rated the fairness of Entertainment Park A’s growth strategy ($1 = \text{very unfair}$; $7 = \text{very fair}$) and how enjoyable they expected their visit to Entertainment Park A to be with a regular single-day ticket ($1 = \text{very unenjoyable}$; $7 = \text{very enjoyable}$). As a manipulation check, we measured zero-sum beliefs using a modified version of the 3-item scale ($\alpha = .95$) employed in Study 1, adapting it to align with the current study (e.g., “Efforts to provide these [VIP/ Night tickets] result in a lower quality experience for other customers.”).

Results and Discussion

As expected, there was a main effect of growth strategy condition on zero-sum beliefs, $F(2, 595) = 159.27, p < .001, \eta^2 = .35$. Participants saw the premium zero-sum tickets as

significantly more zero-sum ($M = 4.59, SD = 1.61$) than the premium non-zero-sum tickets ($M = 2.53, SD = 1.27$), $F(1, 595) = 227.95, p < .001, d = 1.42$, or the non-premium tickets ($M = 2.43, SD = 1.17$), $F(1, 595) = 251.28, p < .001, d = 1.53$. We find no significant difference in zero-sum beliefs between the non-premium and the premium non-zero-sum ticket conditions, $F(1, 595) = .58, p = .45, d = .08$.

We find a similar main effect of growth strategy condition on fairness, $F(2, 595) = 21.40, p < .001, \eta^2 = .07$, such that participants saw the premium zero-sum tickets as significantly less fair ($M = 5.04, SD = 1.71$) than the premium non-zero-sum ($M = 5.93, SD = 1.21$), $F(1, 595) = 37.32, p < .001, d = .60$, and the non-premium tickets ($M = 5.78, SD = 1.37$), $F(1, 595) = 26.14, p < .001, d = .48$. We find no significant difference between the premium non-zero-sum and non-premium conditions, $F(1, 595) = 1.01, p = .32, d = .12$.

We also find a main effect of growth strategy condition on anticipated enjoyment of visiting the park with a regular single day ticket, $F(2, 595) = 64.49, p < .001, \eta^2 = .18$, such that participants anticipated enjoying the park significantly less when premium zero-sum tickets are introduced ($M = 4.81, SD = 1.41$) compared to when premium non-zero-sum tickets are introduced ($M = 5.68, SD = 1.03$), $F(1, 595) = 58.41, p < .001, d = .70$, or when non-premium tickets are introduced ($M = 6.07, SD = 0.88$), $F(1, 595) = 123.52, p < .001, d = 1.07$. Participants did anticipate enjoying the park significantly more when non-premium tickets are introduced relative to when premium non-zero-sum tickets are introduced, $F(1, 595) = 12.20, p < .001, d = .41$.

Overall, these findings demonstrate that introducing premium services with zero-sum (vs. non-zero-sum) features undermines perceived fairness and reduces anticipated enjoyment of the basic service. While participants still expected to enjoy the park less with the regular single day

ticket in the premium non-zero-sum condition compared to the non-premium growth condition, the difference in enjoyment was smaller than the difference observed between the premium zero-sum and non-premium growth conditions. Overall, the pattern of results is more consistent with a zero-sum belief account than with an inequality aversion account, as the latter would predict more negative consumer responses to the introduction of a premium service compared to the non-premium service independent of the zero-sum effects of the premium service benefits.

In a supplementary study reported in the Appendix we examine consumer reactions to entertainment park premium services using open-ended responses instead of scale measures. Replicating Study 3A, we find that participants reading about a skip-the-line premium ticket were significantly more likely to spontaneously mention the zero-sum nature of the service and its perceived unfairness, compared to participants in an after-hours ticket condition. Taken together, these results suggest that it is possible to design premium services that sidestep zero-sum beliefs and negative responses to vertical differentiation. We test this again in Study 3B using incentive-compatible choice of a service provider.

STUDY 3B

Study 3B used an incentive-compatible design to examine consumer choice between service providers. Preregistration materials for this study can be found at <https://aspredicted.org/5sb3-m454.pdf>. We investigate consumers' preference for a provider that introduced a premium service that has (vs. does not have) zero-sum benefits. To do this, we adapted descriptions of real premium services offered by two leading ride share companies (see Figure 3 for descriptions of premium services offered by Uber and Lyft), and participants chose

between two ride-sharing companies: Company A, which offered a premium tier of service, and Company B, which did not. We varied the features of Company A's premium service. In the zero-sum (vs. non-zero-sum) condition, Company A provided premium benefits with (vs. without) zero-sum implications for non-premium consumers.

Participants and Design

A total of 485 participants were recruited from the subject pool of a private U.S. university and received extra credit for their participation. They primarily identified as men (265) or women (217), with 2 nonbinary and 1 choosing not to disclose their gender identity; identified as mostly White (313 White, 16 Black, 49 Hispanic or Latino, 144 Asian, 1 Native Hawaiian or Other Pacific Islander, and 9 Other); and ranged in age from 17 to 28 ($M = 19.59$, $SD = 1.34$).

Study 3B used a two-condition (growth strategy: *premium zero-sum* vs. *premium non-zero-sum*) between-subjects design. All participants read about two ride-share companies: Companies A and B. Participants read, “Company A is a well-known ride-share app in the United States. To attract more high-paying customers, Company A recently introduced a premium subscription plan. For a premium annual rate, riders who subscribe to Premium One receive several benefits.” Participants in the *premium non-zero-sum* condition read that these benefits included a “\$5 credit if the Latest Arrival estimate is incorrect” and the ability to “cancel without fees or penalties.” Participants in the *premium zero-sum* condition read that the benefits included “preferential access to top-rated drivers on rides” and “priority pickups (gets picked up faster).” A pretest ($N = 200$) confirmed that Company A’s decision to grow by introducing a premium service with “preferential access” and “priority pickups” (*premium zero-*

sum condition) was perceived as significantly more zero-sum than its decision to introduce a premium service with a “\$5 credit” and the ability to “cancel without fees” (*premium non-zero-sum* condition; $t(198) = 6.78, p < .001, d = .96$). The description of Company B was identical in both conditions: “Company B is a well-known ride-share app in the United States. The company continues to expand its customer base and operates in all states.”

All participants were informed that they would be entered into a lottery to win one of three \$100 gift cards for the ride-sharing company of their choice. They were told that the gift card could not be used for premium subscription plans. Participants then indicated their preference for a gift card to Company A or Company B. We predicted that Company A's choice share would be lower when its premium service has zero-sum effects than when it does not.

After making their choice, participants answered an attention check question about the features of Company A's premium service, provided their demographics, and indicated whether they currently subscribed to any premium ride-sharing memberships (yes = 73, no = 411, 1 = did not disclose); 23 participants failed the attention check, and 1 did not answer the attention check measure. As preregistered, these participants were excluded from the analysis, resulting in a final sample of 461 observations.

Results and Discussion

Supporting our prediction, participants in the *premium zero-sum* condition were less likely to choose Company A (44.5%) than those in the *premium non-zero-sum* condition (53.8%), $X^2(1, N = 461) = 3.98, p = .046$, Cramer's $V = .09$. This represents a 17% decrease in choice share among prospective basic tier users. The effect is slightly stronger if we exclude

participants who are currently subscribers of a premium ride-share service (Company A $_{zero-sum} = 40.7\%$, Company A $_{non-zero-sum} = 51\%$), $X^2(1, N = 391) = 4.21, p = .04$, Cramer's V = .10.

Taken together, studies 3A and 3B suggest that the nature of premium service benefits can influence basic-tier customers' willingness to join or remain with a service provider. Specifically, premium benefits perceived as zero-sum can diminish the appeal of a provider's basic offering and deter the acquisition of non-premium customers.

STUDY 4

So far, our studies show that consumers can react less positively to firms that grow their customer base by introducing a premium (vs. non-premium) tier of services. These responses stem from zero-sum beliefs; consumers infer that resources are limited, so a benefit received by one segment (i.e., premium service customers) will come at the expense of another (i.e., non-premium service customers). Yet, premium services can serve important functions such as satisfying status needs of customers who can afford them (Anderson and Brown 2010), which makes them an attractive expansion strategy to firms.

Study 4 leverages our understanding of the role of zero-sum beliefs in shaping reactions to premium services to develop and test an intervention. We propose that a firm may attenuate zero-sum beliefs by using some of the profits from its premium services to subsidize non-premium services. By using cross-subsidies, the firm can directly address concerns about resource allocation and demonstrate its commitment to serving all customers. We predict that this approach will assuage consumers' concerns about zero-sum effects and foster positive responses to the firm. We tested these predictions in a preregistered study

https://aspredicted.org/YJK_K1Y).

Participants and Design

A total of 601 participants from the United States were recruited through Prolific Academic and paid \$0.63 to take part in Study 4 (inclusion criteria: U.S. residency, English fluency, Prolific approval rating $\geq 97\%$). As preregistered, we excluded 17 participants (2.83% of the sample) for failing an attention check, leaving 584 in the final sample. The remaining participants primarily identified as male or female (287 male, 285 female, 11 nonbinary, 1 preferred not to disclose their gender identity), were mostly White (362 White, 57 Black, 5 American Indian, 79 Asian, 1 Native Hawaiian or Other Pacific Islander, 29 Other, 6 preferred not to say, and 42 multiracial), and ranged in age from 18 to 82 ($M = 38.14$, $SD = 13.12$). In addition, 48.12% held at least a bachelor's degree, and 23.80% had an annual household income of at least \$100,000 before tax in the last year.

Study 4 used a three-condition (growth strategy: non-premium, premium, premium plus subsidy) between-subjects design, adapting the hospital scenario and procedure from Studies 2A and 2B. Participants evaluated Regional Hospital after reading one of three news articles. In the *non-premium* condition, participants read that the hospital added more standard patient rooms following a major remodel. In the *premium* condition, they learned about the addition of premium hospital suites with five-star amenities, which were not covered by insurance. In the *premium plus subsidy* condition, they received the same information and rendering as in the premium condition, but with the addition that revenues from the suites would help subsidize costs for Medicare, Medicaid, and underinsured patients, maintaining the hospital's long-

standing commitment.

The remainder of the study procedure followed that used in studies 2A and 2B. Briefly, participants completed measures of fairness, general impression, choice, and zero-sum beliefs (3 items; $\alpha = .94$) from studies 2A and 2B, in counterbalanced order. They also reported their health status, hospital visit frequency, and perceived social status, also using the same measures as in studies 2A and 2B. Finally, they completed the same attention check as in studies 2A and 2B, provided demographic details (gender, age, income, education, race), and were debriefed.

Results and Discussion

We predicted that participants would infer more zero-sum effects and respond more negatively when the hospital added premium suites than when it added additional standard patient rooms, and that this effect would be attenuated when the hospital used premium suite revenues to help subsidize costs for Medicare, Medicaid, and underinsured patients.

Choice. A one-way ANOVA was significant, $F(2, 581) = 6.63, p = .001$, supports our prediction. Participants in the premium service growth condition were less likely to choose Regional Hospital ($M = 4.21, SD = 1.71$) than those in the non-premium service growth condition ($M = 4.72, SD = 1.35$), $F(1, 581) = 10.18, p = .002, d = .33$, and than those in the subsidy condition ($M = 4.71, SD = 1.64$), $F(1, 581) = 9.73, p = .002, d = .30$. The difference between the non-premium service growth condition and the subsidy condition was not significant, $F(1, 581) = 0.00, p = .95, d = .01$.

Attitudes. Consistent with our prediction, the one-way ANOVA results were significant, $F(2, 581) = 20.46, p < .001$. Participants in the premium service growth condition had less favorable impressions of the hospital ($M = 3.07, SD = 1.11$) than those in the non-premium service growth condition ($M = 3.65, SD = .81$), $F(1, 581) = 35.36, p < .001, d = .60$, and than those in the subsidy condition ($M = 3.57, SD = .96$), $F(1, 581) = 25.30, p < .001, d = .48$. The difference between the non-premium service growth condition and the subsidy condition was not significant, $F(1, 581) = 0.81, p = .37, d = .09$.

Fairness. A logistic regression model was significant, $X^2(2, N = 584) = 96.93, p < .001^4$. Planned contrasts showed that participants in the premium service growth condition were less likely to judge the hospital's growth strategy as fair than those in the non-premium service growth condition, $b = 2.39, SE = .28, X^2(1, N = 584) = 72.40, p < .001$. Specifically, 46.11% of participants thought introducing premium suites was fair, whereas 90.36% considered adding standard patient rooms fair. Importantly, the subsidy intervention attenuated this effect, $b = 1.21, SE = .22, X^2(1, N = 584) = 30.81, p < .001$. The proportion of participants who thought introducing premium suites was fair increased to 74.23% when they were informed that the profits would be used to subsidize costs for Medicare, Medicaid, and underinsured patients. For completeness, we also conducted a planned contrast comparing the non-premium service condition to the subsidy condition, which was significant and smaller, $b = 1.17, SE = .29, X^2(1, N = 584) = 16.33, p < .001$, than the difference between the non-premium service condition and the premium service condition.

⁴ In our preregistration, we planned to conduct a chi-square test. The chi-square test was significant as expected. We also ran a logistic regression to minimize the risk of false positives.

Zero-Sum Beliefs. As expected, the one-way ANOVA results were significant, $F(2, 581) = 71.65, p < .001$. Participants in the premium service growth condition viewed the hospital's growth strategy as more zero-sum ($M = 4.49, SD = 1.62$) than those in the non-premium service growth condition ($M = 2.73, SD = 1.19$), $F(1, 581) = 139.69, p < .001, d = 1.24$. They also perceived the hospital's actions as more zero-sum than those in the subsidy condition ($M = 3.36, SD = 1.57$), $F(1, 581) = 57.62, p < .001, d = .71$. The difference between the non-premium service growth condition and the subsidy condition was smaller and remained significant, $F(1, 581) = 17.68, p < .001, d = .45$.

Mediation. As preregistered, we tested whether zero-sum beliefs mediate the effect of the growth strategy on choice, impression, and fairness. We followed the indicator coding procedure for mediation analysis with a multicategorical independent variable, as recommended by Hayes and Montoya (2017). As predicted, participants who were told the hospital introduced premium suites were less likely to choose Regional Hospital over a farther hospital compared to participants who were told the hospital added more standard rooms, and this was mediated by zero-sum beliefs (indirect effect: $b = -.77, SE = .10, 95\% CI [-.97, -.58]$). This indirect effect was attenuated among participants who were told the revenues from the premium suites were used to subsidize costs for Medicare, Medicaid, and underinsured patients (indirect effect: $b = -.27, SE = .07, 95\% CI [-.42, -.14]$).

A similar mediation pattern of results was observed for participants' overall impression of the hospital (Indirect effect when comparing non-premium condition to premium condition: $b = -.59, SE = .06, 95\% C.I [-.72, -.46]$; Indirect effect when comparing non-premium condition to

subsidy condition: $b = -.21$, $SE = .05$, 95% C.I [-.31, -.11]) and fairness (Indirect effect when comparing the non-premium condition to the premium condition: $b = -1.90$, $SE = .25$, 95% C.I [-2.45, -1.46]; Indirect effect when comparing the non-premium condition to the subsidy condition: $b = -.68$, $SE = .17$, 95% C.I [-1.03, -.37]).

The results of Study 4 provide evidence for a theoretically motivated intervention: Zero-sum beliefs can be attenuated when competition among consumer segments is reduced and their interests are aligned. Study 4 shows that one way to accomplish this is by communicating that revenues from premium services help subsidize basic-tier services. Non-preregistered robustness checks show that the results remain significant when controlling for participant health, hospitalization frequency, and perceived social status.

GENERAL DISCUSSION

This research conceptualizes and empirically tests a framework for understanding when and why consumers respond negatively to the introduction of premium services. Study 1 provides correlational support for our hypothesis that premium services are considered less fair to the extent that they evoke zero-sum beliefs, independently of their perceived affordability. The remaining studies examine the causal nature of this relationship by manipulating a firm's service growth strategy. Studies 2A and 2B reveal that premium (vs. non-premium) service growth strategies are perceived as more zero-sum, even when objective zero-sum effects are ambiguous. These studies also demonstrate that negative consumer reactions to premium services are less pronounced among individuals with strong beliefs in social mobility (Study 2A) and among more politically conservative consumers (Study 2B). Studies 3A and 3B further investigate the

role of zero-sum beliefs in shaping consumer responses to the introduction of premium services by manipulating whether the premium benefits are explicitly zero-sum (vs. non-zero-sum). These studies show that negative consumer responses—lower anticipated enjoyment of the non-premium service offering and firm choice—are attenuated when firms opted for premium services with non-zero-sum benefits. Finally, Study 4 shows that firms could attenuate consumer backlash to premium service growth strategies by directly addressing the perceived competition between customer tiers and positioning the premium service as subsidizing non-premium service offerings. Taken together, these preregistered studies utilize diverse designs, a variety of service contexts, different consumer responses, and large samples to provide support for our key proposition that the introduction of premium services can evoke zero-sum beliefs and lead to negative consumer reactions.

Theoretical Implications

Our research offers three theoretical contributions. First, we advance understanding of how and when upward vertical line extensions can lead to consumer backlash. Our research contributes to the debate on the effects of vertical line extensions by identifying zero-sum beliefs as a key driver of these responses. Previous studies have yielded mixed results: Some indicate that premium extensions enhance brand attributes like expertise and prestige (Heath et al. 2011; Kirmani, Sood, and Bridges 1999; Randall, Ulrich, and Reibstein 1998), while others raise concerns about performance and financial risk (Lei et al. 2008). Most prior studies focus on physical products (Schmitz et al. 2023), and those that examine service contexts operationalize vertical line extensions as the launch of an independent business (Lei et al. 2008). In contrast, we

explore how the introduction of premium versions of existing services—such as VIP experiences at amusement parks or premium suites at a hospital—may provoke negative reactions. We find that these premium offerings can trigger backlash by activating perceptions that premium service benefits come at the expense of the basic service. We also identify critical factors influencing these reactions, including individual beliefs in social mobility (Study 2A), political ideology (Study 2B), and firm strategies such as the nature of premium benefits (Studies 3A and 3B) and cross-subsidization (Study 4). Our findings clarify the complex interplay between premium offerings and consumer perceptions, enhancing the understanding of variability in responses to vertical line extensions.

Second, our identification of zero-sum beliefs as a key mechanism driving consumer responses to vertical line extensions enriches the literature on perceptions of fairness of vertical differentiation. While previous research has concentrated on pricing fairness and the justification of price discrimination (e.g., Bolton et al. 2003; Spiller and Belogolova 2017), our work introduces the concept of zero-sum beliefs, highlighting that consumers are sensitive to premium benefits that come at the expense of non-premium customers.

Finally, a burgeoning stream of literature has begun to examine the causes and consequences of zero-sum thinking (Davidai and Tepper 2023). This work has shown that zero-sum beliefs are domain-specific judgments (i.e., lay beliefs about how certain parties influence their counterparts' outcomes within a given context) in a variety of narrowly circumscribed and well-defined contexts including college grades (Meegan 2010), international relations (Roberts and Davidai 2022), and consumer products (Newman et al. 2014). Our research broadens the scope of this literature by examining the emergence of zero-sum beliefs in a hitherto unexplored domain: consumer services. By elucidating how zero-sum beliefs emerge in this domain, we

advance understanding of their impact on people's behavior. We show that zero-sum beliefs impact different types of consumer responses, including judgments of fairness, anticipated enjoyment, and purchase intentions, and reveals that these judgments change when resources are not fixed and when intergroup competition is reduced.

Practical Implications

Our research highlights a critical concern for managers: Focusing on premium customer segments may unintentionally alienate mass market consumers. Our survey of marketing executives revealed that only a minority considered the potential consequences of introducing premium services on mass market users. While the sample size was small and not fully representative, the tendency to prioritize those at the top of the social hierarchy mirrors biases found in both academic and public contexts (Schaerer et al. 2018; Weingarten, Davidai, and Barasch 2023). As wealth concentration increases (OECD 2021), companies may feel pressure to enhance premium offerings to extract higher profits from affluent consumers. Our findings suggest, however, that while premium services can provide lucrative revenue streams, they may also lead to a loss of basic service consumers if these customers perceive that their experience is negatively impacted. By concentrating on non-premium customer psychology, our research reveals that managers can design premium offerings that enhance overall customer satisfaction, maintaining a balance that ensures the profitability of both segments. Many companies target both mass-market and premium segments and strategize to create a profitable balance (e.g., Shi, Zhang, and Srinivasan 2019; Dion and Borraz 2017). Thus, understanding non-premium consumer responses to premium strategies can enable firms to attract affluent customers without

alienating their broader audience.

Given these considerations, a key managerial challenge is designing premium services in a way that circumvents backlash from basic service consumers. Our work suggests that the key lies in the type of premium benefits offered. Premium benefits that explicitly offer some customers an enhanced experience at the expense of other consumers evoke more negative reactions among basic service consumers, and, as such, should be offered with caution. In addition, our work suggests that positioning a premium launch as part of a cross-subsidy strategy can significantly improve consumers' responses. Although cross-subsidy strategies (i.e., when income from one product, service, or customer group is used to help cover the cost of a different offering) are common in the marketplace (Kumar 2014), they are typically not emphasized in consumer-facing communications. Our results suggest that highlighting cross-subsidies to basic-tier consumers can play an important role in attenuating zero-sum beliefs and improving consumers' attitudes toward the company. Based on our theory, other interventions, such as proactively communicating an increase in resources (e.g., increase in financial resources, facilities and infrastructure, and/or human resources), are also likely to improve consumer responses to premium extensions.

Our work also highlights the importance of segmentation variables in predicting responses to premiumization strategies. Specifically, our studies identify two individual difference variables—social mobility beliefs and political ideology—that affect consumers' reactions to the introduction of premium services. Managers should assess the prevalence of these characteristics within their target market for premium extensions. By understanding how these traits vary across different target markets, managers can tailor premium offerings to the perceived social mobility and political ideology of those markets. For example, a hospital

introducing premium suites may benefit from considering the political makeup of the region in which it operates. Our research suggests that hospitals in more liberal regions may benefit from highlighting the non-zero-sum nature of premium amenities, such as hospitality services provided by a dedicated team, along with the benefits of cross-subsidization.

In summary, our findings reveal the risk that premium extensions can alienate non-premium customers when these offerings are perceived as zero-sum. However, we demonstrate that this concern can be reduced by designing premium service benefits that do not negatively impact other consumers' experiences, emphasizing cross-subsidies, and utilizing segmentation variables to tailor premium offerings more effectively to specific markets.

Future Research

Companies continuously innovate in vertical differentiation, presenting intriguing avenues for future research on consumer responses to these marketplace practices. Our research focuses on how introducing a premium service affects consumer responses. Yet, firms can also grow by introducing lower-tier services that potentially reposition their original offerings as premium. Uber and Lyft, for example, initially targeted mass market consumers before introducing lower-cost services like UberPOOL and Lyft Shared, which allow multiple passengers to share rides and reduce fares for budget-conscious customers. While such downward service extensions may trigger zero-sum beliefs among existing customers, as they perceive competition for resources with new lower-tier users, they also reflect the companies' commitment to increasing accessibility, akin to the subsidy manipulation used in Study 4. Future research could investigate how zero-sum beliefs influence perceptions of downward extensions.

Our theory suggests that a company's ability to reduce perceived competition between consumer tiers will shape responses to these downward vertical extensions.

Another intriguing area for further exploration is the asymmetry of zero-sum beliefs. Research shows that individuals are more inclined to believe that others gain at their expense than to think their own gains come at others' expense (Roberts and Davidai 2022). This occurs because zero-sum beliefs are heightened when people feel that their resources are threatened (Roberts and Davidai 2022). It is therefore possible that those who adopt premium services may perceive less—if any—zero-sum effects compared to those who do not adopt, because their resources are not at risk. We found suggestive evidence that this may be the case; in Study 3B, the negative effect of introducing a premium ride-share service with zero-sum benefits (vs. non-zero-sum benefits) on consumer choice was attenuated among consumers who reported having a premium service subscription. Future research could examine asymmetries in zero-sum beliefs about premium growth actions based on consumer segments (i.e., adopters vs. non-adopters).

Finally, although we find that premium service growth strategies trigger zero-sum beliefs in various contexts including sports, theme parks, hospitals, and ride-sharing services, it is possible that these perceptions vary across service domains in response to characteristics not captured in our research. Our research explores consumer responses to premium offerings introduced alongside a basic service. However, premium offerings can also be designed and delivered completely separately from the basic service (e.g., a separate line of high-end hotels). In such instances, the service characteristics identified as facilitating zero-sum beliefs—tier visibility, continuous interaction, and resource constraints—may be reduced. Another relevant characteristic is price discrimination norms. In service contexts where price discrimination is common (e.g., airline fares or hotel pricing), consumers may view vertical differentiation

between consumers as legitimate, reducing the likelihood that they will perceive the premium offering as impinging on the basic service. We encourage future research to explore how different approaches to premium service structuring and price discrimination norms impact our propositions.

APPENDIX

A supplemental study examined consumer reactions to premium services using open-ended responses. We hypothesized that consumers are sensitive to the zero-sum effects of premium services, such that they would spontaneously demonstrate less acceptance of a premium service that is zero-sum (e.g., a pass that allows park visitors to skip the lines) compared to a premium service that is less zero-sum (e.g., a pass that allows park visitors to stay after normal closing hours).

Procedure

The study used a two-condition (*after-hours* vs. *skip-line*) between-subjects design. Participants ($N = 200$; 59% female; age: $M = 32.55$ years, $SD = 10.89$) were recruited through the Prolific platform and paid a flat rate for participation. All participants passed an attention check, so none were excluded from analysis.

All participants read about a theme park that recently introduced a premium VIP ticket. Participants in the skip-line condition read, “Visitors who purchase the VIP ticket to the theme park are given an unlimited number of fast passes to skip the lines and are given priority for hard-to-book reservations. Visitors who purchase a VIP ticket are often able to enjoy more rides in a day than the average visitor.” Participants in the after-hour condition read, “Visitors who purchase the VIP ticket to the theme park are allowed to stay three hours past the regular closing time of 8 p.m. After dark there are fewer lines and fewer visitors in the park. Visitors who purchase the VIP ticket are often able to enjoy more rides in a day than the average visitor.” All participants were then asked to tell us how they felt about the VIP ticket in an open-ended text box. “What do you think of the VIP ticket? What do you think of the theme park? How does the

VIP ticket make you feel?”

Two blind coders read all 200 participant entries. The coders were instructed to code each participant entry for two categories: unfairness and zero-sum beliefs. More specifically, for unfairness, coders were instructed to “code whether the response conveys the idea that the service (VIP pass to an entertainment park) is unfair or inappropriate. Mark 1 if the response conveys unfairness/inappropriateness, mark 0 otherwise.” For zero-sum beliefs, coders were instructed to “code whether the response conveys the idea that the VIP pass creates a benefit or advantage for one group WHILE having a negative effect on other group. Mark 1 if the response conveys these divergent effects (helps some/hurt others), mark 0 otherwise.” Overall, there was high agreement between the coders for mentions of unfairness (94%) and zero-sum beliefs (86%). Any disagreements between blind coders were settled by a third blind reviewer.

Results and Discussion

Participants who read about the skip-the-line service were significantly more likely to mention the unfairness of the service (22.8%) than participants in the after-hours condition (3.0%), $X^2 = 17.29$, $p < .001$, Cramer’s $V = .29$. Further, participants in the skip-the-line condition were significantly more likely to write about how zero-sum the service is, or how it diminishes the experience for other customers (40.6%) compared to participants in the after-hours condition (7.1%), $X^2 = 30.80$, $p < .001$, Cramer’s $V = .39$. These findings demonstrate that a substantial portion of consumers are sensitive to zero-sum implications in service offerings: Nearly one-third of participants in the skip-the-line condition explicitly mentioned that the privilege comes at the expense of other customers’ experience, and roughly one-quarter expressed concerns about the overall fairness of such a service.

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LIST OF TABLES

Table 1. Summary of Studies

Study	Service	Design	Consumer Response (DV)	Main Findings
Study 1	Multiple	10 (premium service replicates) within-subjects design	<ul style="list-style-type: none"> ▪ Fairness 	<ul style="list-style-type: none"> ▪ Zero-sum belief was a significant and negative predictor of fairness. ▪ Perceived affordability was a positive but weaker predictor of fairness.
Study 2A	Hospital rooms	2 (service growth strategy: non-premium vs. premium) x measured social mobility beliefs between-subjects design	<ul style="list-style-type: none"> ▪ Fairness ▪ Impression ▪ Choice 	<ul style="list-style-type: none"> ▪ The introduction of premium suites in the hospital (premium service growth) was perceived as less fair, led to less favorable impressions, and decreased the likelihood of participants choosing the hospital over its competitors compared to adding more standard patient rooms (non-premium service growth). ▪ Zero-sum beliefs mediated the above effects. ▪ The negative indirect effect of premium (vs. non-premium) service growth on fairness, impressions, and choice was attenuated among participants with strong social mobility beliefs.
Study 2B	Hospital rooms	2 (service growth strategy: non-premium vs. premium) x measured political ideology between-subjects design	<ul style="list-style-type: none"> ▪ Fairness ▪ Impression ▪ Choice 	<ul style="list-style-type: none"> ▪ The main effect of premium (vs. non-premium) service growth on fairness, impressions, and choice replicated. ▪ Zero-sum beliefs mediated the above effects. ▪ The negative indirect effect of premium (vs. non-premium) service growth on fairness, impressions, and choice was attenuated among more conservative consumers.
Study 3A	Theme park	3 (service growth strategy: non-premium vs. premium with zero-sum benefits vs. premium with non-zero-sum benefits) between-subjects design	<ul style="list-style-type: none"> ▪ Fairness ▪ Anticipated enjoyment 	<ul style="list-style-type: none"> ▪ Participants perceived VIP tickets with skip-the-line passes (premium service growth with zero-sum benefits) as significantly less fair than VIP tickets with after-hours access (premium service growth with non-zero-sum benefits) or night tickets (non-premium service growth). ▪ Participants anticipated lower enjoyment of the theme park when using a standard single-day ticket when zero-sum VIP tickets were introduced, compared to when non-zero-sum VIP tickets or night tickets were introduced. ▪ There was no significant difference in perceived fairness or anticipated enjoyment between non-zero-sum VIP tickets (premium service growth with non-zero-sum benefits) and night tickets (non-premium service growth).
Study 3B	Ride share	2 (service growth strategy: premium with zero-sum benefits vs. premium with non-zero-sum benefits) between-subjects design	<ul style="list-style-type: none"> ▪ Choice 	<ul style="list-style-type: none"> ▪ Participants were less likely to choose a gift card for the focal ride-sharing company when the company introduced a premium service with zero-sum benefits (45%) compared to a premium service with non-zero-sum benefits (54%).
Study 4	Hospital rooms	3 (service growth strategy: non-premium, premium, premium with subsidy) between-subjects design	<ul style="list-style-type: none"> ▪ Fairness ▪ Impression ▪ Choice 	<ul style="list-style-type: none"> ▪ The negative impact of premium (vs. non-premium) service growth on fairness, impressions, and choice replicated. ▪ Zero-sum beliefs mediated the above effects. ▪ The negative indirect effect of premium (vs. non-premium) service growth on fairness, impressions, and choice through zero-sum beliefs was attenuated when profits from the premium service were used to subsidize non-premium services.
Supplemental study 1	Theme park	2 (service growth strategy: premium with zero-sum benefits vs. premium with non-zero-sum benefits) between-subjects design	<ul style="list-style-type: none"> ▪ Fairness ▪ Zero-sum beliefs 	<ul style="list-style-type: none"> ▪ Participants were more likely to spontaneously mention that the VIP tickets were unfair or that the benefits were zero-sum when the premium service benefits were zero-sum (i.e., VIPs could skip the line) than when the benefits were not zero sum (i.e., when VIPs were given after-hours access).
Supplemental study 2	Hospital rooms	2 (service growth strategy: non-premium vs. premium) x measured subjective social status between-subjects design	<ul style="list-style-type: none"> ▪ Fairness ▪ Impression ▪ Choice 	<ul style="list-style-type: none"> ▪ The main effect of premium (vs. non-premium) service growth on fairness, impressions, and choice replicated. ▪ Zero-sum beliefs mediated the above effects. ▪ Subjective social status did not moderate the effect of premium (vs. non-premium) service growth on zero-sum beliefs.

Table 2. Descriptive Summaries of Premium Services

Service Description	Fairness	Zero-Sum	Affordability
The Conte Club is a luxury travel company that provides a team of expert travel and lifestyle experts who can design personalized travel experiences. These travel experts provide access to a collection of the world's best luxury hotels and private villas, private jets, and luxury yachts.	5.34 (1.64)	3 (1.51)	1.99 (1.37)
The Sea World Discover Cove is an exclusive experience available to only a select number of visitors. This exclusive experience involves swimming with dolphins in a private tank and feeding various animals.	5.04 (1.74)	3.33 (1.50)	3.29 (1.70)
The legendary sports tickets are premium tickets at selected sports arenas/stadiums in the United States. It ensures that ticket holders have the seats with the best views, their own priority access to the stadium, and access to private bars and dining rooms during the game.	4.92 (1.83)	3.85 (1.58)	2.61 (1.65)
The LAX private suite gives travelers access to a private terminal at Los Angeles International Airport. It also includes private check-in and baggage handling, a lounge with gourmet food service and personal attendants, a Transportation Security Administration security screening area, and an individual ride to the aircraft to board the customer's flight.	4.81 (1.81)	3.78 (1.65)	2.58 (1.60)
Blade Urban Air is a company that provides helicopter service for fast mobility in congested cities in the United States. Consumers can book private helicopter rides to avoid traffic during their commute to work or travel to vacation homes.	4.78 (1.91)	3.23 (1.72)	1.87 (1.31)
Located at the Lenox Hill hospital in NYC these are premium maternity suites that recreate a luxury hotel experience within the hospital for expecting mothers. The maternity suites include a separate sitting room for family members, a kitchenette, and a full wardrobe closet.	4.6 (1.95)	3.95 (1.65)	2.54 (1.53)
The Six Flags VIP Pass gives certain visitors an unlimited number of FastPasses to skip all the lines and priority for hard-to-book reservations. Visitors who purchase a VIP ticket are often able to enjoy more rides in a day than the average visitor.	4.48 (1.92)	4.77 (1.56)	3.84 (1.79)
The Wildfire Defense System is a private firefighting service company that can be hired to protect individual property from wildfires. The company monitors fires, gathers intelligence about their speed and direction and actively fights fires to protect the properties of their clients.	4.13 (2.13)	4.2 (1.70)	2.54 (1.53)
IvyWise is an ultra-premium college prep company that hires educators that were former admission officers at top universities in the U.S. IvyWise counselors work with students to brainstorm, draft, edit and revise students' personal statements in order to give their college applications a competitive edge.	3.7 (2.03)	4.74 (1.60)	2.86 (1.68)
Private Medical is a premium concierge medical practice that allows patients to access medical services more quickly and easily than the general public. This practice is able to secure priority appointments with top physicians in the country before the general public.	2.9 (2.02)	5.45 (1.52)	2.46 (1.53)

Table 3. Mixed Linear Model Results

Fairness			
<i>Predictors</i>	<i>Estimates</i>	<i>CI</i>	<i>p</i>
(Intercept)	0.01	-0.05, .04	0.78
Zero-Sum	-0.51	-0.54, -0.49	0.00
Affordability	0.18	0.15, 0.21	0.00
Interaction	0.04	0.02, 0.06	0.00
Random Effects	Variance	Std Dev	
Participant	0.22	0.59	
Service Category	0.00	0.00	
Marginal R ²	0.34		
Conditional R ²	0.57		
N _{Service Variable}	10		
N _{Subject}	466		
Observations	4660		

LIST OF FIGURES

Figure 1. Conceptual Model

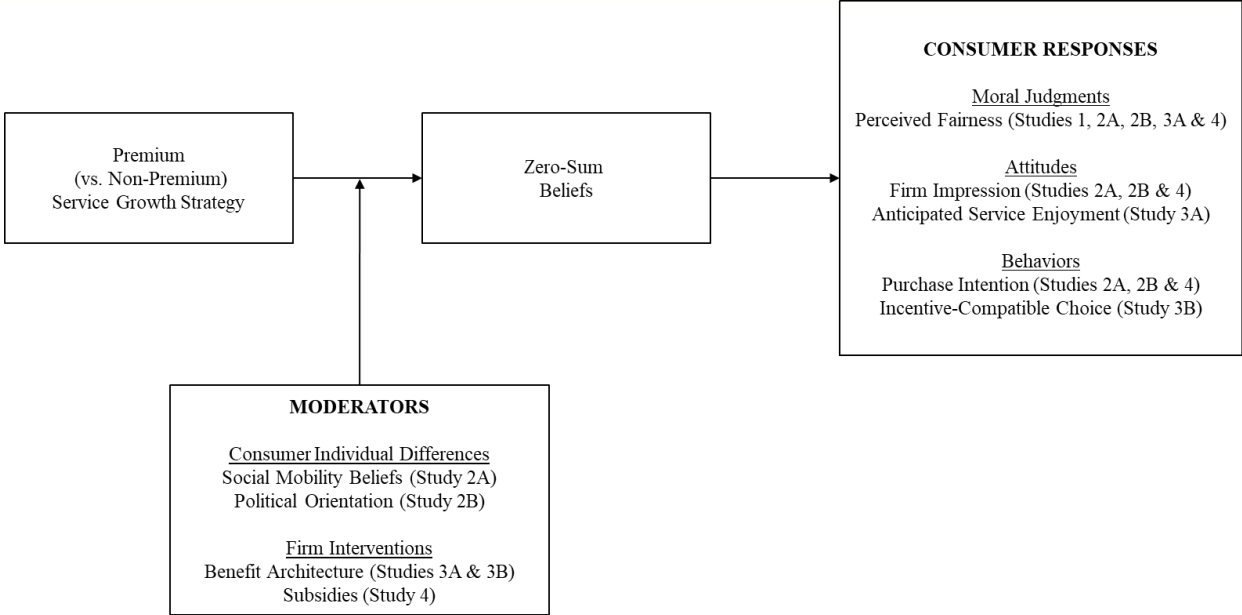



Figure 2. Stimuli for Study 3A


All participants read the park offers a Single-Day Ticket

Participants randomly assigned to read the park is introducing one of the three following ticket types




Single-Day Ticket

- Access to park from 7am- 7pm




Night Ticket

- Access to park from 7pm- 11pm
- Stores will remain open for night shopping



VIP Ticket

- After hour access which allows VIP ticket holders to stay in the park for an additional 4 hours after normal closing time (until 11pm)
- Access to an exclusive lounge with light snacks and beverages to relax and refresh during the day at the park



VIP Ticket

- Skip the line passes that allow visitors to skip regular lines as many times as they want on selected rides and attractions.
- Priority access to the best seats for shows and performances

Figure 3. Study 3B Ride Share Premium Service Examples

The image displays two side-by-side screenshots of ride-sharing premium service offers. The left screenshot is for Uber One, and the right is for Lyft Pink.

Uber One
\$9.99/mo 1 month free

- \$0 Delivery Fee on eligible food, groceries, and more
- 5% off eligible rides, deliveries, and pickup orders
- \$5 credit if our Latest Arrival estimate on your order is off*
- Top-rated drivers on rides
- Cancel without fees or penalties

Save \$19 every month
Amount you could save based on average monthly savings of members in your country from promos and Uber One.

*Benefits available only for eligible stores marked

Join Uber One

Lyft Pink
Try Lyft Pink for free
Experience our new membership and all its exclusive rideshare, car, bike, and scooter benefits. Only \$9.99/mo after.

What's included:

- Free Priority Pickup upgrades to get you there faster
- Special rates with member-exclusive pricing
- Roadside assistance for your car — just book in the app
- Relaxed ride cancellations
- Free Grubhub+ membership (\$9.99/mo value)

Join now