Same Wrong, Different Restitution?
Heightened Sensitivity to Unequal Treatment in the Context of Apology

## ABSTRACT

Companies often treat customers differently based on their perceived value to the firm. Although average customers may not relish witnessing others receive superior treatment, the present paper examines a context in which differential treatment is particularly galling. We argue that the inequality penalty-the difference in how morally wronged consumers feel when they are treated worse versus the same as others-is particular acute in the context of apology. When companies are attempting service repair, apologies carry norms of restorative justice. Namely, the principle of proportionality holds that restitution should be proportional to harm suffered. Unequal treatment accompanying an apology can violate this norm. Studies 1-4 demonstrate this heightened inequality penalty and tie it to restorative apologies offered in the service of mending relationships (rather than merely expressing empathy). Studies 5-6 explore the mechanistic role of the principle of proportionality in producing these effects. We examine which harms-those directly inflicted by a company or those that are the indirect result of a company's actionsfactor into such calculations. Guided by insights from our earlier studies, Study 7 tests two ways companies can compensate higher-status customers more handsomely without triggering as much outrage among their broader customer base.

Keywords: inequality, fairness, apology, service repair, service recovery

Air travel has become a literal enactment of class hierarchy. Frequent fliers are anointed as Platinum Premier Diamond Medallion Million Milers who breeze through security lines, await their flights in luxurious lounges, and then are seated first, served first, and claim their bags first. Meanwhile, the rest of us are left to watch as this privileged elite receives dramatically different treatment than we do. After all, we live in an era when customer relationship management and loyalty programs are ubiquitous. Despite being alarmingly labeled "the new customer apartheid" by Bloomberg back in 2000, the fact that not all customers are treated equally by the companies they patronize is simply a fact that most of us have grown accustomed to, even if not totally comfortable with (Brady 2000; Homburg, Droll, \& Totzek, 2008).

Loyalty status is used to allocate more than just perks. In fact, companies often lean on such designations, which serve as proxies for customer lifetime value, in guiding individually tailored service recovery efforts-those actions an organization takes to rectify service failure. For example, some companies assess the size of a customer's social media network to determine just how important it is to respond to that customer's complaints (Gerstner, 2011). It is not hard to understand why firms adopt this approach; strategically treating loyal customers favorably can be a wise and profitable endeavor (Krishna, Feinberg, \& Zhang, 2007; Tax \& Brown, 1998). It simply makes sense that companies would want to use that information when determining the costs they are willing to incur to retain each customer. But as much as differentiated treatment may seem like good business, we suggest it may come with an unappreciated risk.

Namely, we predict that people will be especially angered by inferior (and thus unequal) compensation offered as part of an apology. We will argue that apologies activate prescriptive norms associated with restorative justice. Unequal remuneration for equivalent wrongs then violates those salient prescriptions. Of course, upward social comparisons tend to be painful
(Aspinwall \& Taylor, 1993; Collins 1996). It is well-know that people generally find it fairer to be treated the same as-instead of worse than—others (Söderlund et al. 2014; Söderlund \& Colliander, 2015). But our argument is that this inequality penalty-the difference in how morally dissatisfied people feel as a result of being treated worse compared to equally-is particularly acute in the context of a firm's apology. When inferior treatment is offered as part of an apology, moral outrage comes from two sources-not merely from being treated worse than another (the inequality itself), but also from the norm violation that such unequal treatment represents. In exploring the conditions that underlie this heightened inequality penalty, we also gain insights into how companies can avoid triggering it. In this way, we offer firms a practical recommendation: how to differentially compensate high-status customers without (excessively) angering their broader customer base. ${ }^{1}$

## Apology and Compensation in Service Recovery

Service failures arise when organizations do not meet customers' expectations. In response to service failures, organizations employ service recovery efforts to restore customers' trust. Apology and compensation are the two most common service recovery efforts (Mostafa, Lages, \& Sääksjärvi, 2014). In general, literature has examined these independently as separate (and potentially compensatory) contributors to successful service recovery. Firm apologies have been studied with regard to their frequency (Customer Care Alliance 2003) and their effective use. For example, Frantz and Bennigson (2005) identified key features of apologies' content and delivery: Empathy, intensity, and timing all independently contribute to service recovery satisfaction. Hill and Boyd (2015) found that who delivers the apology matters: Expressions of

[^0]remorse are more effective when offered by an employee rather than a CEO. As admissions of responsibility for a misdeed, apologies can sometimes backfire and spur lingering discontent (Skarlicki, Folger, \& Gee, 2004). But they typically reduce vengeance (Ohbuchi, Kameda, \& Agarie, 1989) and trigger feelings of mercy (O’Malley \& Greenberg, 1983).

The effective use of compensation in service repair-how much, when, and for whom it should be offered-exists as a largely separate line of research. The effects of compensation on customer satisfaction can be non-linear (Boshoff 2012; Gelbrich, Gäthke, \& Grégoire, 2015). After consumers reject a flawed service or product-for example, by needing to discard a jacket that is ruined by its first wash-firm compensation is effective at addressing a wrong. That said, there exists a saturation point beyond which a firm's additional compensation does not further increase customer satisfaction (Gelbirch et al., 2015). More generally, compensation's effectiveness may vary by service failure. Smith, Bolton and Wagner (1999) found compensation tends to more effectively address outcome failures (e.g., when a restaurant does not have a patron's preferred entree) than process failures (e.g., when a waiter is inattentive). Furthermore, compensation best appeases customers when offered in the same "currency" (e.g., replacement products, money) in which the harm was first suffered (Roschk \& Gelbrich, 2014).

Although how individual service recovery tactics should be enacted has been well studied, relatively less is known about how the use of one approach may constrain the appropriate use of another. The few efforts in this vein have largely focused on whether different service recovery efforts are additive or substitutable (i.e., compensatory), vary in their magnitude (Boshoff, 2012; Coombs \& Holladay, 2008; Joireman, Grégoire, Deverzer, \& Tripp, 2013; Mattila 2001; Smith et al., 1999; Tax \& Brown, 1998; Wirtz \& Matilla, 2004), or are called for depending on features of the transgressor (Kiambi \& Shafer, 2016). We take a qualitatively new
approach in emphasizing how a typically upsetting act-inferior treatment-is particularly upsetting when offered in the context of an apology.

## Apology and the Norms of Restorative Justice

At their core, apologies are acts of restorative justice, designed to repair social fabric when it has been torn by conflict (Braithwaite, 1999; Goodstein \& Butterfield, 2010; Schlenker, 1980; Tavuchis, 1991). Given apologies are relatively costless signals, it is remarkable just how effectively they operate. Apologies can restore relationships between reckless doctors and their injured patients, negligent family members and their (newly) loved ones, and even war criminals and their victims (Carranza, Correa, \& Naughton, 2015; Sack, 2008). Speaking to their power to achieve such relationship repair, apologies are often as effective when coerced by others as when freely offered (Risen \& Gilovich, 2007) or when delivered by repeat as opposed to more reputable offenders (Wooten, 2009). And although apologies can take different forms-varying in how direct (O’Malley \& Greenberg, 1983), empathic (Roschk \& Kaiser, 2013), or even selfcastigating they are (Schlenker \& Darby, 1981)—all apologies share a common purpose: They, explicitly or implicitly, take responsibility for a harmful act (Scher \& Darley, 1997).

As admissions of responsibility, apologies also carry with them descriptive and prescriptive norms associated with restorative justice. Justice perceptions comprise three domains: distributive, interactional, and procedural (Smith et al., 1999; Gelbrich \& Roschk, 2011). Remuneration-as a reallocation of resources-is primarily governed by the norms of distributive justice (Tax, Brown, \& Chandrashekaran, 1998). One such norm is the principle of proportionality, a foundation of equity theory (Adams, 1963), which articulates criteria for distributive justice (Deutsch, 1975). By the principle of proportionality, restitution should be proportional to the amount a victim has suffered. Thus, the notion that a firm's remuneration
should be appropriately calibrated with the harm they have caused customers (see Tax \& Brown, 1998) is a contemporary rendering of a long-standing moral tenet. The principle of proportionality has existed for millenia in the Code of Hamurabi, the Code of Ur-Nammu, and the Old Testament. More recently, the United States Supreme Court has affirmed the importance of the principle of proportionality in punishment (Solem v. Helm, 1983; Tison v. Arizona, 1987). When the same moral principle has been repeatedly codified across time and place, it is reasonable to conclude it is something close to a moral universal that underlies people's lay intuitions of what is just.

Apologies-as tools for restorative justice-increase the relevance of norms, like the principle of proportionality, that describe whether service repair will be judged as fair or (morally) wrong. Thus, whereas the principle of proportionality is a general norm that shapes people's sense of right and wrong, apologies should amplify people's reliance on the norm (i.e., a moderation prediction) to determine whether accompanying remuneration is just. In the context of a firm's service failure, it can be difficult for people to evaluate whether the principle of proportionality has been upheld. Many of the harms that firms inflict cannot be directly reversed. For example, airlines cannot give travelers back the time they lost due to an inordinate delay. In addition, there is no clear scale to help customers translate between how much time they lost and how many frequent flier miles they should receive in return. Similarly, if an entrée is over-salted or a waiter is rude, what percentage of the customer's bill should be refunded in order for that wrong to be righted?

However, when wrongs are suffered by a collective-as they often are in the marketplace-individual customers often look to other customers and their experiences. Much as social comparisons inform customers' assessments of fairness outside of service repair (Xia,

Monroe, \& Cox, 2004), social comparisons also prove useful in identifying violations of the principle of proportionality (Tax \& Brown, 1998). When an hour-long kitchen delay earns one table a $10 \%$ discount even as an adjacent table has half their bill comped, it is clear the principle of proportionality is not being followed. Thus, service failures that affect multiple customers at once can make violations of the principle of proportionality transparent. Customers who get the short end of the stick are likely to be irked. But, when this happens in the context of a firm admitting responsibility for a harmful act, such unequal treatment violates the principle of proportionality (and is thus an additional grievance in its own right).

Historically, firms may have been able to avoid this inequality penalty because customers often had little knowledge of others' remuneration. But internet forums (e.g., social media, online reviews) both permit and almost guarantee that disparate treatment becomes public. Indeed, whole websites (e.g., www.pissedconsumer.com) are dedicated to serving as forums where customers can detail service failures and companies' responses. In addition, we directly probed whether people who had received remuneration from a firm ever had been aware of others' level of compensation. We recruited Americans from Amazon Mechanical Turk ( $\mathrm{N}=$ 229), $76 \%$ of whom reported having received compensation from a firm as part of an apology. And of these participants for whom the service failure was known to affect others as well, most (67\%) indicated being aware of the amount of compensation (as more, the same, or less) that another customer received as part of compensation for the similar service failure. In total, this reinforces how the ability of apologies to amplify the inequality penalty is not merely an abstract or theoretical phenomenon, but one that actually touches the lives of real customers. And to this point, two of the paradigms used in our studies were modeled on the direct personal experience of one of the authors of this manuscript; he experienced differential treatment at the hand of an
airline and a hotel chain in the very service repair contexts described in those studies.

## Hypotheses and Open Questions Regarding Apology and Unequal Compensation

Our main contention is not that the inequality penalty exists: Consumers are almost certain to be more frustrated when they are treated worse than (instead of the same as) highervalued customers. Instead, our central question is whether this inequality penalty is heightened in the context of apologies. More concretely, our focus lies in not merely demonstrating a main effect (i.e., that unequal treatment is most upsetting than equal treatment), but rather, an interaction (i.e., that unequal treatment is particularly upsetting in the context of an apology). Seven studies document this effect and use experimental variants that permit us to identify the conditions under which the hypothesized psychology is triggered. Although our account has clear theoretical foundations in the organizational justice and apology literatures, it will become apparent that existing theory will not always offer clear guidance on questions we pursue.

Study 1 assesses whether the inequality penalty is heightened in the context of a business apologizing for a wrong (as opposed to celebrating a milestone). Study 2 repeats this test, but makes use of participants' actual previous service repair (or celebratory) experiences. Study 3 isolates the role of the apology itself, as opposed to the preceding misfortune, in heightening the inequality penalty. Study 4 tests whether the inequality penalty is heightened more when apologizers are expressing regret for their own wrongdoing (thereby invoking norms relevant to restorative justice) as opposed to merely expressing sympathy for a harm caused by a third party. Collectively, these studies test whether the inequality penalty is heightened due to the combination of theoretically relevant contributing factors: service failure, apologies, and fault.

Studies 5 and 6 explore more directly how it is that the principle of proportionality affects the inequality penalty. Note that the principle of proportionality is not a conceptual mediator that
is positioned in a linear sequence of psychological steps, but instead is a moral guideline whose application can be detected in predictable shifts in the pattern of moral judgments themselves. The mediational question of what psychological steps causally precede moral judgments is a separate question that has been well studied by moral psychologists, who have, for example, identified the key role of perceptions of harm as key guides to what is right and wrong (Schein, Ritter, \& Gray, 2016; Schein \& Gray, 2017). Of course, this does not mean that the mechanism underlying how the principle of proportionality operates cannot be explored more deeply. In fact, we identify two basic theoretical questions that relate to how the principle of proportionality is applied that have clear practical import. First, are businesses expected to compensate only for the harm that they directly cause (e.g., a four-hour flight delay...) or for harm that they indirectly cause as well (... which caused the passenger to miss a showing of Hamilton)? Second, need businesses follow the principle of proportionality intentionally, or is it sufficient that they inadvertently follow its dictates? Studies 5 and 6 examine these process questions that examine what inputs are used in determining whether the principle of proportionality has been followed, as reflected in shifts in the inequality penalty.

Informed by our theorizing and previous results, Study 7 tests two ways that companies can compensate high-status customers more handsomely than low-status ones without prompting the same degree of heightened outrage on the part of lower-status customers. In this way, the present work can not only fill in theoretical gaps relating to how apologies and compensation intersect, but can offer practical advice to companies who wish to discriminate among customers in their service repair efforts. ${ }^{2}$

[^1]
## STUDY 1

Study 1 tested whether people are especially troubled by unequal treatment in the context of apology. In doing so, we tested for the inequality penalty in a context in which customers are often keenly aware of how they are treated differently by firms: airline travel. Participants in Study 1 considered receiving a voucher from an airline. Some participants were told the voucher was offered as an apology for poor service, whereas other participants were told the voucher was part of a celebration of a company milestone. A fellow traveler was said to receive a voucher for either the same amount (equal compensation) or more (unequal compensation). Lest readers think that this situation is merely the work of the authors' imagination, the exact events experienced in the unequal-compensation, apology condition happened to one of the authors (who found the experience quite annoying). Study 1 thus tests our hypothesis that what makes this experiencing morally wrong is not merely the experience of receiving less than another, but the experience of receiving less than another in the context of an apology. In short, we predicted that the inequality penalty would heighten in the context of apology.

## Method

Participants and design. Four hundred one Americans were recruited from Amazon's Mechanical Turk (AMT) and participated for nominal compensation. Participants were randomly assigned to one of four conditions in a 2(amount: equal or unequal) $\times 2$ (reason: apology or celebration) full-factorial design.

Procedure. All participants were asked to consider "flying home to visit family." In each case, participants would ultimately receive a $\$ 75$ voucher from the airline, but the reason why differed by condition. Those in the apology condition received the voucher as part of the airline's apology for a long flight delay:
"Your flight is delayed for six hours due to mechanical issues with the plane. When you finally land at your destination, an airline representative gets on the plane and makes an announcement. She apologizes for the inconvenience of the long delay and tells you how much the airline appreciates your business. She then walks through the cabin and hands everyone a 'we are sorry' card, with a website on it. She informs all the passengers that if they $\log$ onto that customer appreciation website and enter their name and frequent flier number (if applicable), they will receive an apology voucher for future travel."

Those in the celebration condition instead learned that they were receiving the voucher because the airline was celebrating its millionth flight. The airline representative explained this:
"She says that you have just flown on the airline's millionth flight, and that the airline wants to celebrate and appreciates your business. She then walks through the cabin and hands everyone a 'thank you' card, with a website on it. She informs all the passengers that if they $\log$ onto that customer appreciation website and enter their name and frequent flier number (if applicable), they will receive a thank you voucher for future travel." We next varied the relative amount that participants were said to receive. The neighboring passenger-one of the airline's most valued frequent fliers-received either the same amount of money (equal) or more money (unequal) than the participant had:
"You log onto the website and see that the airline is giving you a $\$ 75$ [apology/thank you] voucher for future travel. Then you glance over at the businessman sitting next to you and see him $\log$ on to the same website on his laptop. His platinum-elite frequent flier status comes up on the screen, along with a message telling him he is receiving a [\$75/\$300] [apology/thank you] voucher."

Participants then completed two sets of dependent measures. Across all of our studies, we
focus on judgments of moral wrongness as our key dependent measure. The moral wrongness measures asked participants to what extent they thought the distribution of vouchers was unfair, wrong, and troubling on sliding scales anchored at 0 (unfair / wrong / troubling) and 100 (fair / right / untroubling.) Although these measures have clear face validity, they also reflect adaptations from measures used previously to gauge satisfaction with service repair (Gelbrich \& Roschk, 2011; Smith et al., 1999; Xia et al., 2004). ${ }^{3}$ However, in Study 1, we also included a supplemental dependent measure of anticipated negative emotions. That is, we wanted to make sure that our moral wrongness composite was not tapping purely into detached judgments, but into emotionally raw assessments. This second set of measures asked participants to report to what extent they would feel eight discrete emotions (annoyed, frustrated, angry, insulted, satisfied, grateful, appreciative, and fortunate) on 7-point scales anchored at 1 (not at all) and 7 (extremely). Where relevant, we reverse-scored items prior to averaging so that higher numbers on our composites indicated greater moral wrongnesss $(\alpha=.96)$ and negative emotions $(\alpha=.95)$, respectively.

## Results and Discussion

To test whether the inequality penalty-greater outrage prompted by unequal (vs. equal) treatment-is heightened in the context of apology, we submitted the moral wrongness composite to a two-way 2(amount: equal or unequal) X 2 (reason: celebration or apology) ANOVA. Unsurprisingly, we found a large main effect of amount, indicating people think it is more wrong to be treated unequally than equally, $F(1,397)=149.61, p<.001, \eta_{p}^{2}=.27$. But is all inequality equally bad, or is inequality in the context of an apology especially troubling?

[^2]Reflecting the latter possibility, a significant Amount X Reason interaction emerged, $F(1,397)=$ $7.88, p=.005, \eta_{p}^{2}=.02$. The inequality penalty was $60 \%$ larger in the context of an apology $\left(M_{\text {dif }}\right.$ $=37.61)$ than a celebration $\left(M_{\text {dif }}=23.56\right)$. See Table 1 for relevant means by condition.

Was this differential response to unequal apologies merely a detached intellectual assessment of right and wrong, or did the heightened inequality penalty reflect the perception of an angering injustice? We submitted the negative emotion composite to the same two-way ANOVA. We again found an unsurprising main effect of amount, $F(1,397)=142.46, p<.001$, $\eta_{p}^{2}=.26$. But more important, the extent to which inequality (vs. equality) was emotionally

Table 1. Inequality penalty in judgments of moral wrongness and negative emotion (Study 1) Moral Wrongness

Negative Emotion

|  | Celebration | Apology | Celebration | Apology |
| :--- | :---: | :---: | :---: | :---: |
| Equal | $19.77(23.99)$ | $22.21(22.93)$ | $1.54(0.92)$ | $2.09(0.87)$ |
| Unequal | $43.33(24.42)$ | $59.81(28.39)$ | $2.49(0.97)$ | $3.42(1.04)$ |
| Inequality Penalty | $\mathbf{2 3 . 5 6}$ | $\mathbf{3 7 . 6 1}$ | $\mathbf{0 . 9 5}$ | $\mathbf{1 . 3 3}$ |

Note. The standard deviation of the sample means appears in parentheses.
upsetting varied by context, $F(1,397)=4.01, p=.046, \eta_{p}^{2}=.01$. The emotional inequality penalty-how much more upsetting unequal (vs. equal) treatment is-grew by $40 \%$ in the context of apology $\left(M_{\mathrm{dif}}=1.33\right)$ as opposed to celebration $\left(M_{\mathrm{dif}}=0.95\right)$. In other words, the moral wrongs participants identified carried emotional weight. Reinforcing that interpretation, the moral wrongness and negative emotion composites were tightly correlated, $r(399)=.76, p<$ . 001.

Study 1 provides initial evidence that inferior compensation is particularly upsetting in the context of an organization apologizing for a wrongdoing. By our explanation, tying unequal
compensation to an apology for the same wrong violates norms of restorative justice. But consider an alternative account, one rooted in an interpretation and extension of prospect theory's logic (Kahneman \& Tversky, 1979). Apologies—as acknowledgements of wrongdoing-may encourage people to consider accompanying remuneration as reductions in losses. Prospect theory's value function is steeper in the loss domain than the gain domain. This means the same objective differences in treatment (\$75 to the self, $\$ 300$ to the high-value customer) could be experienced as subjectively greater in the context of an apology than a celebration (an unambiguous gain). This alternative account is contradicted by two points. As we review in the Supplementary Materials, previous research suggests that remuneration tied to an apology is experienced as a gain instead of the reduction of a loss (Gelbrich et al., 2015). Consistent with this work, Supplemental Study A in the Supplementary Materials finds that $\$ 75$ and $\$ 300$ are not differentiated more in the context of an apology than a celebration. In short, the present findings are not explained by prospect theory.

## STUDY 2

Engineering naturalistic situations in which consumers experience service failures and then are treated unequally is both practically challenging and ethically questionable. For these reasons, Smith et al. (1999) argued that the service repair literature is best advanced by experiments that manipulate features of the service repair process in provided descriptions. More generally, this is the most common approach used by moral psychologists who want to understand what features of actions influence moral intuitions. And in our other studies, we take this approach. Study 2 instead had participants recall actual experiences in which they received remuneration either as part of an apology for a service failure or as an unprompted gesture of goodwill from a business. They considered learning that a particularly important customer-who
had been in essentially the same situation-received compensation that was either equivalent to or more valuable than the self's.

This design offers two unique advantages. First, testing our hypothesis across many recalled contexts offers the potential for greater generalizability. Second, because participants considered experiences in which they had actually received compensation, we were able to test our hypotheses in contexts that held personal resonance for participants. We again predicted that the inequality penalty would be heightened in the context of apology.

## Method

Participants and Design. Participants were assigned to one of four conditions in a 2(amount: equal or unequal) $\times 2$ (reason: gift or apology) full-factorial design. We preregistered a sample size of 400 validated participants. Validated participants were those who recalled and described an experience that matched the prompt (as opposed to irrelevant content or gibberish). We requested 456 Americans from AMT to reach a sample size of 402 usable participants. Analyses including invalid responses - which are essentially identical to those reported in the main text-can be found in the Supplementary Materials. The preregistration, which includes details on the methods, sample size, hypothesis, exclusion criteria, and analysis plan can be found here: https://osf.io/4khga/?view_only=a40598c797bb4e96ab4ed00c871b1992

Procedure. All participants recalled a specific time they received something of monetary value from a business. The details of these instructions varied by reason condition. Participants in the gift condition were to recall a time in which they had been given a gift by a business: "Sometimes, a business will reward customers - not because of anything specific that they did-but merely to offer a random act of kindness, show an expression of goodwill, or celebrate a milestone...For example, a restaurant may celebrate its 10th anniversary and offer
patrons a free portion of their meal, an airline may celebrate the announcement of a merger with another airline and give all passengers a gourmet food item, or a coffee shop may show appreciation to its customers by giving them a free item or voucher to use on their next visit. Now, please recall a time in which - not because of anything specific that you did-a business offered you a gift (e.g., a free item, a voucher)."

Participants in the apology condition were to recall a time in which they had experienced a service failure, and a business apologized and offered them compensation:
"When customers have a subpar experience at a business, we say they experience a service failure...For example, it may take a very long time for an entrée to be delivered at a restaurant, a flight may be quite delayed, or a coffee shop may give a customer the wrong drink. Such service failures inconvenience or disappoint customers - sometimes some more than others - and lead to customer dissatisfaction that a business may want to take steps to address (often by giving customers a free item or a voucher). Please recall a time in which you experienced one such service failure, and - in response to that service failure - the offending business apologized and offered you compensation (e.g., a free item, a voucher)." All participants then: described the circumstances surrounding this experience, identified the item that the business offered them, and estimated the monetary value (in \$USD) of that item.

To institute our amount manipulation, participants considered learning different information about how much another "highest-value customer"-one who was particularly valuable to the business - had received in a near-equivalent situation. As we explained, highestvalue customers might include regular patrons at a restaurant or frequent flyers with an airline. Participants in the equal condition imagined that this highest-value customer received
compensation equal in value to what participants themselves did. Those in the unequal condition imagined that the highest-value customer received compensation that was four times as valuable.

Finally, participants reported how they would judge this service experience. They indicated the extent to which being treated this way would feel: unsatisfactory, wrong, troubling, and unfair. Participants responded to each on a slider scale anchored at 0 (not at all) and 100 (extremely). We averaged the four items to form a moral wrongness composite ( $\alpha=.95$ ). Finally, in addition to measuring the participants' feelings of moral wrongness, we also included several measures - adapted from Grégoire and Fisher (2006) - designed to assess the extent to which participants would plan to reduce their patronage of the business following the service experience. They indicated their agreement (from 1 strongly disagree to 7 strongly agree) with the following items: "I would spend less money at this business", "I would keep doing business with them", "I would patronize this business even more frequently", and "I would bring a significant part of my business to a competitor." The second and third items were reverse scored prior to any analyses. We averaged these four items to form a patronage intentions composite ( $\alpha$ $=.80) .{ }^{4}$

## Results and Discussion

We submitted the moral wrongness composite to a two-way 2(amount: equal or unequal) X 2(reason: gift or apology) ANOVA. As in Study 1, we found an unsurprising main effect of amount: Unequal treatment would be more unacceptable than equal treatment, $F(1,398)=$ $112.89, p<.001, \eta_{p}^{2}=.221$. However, this main effect was qualified by the predicted Amount X

[^3]Reason interaction, $F(1,398)=11.31, p<.001, \eta_{p}^{2}=.028$. In fact, the inequality penalty was $93 \%$ larger in the context of an apology $\left(\mathrm{M}_{d i f}=37.91\right)$ than a celebration $\left(\mathrm{M}_{d i f}=19.68\right.$; Table 2). ${ }^{5}$ Table 2. Inequality penalty in judgments of moral wrongness and patronage reduction (Study 2)

|  | Moral Wrongness |  | Patronage Reduction |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Gift | Apology | Gift | Apology |
| Equal | $17.10(23.61)$ | $25.55(26.18)$ | $2.58(1.20)$ | $3.30(1.47)$ |
| Unequal | $36.78(28.80)$ | $63.46(29.66)$ | $3.22(1.24)$ | $4.80(1.44)$ |
| Inequality Penalty | $\mathbf{1 9 . 6 8}$ | $\mathbf{3 7 . 9 1}$ | $\mathbf{0 . 6 4}$ | $\mathbf{1 . 5 0}$ |

Note. The standard deviation of the sample means appears in parentheses.
Did participants' future intent to patronize the business in question also display a heightened inequality penalty? To answer this question, we submitted the patronage intentions composite to a two-way 2(amount: equal or unequal) X 2(reason: gift or apology) ANOVA. We observed a main effect of amount, $F(1,398)=63.63, p<.001, \eta_{p}^{2}=.138$, revealing that participants who considered receiving less than a higher-status other were more likely to indicate that they would reduce their support of the business in question. But, as was the case for the moral wrongness composite, we observed a significant Amount X Reason interaction, $F(1,398)$ $=10.18, p=.002, \eta_{p}^{2}=.025$. As Table 2 indicates, this patronage intentions inequality penalty was $134 \%$ larger in the context of a business's apology $\left(\mathrm{M}_{d i f}=1.50\right)$ than a celebration $\left(\mathrm{M}_{d i f}=\right.$ 0.64). That the heightened inequality penalty emerged on a measure of behavioral intentions illustrates how uneven compensation, especially when offered as remuneration for a firm's failings, may create special downstream challenges for firms.

Study 2 replicates Study 1's central finding: Participants found unequal treatment to be

[^4]more upsetting in the context of an apology than a celebration. That this pattern characterized participants' comfort or discomfort with unequal treatment as part of actual service experiences speaks to this conclusion's generalizability. However, by an alternative explanation, Study 1 and 2's findings do not reflect the added injustice of being treated unequally in the context of an apology, but instead merely reflect the added annoyance of being treated unequally in the aftermath of an organizational misstep. Study 3 addresses this alternative explanation.

## STUDY 3

Study 3 extended on Studies 1 and 2 in three ways. First, we tested our effects in a new context: an anniversary cruise on which the passenger considered receiving a bouquet of flowers that was the same size as or much smaller than the bouquet received by first-class passengers. Second, whereas Studies 1 and 2 asked participants to comment on the moral wrongness of the distribution of compensation, Study 3 asked participants to evaluate their own compensation (which was equivalent across the equal and unequal conditions). This allowed us to test whether participants are not merely frustrated by the inequality itself, but specifically upset by what they receive. This is a more conservative test, given that participants are evaluating the same target (the equivalent compensation), rather than judging different distributions.

Third, we aimed to distinguish whether the inequality penalty is heightened by apology or instead—as an alternative negativity-sensitization hypothesis would suggest-merely by a previous negative event that magnified the affront of inequality. That is, perhaps following a negative service episode, participants display negativity-sensitization - being more likely to bristle at any unequal treatment, whether as part of an apology or not. Such unequal treatment may simply add extra insult to injury. To address this possibility, all participants in Study 3 considered suffering through the same negative experience-food poisoning on a cruise ship-
and receiving an apology from the cruise line. But in this study, the equal or unequal compensation either accompanied the apology (thereby making it in service of restorative justice) or was an unrelated gift (for which tenets of restorative justice do not apply). By our account, participants should find unequal treatment particularly galling when it is in service of an apology for the harm they have suffered. But by the alternative negativity-sensitization account, the inequality penalty should not depend on whether unequal treatment is associated with an apology or is offered for an unrelated reason (as, in both cases, the same negative service event should heighten people's sensitivity to inequality).

## Method

Participants and design. Two hundred eighty-four undergraduates at a public American university were randomly assigned to one of four conditions in a 2(amount: unequal or equal) $X$ 2(compensation framing: apology or gift) full-factorial design. Twenty-four participants failed at least one of two attention checks (see the Supplementary Materials) and were excluded from analyses, leaving a final sample of 260 for all analyses reported below.

Procedure. Participants imagined being on an anniversary cruise with a significant other: "When booking your reservation, you checked a box indicating that you would be celebrating an anniversary during the trip. In other words, you were really looking forward to the trip. The cruise started off well, but on the third day of the cruise, you ate some shellfish at the buffet, and later that evening fell ill. Apparently, there had been some kind of contamination in the kitchen; the next morning you heard that quite a few of the other passengers had become ill as well. That morning, the ship's captain made an announcement, apologizing profusely and asking anyone who was affected to let a staff member know."

In this way, all participants considered experiencing a negative event and receiving an apology
for it. Participants then learned they received an offering from the cruise line, but the reason it was provided varied between the apology [gift] compensation framing conditions:
"On the fifth day of the cruise you were feeling better, and decided to go up to the main deck.
Upon opening your cabin door, you found a small bouquet of flowers outside, with an apology ["Happy Anniversary"] card from the cruise line."

Finally, participants learned how the first-class passengers were treated, which allowed participants to determine whether they had been treated equally [unequally]:
"As you made your way up to the top deck, you passed through the first-class deck, where the suites were located...Outside of one of the suites was a [huge] bouquet of flowers-the same [three times the] size as yours-with the same apology ['Happy Anniversary'] card." Participants completed measures that asked how they would feel about their own bouquet. The three items-troubled (vs. untroubled), good (vs. bad), and fair (vs. unfair)—were all made on 0-to-100 slider scales. We averaged them to form a moral wrongness composite $(\alpha=.90)$.

## Results and Discussion

To probe whether linking compensation to apology amplifies the inequality penalty, we submitted the moral wrongness composite to a two-way 2(amount: equal or unequal) X 2(compensation framing: apology or gift) between-subjects ANOVA. We found a large main effect of amount, $F(1,256)=44.74, p<.001, \eta_{p}^{2}=.15$. That is, people felt worse about their bouquet when it was smaller than (as opposed to the same size as) a first-class passenger's bouquet. But supporting our central hypothesis, the inequality penalty was heightened when it was tied to an apology, $F(1,256)=8.55, p=.004, \eta_{p}^{2}=.03$ : It was $155 \%$ larger when the bouquet was offered as an apology $\left(M_{\text {dif }}=26.31\right)$ then when it was offered as a gift $\left(M_{\text {dif }}=\right.$ 10.31; Table 3).

All participants in Study 3 considered experiencing equal or unequal treatment following the same negative event (food poisoning). Yet, when the inferior treatment was part of the cruise line's apology for that food poisoning (as compared to an unrelated gift), participants found it particularly grating. This shows that the inequality penalty is uniquely heightened in the context of an apology and does not simply reflect that negative experiences amplify the sting of subsequent inequality (as an alternative negativity-sensitization account would suggest).

Recall that previous research has found that compensation-when offered for a subpar service that was still accepted and consumed-is considered to be a gain instead of a reduction of a loss. Consistent with this, Supplemental Study A did not find that the expected utility gap between small vs. large compensation grew in the context of an apology (compared to a celebration), suggesting that the heightened inequality penalty in the context of apology is likely not explained by people viewing gifts as gains and apology-accompanying remuneration as the reduction of a loss. To more conclusively address this alternative account that is rooted in an attempted application of prospect theory, we also conducted Supplemental Study C. Participants considered the (apology or gift) situation presented in Study 3 and indicated how happy they would be receiving a small bouquet of flowers and how happy they would be receiving a huge bouquet of flowers. To be consistent with the fact that Study 3 participants could consider the

Table 3: Moral wrongness by amount and compensation framing conditions (Study 3)

|  | Gift | Apology |
| :--- | :---: | :---: |
| Equal | $29.68(20.10)$ | $21.06(17.39)$ |
| Unequal | $39.99(24.20)$ | $47.37(24.30)$ |
| Inequality Penalty | $\mathbf{1 0 . 3 1}$ | $\mathbf{2 6 . 3 1}$ |

Note: The standard deviation of the sample means appears in parentheses.
size of both their own and another cabin's flowers, Supplemental Study C's design modification
allowed participants to evaluate each bouquet in the context of the other. As described more fully in the Supplementary Materials, participants did not differentiate between the two bouquets more when they were offered as an apology instead of a gift. This further establishes that our findings-much as Gelbrich et al. (2015) suggested-do not follow from prospect theory.

## STUDY 4

By our theorizing, the inequality penalty is heightened not merely because the compensator issued an apology, but more specifically because that apology indicated that the compensation was in the service of restorative justice. To understand this point, it is useful to consider past research that has enumerated four components of true apologies that are offered in the service of restoring relationships. Beyond the use of the words "I'm sorry", such true apologies include an admission of responsibility, an expression of regret, a promise that the bad act will not be repeated, and an offer of repair (Scher \& Darley, 1997).

Crucially, apologies in the service of restorative justice reflect an acknowledgement of one's own wrongdoing, followed by a tacit assurance that one's own misdeeds will not be repeated. These restorative apologies are differentiable from what we call empathic apologies. Empathic apologies use the words "I'm sorry" merely to express concern-as opposed to responsibility—for the victim's state (see Brooks, Dai, \& Schweitzer, 2013). For example, when a colleague says, "I'm sorry your paper was not accepted," she is likely not admitting responsibility for the rejection.

To understand the relevance of this distinction to our hypothesis, consider an ice cream vendor who observes a bully knock the top scoop from two young customers' cones. If the vendor apologizes for the bully's aggression and offers to try to make it up to the children, is the restitution that accompanies his apology bound by the principle of proportionality? Given he is
merely expressing an empathic (as opposed to restorative) apology, it is unclear that this principle would be equally invoked. That is, he is not a wrongdoer trying to make amends for his actions; thus, the notion that any remuneration the vendor offers be proportional to the harm (the bully) caused may not apply. If instead, merely connecting apology language and restitution is what heightens the inequality penalty, then it should not matter whether the vendor was at fault. That is, his use of an apology—not its meaning (as admitting responsibility)—may heighten the inequality penalty.

With this in mind, we turn to a paradigm that-much like Study 1's paradigm—directly draws on the (unfortunate) experience of one of the authors of this paper. Study 4 participants considered receiving unequal (or equal) compensation from a hotel that was apologizing for its own transgression (a faulty fire alarm that kept patrons awake at night) or a neighbor's transgression (a faulty fire alarm in an adjacent building). Such apologies constitute true restorative apologies and empathic apologies, respectively. To be consistent with our logic that the principle of proportionality applies particularly to apologies in service of restorative justice, the inequality penalty should be heightened in the context of a true restorative apology compared to an empathic one. But if instead, the inequality penalty is heightened only because apology language was used, then we should see similar inequality penalties across the two apology conditions.

As a final advance, we modified the way that we operationalized (un)equal compensation. In the first three studies, participants considered receiving similar or greater restitution than the higher-status customer. But in many cases, high-status customers pay more for their services; after all, this contributes to their being more valued by the company. A frequent flyer with an airline is perhaps much more likely to purchase an $\$ 800$ business class
ticket than a semi-annual flyer who only buys a $\$ 200$ economy ticket. In Study 4, the apologizer offered a percentage refund off of the customers' bills. This permitted us to examine if our results would be robust to the clarification that the high-status customer-even if they were assumed to pay more for a service than their lower status peers-explicitly received superior treatment to the self. We expected our results to be robust to this change.

## Method

Participants and design. We simultaneously recruited American participants from AMT and a public American university. Eight hundred seventeen participants took part in exchange for either payment or course credit. Participants were randomly assigned to one of four conditions in a 2 (amount: unequal or equal) $\times 2$ (apology: restorative or empathic) full-factorial design. We excluded 73 participants who failed one or both of the two attention checks. This left a final sample of 744 in all analyses reported below.

Materials and procedure. All participants considered being on a trip to Chicago where they were staying in a Hilton hotel. Next, they learned about a disturbance that seriously affected their stay. Depending on their apology condition, participants were told that this annoyance was either the fault of the Hilton (restorative) or of the Hilton's next-door neighbor (empathic).
"The last night of your stay, your hotel's fire alarm [the fire alarm in an immediately adjacent hotel] malfunctions and goes off five times during the night, waking you up each time. You are exhausted the next morning when you go to check out. As you are waiting in line at the front desk, you overhear the conversation that the manager behind the desk has with a traveler in front of you."

Those in the restorative apology condition went on to read the following:
"She says, 'We are sorry for the interruption last night. We currently don't employ a nighttime alarm technician, so we were unable to correct the malfunction until morning.

We are looking to correct this limitation so something like this doesn't happen again."" This information made it clear that the hotel admitted responsibility: The hotel was both at fault and aware of this. Participants who received an empathic apology saw the following:
"She says, 'We are sorry for the interruption last night. We repeatedly called the hotel next door, but they don't employ a nighttime alarm technician. We even offered to send our technician over to fix the problem, but they refused our offer. We have filed a formal complaint with the city in hopes they will force our neighbors to correct their limitation so something like this doesn't happen again.'"

We included the information about the hotel attempting to solve their neighbor's problem to make it clear that the hotel had done all they could to address a problem that was not of their own doing. As such, the apology is an empathic one, not a restorative one.

All participants then learned that they received $50 \%$ off of their night's stay as part of that apology. Depending on their condition, participants learned that they had been treated the same as or worse than a higher-status customer who was checking out within earshot. In the equal condition, the elite traveler also received a $50 \%$ discount; in the unequal condition, the elite traveler's room was $100 \%$ comped. Participants then completed the same 3 -item moral wrongness composite used in Study $3(\alpha=.95)$.

## Results and Discussion

We submitted the wrongness composite to a two-way 2 (amount: equal or unequal) X 2(apology: restorative or empathic) ANOVA. We observed a main effect of amount, $F(1,740)=328.04, p<.001, \eta_{p}^{2}=.307$, reflecting that participants felt more morally wronged by their unequal (vs. equal) discount. More important, we observed a significant Amount X Apology interaction, $F(1,740)=6.52, p=.011, \eta_{p}^{2}=.009$. The inequality
penalty was $33 \%$ larger when the hotel issued a true apology for their own infraction ( $M_{d i f}=$ 35.81) than an empathic apology for their neighbor's $\left(M_{\text {dif }}=26.96\right.$; Table 4$)$. That is, people found unequal compensation to be inappropriate not merely because it was tied to a harm through apology, but because it reflected a violation of a norm associated with restorative justice (i.e., the principle of proportionality). Restorative apologies carry with them the expectations of restorative justice, and thus can set the stage for especially strong inequality penalties.

Table 4: Moral wrongness by amount and apology type conditions (Study 4)

|  | Empathic | Restorative |
| :--- | :---: | :---: |
| Equal | $17.14(17.32)$ | $22.11(21.53)$ |
| Unequal | $44.10(27.83)$ | $57.93(25.85)$ |
| Inequality Penalty | $\mathbf{2 6 . 9 6}$ | $\mathbf{3 5 . 8 1}$ |

Note. The standard deviation of the sample means appears in parentheses.

## STUDY 5

Why does unequal compensation violate beliefs about how wrongdoers should compensate their victims? We have argued the principle of proportionality is expected to guide such exchanges. This principle is violated when victims are compensated differently despite experiencing equivalent harms. If a heightened concern with the principle of proportionality explains why true apologies amplify the inequality penalty, then the inequality penalty should diminish when the harms being apologized for are not equivalent. In other words, this process prediction is tested via moderation.

At a high level, this prediction seems straightforward (and even intuitive). But in applying this logic to a business context, important questions arise about what types of harm
factor in such calculations of proportionality. Consider again the flight delay experienced by the two travelers in Study 1. The two travelers experienced the same direct harm at the hands of the airline: a six-hour flight delay. But the two travelers may experience different indirect harms. One may have missed a few hours of sleep; the other, his niece's graduation. How do these different types of harms factor into consumers' principle-of-proportionality calculations?

By one perspective, it would hardly seem fair for customers to hold companies accountable for indirect harms over which they have no direct control. In the aftermath of service failures, firms typically are unaware of the indirect harms that customers suffer. Awareness of the consequences of one's actions is a classic prerequisite for moral responsibility (Robichaud \& Wieland, 2017). On the other hand, indirect harms do sometimes factor into principle-ofproportionality calculations. For example, the legal concept of negligence holds wrongdoers responsible for harms they do not directly inflict, but could reasonably have foreseen. Furthermore, people show an outcome bias in moral judgment, reflecting a disproportionate sensitivity to outcomes instead of the details of agents' own actions (Martin \& Cushman, 2016). This suggests that any evidence that customers suffered different harms-direct or indirectmay make unequal treatment seem justifiable and thereby attenuate the inequality penalty.

By varying whether the harms suffered were equivalent or different, Study 5 tested whether the principle of proportionality underlies the inequality penalty. But the study also allowed for a more nuanced test of which harms serve as inputs to such assessments. That is, the study allowed us to determine what types of harm (direct and/or indirect) influence people's assessments that a firm has acted unjustly in treating customers differently. Participants considered being inconvenienced while traveling with an acquaintance. We orthogonally manipulated whether the acquaintance experienced the same or a longer flight delay (direct
harm) as well as whether the acquaintance experienced an equivalent or more severe downstream consequence as a result of that delay (indirect harm). A reduction of the inequality penalty when either harm was unequal would demonstrate the important role of the principle of proportionality in producing our effect. Critically, understanding what type of harms (direct and/or indirect) produce these reductions would offer insight into exactly how the dictates of the principle of proportionality underlie the inequality penalty. Such moderation tests would elucidate details of the process (by pinpointing the input to which people are sensitive) that ultimately gives rise to the inequality penalty.

As a final goal, we included a dependent measure inspired by the website www.airlinequality.com, where flyers can offer on-line word of mouth about recent trips. We added a two-item measure modeled on the questions consumers answer on that website. We expected to find that the heightened inequality penalty observed on the moral wrongness composite would also translate into the public reviews that participants would write.

## Method

Participants and design. Three hundred twenty-three participants were recruited from AMT in exchange for payment. Participants were assigned to one of eight conditions in a 2(amount: equal or unequal) $\times 2$ (direct harm: same or different) $\times 2$ (indirect harm: same or different) full-factorial design. We excluded 66 participants who failed one or more of three attention checks. This left a final sample of 257 in all analyses reported below.

Procedure. All participants considered arriving at the airport to fly to a conference. At the gate, they ran into an acquaintance from work, Jordan, who was traveling to the same event. Both travelers were informed that their flight was delayed by six hours. We varied whether the two travelers experienced different direct harms by manipulating whether it was actually Jordan's second delay of the day. That is, those in the different direct harm condition saw:
"Jordan was originally scheduled to arrive even earlier, but the early-morning flight Jordan was originally booked on was delayed for mechanical issues as well, and then ultimately cancelled."

To vary whether the indirect harm would be the same or different for the two travelers, we called attention to the one conference event that the delay would cause the travelers to miss. In the different indirect harm condition, participants saw:
"While sharing a taxi to the hotel, Jordan notes that your late arrival was going to cause you both to miss only one event on the schedule: the opening black-tie gala. But fortunately, you had opted not to buy tickets to the event. But Jordan had bought tickets and saw they were non-refundable."

Participants in the same indirect harm condition also read about the black tie gala, but considered that Jordan's experience was the same as their own. We modified the final two sentences:
"But fortunately, you find out that neither of you had opted to buy tickets to the event. That is, you had planned to spend the evening in your hotel room anyway."

Next, we made it clear that the airline knew about the (in)direct harms suffered by both travelers. While splitting a taxi, the participant and Jordan received an email from the airline asking them to complete a customer survey. Participants were said to have sent the following message:
"I realize safety is a priority, but a six-hour delay is excessive. I hope you can improve the efficiency of your maintenance operation in the future."

Participants learned that Jordan wrote a similar note, but one that included: 1) that Jordan was a platinum-level frequent flyer, 2) (in the different direct harm conditions only) that the six-hour delay was on top of the earlier four-hour delay, and 3) (in the different indirect harm conditions only) that the six-hour delay caused Jordan to waste the non-refundable gala tickets. In the conditions in which Jordan reported missing the gala, Jordan forwarded the airline the gala ticket
receipt in order to validate the story.
Next, we included our manipulation of the amount of compensation. Participants were said to have received a personalized apology email from the airline by the time they reached the hotel. The participant's email always included a $\$ 75$ apology voucher. Jordan-a frequent flyer who sometimes suffered greater direct and/or indirect harms-received either $\$ 75$ (equal condition) or $\$ 300$ (unequal condition). Then, participants completed five items that asked "how [they] felt about how [they] were treated." Responses were made on 10-point bipolar scales anchored at troubled and untroubled, good and wronged, fair and unfair, appropriate and inappropriate, and problematic and reasonable ( $\alpha=.90$ ).

In addition, participants wrote a summary of what happened (just as they would on the website airlineequality.com) before making two ratings that reviewers on that site complete. One item asked about their satisfaction with the airline (from $1=$ not at all to $10=$ extremely). The other item asked whether they would recommend the airline to others (from $1=$ Definitely not to $4=$ Definitely yes). We standardized each variable before averaging them to form an online recommendation measure ( $r=.71$ ).

## Results and Discussion

To begin, we tested whether the size of the inequality penalty varied depending on whether the two flyers experienced the same or different harms. Toward this aim, we created a factor that differentiated the four unique pairings of direct and indirect harm: different-different, different-same, same-different, and same-same. This factor is useful only for omnibus tests that then justify more focused comparisons. We submitted our two dependent measures-moral wrongness and online recommendation-to two-way 2(amount: equal or unequal) $\times 4$ (harm) ANOVAs.

When predicting moral wrongness, we once again found a main effect of amount, $F(1$, 249) $=22.71, p<.001, \eta_{p}^{2}=.08$. But consistent with the relevance of the principle of proportionality, the size of this inequality penalty depended on information about whether the participant and his or her fellow traveler had experienced the same or different harms, $F(3,249)$ $=4.66, p=.003, \eta_{p}^{2}=.05$. Similar results were observed for the online recommendation composite. Participants rated the airline more negatively and were less likely to recommend it when they had been treated unequally, $F(1,249)=21.08, p<.001, \eta_{p}^{2}=.08$, but the size of this inequality penalty depended on information about the proportionality of harm, $F(3,249)=4.23$, $p=.006, \eta_{p}^{2}=.05$. These omnibus tests demonstrate that the (non-)equivalence of the harms affects the size of the inequality penalty, but more focused comparisons are necessary to examine precisely which harms-direct and/or indirect-affect the size of the inequality penalty.

To this end, we tested a series of 2(amount) $\times 2$ (direct-indirect harm) models (see Table 5). Providing clear evidence that any difference in harm-whether direct or indirect-loosens the dictates of the principle of proportionality, the inequality penalty was reduced in all three conditions in which either direct or indirect harm differed. We began by examining the moral wrongness composite. Compared to the same direct, same indirect harm condition ( $M_{\text {dif }}=2.57$ ), the inequality penalty was reduced in all three other conditions: different direct, same indirect $\left(M_{\mathrm{dif}}=0.89\right), F(1,249)=6.20, p=.013$; same direct, different indirect $\left(M_{\mathrm{dif}}=0.14\right), F(1,249)=$ $13.30, p<.001$; different direct, different indirect $\left(M_{\text {dif }}=0.94\right), F(1,249)=5.69, p=.018$. We observed a similar pattern on the online recommendation composite. The inequality penalty observed in the same direct, same indirect harm condition $\left(M_{\text {dif }}=1.14\right)$ was attenuated in the three other conditions: different direct, same indirect $\left(M_{\text {dif }}=.50\right), F(1,249)=4.07, p=.045$; same direct, different indirect $\left(M_{\text {dif }}=0.06\right), F(1,249)=11.85, p<.001$; different direct, different

Table 5: Moral wrongness and online recommendation by amount and harm manipulations (Study 5)

|  |  | Same Direct | Same Direct | Different Direct | Different Direct |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Same Indirect | Different Indirect | Same Indirect | Different Indirect |
| Moral Wrongness | Equal | 3.20 (1.60) | 4.18 (2.02) | 4.07 (1.81) | 3.92 (2.04) |
|  | Unequal | 5.77 (1.73) | 4.32 (2.00) | 4.96 (1.98) | 4.86 (1.92) |
|  | Inequality <br> Penalty | 2.57a | 0.14b | 0.89b | 0.94b |
| Online | Equal | . 54 (.69) | . 03 (.94) | . 15 (.77) | . 07 (.93) |
| Recommendation(Z-scored) | Unequal | -. 60 (.78) | -. 03 (.97) | -. 35 (1.03) | -. 26 (.91) |
|  | Inequality <br> Penalty | 1.14a | 0.06b | 0.50 ${ }_{\text {b }}$ | 0.33 b |

Note: The inequality penalty for online recommendation scores were reverse-scored so that, across measures, higher values always reflect inequality producing more negative outcomes than equality. Means within the same row with different subscripts differ from each other at the $p<.05$ level. The standard deviation of the sample means appears in parentheses.
indirect $\left(M_{\text {dif }}=0.33\right), F(1,249)=5.98, p=.016$. In sum, the sting of receiving unequal compensation was reduced when consumers experienced different harms-regardless of whether those reflected differences in how they were treated (direct harms) or different downstream consequences of the apologizer's actions (indirect harms).

Did differences in the amount of harm suffered between the two flyers have an additive or a substitutable effect on the inequality penalty? Stated differently, is the inequality penalty reduced more with each additional type of harm suffered (an additive effect)? Or, does any difference in harm suffered similarly reduce the inequality penalty (a substitutable effect)? We submitted both our moral wrongness and online recommendation composites to three-way 2(amount) $\times 2$ (direct harm) $\times 2$ (indirect harm) ANOVAs. Consistent with the idea that the harms were substitutable instead of additive, we observed a significant three-way Amount X Direct Harm $X$ Indirect Harm interaction predicting moral wrongness, $F(1,249)=6.85, p=.009$, $\eta_{p}^{2}=.03$, as well as the on-line word of mouth measure, $F(1,249)=4.12, p=.043, \eta_{p}^{2}=.016$. As illustrated in Table 5, once any difference in harm was introduced-direct, indirect, or boththe inequality penalty was reduced by about the same amount. In fact, comparisons among these conditions show that any difference in harm (direct only, indirect only, or both) produces similarly sized inequality penalties, whether indexed by the moral wrongness composite ( $F \mathbf{s}<$ $1.46, p \mathrm{~s}>.229$ ) or the online recommendation composite ( $F \mathrm{~s}<1.30, p \mathrm{~s}>.257$ ).

Study 5 demonstrates the underlying role of the principle of proportionality in producing people's moral objection to unequal remuneration. But it also addresses a question that was $a$ priori unclear: What harms factor into such principle of proportionality calculations? We found that the inequality penalty was reduced just as much when those treated unequally experienced different direct harms at the hands of the transgressor as compared to when they experienced
different indirect harms as unforeseen consequences of the transgressor's actions. That the same patterns were observed in participants' online reviews demonstrates (unsurprisingly) why firms should care about compensating customers in ways that seem unfair.

Up to this point, we have investigated how someone would evaluate another who received more than the self. Few customers appreciate being treated worse than others, so variation in the size of the inequality penalty has reflected heightened umbrage at being treated worse than another. Supplemental Study D replicated Study 5, but put participants in the shoes of the high-status customer who received more than the other. As can be seen in the Supplementary Materials, the pattern of results was similar to that of Study 5 in one way and different in two. As a point of similarity, the size of the inequality penalty varied exactly as in Study 5: Unequal treatment (which, in this case, was better for the self) was seen as less acceptable when the harms suffered were equivalent rather than different. But as a point of difference, the inequality penalty was lowered across conditions. In other words, unequal treatment seems worse when it is the self-instead of someone else-who gets the short end of the stick. Furthermore, we did not observe effects on the online recommendations measure. In total, this suggests that regardless of whether it is the self or another who stands to be treated preferentially, everyone shows similar sensitivity to the presence of both direct and indirect harms in determining when unequal treatment is more justifiable. But people may see less injustice-and be less likely to publicly complain about it-when they themselves (instead of another) benefit from the unequal treatment. We continue our consideration of how to think about the importance of who benefits from inequality in the General Discussion.

## STUDY 6

One notable feature of Study 5 was that although the airline could not foresee the specific
indirect harms that different passengers would suffer, we did make sure that the airline was made aware of those different indirect harms when determining what compensation to offer. Specifically, the traveler who wasted non-refundable tickets to the black-tie gala sent evidence of this additional harm to the airline. Whether this feature was essential in reducing the inequality penalty is unclear. Had the airline not known about the differential indirect harm it caused, would people still have thought its unequal treatment of the victims was justified?

On the one hand, if an apologizer lacks this knowledge when treating people unequally, it would mean the differential restitution they offered was not intended to reflect the principle of proportionality. After all, intentions are critical to moral judgments (Cushman, 2008). Thus, even when harms suffered are unequal, people might still find unequal compensation to be wrong because the apologizer did not know about the unequal harms. Alternatively, the inequality penalty may not reflect a response to an apologizer's intentions to follow the principle of proportionality. Instead, consumers may be outcome focused (Baron \& Hershey, 1988). That is, a feeling that the scales of justice have been balanced-even when the apologizers did not intend to create this balance-could make unequal treatment following (unknown) indirect harms more acceptable.

Resolving this ambiguity is important for two reasons. First, doing so allows for a better understanding of precisely when the principle of proportionality will be used as a moral standard. We distinguish whether being unaware that one is satisfying the principle of proportionality still excuses unequal treatment to the same extent. Second, resolving this process question (of the role of awareness in influencing people's evaluations of harm) has important practical consequences for how businesses can minimize the risk that the inequality penalty poses. That is, firms are rarely in a position to know what indirect harms their customers suffer. But if the presence of different indirect harms reduces the inequality penalty even when businesses are unaware of
such harms, this may hint at a path to appeasing their high-value customers while minimizing resentment among their broader clientele. Study 6 tests whether a company must be aware that its customers have suffered different indirect harms in order for them to be excused for treating those customers unequally.

## Method

Participants and design. Five hundred thirty-nine Americans and Canadians participated in exchange for payment through AMT. Participants were randomly assigned to one of 6 conditions in a 2(amount: equal or unequal) X 3 (indirect harm: same, different-aware, differentunaware) full-factorial design. Seventy-one failed at least one of the two attention checks, leaving a final sample of 468.

Procedure. Participants considered a similar scenario to that used in Study 5. At the airport, participants ran into an acquaintance (Jordan) who was also traveling to the same conference. Both experienced the same direct harm: a 6-hour flight delay. But in this case, we varied not only whether the two suffered different indirect harms (as in Study 5), but also whether the apologizing airline knew that the two had experienced different indirect harms.

That is, the same and different-aware conditions matched Study 5's same and different indirect harm conditions, respectively. But in the different-unaware condition, Jordan was not able to share with the airline that the delay caused Jordan to waste the non-refundable gala tickets. To make certain that participants noticed that Jordan omitted this information from the message to the airline, and also to make certain that Jordan's intended behavior remained constant across our two different indirect harm conditions, we added the following:
"Jordan had wanted to tell the airline about how the delay had caused him to miss the gala and waste his ticket, but the survey comment box was limited to 180 characters, so
he couldn't fit that information into his response."
Participants completed the same five-item moral wrongness measure used in Study 5 ( $\alpha=.93$ ).

## Results and Discussion

Is the inequality penalty reduced only when wrongdoers intentionally follow the principle of proportionality? Or, is it reduced also when their actions are inadvertently consistent with the principle? To answer this question, we submitted the moral wrongness composite to a two-way 2(amount: equal or unequal) $\times 3$ (indirect harm: same, different-aware, or different-unaware) ANOVA. Unsurprisingly, there was a strong main effect of amount: Participants found inferior treatment more troubling than equal treatment, $F(1,462)=106.63, p<.001, \eta_{p}^{2}=.188$. But more importantly, the size of the inequality penalty depended on the indirect harm manipulation, $F(2,462)=13.27, p<.001, \eta_{p}^{2}=.054$. To unpack this interaction, we tested two 2(amount) $X$ 2(indirect harm) interactions to understand what affected the size of the inequality penalty.

First, we tested whether the inequality penalty was reduced when the airline was aware Jordan suffered a greater indirect harm (different-aware condition) as compared to when both travelers suffered the same indirect harm (same condition). As in Study 5, that was the case, $F(1$, $462)=22.66, p<.001$. There was a sizable inequality penalty when the two travelers suffered the same indirect harm but received different compensation ( $M_{\text {dif }}=3.34$ ). But when travelers had suffered different indirect harm-and the transgressing airline was aware of that fact-there was a $66 \%$ reduction in the inequality penalty $\left(M_{\text {dif }}=1.12\right.$; Table 6$)$.

But what happened when the participant-but not the airline-was aware that the two travelers had suffered different indirect harms? In this case, differential compensation might make up for an unknown wrong, but clearly not because the airline intentionally adhered to the principle of proportionality.

Table 6. Moral wrongness by amount and indirect harm condition (Study 6)

|  | Same Effects | Different Effects <br> No Awareness | Different Effects |
| :--- | :---: | :---: | :---: |
|  |  | With Awareness |  |
| Equal | $3.29(1.79)$ | $3.54(1.80)$ | $3.93(1.98)$ |
| Unequal | $6.63(2.01)$ | $4.66(2.20)$ | $5.34(2.42)$ |
| Inequality Penalty | $\mathbf{3 . 3 4}^{\text {a }}$ | $\mathbf{1 . 1 2}^{\mathbf{b}}$ | $\mathbf{1 . 4 1}^{\mathbf{b}}$ |

Note: Inequality penalties with different subscripts differ from each other at the $p<.001$ level. The standard deviation of the sample means appears in parentheses.

In the different-unaware condition, the inequality penalty was relatively small ( $M_{\text {dif }}=$ 1.41), a statistically significant $58 \%$ reduction compared to the same harm baseline, $F(1,462)=$ $17.16, p<.001$. Furthermore, as Table 6 illustrates, the inequality penalty was similarly low when the airline did (different-aware condition) and did not (different-unaware condition) know about how the travelers had suffered different indirect harms, $F<1$. This clarifies that participants' bristling over unequal treatment is reduced not when they think that the company was intentionally acting in accordance with the principle of proportionality, but merely because the company happened to do so.

## STUDY 7

The stark reality is that businesses have a clear incentive to care for and cater to some customer relationships more than others. Thus, the critical question is not how businesses can avoid an inequality penalty altogether: After all, participants in all studies preferred equal to unequal treatment. Instead, firms will want to minimize the inequality penalty even as they tailor service repair efforts to each customer's perceived lifetime value. With this in mind, our final study draws on lessons uncovered by our previous studies. We identify and test two possible ways that companies can, as the saying goes, have their cake (prioritize their most valuable customers) and eat it too (avoid stoking the ire of the mass consumer).

Thus far, we have identified three contexts in which the inequality penalty is reduced. This occurs when: 1) the unequal offering is not framed as part of the apology (Study 3), 2) the wrong is perpetuated by another party (Study 4), or 3) the harms suffered (even unknowable and indirect harms) are unequal (Studies 5 and 6). Given there may be risks to casting blame on others when fault actually lies with the company itself, we think the first and third points are of most use in devising firm strategy. Study 7 offers a test of two such tactics.

First, if companies wish to offer compensation in an attempt to counteract the sting of service failures, they may be better off not linking the (unequal) offering to an apology. We test a dissociation message that decouples the unequal compensation from the apology itself. This message is honest in articulating that the company is offering compensation not as restitution for a wrong, but because it does not want to lose the customer's business. We predict that such statements should attenuate the inequality penalty, because they make clear that the compensation is more a bribe than a restorative act to be judged according to the principle of proportionality.

Second, we tested whether companies could capitalize on the finding that unequal harms reduce the inequality penalty even when the wrongdoer did not know about (and thus could not have actually acted on) such a harm differential. We examined whether an apologizing company could merely float the likelihood of different indirect harms to justify differential treatment. After all, Study 6 found that the company need not know about a specific indirect harm for their actions to be judged in light of the principle of proportionality. Study 7 tested whether speculating or assuming that high-value customers likely suffered more indirect harms would also help companies avoid the same inequality penalty.

## Method

Participants and design. One thousand six hundred thirty-six Americans and Canadians participated in exchange for payment on AMT. Participants were randomly assigned to one of six conditions in a 2 (amount: equal or unequal) $\times 3$ (response strategy: dissociation, assumed harm, or control) full-factorial design. We excluded 58 participants who failed an attention check, which left 1,578 in all analyses reported below.

Procedure. Participants considered being in a delayed-flight situation similar to the one described in Study 1. At the flight's conclusion, all participants were asked to consider logging onto a website and receiving this message:
"We are so sorry for the inconvenience we have caused you today. Please accept this $\$ 100$ voucher as part of our sincere apology and commitment to serve you better on your next flight with us."

This language made clear the compensation was tied to a restorative apology. At this point, participants were told a businessman sitting next to them logged in to his platinum-elite frequent flyer account. He too received a message, the nature of which varied by response strategy condition (dissociation, assumed harm, or control). Furthermore, we manipulated whether the neighbor also received $\$ 100$ (equal condition) or received $\$ 300$ (unequal condition).

Those in the control condition saw a message that was either identical to the one the participant received (equal condition) or that replaced $\$ 100$ with $\$ 300$ (unequal condition).

Those in the dissociation condition opened with the same apology, but the voucher was instead tied to an explicit desire to maintain the traveler's business:
"We recognize that you are a platinum-elite status member, and we want very much to keep you as a customer. Please accept this [\$100; \$300] voucher as a symbol of our desire to maintain your business in the future."

Note that this message merely expresses what is probably the true intent of the company-a desire to avoid losing the elite traveler as a loyal customer. But by removing the link between the compensation and the apology, the airline should have released itself from the expectations of proportionality that are associated with acts of restorative justice.

In the assumed harm condition, the airline suggested that elite travelers are particularly likely to suffer additional indirect harms when flights are delayed. Such speculation served as purported justification for the greater compensation:
"We recognize that as a platinum-elite status member, you travel for business and most likely missed important meetings or presentations as a result of today's delay. Please accept this $[\$ 100 / \$ 300]$ voucher as part of our sincere apology and commitment to serve you better on your next flight with us."

Participants then completed the five-item moral wrongness measure from Studies 5-6 ( $\alpha=.96$ ).

## Results and Discussion

We submitted the moral wrongness composite to a two-way 2(amount: equal or unequal) X 3(response strategy: apology, dissociation, assumed harm) ANOVA. As in our previous studies, we found a significant main effect of amount, reflecting a general discomfort with being treated worse than others, $F(1,1571)=387.65, p<.001, \eta_{p}^{2}=.20$. But the inequality penalty varied depending on the airline's response strategy. That is, we observed a significant Response Strategy X Amount interaction, $F(2,1571)=5.33, p=.005, \eta_{p}^{2}=.01$ (see Table 7).

To decompose the interaction, we conducted planned contrasts that essentially test each 2(amount) X 2(response strategy) interaction. Dissociating the elite customer's compensation

Table 7. Moral wrongness by amount and company response strategy (Study 7)

| Control | Assumed | Dissociation |
| :---: | :---: | :---: |
|  | Harm |  |


| Equal | $3.38(1.93)$ | $3.68(2.02)$ | $3.52(1.97)$ |
| :--- | :---: | :---: | :---: |
| Unequal | $6.18(2.53)$ | $5.67(2.63)$ | $5.55(2.55)$ |
| Inequality <br> Penalty | $\mathbf{2 . 8 0}^{\mathbf{a}}$ | $\mathbf{1 . 9 9}^{\mathbf{b}}$ | $\mathbf{2 . 0 3}^{\mathbf{b}}$ |

Note: Inequality penalties with different subscripts differ from each other at the $p<.001$ level. The standard deviation of the sample means appears in parentheses.
from the apology and instead framing it as a symbol of customer appreciation produced an inequality penalty that was $28 \%$ lower $\left(M_{\mathrm{dif}}=2.03\right)$ than in the control condition $\left(M_{\mathrm{dif}}=2.80\right)$, $F(1,1571)=7.59, p=.006$. Similarly, proposing (without knowing) that the elite flyer likely experienced extra indirect harms reduced the inequality penalty by $29 \%$ ( $\left.M_{\text {dif }}=1.99\right), F(1,1571)$ $=8.34, p=.004$. The two strategies were similarly effective in reducing the penalty, $F<1$.

In sum, both merely proposing that different travelers suffered different harms and disassociating the apology from compensation were effective in reducing the inequality penalty. The effectiveness of the assumed harm strategy extends on our previous findings given there was no direct evidence that differential harms were actually experienced. Furthermore, the success of the dissociation strategy is striking. On one hand, it quite clearly emphasized that other customers are more valuable to the company. Yet, by dissociating the compensation from the apology (and thus loosening the extent to which the compensation was seen as being in service of restoration for a mishap), the dissociation strategy reduced the relevance of the principle of proportionality for participants' assessments.

One question for future research is when dissociation vs. assumed harm is a superior approach. We suspect that a key consideration may be whether differential assumed harm is plausible. Consider further the case of airlines. For weekday flights with routes that include many business travelers (e.g., New York to Boston), the idea that high-dollar customers are
likely to be especially impacted by a delay may be plausible. But on routes with more leisure travelers (e.g., New York to Maui), the idea that frequent flyers are unique in having more urgent obligations may seem more suspect.

## GENERAL DISCUSSION

Firms do not always provide optimal service. Steaks are overcooked, flights are delayed, and products are recalled. Apology and compensation are two primary tools businesses use to try to right such wrongs. To date, these two approaches have been examined largely separately. When the two have been studied in tandem, such efforts have primarily focused on whether the two tactics are interchangeable approaches to service repair (Boshoff, 2012; Joireman et al., 2013; Smith et al., 1999; Wirtz \& Matilla, 2004). We instead take a qualitatively different approach. We document how a typically upsetting gesture (receiving inferior compensation) is made even more upsetting in the context of a firm's apology for a wrongdoing. When considered in isolation, both apology and compensation are most often received quite positively. But, when used together, apologies change customers' expectations about how firms can fairly compensate customers.

Across seven studies, we find that although customers generally feel negatively about inferior treatment, they are especially irritated when compensated unequally as part of an apology. Apologies are instruments of restorative justice, meaning they convey the expectation that restitution should be proportional to the severity of the transgression. When companies offer different restitution to customers who have suffered the same harm (e.g., the same flight delay), the principle is clearly violated. As a result, customers are angered not merely by the inequality itself, but additionally by the norm violation that this inequality represents. Figure 1 offers an integrative summary of this empirical support by identifying the supported effects that were most
central to our theorizing and an indication of which studies addressed which questions in this overall framework.

Studies 1 and 2 established this basic effect using a carefully controlled scenario and participants' actual service experiences, respectively: Inferior treatment was particularly aversive when offered in service of an apology as opposed to a celebration. Study 3 showed that the inequality penalty is triggered when the inferior treatment is tied to an apology, not merely when it follows a firm's mishap (thus making a second wrong particularly galling). Both previous research and Supplemental Studies A and C converged in demonstrating that these results are not a mere consequence of the prospect theory value function. Study 4 showed that inequality is not similarly offensive in the context of all apologies. The inequality penalty was heightened in the context of restorative apologies (those that express a desire to make amends for one's wrongdoing) compared to empathic apologies (those that express sorrow that another entity wronged the customer).

Studies 5 and 6 more directly tested the mechanistic role of the principle of proportionality—in particular, by examining which harms enter into such a calculation-in producing the inequality penalty. Study 5 found the inequality penalty was reduced when those compensated unequally suffered different harms-either directly at the hands of the firm or indirectly as an unforeseen consequence of the service failure. Study 6 clarified that the firm need not even realize it is acting in accord with the principle of proportionality to get a break for treating customers unequally.

With the benefit of having answered a number of theoretically relevant questions about when and why the inequality penalty is heightened, we designed two strategies a firm could use in an effort to avoid the full inequality penalty while simultaneously treating higher-value


Figure 1. Summary of theoretical and empirical approach. When the self receives inferior treatment (leftmost portion), the inequality penalty emerges (center, horizontal arrow). But this inequality penalty is hypothesized to heighten under certain conditions (uppermost series of questions): when the unequal compensation follows a service failure, is part of an apology actually linked to the service failure, and when the apologizing firm is providing restitution to atone for its own fault. Given that the inequality penalty is heightened due to a violation of the principle of proportionality, it is crucial to understand what inputs inform whether the principle has been violated and whether firm awareness is a requisite for their influence (bottommost questions). Pluses and minuses reflect positive and negative directional contributors, respectively, to the inequality penalty. Bracketed studies reflect initial tests of the associated questions. The braced study (Study 7) relies on the findings of the matched bracketed studies by probing the findings' ability to assist with firms' interest in treating customers differently while minimizing the inequality penalty.
customers more handsomely than their lower-value counterparts. First, decoupling the apology from the compensation and being honest that remuneration was being offered merely to cajole customer loyalty reduced the inequality penalty. It is striking that making selfish intentions blatantly transparent was useful in reducing the penalty. Second, merely speculating that customers might have suffered different harms was sufficient to reduce the inequality penalty. Especially given no direct knowledge of such harms was needed, this too may offer practical advice for organizations eager to devote more resources to assuaging and retaining their best clientele, while also minimizing general outrage amongst their less-valued customer base.

Broadly, our work complements other recent efforts that also indicate that satisfaction with one's own service experience can depend on the service offered to another. Those efforts have explored whether others are treated more or less favorably (Söderlund \& Colliander, 2015; Jiang, Hoegg, \& Dahl, 2013; Söderlund \& Gabrielson 2011) as well as the tension between a preference for superior treatment and interest in fairness (Colliander, Söderlund, \& Szugalski, 2016; Söderlund et al., 2014). But in these studies, firms were rewarding customers with unexpected bonuses. Our research instead demonstrates the unique effects that emerge in the context of an organizational mishap. After all, our theoretical reasoning argues that concerns with the principle of proportionality should be heightened when a firm is apologizing for some harm it has caused.

One remaining question relates to the likely scope of our effects. In the pretest discussed in the Introduction, we found that a majority ( $67 \%$ ) of those who experienced a service failure alongside other customers reported knowing whether the distributed compensation had been equal or unequal. But note that even this statistic likely understates the negative impact of
unequal compensation that accompanies apologies. People-including potential customers who are still weighing whether to instigate a relationship with a firm—will learn about others' experience with equal or unequal treatment. After all, being treated unequally by firms offers the sort of fodder for conversation that affected customers relish in sharing. And as Schweitzer, Brooks, and Galinsky (2015, p. 48) note in discussing the perils of firm mishaps (and apologies):
> "Sometimes violations that harm only a single person or a small group can remain private matters. But remember, thanks to Twitter, Instagram, Yelp, Facebook, and other social media outlets. Even the smallest transgressions can blow up into epic (and costly) public relations nightmares."

Much as our own participants could easily learn about (and respond negatively to) differential treatment in the context of apology that they did not personally experience, the ease (and interest) in sharing these experiences means that the heightened inequality penalty can easily color perceptions far beyond those directly affected.

## Evaluating Proportionality

Our theorizing and empirics argue that true apologies evoke the principle of proportionality as a relevant standard for evaluating restorative efforts. But determining whether that principle has been violated is easier in some cases than in others. For example, when remuneration matches what was taken (e.g., money is returned for money that should not have been taken), it becomes simpler to determine whether a wrong has been rectified (see Roschk \& Gelbrich, 2014).

When two customers experience the same harm but receive different remuneration, it becomes apparent that the principle of proportionality has been violated. But imagine being at a restaurant and waiting an hour for an entrée. One table over, a regular customer also waits an
hour, but then receives the wrong entrée. The principle of proportionality clearly requires that the other customer be offered more in restitution, but it is difficult to say exactly how much more.

We see evidence of this in the results of Study 5. In that study, participants were more forgiving of inequalities whenever differential harm existed, but their forgiveness was not sensitive to the magnitude of that difference. That is, the inequality penalty was reduced by the same amount regardless of whether the high-status customer had suffered greater direct harm, greater indirect harm, or both. This most likely reflects how difficult it is to apply the principle when: 1) harm and restitution take different forms, and 2) two customers' harms diverge. Instead, it seems that people essentially dichotomize their situations into those in which others suffered the same or more (without being that sensitive to how much more) harm.

## Unequal Service Repair and the High-Value Customer

Although the present research mostly examined how people feel about being treated relatively unfavorably in the context of service repair, we did make one effort to understand whether and how the principle of proportionality applies to those who receive the long end of the stick. In considering high-value customers' situation, consider three factors whose summative impact likely governs their responses to unequal (favorable) treatment: (1) the extent to which high-status customers feel uncomfortable with vs. deserving of differential treatment, (2) the fact that high-status customers typically receive objectively more favorable treatment, and (3) the way in which high-value customers determine whether restitution follows the principle of proportionality. For high-status customers, these factors may vary in how they encourage comfort or discomfort with superior treatment, making it harder to predict in any individual case high-status customers' ultimate response to being compensated more handsomely for a wrong than a similarly affected low-status other.

First, consider whether high-status customers feel deserving of superior treatment. There certainly are examples of high-value customers feeling uncomfortable with extra spoils. Jiang, Hoegg, and Dahl (2013) note that recipients of unfair treatment can feel "social discomfort stemming from concerns about being judged negatively by other customers." Similarly, Söderlund and Gabriel (2011) found that those who considered receiving $25 \%$ more ice cream than another customer-despite paying the same order and paying the same amount-felt that the preferential treatment they received was unjust.

But these examples focused on unearned preferential treatment. In contrast, preferential treatment associated with customer loyalty or value may be viewed as a legitimate or earned basis for superior treatment. Indeed, high-status customers have been shown to feel that preferential treatment is often not merely justified but just (Colliander, Söderlund, \& Szugalski, 2016), perhaps reflecting how status-based loyalty programs can produce feelings of customer entitlement (Wetzel, Hammerschmidt, \& Zablah, 2013). And even in the context of service repair more specifically, receiving more compensation is typically viewed more positively than receiving less (Gelbrich \& Roschk, 2011). In combination, this suggests that, all else equal, receiving better outcomes-both when one is a high-status customer and in the context of service repair-is likely to be greeted positively.

The question then becomes whether these two forces-feeling pleased by and even deserving of superior treatment-will offset the aversion high-status customers may experience to witnessing violations of the principle of proportionality. Though if higher-value customers believe their own time to be more valuable than their lower-status counterparts', then equal compensation for the same direct harm (e.g., a flight delay) would violate the principle of proportionality. Alternatively, high-value customers may be more likely to define relationships
with companies in terms of the monetary value such customers bring with them. Through this lens, the same service failure causes greater harm to high-status customers because companies have damaged a relationship of greater value, thus requiring greater restitution.

Our preliminary efforts in this regard—reported in Supplemental Study D—do not allow us to disentangle the precise influence of these multiple forces, but they do suggest that the basic findings documented herein extend to those who receive relatively favorable treatment. That study showed that those who benefit from unequal treatment in the context of an apology do display a (directionally) positive inequality penalty, though one that is notably lower than those displayed by the participants in Study 5 (whose unequal treatment was unfavorable). But crucially, the Supplemental Study D participants (just like those in Study 5) showed that the presence of different direct and/or indirect harms all similarly justified their own superior treatment. Where those who experience (unjustified) superior treatment may differ from their low-status counterparts is that even in contexts in which they privately feel they do not deserve superior treatment, such feelings may be less likely to lead to public complains. Supplemental Study D offered some support for this possibility: As we discuss in the Supplementary Materials, the correlation between participants' judgments of moral wrongness and online recommendations of the offending airline were lower in Supplemental Study D than Study 5.

## The Inequality Penalty Inside (and Outside) of an Organization Context

Each of our studies focused on demonstrating the factors that lead to a heightened inequality penalty when customers are being served by some organization. But, as Schweitzer, Brooks, and Galinsky (2015) note, organizations apologize (and offer compensation) not just to paying customers, but also to employees, stakeholders, and the general public. And just as highstatus customers are treated more handsomely than lower-status ones, it is a painful reality that
the most valuable employees at firms receive more benefits and perks than other employees. Of course, situations in which a firm's behavior harms a wide swath of employees-higher and lower status-all at once are common (for a particularly notable example, see Colvin, 2017). In many cases, organizations offer remuneration-be it some gift, extra vacation time, or a bonusto harmed employees (see Bisel \& Messersmith, 2012). It seems reasonable to expect that the dictates of the principle of proportionality apply in such situations. Apologies offered to employees-just like those offered to customers-are clearly in service of restorative justice; this should make principle of proportionality concerns salient.

Yet, it is an open question of just how general of a phenomenon the heightening of the inequality penalty in the context of apology is. On one hand, the moral norms that govern market and non-market ecosystems are quite different: Friends do not have the same transactional relationships that firms do with their customers or employees (Fiske, 1991; Campbell \& Winterich, 2018). But, insofar as the principle of proportionality is a moral universal, it may govern how compensation is assessed when harms occur outside of a market setting. For example, friends show up late (and apologetic) to birthday parties, and neighbors apologize for their loud birthday parties that keep their neighbors awake. In such cases, potential apologetic offerings-bottles of wine, plates of dessert - have a similar restorative flavor to the gifts that businesses offer their irked customers. That said, assessing whether the inequality penalty is heightened in the context of apologies outside of market contexts entails not just trivially porting our existing paradigms into a new context. Rather, doing so involves considering the extent to which features present in our current paradigms (which may be essential ingredients in producing the heightened inequality penalty)-e.g., the clear distinction between high-status and low-status customers that makes some unequal treatment at least palatable-have realistic non-
market analogs. We look forward to future research that attempts such extensions. CONCLUSION

The digital revolution has allowed firms to cater to high and low-value customers differently. But given that it is simpler and cheaper than before for customers to share their customer experiences with each other, it is also all the more likely that customers will become aware of inequalities in restitution. As a result, it is more important than ever that businesses understand the consequences of using customer value metrics to guide variability in compensation that they offer to rectify firm mishaps. It is only by understanding the psychological mechanisms that underlie those consequences that companies will be able to craft solutions that allow them to nurture their most valuable relationships without angering everyone else in the process.

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## SUPPLEMENTARY MATERIALS

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> Heightened Sensitivity to Unequal Treatment in the Context of Apology
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## Study 2: Additional Analyses

## Analyses including participants who did not follow out preregistered criteria. To test

 for the predicted heightening of the inequality penalty in the context of apology, we first submitted the moral wrongness composite to a two-way 2(amount: equal or unequal) X 2(reason: gift or apology) ANOVA. This revealed a large main effect of amount, $F(1,452)=106.91, p<$ $.001, \eta_{p}^{2}=.191$. Participants found it more upsetting to be unequally compensated than to be equally compensated. But, more importantly, a significant Reason X Amount interaction confirmed our hypothesis, $F(1,452)=9.97, p=.002, \eta_{p}^{2}=.022$. That is, even when participants considered actual, personally relevant service encounters, unequally treatment was particularly upsetting in the context of an apology (as compared to a celebration).We observed a similar pattern of results on the patronage reduction composite. We submitted this composite to a two-way 2(amount: equal or unequal) $\times 2$ (reason: gift or apology) ANOVA. This revealed a large main effect of amount, $F(1,452)=68.18, p<.001, \eta_{p}^{2}=.131$, as well as the predicted Reason X Amount interaction, $F(1,452)=9.99, p=.002, \eta_{p}^{2}=.022$.

## Study 3: Additional Analyses

Analyses with ancillary measures. Below, we report exploratory analyses involving several ancillary measures. First, participants completed a three-item measure designed to assess the extent to which they felt that the cruise line treated them as an important customer. Participants indicated: (1) how valued they felt by the cruise line, (2) how important they felt to the cruise line, and (3) if they thought the cruise line saw them as a priority, all on slider scales anchored at 0 (highly valued / not important at all / yes, very much so) and 100 (not valued at all / extremely important / no not at all). When relevant, we reverse scored these items to create an importance composite $(\alpha=.88)$. In addition, participants completed an item that measured how sincere they believed the cruise was in wanting to apologize or wish them a Happy Anniversary (from 1, not at all, to 9, yes, entirely).

We first submitted the importance composite to a two-way 2(amount: equal or unequal) X 2(compensation framing: apology or celebration) ANOVA. We found an unsurprising main effect of amount, $F(1,256)=46.33, p<.001, \eta_{p}^{2}=.15$. Participants felt less important to the cruise line when they received a bouquet that was smaller than (as opposed to the same size) as a first-class passenger's. We also observed a significant Amount $X$ Compensation Framing interaction, $F(1,256)=7.04, p=.008, \eta_{p}^{2}=.03$. The difference between how important people felt when treated unequally (as compared to equally) was larger when the bouquet was offered as part of an apology $\left(M_{\text {dif }}=21.88\right)$ than when it was offered as a part of a gift $\left(M_{\text {dif }}=9.61\right)$. This complements the findings observed on our focal moral wrongness composite.

Further, we submitted the perceived sincerity measure to a two-way 2(amount: equal or unequal) X 2 (compensation framing: apology or celebration) ANOVA. We observed a main effect of amount, $F(1,256)=5.30, p=.022, \eta_{p}^{2}=.02$, indicating that people believed the cruise
line's actions to be more sincere when they were given a bouquet that was the same size (as compared to smaller than) a first-class passenger's. We did not find a significant Amount $X$ Compensation Framing interaction, $F(1,256)=1.76, p=.19, \eta_{p}^{2}=.01$.

## Study 4: Additional Analyses

Analyses with ancillary measures. Participants completed two additional items that assessed how valued they felt by the hotel. Participants indicated: (1) how valued they felt by the hotel, and (2) how important they felt at the hotel, on slider scales anchored at 0 (not valued at all / not important at all) and 100 (highly valued / extremely important). We averaged these measures to create an importance composite $(\alpha=.94)$. We included these items after data collection had begun; as such, the degrees of freedom in these exploratory analyses differ from the degrees of freedom reported in the analyses in the main text.

We submitted the importance composite to a two-way 2(amount: equal or unequal) $X$ 2(apology: restorative or empathic) ANOVA. We observed a large main effect of amount, $F(1$, $656)=260.82, p<.001, \eta_{p}^{2}=.28$, indicating that participants felt less valued when they received an unequal (as compared to equal) discount. We did not find a significant Amount X Apology interaction, $F<1$.

Combined with Study 3, it seems that unequal (vs. equal) treatment following an apology (as opposed to a celebration) more communicates how unimportant customers are to a company. This is true whether or not the apology is for the apologizer's own wrongdoing (Study 4). In other words, this measure does not account for the totality of our effects, but does show some overlap with our focus of study.

## Supplemental Study A

By our interpretation of Study 1, the inequality penalty is heightened in the context of apologies because, as admissions of responsibility that indicate an interest in righting an equivalent wrong, they invoke restorative norms that unequal treatment violates. Might our findings be explained by another account, one rooted in prospect theory (Kahneman \& Tversky, 1979)? According to prospect theory, the subjective utility associated with a payoff is itself dependent on how far it deviates from a reference point. And because the slope of prospect theory's value function is steeper in the loss domain than the gain domain (thus reflecting loss aversion), it means that people are more sensitive to variation in how much money is lost instead of how much money is gained.

A natural question is whether prospect theory would explain the pattern of results we observe. There are two reasons to expect that it does not. First, regardless of whether people are asked to consider receiving money as part of an apology or as part of a celebration, people are still being offered a monetary gain. Second, and relatedly, Gelbrich, Gäthke, and Grégoire (2015) argued (and offered empirical support for the idea) that when consumers suffer service failures that do not interfere with their ability to ultimately receive the full service, then remuneration is not experienced as the reduction of a loss. Instead, it is experienced as a gain. Applied to the present context, because participants considered a situation in which they did complete the flight (though following a delay), then Gelbrich et al.'s (2015) results suggest that the compensation they receive is tagged as a gain, not as the reduction of a loss. That is, because it is not the case that the flight was simply canceled—which would entail participants losing a certain amount of money (i.e., the cost of their ticket)—participants should not be considering their present state as a negative deviation from some reference value.

In combination, this suggests that prospect theory does not offer an alternative explanation for our findings. Still, out of an abundance of caution, we decided to explore the issue empirically. Consider in more detail what the prospect theoretic alternative explanation would require. By that account, unequal treatment following an apology is more upsetting because the same objective difference in payouts ( $\$ 75$ to the self, $\$ 300$ to the high-value customer) should feel subjectively larger if it is being experienced as a reduction in a loss instead of as a true gain. If those who consider receiving the voucher as part of an apology are actually in a "loss frame," and those who consider receiving the voucher as part of a celebration are uniquely in a "gain frame," then the apology-condition participants should find a voucher of $\$ 300$ much more satisfying than a $\$ 75$ voucher. Those considering these amounts as part of a celebration should expect a less differentiated response. And if this is the case, then this would be an alternative explanation why the inequality penalty emerges: The inequality itself would actually be subjectively larger in one case then the other.

In Supplemental Study A, participants considered a similar scenario to that used in Study 1. But instead of also receiving information about how much compensation their seatmate received ( $\$ 75$ or $\$ 300$ ), they only received information about how much the self received. That amount was small (\$75) or large (\$300). In analyzing how satisfied participants anticipated being, we expected to see a main effect of amount. This would serve as something of an evaluability check-that is, a demonstration that participants do indeed find $\$ 300$ to be more satisfying than $\$ 75$. If the alternative explanation is correct -if those being apologized to treat this compensation as the reduction of a loss instead of as a differently motivated gain-then the gap in satisfaction between the two amounts should be greater when accompanying an apology than when part of a celebration.

## Method

Participants and design. Four hundred seventeen Americans were recruited from Amazon Mechanical Turk to take part in the study for nominal compensation. Participants were randomly assigned to one of four conditions in a 2(amount: small or large) $X$ 2(reason: apology or celebration) full-factorial design.

Procedure. All participants were asked to consider a scenario similar to Study 1, in which they were flying home to visit family. Participants in the apology condition read that they received a voucher as part of the airline's apology for a long flight delay. Those in the celebration condition read instead that they received a voucher as a part of the airline's celebration of their millionth flight.

We also varied the amount of the voucher that participants received. Participants in the large condition were told that their voucher was worth $\$ 300$, whereas participants in the small condition were told that their voucher was worth $\$ 75$. All participants then completed a single dependent measure that asked how happy they would be with receiving a $[\$ 75 / \$ 300]$ voucher on a slider scale anchored at 0 (neutral) and 100 (the happiest I have ever been).

## Results and Discussion

We submitted the happiness measure to a two-way 2(amount: small or large) X 2(reason: apology or celebration) ANOVA. We found a large main effect of amount, indicating that participants were happier with a $\$ 300$ voucher than a $\$ 75$ voucher, $F(1,413)=57.47, p<.001$, $\eta_{p}^{2}=.12$. Further, we found a main effect of reason, $F(1,413)=16.99, p<.001, \eta_{p}^{2}=.04$, suggesting that participants were happier with their reward in the context of a celebration (as opposed to an apology). To determine whether people anticipated a difference in satisfaction between $\$ 75$ and $\$ 300$ when such payment was offered as part of an apology instead of a
celebration (as the possible extension of prospect theory's value function would anticipate), we looked to the interaction term. Suggesting this prospect theoretic reasoning does not extend itself to this situation, we did not find a significant Amount X Reason interaction, $F<1$. In other words, it is not that $\$ 75$ (compared to $\$ 300$ ) is forecasted to encourage more dissatisfaction when offered as an apology than when offered as a celebratory bonus.

## Supplemental Study B

Supplemental Study B featured a design that was largely identical to that of Study 2 in the main manuscript.

## Method

Participants and design. Participants were assigned to one of four conditions in a 2(amount: equal or unequal) X 2(reason: gift or apology) full-factorial design. We preregistered a sample size of 400 validated participants. Validated participants were those who recalled and described an experience that matched the prompt (as opposed to irrelevant content, gibberish, or an indication that such an experience had not happened to them). We had to request 466 Americans from AMT to reach our preregistered sample size. The preregistration, which includes details on the methods, sample size, hypothesis, and analysis plan can be found here: https://osf.io/4khga/?view_only=a40598c797bb4e96ab4ed00c871b1992

Procedure. All participants recalled a specific time they received something of monetary value from a business. The details of these instructions varied by reason condition. Participants in the gift condition were to recall a time in which they had been given a gift by a business: "Sometimes, a business will reward customers - not because of anything specific that they did-but merely to offer a random act of kindness, show an expression of goodwill, or celebrate a milestone...For example, a restaurant may celebrate its 10th anniversary and offer patrons a free portion of their meal, an airline may celebrate the announcement of a merger with another airline and give all passengers a gourmet food item, or a coffee shop may show appreciation to its customers by giving them a free item or voucher to use on their next visit. Now, please recall a time in which - not because of anything specific that you did-a business offered you a gift (e.g., a free item, a voucher)."

Participants in the apology condition were to recall a time in which they had experienced a service failure, and a business apologized and offered them compensation:
"When customers have a subpar experience at a business, we say they experience a service failure...For example, it may take a very long time for an entrée to be delivered at a restaurant, a flight may be quite delayed, or a coffee shop may give a customer the wrong drink. Such service failures inconvenience or disappoint customers-sometimes some more than others - and lead to customer dissatisfaction that a business may want to take steps to address (often by giving customers a free item or a voucher). Please recall a time in which you experienced one such service failure, and - in response to that service failure - the offending business apologized and offered you compensation (e.g., a free item, a voucher)." All participants then: described the circumstances surrounding this experience, identified the item that the business offered them, and estimated the monetary value (in \$USD) of that item.

To institute our amount manipulation, participants considered learning different information about how much another "highest-value customer" - one who was particularly valuable to the business - had received in a near-equivalent situation. As we explained, highestvalue customers might include regular patrons at a restaurant or frequent flyers with an airline. Participants in the equal condition imagined that this highest-value customer received compensation equal in value to what participants themselves did. Those in the unequal condition imagined that the highest-value customer received compensation that was four times as valuable.

Finally, participants reported how they would judge this service experience. They indicated the extent to which being treated this way would feel: unsatisfactory, wrong, troubling, and unfair. Participants responded to each on a slider scale anchored at 0 (not at all) and 100 (extremely). We averaged the four items to form a moral wrongness composite ( $\alpha=.92$ ).

Participants in the apology condition also indicated the extent to which the service failure was the business's fault $(1=$ not really their fault at all, $9=$ completely their fault $)$.

## Results and Discussion

We submitted the moral wrongness composite to a two-way 2(amount: equal or unequal) X 2(reason: gift or apology) ANOVA. As in Study 2, we found an unsurprising main effect of amount: Unequal treatment would be more unacceptable than equal treatment, $F(1,396)=$ $122.65, p<.001, \eta_{p}^{2}=.236$. However, this main effect was qualified by the predicted Amount $X$ Reason interaction, $F(1,396)=22.27, p<.001, \eta_{p}^{2}=.055$. In fact, the inequality penalty was $154 \%$ larger in the context of an apology $\left(\mathrm{M}_{d i f}=38.63\right)$ than a celebration $\left(\mathrm{M}_{d i f}=15.19\right.$; Table S1).

We preregistered that any analyses that involved the fault measure would be exploratory. We were concerned that a large proportion of participants would indicate that the offending business was heavily at fault for the service failure, meaning we would not observe meaningful variation on this measure. Indeed, this is what we found: $52 \%$ of participants (105/202) selected a 9 (the endpoint of the scale). We regressed the moral wrongness composite on the fault measure (which we standardized), amount ( $+1=$ equal amount, $-1=$ unequal amount), and their interaction. This revealed a main effect of fault, $\beta=.125, t(198)=2.26, p=.025$, as well as a main effect of amount, $\beta=-.609, t(198)=11.04, p<.001$. The interaction between fault and amount was not significant, $t<1$. In sum, Supplemental Study B replicates Study 2's central finding. When recalling actual service experiences, participants found unequal treatment to be more upsetting in the context of an apology than a celebration.

## Supplemental Study C

Supplemental Study C extended on Supplemental Study A in two ways. First, we conceptually replicated Supplemental Study A but using Study 3's stimuli. As a reminder, this involved participants' reactions to a bouquet of flowers that they received as part of an apology for food poisoning or as an anniversary gift. Second, we slightly modified the design of Supplemental Study A. That study was run entirely between-subjects. Although we found that participants anticipated differential satisfaction between a small and large reward, that sensitivity was no more present in the context of an apology than in the context of a celebratory gift.

But note that Supplemental Study A lacked one feature that was present in our main studies: Participants considered only one offering instead of two. That is, perhaps those considering remuneration that accompanies an apology actually would be more sensitive to the difference between a small and large reward, but only if they are prompted to consider both at once. Supplemental Study C tested this possibility by shifting to a mixed design. That is, participants considered receiving a bouquet of flowers as part of an apology or as a celebratory gift, but participants evaluated two possible outcomes. They indicated how satisfied they would be with a small bouquet and how satisfied they would be with a large one. Here, if the prospect theoretic alternative explanation is correct, then the difference between participants' evaluations of the small and large bouquets should be greater in the context of an apology (as opposed to a celebration).

## Method

Participants and design. Three hundred Americans were recruited from Amazon Mechanical Turk to take part in the study for nominal compensation. The study used a 2(size: small or huge) $\times 2$ (compensation framing: apology or gift) mixed design. Only the first factor
was measured within subjects. Participants-either in the context of an apology or a celebration-evaluated two compensation offerings.

Procedure. All participants were asked to consider a scenario similar to Study 3, in which they were on a weeklong anniversary cruise with a significant other and had fallen ill after eating some shellfish. Participants learned that-after taking several days to recover-they saw a bouquet of flowers outside of their cabin door. Participants in the apology condition learned that the bouquet of flowers was accompanied by an apology card from the cruise, while participants in the gift condition read that the flowers were accompanied by an anniversary card from the cruise. Participants also were told that the florist prepares two types of bouquets: a small bouquet, and a huge bouquet (that was three times the size of the small bouquet).

All participants then indicated both how happy they would be receiving the small bouquet of flowers and how happy they would be receiving the huge bouquet of flowers on slider scales anchored at 0 (not at all happy) and 100 (extremely happy).

## Results and Discussion

To understand whether compensation framing changed how much more happiness the huge bouquet was expected to bring compared to the small one, we submitted the happiness measure to a two-way 2(size: small or huge) $\times 2$ (compensation framing: apology or gift) ANOVA. Only the first factor was measured within-subjects. Unsurprisingly, we found a significant main effect of size, $F(1,298)=110.48, p<.001, \eta_{p}^{2}=.27$. Participants indicated that they would be happier with a huge bouquet than a small bouquet. We did not find a main effect of compensation framing, $F(1,298)=2.58, p=.109, \eta_{p}^{2}=.009$. Of key importance, we did not observe a significant Size $X$ Compensation Framing interaction, $F<1$.

By having all participants consider the subjective utility that both a small and a large offering would bring, we offered a complementary test to Supplemental Study A of an alternative interpretation of our main manuscript's findings. That is, it is not the case that-as an extension of prospect theory could predict - people expect that small compensation would offer much less utility than large compensation when considered in the context of an apology as opposed to a celebratory gift. If such a result had emerged, then this would provide an alternative explanation for why apologies heighten the inequality penalty. Instead, it seems that what is particularly galling is small remuneration when equivalent victims receive large remuneration.

## Supplemental Study D

This study is similar to Study 5, except participants consider the perspective of the highstatus customer-i.e., the one who receives superior treatment in the unequal condition. This allows us to test for three ways in which the inequality penalty, as experienced by low-status customers (i.e., those who receive inferior treatment in the unequal condition), may emerge similarly or differently for those who may receive better compensation. First, we were interested in whether the size of the inequality penalty-as indexed by perceptions of moral wrongness when receiving unequal treatment minus perceptions of moral wrongness when receiving equal treatment-was similarly sensitive to the presence of direct and/or indirect harms. This would reflect similar sensitivity to and reliance on the principle of proportionality.

Second, we were interested in a cross-study comparison (with Study 5) to see whether the inequality penalty was generally lower in the present study than in Study 5. This general difference should be apparent to the extent that part of the inequality penalty (as opposed to how much it is heightened in the context of service repair) reflects the frustration of being treated worse than a reference customer (Study 5) or better than another such customer (the present study). Third, we wanted to see whether variation in the inequality penalty would translate into the online recommendation composite, as it did in Study 5. It may not (or may do so more weakly) to the extent that undeserved favorable treatment is deemed unfair, but not something about which to actually complain.

## Method

Participants and design. Three hundred twenty-seven Americans were recruited from AMT in exchange for payment. This sample size was chosen to parallel Study 5 in the main manuscript; Study 5's large effects suggested that a similar sample size would be sufficient for any follow-up study. Participants were assigned to one of eight conditions in a 2(amount: equal
or unequal) X 2(direct harm: same or different) X 2(indirect harm: same or different) fullfactorial design. We excluded 117 participants who failed one or more of two attention checks. ${ }^{1}$ This left a final sample of 210 in all analyses reported below.

Procedure. The procedure was largely identical to that of Study 5. However, unlike participants in Study 5-who took the perspective of the lower-status traveler-participants in Supplemental Study D took the perspective of the higher-status traveler. Thus, Supplemental Study D featured materials identical to Study 5, but with participants considering that they were a platinum-level frequent flyer with the airline.

More concretely, participants initially considered arriving at the airport to fly to a conference and running into an acquaintance from work (Jordan) who was also traveling to the same event. At the airport, both travelers learned that their flight had been delayed by 6 hours. Here, the procedure departed from that used in Study 5 in three ways. First, participants in the different direct harm condition learned that they themselves were actually suffering their second delay of the delay. That is, these participants learned that they were scheduled to arrive even earlier in the day, but that a flight they were scheduled to take was delayed and ultimately canceled. Second, in the different indirect harm condition, participants saw that they-but not Jordan-had purchased a non-refundable ticket to the conference black-tie gala, which the delay would cause them to miss. And third, when completing the customer survey, participants themselves included: 1) that they were a platinum-level frequent flyer with the airline, 2) (in the different direct harm conditions only) that the six-hour delay was in addition to an earlier fourhour delay, and 3) (in the different indirect harm conditions only) that the six-hour delay caused them to waste the non-refundable black-tie gala tickets.

[^5]Finally, we manipulated the amount of compensation that the travelers received. Jordan always received a $\$ 75$ apology voucher. However, the participant received either $\$ 75$ (equal condition) or $\$ 300$ (unequal condition). The dependent measures were identical to those used in Study 5. Participants first completed five items about how they were treated; these items compose the moral wrongness composite $(\alpha=.87)$. Then, participants wrote a summary about what had happened, and made two ratings $(r=.74)$ that were standardized and averaged to form an online recommendation measure.

## Results and Discussion

Our primary goal was to test whether the size of the inequality penalty varied as a function of whether the two travelers experienced the same or different harms. To that end, we created a factor that distinguished between each combination of (in)direct harm: differentdifferent, different-same, same-different, and same-same. We then submitted the moral wrongness to composite to a two-way 2(amount: equal or unequal) X 4 (harm) ANOVA. Interestingly, we observed a main effect of amount, $F(1,202)=9.90, p=.002, \eta_{p}^{2}=.047$. However, as the principle of proportionality implies, the size—and indeed, the direction-of this main effect was contingent on whether the participant and Jordan experienced the same or different harms, $F(3,202)=4.54, p=.004, \eta_{p}^{2}=.063$.

To unpack this interaction, we conducted a series of follow-up 2(amount) $\times 2$ (directindirect harm) models (see Table S2). These tests reveal how the inequality penalty has different meaning from the perspective of the (higher-status) consumer who stands to benefit from the inequality. While participants in the same direct, same indirect condition found unequal treatment to be more morally wrong than equal treatment $\left(M_{\mathrm{dif}}=0.79\right)$, the introduction of any difference in harm—be it direct or indirect-made participants less uncomfortable with their
superior treatment, different direct, same indirect $\left(M_{\text {dif }}=-0.88\right), F(1,202)=3.84, p=.051$; same direct, different indirect $\left(M_{\text {dif }}=-2.20\right), F(1,202)=12.53, p<.001$; different direct, different indirect $\left(M_{\text {dif }}=-1.46\right), F(1,202)=7.29, p=.008$. Put differently, although participants started out as (mildly) uncomfortable with inequality that benefitted them, the introduction of any difference in harm led them to evaluate unequal treatment as more acceptable than equal treatment.

Further, we submitted the moral wrongness composite to a three-way 2 (amount) $X$ 2(direct harm) X 2(indirect harm) ANOVA. This revealed a significant three-way interaction, $F(1,202)=4.17, p=.042, \eta_{p}^{2}=.020$. This interaction is consistent with a substitution effect (in which any difference in harm alters the inequality penalty), but not an additive effect (in which additional harms alter the inequality penalty further). That is, once any difference in harm was introduced between the participant and Jordan's experiences, participants found equal treatment to be (similarly) morally wrong. Comparisons between the conditions in which there was any difference in harm confirmed this (all $\mathrm{Fs}<2.43, p s>.120$ ).

Though in analyzing the online recommendation composite, we did not observe the twoway 2(amount: equal or unequal) X 4 (harm), $F<1$. In other words, the fact that participants varied in their level of comfort with being treated better than another did not translate into the review-site evaluations they offered. One explanation is that discomfort with unequal treatment may be more likely to translate into negative reviews when it is the self, as opposed to someone else, who is treated worse. Although one must always be cautious in making cross-study comparisons, one additional comparison that is consistent with this possibility is the correlation between moral wrongness and online recommendation was stronger in Study $5(r=-.63)$ than Supplemental Study D ( $r=-.38$ ), $z=3.62, p<.001$.

In sum, Supplemental Study D offers a tentative answer to a question that departs from the primary focus of our manuscript: How do customers respond when they receive favorable unequal treatment in the context of an apology? We found evidence that high-status customers who thus stood to benefit from unequal compensation - are sensitive to the principle of proportionality. That is, high-status customers-even when they benefit-think that unequal treatment is more unfair to the extent that equal harms befell each customer . However, when any difference in harm - direct or indirect - was introduced, high-status customers found equal treatment to be more unfair than unequal treatment. Considered in light of Study 5's results, this suggests that: (1) All else equal it seems morally worse to be treated unjustifiably worse than unjustifiably better than another, but (2) that even consumers who stand to benefit from unequal treatment (such as those that are higher-status) are sensitive to the principle of proportionality in assessing what pattern of compensation is morally fair. Furthermore, and perhaps unsurprisingly, it is those who received unequal, inferior treatment (Study 5) -compared to those who received unequal, superior treatment (Supplemental Study D) - whose moral characterizations of their treatment more straightforwardly influenced how they completed the online recommendation measure.

Table S1: Moral wrongness by amount and reason conditions (Supplemental Study 2)

|  | Gift | Apology |
| :--- | :---: | :---: |
| Equal | $19.49(22.40)$ | $20.49(23.68)$ |
| Unequal | $34.68(25.60)$ | $59.12(25.29)$ |
| Inequality Penalty | $\mathbf{1 5 . 1 9}$ | $\mathbf{3 8 . 6 3}$ |

Note: The standard deviation of the sample means appears in parentheses.

Table S2: Moral wrongness by amount and harm manipulations (Supplemental Study D)

|  |  | Same Direct | Same Direct | Different Direct | Different Direct |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Same Indirect | Different Indirect | Same Indirect | Different Indirect |
| Moral Wrongness | Equal | 4.28 (2.26) | 5.70 (2.44) | 4.74 (1.83) | 5.89 (1.96) |
|  | Unequal | 5.07 (2.19) | 3.50 (2.45) | 3.86 (2.16) | 4.43 (1.64) |
|  | Inequalit <br> Penalty | 0.79a | $-2.20{ }_{\text {b }}$ | -0.88 ${ }_{\text {b }}$ | $-1.46{ }_{6}$ |

Note: Means within the same row with different subscripts differ from each other at the $p<.05$ level. The standard deviation of the sample means appears in parentheses.


[^0]:    ${ }^{1}$ In studying unequal compensation, our main studies focus on situations in which the self considers receiving less than another. That said, we will offer one preliminary study that considers whether the perceived wrongness of receiving more than another is sensitive to the same forces. Through those results-and an extended section in the General Discussion-we will highlight what makes this complementary question similar to and different from the focus of the present work.

[^1]:    ${ }^{2}$ In two studies, we included one or two exploratory measures. Although these measures do not yield key insights into the psychology explored herein, we detail these measures in the Supplementary Materials and provide raw data for interested readers on our OSF page: https://osf.io/4khga/?view_only=a40598c797bb4e96ab4ed00c871b1992

[^2]:    ${ }^{3}$ All of our studies focus on the moral wrongness composite as the primary dependent measure. Readers will note that, as our studies progress, we tinker with and refine the measurement of moral wrongness (and sometime reverse the endpoints of scales).

[^3]:    ${ }^{4}$ Participants in the apology condition also completed exploratory measures concerning their relationship with the business prior to the service failure. As these measures were not critical to our hypotheses, we discuss them in greater detail only in the Supplementary Materials.

[^4]:    ${ }^{5}$ In the Supplementary Materials, we discuss Supplemental Study B— a preregistered replication of Study 2in complete detail. Supplemental Study B replicated the heightened inequality penalty in the context of apology.

[^5]:    ${ }^{1}$ We included a third attention check question that contained a typographical error. As such, we did not exclude any participants on the basis of this third question.

