



Profit for friends, fairness for strangers: Social distance reverses the endowment effect in proxy decision making

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ABSTRACT

Buyers often price a product lower than sellers do, a pricing discrepancy known as the *endowment effect*. We investigated the way buyers and sellers change their pricing decisions as a function of social distance when making decisions on behalf of another person. In Study 1, the pricing discrepancy persisted when making a decision for a close social contact whereas the pattern was reversed when making a decision for a distant social contact. Study 2 replicated this reversed pattern using a social proximity manipulation, and this effect was mediated by participants' prioritizing of fairness over immediate profit of the transaction. The current work suggests that people allocate different value to objects depending on the subjective closeness towards another for whom they make the pricing decision.

1. Introduction

In a market context buyers typically price products much lower than sellers do, a phenomenon known as the *endowment effect* (Thaler, 1980). The current literature provides a few possible accounts explaining this pricing bias in general. For instance, a line of research showed that an egocentric empathy gap between buyers and sellers (Van Boven, Dunning & Loewenstein, 2000; Kurt and Inman, 2013), namely the failure to estimate each other's valuation of the same product might be the driving factor. Loss aversion is another aspect, describing the fear of losing money for buyers, and the fear of losing a product for sellers contributing to the pricing discrepancy (Kahneman et al., 1991; Kahneman and Tversky, 1979; Zhang and Fishbach, 2005). Lastly, another line of research suggests that the subjective feeling of ownership greatly contributes to a trend of overestimation in pricing decisions by sellers (Morewedge et al., 2009; Reb and Connolly, 2010).

These underlying processes of the endowment effect might be fundamental to understanding the perception of market retail prices because price is a crucial determinant of consumers' purchasing behavior in retail contexts (Graciola et al., 2018; Kim et al., 1995; Shankar and Krishnamurthi, 1996; Yun and Hanson, 2020). Yet, a retailer's pricing decision is frequently made by marketing professionals on behalf of manufacturers or retailers as proxy decision makers. Likewise, a market environment often enables the act of purchasing to be on

behalf of a company or others as proxy buyers (e.g., Park and Armstrong, 2019). However, the current empirical evidence examining the pricing biases as a proxy buyer or seller is largely missing. It is thus important to investigate what aspect of a proxy decision maker can sway the pricing behavior, consequently affecting the perception of market retail prices by customers.

Previous research has demonstrated that people make different economic decisions as proxy decision makers compared to the decisions made for themselves (e.g., Kurt and Inman, 2013; Frederick, 2012). For instance, people consistently overestimate others' willingness to pay (WTP) across a variety of products (Matthews et al., 2016), and for different types of target references (Frederick, 2012). Similarly, when estimating others' purchasing power, people also tend to think that other people can only afford fewer products for the same amount of money than they themselves can (Polman et al., 2018). Such persistent self-other biases on pricing behavior might be due to having a different internal reference point for estimating others' pricing compared to one's own (Roy et al., 2017; Weaver and Frederick, 2012), or due to egocentric empathy gap (Frederick, 2012; Polman et al., 2018).

However, the self-other comparison research on proxy decisions has not explored the function of a social relation between the proxy decision maker and the target person. For instance, would proxy decision makers make different pricing decisions depending on how subjectively close or similar they feel towards the target person? What type of social relations

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between the proxy decision maker and the target person successfully predicts pricing decisions? Some evidence suggests that overestimating one's own purchasing power can increase as a function of felt social distance toward the comparative target (Polman et al., 2018), implying that biases can increase for a distant compared to a close target person. Still, whether a similar overestimation tendency applies to a broader pricing context is unknown. Accordingly, the present research focused on examining the pricing behavior on behalf of another person, and aimed to investigate whether felt social distance toward a target can activate different types of decision making goal which can ultimately influence pricing behavior.

In case of the endowment effect, one way to interpret the pricing discrepancy might be due to the propensity to maximize one's benefit as a buyer or seller: a buyer should try to minimize cost by suggesting a low price while a seller should try to maximize profit by demanding a high price. However, by increasing personal distance between a proxy decision maker and a target person we might be able to encourage people to move away from such a self-centred mind-set, and boost a more fair and balanced approach, resulting in a reduction or reverse pattern of the endowment effect. For instance, a fair marketplace should encourage sellers to honestly price the products so that more buyers can afford them. Likewise, a fair mind-set for buyers would be to value the target product highly enough to promote high-quality production by sellers. As a result, the tendency to price a target product higher as a seller or lower as a buyer might be reduced when social distance encourages people to move beyond their own self-interest. In the current research, we investigated this prediction.

2. Literature review and hypotheses

2.1. Proxy economic decisions and social distance

Compared with decisions made for the self, proxy decisions tend to be less loss aversive (Polman, 2012a), more promotion-focused (vs. prevention-focused; Polman, 2012b), more oriented toward objective information (Jonas et al., 2005), and toward choice alternatives than choice attributes (Liu et al., 2018). However, while some previous research has shown that proxy decisions tend to be more risk-prone (Beisswanger et al., 2003; Stone et al., 2002; Wray and Stone, 2005), other research has shown that proxy decisions can be less risk-prone, relative to decisions made for the self (McCauley et al. (1971); Teger and Kogan, 1975; Wallach et al., 1964; Zaleska and Kogan, 1971). Such discrepancies between self and other decision making may therefore lead to failures in taking into account other people's needs while making a proxy decision for them.

However, relatively little evidence has been reported on whether proxy decisions would always share the same characteristics no matter for whom the decision is made. For instance, Hsee and Weber (1997) found that risk-seeking tendencies for oneself differed from predicting the risk-seeking behavior for a close other, but proxy decisions for close and distant others did not differ when making assumptions about risk-related preferences. In contrast, a few studies have shown that proxy economic decisions can systematically vary as a function of social distance. In inter-personal discounting, the amount of money people were willing to forgo for a target person decreased as a function of social distance towards the target (Jones and Rachlin, 2006). Participants' felt social distance towards the comparative target moderated the effect of other's purchasing power estimation, such that closer targets were estimated to have similar purchasing power to the self (Polman et al., 2018). Inter-temporal choices made for another person also showed that temporal discounting decreased as a function of felt closeness to the proxy (Kim et al., 2013a). All this evidence suggests that subjective social distance towards a target person plays a critical role in modulating proxy decisions in economic contexts.

Subjective closeness towards a target person, on the other hand, might lead a proxy decision maker to choose for a target person as they

would choose for themselves due to perceived similarity (Liviatan et al., 2008) and a large conceptual overlap between the self and other (Aron et al., 1992). In the context of pricing, a proxy decision maker for a close social contact might aim for maximizing the target person's financial profit, while a proxy decision maker for a distant social contact might aim for a more objective and unbiased goal instead. In the next paragraphs, we explain this potential goal change mechanism based on several theories well established in social psychology.

2.2. Social distance and pricing goals

Social distance indicates subjective closeness between the self and a target person (Nan, 2007; Trope and Liberman, 2003). As a function of subjective closeness the target person can range from a close friend or family member to a mere acquaintance or a stranger. When social distance is proximate, people associate others' intentions with their own thoughts and beliefs (Mitchell et al., 2005), and perceive close contacts' thoughts and behaviors as similar to their own (Ames, 2004; Prentice, 1990). However, as social distance increases, others' intentions and thoughts become difficult to predict, and thus one might rely more on general social attitudes and norms.

We argue that there are three reasons why social distance triggers a goal switch from maximizing profit for the specific target person to promoting a more generally fair and equitable deal. First, social distance is one of the psychological distance dimensions that are well conceptualized in construal level theory (CLT; see Trope and Liberman, 2003; 2010 for a review). According to CLT, psychological distance can shift people's focus on concrete and immediate concerns to general and broader goals and outcomes (e.g., Chen, 2020; Ledgerwood et al., 2010; Trope and Liberman, 2003; 2010). In economic contexts, increased social distance might shift decision makers' focus from immediate gain or loss of monetary profit to promoting higher values such as justice or fairness. Some evidence has shown that this is true for various decision-making situations. Ledgerwood and Callahan (2012) demonstrated that psychological distance encouraged people to conform to group norms by making more compromises for group members rather than adhering to individual opinions. Similarly, advice for others is often more idealistic and desirable than the choices people make for themselves (Danziger et al., 2012). In moral judgement, people showed greater moral concerns toward a psychologically distant event compared to a psychologically close event (Agerström & Björklund, 2009a, 2009b; Eyal et al., 2008; Zvezelj and Jokic, 2014), because moral values are considered to be abstract and context-independent rules (Haidt, 2001; Sunstein, 2005). Based on the evidence, we expect that under increased social distance people might behave in accordance with values that are ubiquitously desirable in society, such as fairness and justice.

Second, by increasing social distance, the perspective of a proxy decision maker might change from an "actor" to an "observer" perspective. Previous line of attribution research shows that actor versus observer perspective differences occur when people make attributions for the self rather than another's behavior (e.g., Nisbett and Wilson, 1977). Choosing for the self activates an actor perspective, focusing more on the decision maker's intention and desire whereas choosing for someone socially distant activates an observer perspective, focusing more on the context and circumstances of a given decision-making situation (Anderson, 1985; Epley and Dunning, 2000; Kruger and Gilovich, 2004; Pronin et al., 2001). Based on the assumption that high similarity and conceptual overlap between the self and a socially close person exists, we predict that choosing for them would resemble the attributional characteristics of choosing for the self. Thus, when pricing a product, a proxy decision for a close contact might lead to focusing more on getting the best deal given one's role (e.g., most profit as a seller or a buyer) while a proxy decision for a distant contact might lead to focusing more on establishing a desirable and long-lasting deal in a retail situation.

Lastly, based on regulatory focus theory (Higgins, 1987, 1997),

Polman (2012b) showed that people who make decisions for themselves adopt a prevention-focused action (i.e., focusing on preventing negative results) while those who make decisions for another person adopt a promotion-focused action (i.e., focusing on increasing positive results). We argue that such a difference in regulatory focus might lead proxy decision makers to be more loss-averse when making decisions for a close social contact than for a distant close contact. More specific to the pricing context, social distance might reverse the pattern of the endowment effect because socially close proxy decision makers will focus on minimizing loss whereas socially distant proxy decision makers will focus on maximizing the overall success of the transaction.

2.3. Hypotheses

The three lines of evidence reviewed above motivate the following predictions. We expected that when proxy decision makers choose for a socially close person, the endowment effect would occur in the same way as when they make decisions for themselves. However, when choosing for a socially distant person, pricing decisions made by proxy decision makers would reverse. We furthermore predicted that increased social distance will lead to a decision goal switch from maximizing profit to making a fair deal. Finally, we hypothesized that the goal change following the social distance manipulation from a close to a distant target will mediate the reversed pattern of the endowment effect in pricing decisions. Across two studies, we tested our hypotheses.

3. Study 1: the endowment effect and social distance

We tested whether increasing social distance would reduce the endowment effect. To induce social distance, we used the social distance manipulation developed by Jones and Rachlin (2006; see also Kim et al., 2013a): participants were instructed to imagine creating a mental list of one hundred people they knew, ordered along the dimension of subjective closeness. Participants then made pricing decisions for a target object (i.e., a pen) on behalf of their closest or most distant social contact.

We expected that when participants make decisions on behalf of their closest social contact, decisions should resemble the ones they make for themselves, similar to previous studies (Kim et al., 2013a,b). Therefore, the endowment effect should occur. However, as social distance increases, sellers and buyers both should be able to make decisions relatively free from self-interest and the price difference between sellers and buyers should be eliminated. In other words, we predicted that participants should only show the endowment effect when choosing for their closest social contact, but not when choosing for a distant contact.

3.1. Method

3.1.1. Participants

Eighty-one participants (30 men, Mean age = 23.38, $SD = 6.42$) were recruited at a British university and received either a chocolate bar and a scratch card or £2 in cash as compensation. Participants were individually invited to a laboratory to take part in the study. The experiment involved a 2 (Role: Buyer vs. Seller) by 2 (Social Distance: Close Contact vs. Distant Contact) between-subjects design with random assignment to conditions.

3.1.2. Materials and procedure

3.1.2.1. Pattern completion task. Following Reb and Connolly's (2010) finding that physical contact with an object is essential for the

endowment effect to occur, all participants completed a pattern completion task in order to induce a sense of ownership of the target product, namely a high-end pen. Participants completed five animal-shaped dotted patterns on paper sheets by joining the dots with the pen.¹ The five animal shapes were a squirrel, dolphin, owl, seahorse and snail.

3.1.2.2. Social distance induction. To induce social distance we applied a procedure developed by Jones and Rachlin (2006). Participants were instructed to imagine a list of a hundred people close to them in their real lives, ranging from their dearest friend or family member at position 1 to a mere acquaintance at position 100. Participants in the Close Contact condition were asked to make the subsequent decisions on behalf of the person at position 1, whereas participants in the Distant Contact condition were asked to do so on behalf of the person at position 100.

3.1.2.3. Pricing task. To control for individual difference in income levels and economic constraints, participants in the Buyer [Seller] condition were instructed to imagine that £25 was available for buying the pen. Participants were further asked to actively engage in the scenario provided below.

Imagine that you are in the position of buying [selling] this pen.

Imagine that you don't have a pen. [Imagine that this pen is yours.]

Imagine that you needed [owned] a pen like this that writes well so that you can carry it around with you all the time.

How much are you willing to pay for the pen? [How much are you willing to sell the pen for?]

Participants then indicated the price of their choice on a sheet of paper, on a scale ranging from 1 to 20 pounds sterling with £1 increments.

3.1.2.4. Manipulation check. After completing the pricing task, participants were asked how similar the target person was to them on a seven-point scale (from 1, *not similar at all* to 7, *extremely similar*), based on the assumption that social distance would be reflected as a subjective similarity to the self (Liviatan et al., 2008).

3.2. Results

3.2.1. Manipulation check

As expected, participants in the Close Contact condition rated the target person as more similar ($M = 5.04$, $SD = 1.08$) than participants in the Distant Contact condition ($M = 3.26$, $SD = 1.66$), $t(79) = 5.71$, $p < .001$, $\eta_p^2 = 0.29$.

3.2.2. Pricing task

A two-way ANOVA with Role (Buyer vs. Seller) and Social Distance (Close vs. Distant Contact) as between-subjects variables revealed no main effects of Role, $p > .60$, nor of Social Distance, $p > .80$. However, a significant interaction was observed (see Fig. 1), $F(1, 77) = 7.80$, $p = .007$, $\eta_p^2 = 0.09$ (Norms for interpreting partial eta-squared effect sizes: small = 0.01; medium = 0.04; large = 0.08; very large > 0.14; (Funder and Ozer, 2019)). As hypothesized, pairwise comparisons revealed that the endowment effect was only present in the Close Contact condition with buyers pricing the pen lower ($M = 5.75$, $SD = 3.24$) than sellers did ($M = 9.62$, $SD = 7.60$), $F(1, 77) = 5.16$, $p = .03$, $\eta_p^2 = 0.06$. In contrast, in

¹ The target pen was a *Classic Century Lumina Silver Grey* ballpoint pen manufactured by Cross®, which was discontinued in 2007. It retailed for about £30.00.

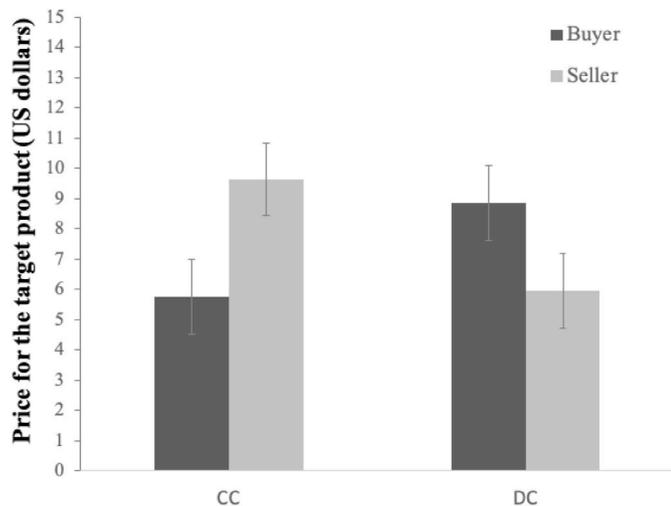


Fig. 1. Pricing decisions in Study 1. CC stands for Close Contact condition, DC stands for Distant Contact condition. Error bars indicate ± 1 standard error of the mean.

the Distant Contact condition the endowment effect was almost reversed between buyers ($M = 8.85$, $SD = 5.47$) and sellers ($M = 5.95$, $SD = 4.38$), $F(1, 77) = 2.83$, $p = .10$, $\eta_p^2 = 0.04$, although this was not statistically significant, but only a trend.

3.3. Discussion

As hypothesized, the endowment effect occurred only when participants made a pricing decision on behalf of their closest social contact, but not a distant social contact. Our results showed that people indeed made similar pricing decisions to if they would make decisions for themselves, resulting in the endowment effect under proximate social distance. However, as social distance increased, people made pricing decisions that were more free from the typically observed pricing bias between buyers and sellers.

Somewhat surprisingly, the endowment effect was almost reversed when participants made a pricing decision on behalf of a socially distant contact. Based on previous findings, we speculate that social distance may alter participants' focus from self-interest to fairness when making pricing decisions: As social distance increases from a close to a distant contact, people might care less about an immediate gain or loss but instead, become more concerned with social values and what benefits the greater community rather than the individual. Indeed, social distance can increase conformity to group norms (Ledgerwood and Callahan, 2012). Moreover, higher social values include those relating to moral concern: people make harsher moral judgements for misdeeds under increased psychological distance (Agerström & Björklund, 2009a, 2009b; Eyal et al., 2008). Therefore, it may be that with increased social distance participants switch their decision making focus from immediate gain to what is more socially equitable and fair.

Additionally, we ought to consider other confounds that we did not measure in Study 1. For instance, making decisions for a very close person might be more difficult than making it for a mere acquaintance. Participants also might have taken pricing decisions less seriously for a mere acquaintance compared to their best friend. Therefore, we designed the next study with the aim of clarifying how social distance affected pricing behavior and led to the reversed endowment effect, while controlling for potential confounds.

4. Study 2: social distance reverses the endowment effect through a shift from a profit to a fairness goal

In Study 2, we aimed to replicate the reversed endowment effect

observed in Study 1, and to explore the potential mechanism underlying this pattern. In particular, we tested whether a shift in the decision goal, from immediate gain to socially equitable values, might be responsible for the effect.

We hypothesized that as social distance increases, participants' perspective would switch from focusing on maximizing profit to promoting fairness between buyers and sellers. We also hypothesized that the reverse pattern was expected to be mediated by participants' self-reported goal shifting from maximizing immediate profit to prioritizing fairness as a result of increased social distance. To test these hypotheses we designed an online study: participants were asked to make pricing decisions for three consumer products on behalf of their closest contact or a mere acquaintance.

However, we did not expect the endowment effect to necessarily occur for the Close Contact condition because unlike in Study 1, a laboratory study for which we used a tangible product, namely a high-end pen, target products were only presented on the computer screen. That is, participants did not have physical contact with products for which they made pricing decisions, a prerequisite for the endowment effect to occur (Reb and Connolly, 2010). Deprived of such physical contact and exposed to only a hypothetical decision making situation, participants might not show the endowment effect that we observed in a typical lab experiment. Therefore, we expected that only the reversed endowment effect would occur in the Distant Contact condition.

4.1. Method

4.1.1. Participants

One hundred and eighteen U.S citizens were recruited via Amazon's Mechanical Turk (MTurk) for an online study on decision making, paid \$0.15 each. The experimental design was identical to Study 1, except that participants made pricing decisions for three products.

4.1.2. Materials and procedure

4.1.2.1. *Inducing social distance.* The social distance induction was identical to Study 1.

4.1.2.2. *Pricing task.* Participants were instructed to make decisions for used products on offer at a charity shop. The scenario was developed to incorporate the concept of sellers' ownership so that participants would be able to actively engage with the story; although the condition of the target products was described as good as new, products had been owned and used by the sellers. Participants were asked to make pricing decisions for three consumer products: A chair, a shoe rack, and a mirror, for which photos were presented (see Appendix A). Instructions specified:

Imagine that the target person is about to buy [sell] a couple of products from a

charity shop. Below are the items that this person wants to buy [sell].

Although the items have been used, they are in good shape and look like new.

For each object, participants were shown a picture of the target product and instructed to choose one price option, which varied from \$1 to \$20 dollars, with \$1 increments.

4.1.2.3. *Manipulation check.* As a manipulation check, participants indicated how close the target person was to themselves on a seven point scale (from 1, *not close at all* to 7, *extremely close*).

4.1.2.4. *Potential confounds.* Participants also answered questions assessing how much they agreed with the following sentences: "I took the pricing task seriously.", "I considered the pricing task carefully." and

“The pricing task was difficult,” all rated on seven-point scales (from 1, strongly disagree to 7, strongly agree).

4.1.2.5. *Decision making focus: financial benefit versus fairness.* Participants indicated their responses for two items involving which aspect they thought was more important when making the pricing decisions, namely “Maximizing monetary benefit of the target person” and “Fairness between a buyer and a seller”, each on seven point scales (1, not important at all to 7, extremely important).

4.2. Results

4.2.1. Manipulation check

As expected, participants in the Close Contact condition reported that their target person felt closer to them ($M = 6.57, SD = 0.89$) compared to participants in the Distant Contact condition ($M = 2.86, SD = 1.70$), $t(116) = 14.32, p < .001, \eta^2 = 0.64$.

4.2.2. Pricing task

A three way mixed-design ANOVA with Product (chair, shoe rack, mirror) as a within-subjects factor and Role (Buyer vs. Seller) and Social Distance (Close vs. Distant Contact) as between-subjects factors on pricing decisions revealed a main effect of product, with the highest price for the chair ($M = 9.99, SD = 4.23$), followed by the shoe rack ($M = 8.67, SD = 4.06$), and the mirror ($M = 8.14, SD = 4.29$), $F(2, 113) = 8.41, p < .001, \eta^2 = 0.14$. As expected, the main effects of Role and Social Distance were not significant. The interactions between Product and Role, between Product and Social Distance, or the three-way interaction of all conditions were all non-significant (all $ps > .15$).

As hypothesized, a significant interaction was observed between Role and Social Distance, $F(1, 114) = 5.14, p = .03, \eta^2 = 0.04$ (see Fig. 2 for means across three products). To test whether the reversed endowment effect occurred, we conducted planned comparisons across the three products. Indeed, buyers priced the chair significantly higher ($M = 11.56, SD = 4.22$) than did sellers ($M = 9.35, SD = 4.57$) in the Distant Contact condition, $F(1, 114) = 4.58, p = .03, \eta^2 = 0.04$. Buyers also

priced the shoe rack significantly higher ($M = 10.09, SD = 3.97$) than did sellers ($M = 6.81, SD = 3.45$) in the Distant Contact condition, $F(1, 144) = 11.38, p = .001, \eta^2 = 0.09$. Although means were in the same direction, buyers ($M = 8.91, SD = 4.33$) and sellers ($M = 7.90, SD = 4.94$) did not significantly differ in pricing the mirror, $p = .35$. These results indicate that the reversed endowment effect pattern indeed occurred on two of the three products in the Distant Contact condition.

Unlike Study 1, due to the absence of physical contact with target products, we did not necessarily expect the endowment effect to occur in the Close Contact condition. Indeed, price differences between buyers and sellers in the Close Contact condition were not significant across the three products (all $ps > .39$).

4.2.3. Potential confounds

Next, we tested whether potential confounds as a result of the social distance manipulation could be ruled out. A two-way ANOVA with Role and Social Distance as factors on participants’ seriousness, carefulness, and task difficulty revealed no main effects nor interactions of Role and Social Distance conditions (all $ps > .19$) except for a marginally significant main effect of Role on difficulty between buyers ($M = 3.24, SD = 1.75$) and sellers ($M = 3.77, SD = 1.92$), $F(1, 114) = 10.90, p = .07, \eta^2 = 0.03$. Furthermore, a significant interaction was observed, such that sellers thought the price decision was more difficult ($M = 4.24, SD = 1.92$) than buyers did ($M = 2.79, SD = 1.69$) for the Close Contact condition, $F(1, 114) = 6.39, p = .004, \eta^2 = 0.07$, but not for the Distant Contact condition (Buyer: $M = 3.62, SD = 1.74$, Seller: $M = 3.39, SD = 1.86$, $F(1, 114) = 0.27, p = .61$).

Therefore, to test whether task difficulty might have contributed to the interaction on pricing decisions, we added task difficulty to the main analysis as a covariate. The interaction of conditions remained significant, $F(1, 113) = 5.60, p = .02, \eta^2 = 0.05$, and no effect of the covariate was observed ($p = .48$).

4.2.4. Moderated mediation: the mediating role of the decision making goal

Decision making goal was computed by subtracting participants’ ratings for maximizing fairness from the ratings for maximizing financial

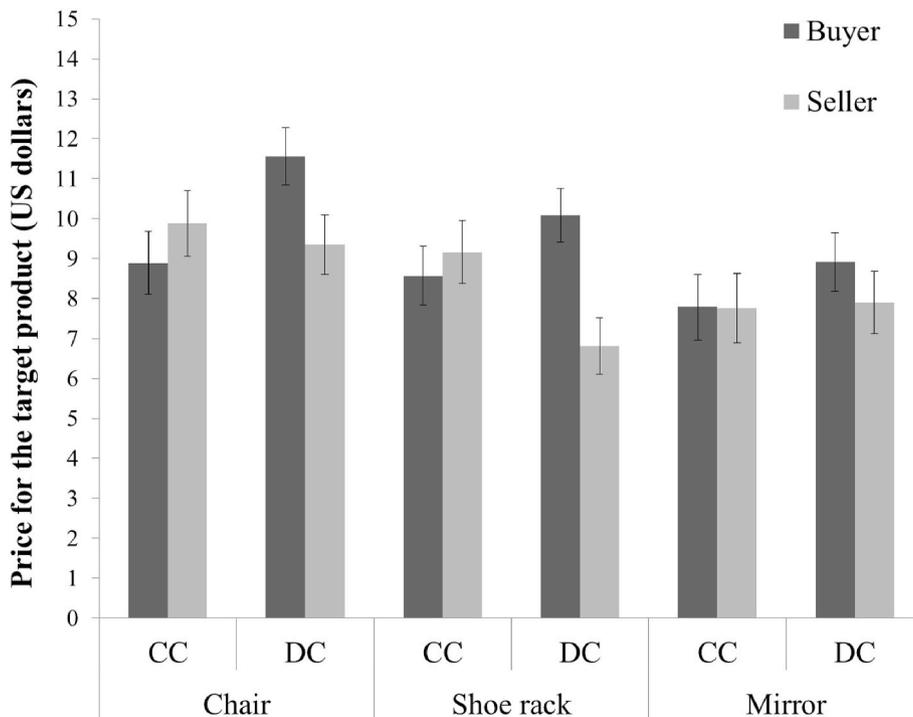


Fig. 2. Pricing decisions across three products in Study 2. CC stands for Close Contact condition, DC stands for Distant Contact condition. Error bars indicate ± 1 standard error of the mean.

benefit. Higher scores thus indicate greater focus on financial benefit over fairness. As hypothesized, participants reported that maximizing financial benefit for the target person was more important over fairness in the Close Contact condition ($M = 0.15, SD = 2.05$) compared to the Distant Contact condition ($M = -0.75, SD = 2.20$), $t(116) = 2.29, p = .024, d = 0.42$. Next, using Preacher et al. (2007)'s bootstrapping procedure for testing conditional indirect effects (Model 14), we tested the indirect effect of Social Distance (1 = Close Contact, 2 = Distant Contact) on pricing decisions (the average pricing across chair, shoe rack, and mirror) through the decision making goal, and finally moderated by Role (1 = Buyer, 2 = Seller). The analysis revealed that the decision making goal mediated the relation between Social Distance and pricing moderated by Role (10,000 resamples; indirect effect = $-0.644, 95\%$ bias-corrected and accelerated confidence interval [BCa CI]: $-1.511, -0.036$): That is, increased social distance led participants to prioritizing fairness over monetary profit as a proxy buyer or seller, resulting in the reversed pricing pattern of the endowment effect (see Fig. 3).

4.3. Discussion

Study 2 successfully replicated the reversed endowment effect observed in Study 1 by using a similar social distance manipulation. Participants again showed a significant interaction between Role and Social Distance: making decisions on behalf of a socially distant contact not only reduced the endowment effect but in fact reversed it. In line with previous research, these results support the idea that social distance increases concern for high-level social values such as fairness and justice (Agerström & Björklund, 2009a, 2009b; Eyal et al., 2008; Ledgerwood and Callahan, 2012). In the context of the reversed endowment effect, a fair market situation should require sellers to manufacture selling items in the most efficient way in order to provide reasonable prices to customers. Likewise, buyers should also pay a reasonable amount of money for high-quality products. Therefore, contrary to the endowment effect showing a bias toward self-interest to maximize profit, the current study shows that by increasing social distance, people can shift their decision making goal to promoting fairness.

Importantly, the endowment effect in the Close Contact condition was absent. Indeed, based on previous findings (Reb and Connolly, 2010), removing physical contact should lead to reducing the endowment effect. Yet, an alternative explanation would be that this time, we instructed participants to make pricing decisions by using hypothetical products. Hypotheticality is yet another dimension of psychological

distance (Trope & Liberman, 2003, 2010). Therefore, due to increased hypothetical distance, the endowment effect might have been reduced despite the proximate social distance. By contrast, in Study 1 we used a real product involving physical contact for successfully inducing the endowment effect in the Close Contact condition.

Moreover, we ruled out potential confounds such as level of subjective seriousness, carefulness, task difficulty regarding the pricing task. In other words, the observed effect on pricing behavior was unlikely due to participants engaging less, or experiencing difficulty in making decisions for their close or distant social contact. Instead, our results confirm that the reversed pattern is most likely due to increased psychological distance and shift in participants' focus when making price decisions: participants focused more on maximizing financial profits when making decisions for their closest contact whereas participants focused more on fairness between buyers and sellers when the target person was socially distant. Such a goal shift mediated the reversed endowment effect between buyers and sellers, providing a clearer picture of a potentially underlying factor as a result of increased social distance.

5. General discussion

The endowment effect is a widely investigated, well-established phenomenon. Although previous findings have contributed to understanding its underlying mechanism from various perspectives (e.g., Van Boven et al., 2000; Kahneman et al., 1991), the current research provides a different angle: due to different levels of social distance, buyers and sellers can reverse the pattern of the pricing discrepancy as proxy decision makers. We showed this across two studies, building on the assumption that by manipulating social distance the endowment effect should be attenuated. When participants made a decision on behalf of a socially distant, rather than a close contact, the endowment effect not only disappeared but was nearly reversed (Study 1). We replicated the reversed pattern of the endowment effect and showed that increasing social distance shifted participants' goals for making price decisions from maximizing financial benefit to promoting fairness (Study 2). Such a goal shift further mediated the reversed pattern.

It is noteworthy that the level of psychological distance might operate as a linear pattern in pricing behavior. The current work showed a gradual shift in pricing behavior between buyers and sellers as a function of psychological distance: in Study 1, the endowment effect was induced when participants made price decisions on behalf of their closest contact. However, the endowment effect was only present when considering a real product: in Study 2, the endowment effect disappeared when participants based their decisions on their closest person but were considering hypothetical products, presumably due to hypotheticality constituting another dimension of psychological distance (Trope & Liberman, 2003, 2010). Similarly, when participants made price decisions on behalf of a socially distant contact but were considering a real product, the endowment effect was reduced. Finally, when participants made decisions for a socially distant contact and were considering hypothetical products, the endowment effect was reversed.

In sum, our findings suggest that proximate psychological distance (i.e. a close social contact with a real product) can induce the endowment effect, whereas one dimension of increased psychological distance (i.e. either the social or hypothetical dimension) can eliminate it. Furthermore, two combined dimensions of increased psychological distance (i.e. social and hypothetical dimensions) can reverse the endowment effect. Thus, the level of psychological distance seems to influence pricing decisions in such a way that selling prices decrease, whereas buying prices increase in a linear fashion, gradually altering the pattern of the endowment effect.

5.1. Social distance as a tool for encouraging socially desirable values

Our findings are in line with existing research supporting the view

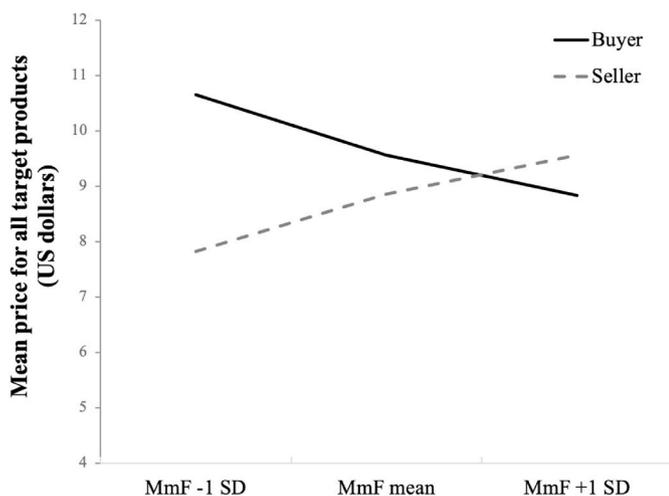


Fig. 3. Differential pricing effects for buyers and sellers at each level of decision goal (-1 SD, M, +1 SD). MmF stands for the money minus fairness composite score for decision making goals. For instance, MmF -1 SD indicated a greater focus on fairness over monetary profit.

that increased social distance might activate the high-level construal (Trope & Liberman, 2003, 2010), “observer” perspective (e.g., Nisbett and Wilson, 1977) and “promotion-focused” actions (e.g., Polman, 2012b), leading to more unbiased buyer and seller choices in proxy pricing. Our results also support that increased psychological distance is associated with conformity to group norms (Ledgerwood and Callahan, 2012), and harsher moral standards (Agerström & Björklund, 2009a, 2009b; Eyal et al., 2008). As observed in the current results, social distance functions as a tool for making decisions based on fairness over self-interest. Indeed, previous findings have also indicated that when making a decision on behalf of a socially distant other, people focus on what option is more desirable whereas when making their own decisions, they focus on what option is more feasible (Lu et al., 2013).

Elaborating on our findings, the current research implies that increased social distance might be associated with social values such as selflessness and altruism. Previous work reported a potential relationship between social distance and interdependence. That is, as the social horizon expands from ‘I’ to ‘We’, people construe a given situation in a more interdependent and selfless way (Gardner et al., 1999). Furthermore, people who think of themselves as in relationships with others as opposed to an isolated person showed that they are more likely to take into account others’ needs and desires when making decisions (Cross et al., 2000). Supporting this evidence, researchers have also discovered that East Asians who are situated in a culture of valuing interdependence showed a reduced endowment effect compared to Westerners who are situated in a culture that values independence (Maddux et al., 2010).

Taken together, the current work sheds light on a potential relationship between social distance and social values. Future research investigating how fairness and altruism are associated with other types of proxy decision making might thus be well worth pursuing. Research examining another potential moderating or mediating factor for reversing the endowment effect such as felt power (Chan and Saqib, 2018), or contexts of the target retailing platform (Chatterjee & Kumar, 2017; Sohn, 2017) might further broaden the understanding of the underlying mechanism behind the endowment effect in retail situations.

6. Conclusion

We demonstrated that the pricing disparity between buyers and sellers systematically changed when making a decision for another person. Social distance towards the target person altered the pricing bias and led to a reversed endowment effect, due to a decision goal shift from focusing on self-interest to focusing on fairness. Our findings advance previous claims to understand the pricing bias in a more flexible context where decision makers do not necessarily experience the consequence but hold responsibility for other people. In a pricing context, our data suggest that people change the way they value consumer objects depending on the decision making target.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.jretconser.2020.102395>.

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