Perspective taking does not moderate the price precision effect, but indirectly affects counteroffers to asking prices

Leib, Margarita; Kee, Karin; Loschelder, David D.; Roskes, Marieke

Published in:
Journal of Experimental Social Psychology

DOI:
10.1016/j.jesp.2022.104323

Publication date:
2022

Document Version
Publisher's PDF, also known as Version of record

Journal of Experimental Social Psychology 101 (2022) 104323

Contents lists available at ScienceDirect

Journal of Experimental Social Psychology

journal homepage: www.elsevier.com/locate/jesp

Perspective taking does not moderate the price precision effect, but indirectly affects counteroffers to asking prices☆,☆

Margarita Leib [a,*], Karin Kee [b], David D. Loschelder [c], Marieke Roskes [b]

[a] University of Amsterdam, the Netherlands
[b] VU University Amsterdam, the Netherlands
[c] Leuphana University of Lueneburg, Germany

ARTICLE INFO

Editor: Professor Michael Kraus

Keywords:
Anchoring
Price precision
Perspective taking
Negotiations
First offers

ABSTRACT

Precise asking-prices (e.g., $249,800), compared with round ones (e.g., $250,000), are stronger anchors, leading buyers to counter closer to the asking-price. This '*precision effect*' is driven by (i) higher evaluation of the seller's competence, and (ii) buyers using a finer-grained numerical scale when the asking-price is precise compared with round. But are buyers more susceptible to precise anchors, the more they take the seller's perspective? If so, what are the underlying mechanisms leading to this increased susceptibility? We examine the potential moderating role of trait (Experiment 1) and manipulated (Experiment 2) perspective-taking on the price precision effect and its underlying mechanisms. We test the prediction that the more buyers take the seller's perspective, the more they will evaluate a precise-opening seller as competent, which in turn will increase buyers' susceptibility to precise prices (H1). We further test two competing predictions regarding the moderating role (H2a) of perspective-taking versus lack thereof (H2b) on buyers' use of a finer-grained numerical scale when countering a precise asking-price. Results revealed that precise asking-prices lead to counteroffers closer to the asking-price. This price precision effect was driven by the scale granularity, but not the perception of seller's competence mechanism. Further, perspective-taking did not moderate the price precision effect. Exploratory analyses revealed that perspective-taking leads to higher perception of seller's competence, which in turn leads to counteroffers that are closer to the asking-price. Overall, both price precision and perspective-taking shape counteroffers (but not in an interaction), making the two factors important in negotiation processes.

1. Introduction

In negotiations, the asking price anchors the counteroffer and final agreement (Bazerman, Curhan, Moore, & Valley, 2000; Galinsky & Mussweiler, 2001; Ritov, 1996; Thompson, 1990). A precise asking price (e.g., $249,800) is often a stronger anchor than a round one (e.g., $250,000). Compared with a round asking price, when countering a precise price, buyers tend to (i) perceive the seller as more competent (Loschelder, Friese, & Trötschel, 2017; Loschelder, Stuppi, & Trötschel, 2014; Mason, Lee, Wiley, & Ames, 2013), and (ii) use a finer-grained numerical scale (Frech, Loschelder, & Friese, 2020; Janiszewski & Uy, 2008; Leib, Köbis, Francke, Shalvi, & Roskes, 2020). As a result, buyers' counteroffers are closer to the asking price when it is precise versus round. Whereas a plethora of studies have examined the mechanisms underlying this *price precision effect*, we know surprisingly little about moderating factors and interpersonal differences in price precision susceptibility. As taking others' perspective – putting oneself in others' shoes – can have both positive (Galinsky, Maddux, Gilin, & White, 2008; Trötschel, Hüffmeier, Loschelder, Schwartz, & Gollwitzer, 2011) and negative (Drolet, Larrick, & Morris, 1998; Galinsky & Mussweiler, 2001) consequences on negotiation outcomes, here we examine how taking the seller's perspective influences buyers' reactions to round and precise asking prices. Specifically, we ask: are buyers who take a sellers' perspective more susceptible to the price precision effect? If so, what are the underlying mechanisms leading to this susceptibility?

We suggest that the more a buyer takes a seller's perspective, the

☆ The research was financially supported by the European Research Council (ERC-CoG-865931). The research was also financially supported by a grant from the German Research Foundation (DFG LO 2201/2-1) awarded to David D. Loschelder.☆ This paper has been recommended for acceptance by Michael Kraus.

* Corresponding author at: Center for Research in Experimental Economics and Political Decision Making, University of Amsterdam, Roetersstraat 11, 1018WB Amsterdam, the Netherlands.
E-mail address: m.leib@uva.nl (M. Leib).

https://doi.org/10.1016/j.jesp.2022.104323
Received 8 February 2021; Received in revised form 17 February 2022; Accepted 8 March 2022
Available online 16 March 2022

more susceptible the buyer is to the price precision effect. As a result, taking the seller's perspective will be detrimental for a buyer who counters a precise asking price, but beneficial for the seller who sets a precise asking price. In general, sellers who set precise prices are perceived as more competent than those who set round prices (e.g., Loschelder et al., 2014; Loschelder, Friese, Schaerer, & Galinsky, 2016; Mason et al., 2013). Because taking others' perspective helps to understand others' thoughts and motivations (Galinsky, Ku, & Wang, 2005; Ku, Wang, & Galinsky, 2015; Trötschel et al., 2011), we hypothesize that the more a buyer takes the perspective of a precise price setting seller, the more the buyer will perceive the seller as competent, in turn making counteroffers closer to the seller's asking price.

Further, we derive competing hypotheses regarding the effect of perspective taking on the mental scale the buyers use when they make a counteroffer. On the one hand, countering a precise, compared to round, asking price makes buyers counter on a more fine-grained scale (Frech et al., 2020), and perspective taking enhances mimicry (Chartrand & Bargh, 1999). Thus, it might be that the more a buyer takes a precise-opening seller's perspective, the more fine-grained the scale the buyer used to generate a counteroffer. In turn, this would result in a counteroffer closer to the seller's asking price. Alternatively, as the granularity of the scale buyers use was found to be robust to various settings (e.g., Leib et al., 2020; Loschelder, Friese, et al., 2016), it might also be that the scale buyers use is robust to taking the seller's perspective. We conduct two experiments in which we test our hypotheses regarding the effect of perspective taking on buyers' (i) counteroffers, (ii) perception of the seller's competence, and (iii) scale granularity, when providing counteroffers to round and precise asking prices.

Assessing how perspective taking affects the price precision effect and its underlying mechanisms is relevant both theoretically and practically. First, our work adds to growing literature examining potentially harmful effects of perspective taking for the perspective taker (e.g., Skorinko & Sinclair, 2013; Vorauer & Quesnel, 2013). Second, we add to literature assessing how cognitive processes and individual differences affect responses to first offers in negotiations (e.g., Galinsky, Seiden, Kim, & Medvec, 2002; Loschelder, Trötschel, Swaab, Friese, & Galinsky, 2016; Shalvi, Moran, & Ritov, 2010). Third, we respond to an overall call for more research on the effects of perspective taking on negotiation processes and outcomes (Ku et al., 2015). Our work further has practical implications. If buyers who take the seller's perspective are more sensitive to the price precision effect, sellers may want to encourage buyers to take their perspective, especially if those sellers set a precise asking price. Buyers, on the other hand, may want to actively avoid taking the seller's perspective when making a counteroffer, especially if the asking price is precise. Alternatively, if perspective taking does not moderate the price precision effect, buyers might be able to consider the seller's motivations and actions without being negatively affected by and more susceptible to precise asking prices.

2. The price precision effect and its underlying mechanisms

Precise numbers – those with fewer trailing zeros – have stronger psychological potency, and seem more serious and persuasive than round numbers (Huff, 1954). Indeed, precise numbers are stronger anchors than round ones. This precision anchoring phenomenon affects negotiations, judgments, and evaluations (e.g., Frech et al., 2020; Janiszewski & Uy, 2008; Zhang & Schwarz, 2013). For instance, Loschelder et al. (2017) had participants negotiate the selling of a chemical plant, in which the initial offer was round (e.g., €5000,000), moderately precise (e.g., €5125,800) or extremely precise (e.g., €5125,824.85). Results revealed that the more precise the initial offer, the closer the counteroffer and final agreement were to the initial offer. The greater potency of precise, compared with round, initial offers was further established in a variety of lab studies (e.g., Frech et al., 2020; Loschelder et al., 2014; Loschelder et al., 2017; Loschelder, Friese, et al., 2016; Mason et al., 2013), field data (Backus, Blake, & Tadelis, 2019; Thomas, Simon, & Kadiyali, 2010; Leib et al., 2020; Janiszewski & Uy, 2008), as well as in a recent meta-analysis (Loschelder et al., 2021).

There are two main mechanisms that underlie this price precision effect. The first is a social, interpersonal mechanism that assumes the '*attribution of competence*'. A precise asking price signals that the seller has done extensive research into setting the price and has good reasons to set the price at a specific price point, whereas a round asking price signals the seller did not spend much thought into setting the price (Mason et al., 2013). As such, compared to a seller who sets a round asking price, a seller who sets a precise price is perceived as more competent and knowledgeable (Loschelder, Friese, et al., 2016; Loschelder et al., 2017; Mason et al., 2013; see also Jerez-Fernandez, Angulo, & Oppenheimer, 2014). As a result, buyers' counteroffers are closer to the asking price when it is precise, compared to round.

The second mechanism is a cognitive mechanism, coined '*scale granularity*'. Compared with a round asking price, a precise price leads buyers to adjust on a finer-grained pricing scale when generating a counteroffer (Frech et al., 2020; Janiszewski & Uy, 2008). Provided that buyers generate a counteroffer by making a series of adjustment steps away from an asking price on a mental pricing scale, thinking along a finer-grained scale leads buyers to adjust away less from the asking price than thinking on a more coarse-grained scale. As a result, counteroffers are closer to the asking price, and are more precise themselves, when buyers counter a precise compared with a round asking price. Prior work found support for the scale granularity mechanism (Janiszewski & Uy, 2008; Loschelder et al., 2017), and recent work has further documented the exact adjustments people make when countering a precise versus round price, revealing that precise numbers indeed lead to adjustments on a finer-grained pricing scale (Frech et al., 2020).

3. Does perspective taking strengthen the price precision effect?

Taking others' perspective has many beneficial outcomes. It strengthens social bonds (Corcoran & Mallinckrodt, 2000; Galinsky et al., 2005; Peterson, Bellows, & Peterson, 2015), facilitates helping (Gino & Galinsky, 2012; Shih, Wang, Trahan Bucher, & Stotzer, 2009) and cooperation (Batson & Moran, 1999; Falk & Johnson, 1977), and can even decrease unethical behavior (Martinez, Stuewig, & Tangney, 2014). In the context of negotiations, perspective takers' ability to understand their counterpart's interests and motivations assist them at achieving better outcomes. Compared to non-perspective takers, perspective takers claim (Galinsky, Maddux, et al., 2008; Gilin, Maddux, Carpenter, & Galinsky, 2013; Neale & Bazerman, 1983) and create more value in negotiations (Galinsky, Maddux, et al., 2008; Gilin et al., 2013; Kemp & Smith, 1994; Trötschel et al., 2011). Perspective takers are also more likely to avoid impasses and successfully reach agreements (Galinsky, Maddux, et al., 2008). Reacting to asking prices, when buyers take the seller's perspective, but focus on information that is *inconsistent* with the asking price (e.g., seller's reservation price), seller's first mover advantage is eliminated, leading to better outcomes for the perspective-taking buyer (Galinsky & Mussweiler, 2001).

At the same time, taking others' perspective can also be detrimental, depending on the context, the person who engages in perspective taking, and whose perspective is being taken. For instance, when taking the perspective of a selfish person, people become more selfish themselves (Gino & Galinsky, 2012), and encouraging people to take their outgroup members' perspective leads to more negative judgment of the outgroup when people strongly (versus weakly) identify with their in-group members (Tarrant, Calitri, & Weston, 2012). Further, perspective taking decreases self-serving bias and behavior in positive and cooperative relationships, but increases self-serving bias and behavior in negative and competitive relationships (Drolet et al., 1998; Epley, Caruso, & Bazerman, 2006; Pierce, Kilduff, Galinsky, & Sivanathan, 2013). In the context of negotiations, taking the perspective of a competitor (versus not taking such perspective) increases people's willingness to engage in unethical negotiation tactics such as intentionally providing false

information during the negotiation process (Pierce et al., 2013). Reacting to asking prices, when buyers take the seller's perspective, focusing on information that is *consistent* with the asking price (e.g., seller's target), the asking price anchors buyers' counteroffers, leading to worse outcomes for the perspective-taking buyer (Galinsky & Mussweiler, 2001).

All in all, this body of research demonstrates that characteristics of the negotiators and of the negotiation setting determine whether perspective taking leads to better or worse negotiation outcomes for buyers and sellers. Here, we investigate the effect of perspective taking on counteroffers to a precise versus round asking price. Could taking the seller's perspective hurt rather than benefit buyers when countering a precise asking price? If so, what are the psychological mechanisms through which perspective taking hurts buyers that counter a precise asking price?

Taking others' perspective shapes attributions (Vescio, Sechrist, & Paolucci, 2003). When individuals engage in perspective taking, they pay more attention to others' motivations and actions, and strive to understand these motivations and actions better (Baron-Cohen, Tager-Flusberg, & Cohen, 2000; Galinsky, Wang, & Ku, 2008). Because facing a precise (vs. round) asking price makes buyers attribute more competence to the seller (Mason et al., 2013), and given that perspective taking fosters peoples' understanding of other's motivations and actions (Baron-Cohen et al., 2000), it stands to reason that buyers will view the precision (vs. roundness) of the asking price as a stronger signal for the seller's (in)competence the more they take the seller's perspective. More specifically, when countering a precise asking price, buyers might perceive the seller as more competent, the more they take the seller's perspective. If this is indeed the case, we should find an interaction between the asking price precision (precise vs. round) and perspective taking, predicting the perceived competence of the seller. Higher perceived competence of the seller, in turn, should result in counteroffers closer to the asking price (H1, see Fig. 1 and Fig. 2A and B).

Considering the potential effects of perspective taking on the cognitive, scale granularity mechanism of price precision, leads to competing hypotheses. Perspective taking has been shown to enhance coordination and mimicry (Chartrand & Bargh, 1999; Galinsky et al., 2005). For instance, when taking another person's perspective, individuals temporarily adopt that person's traits and behaviors (Galinsky et al., 2005; Galinsky, Wang, & Ku, 2008; Goldstein & Cialdini, 2007; Ku, Wang, & Galinsky, 2010; Laurent & Myers, 2011). Because countering a precise (vs. round) asking price makes buyers use a finer-grained pricing scale (Frech et al., 2020), and perspective taking facilitates mimicry and coordination (Davis, Conklin, Smith, & Luce, 1996), it is plausible that when countering a precise asking price, buyers will mimic the seller's *pricing scale* and use a finer-grained pricing scale the more they take the seller's perspective. If this is indeed the case, we should find an interaction between the asking price precision (precise vs. round) and perspective taking, predicting scale granularity. In turn, the more granular the scale buyers use, the closer their counteroffer should be to the asking price (H2a, see Fig. 1 and Fig. 2A and C).

Alternatively, it might be that the cognitive scale granularity process underlying price precision is not affected by buyers' perspective taking. Prior work suggest that the scale granularity mechanism is not affected by factors such as the market in which the negotiation takes place (Leib et al., 2020), whether the counteroffer is made by an expert or not (Loschelder, Friese, et al., 2016), nor by the absolute level of price precision (Loschelder et al., 2017). Thus, it is also plausible that scale granularity, as a cognitive mechanism, is not affected by a social factor such as perspective taking. If this is the case, we should find no interaction between the asking price precision (precise vs. round) and perspective taking, predicting scale granularity (H2b, see Fig. 1 and Fig. 2D).

4. The current experiments – overview and predictions

We conducted two experiments testing the potential moderating role of perspective taking on the price precision effect. In both experiments, participants read a scenario in which they take the role of a buyer (prior studies have established parallel precision effects for sellers and buyers, e.g., Loschelder, Stuppi and Trötschel, 2014). Participants learned the asking price set by the seller and were asked to make a counteroffer. As a

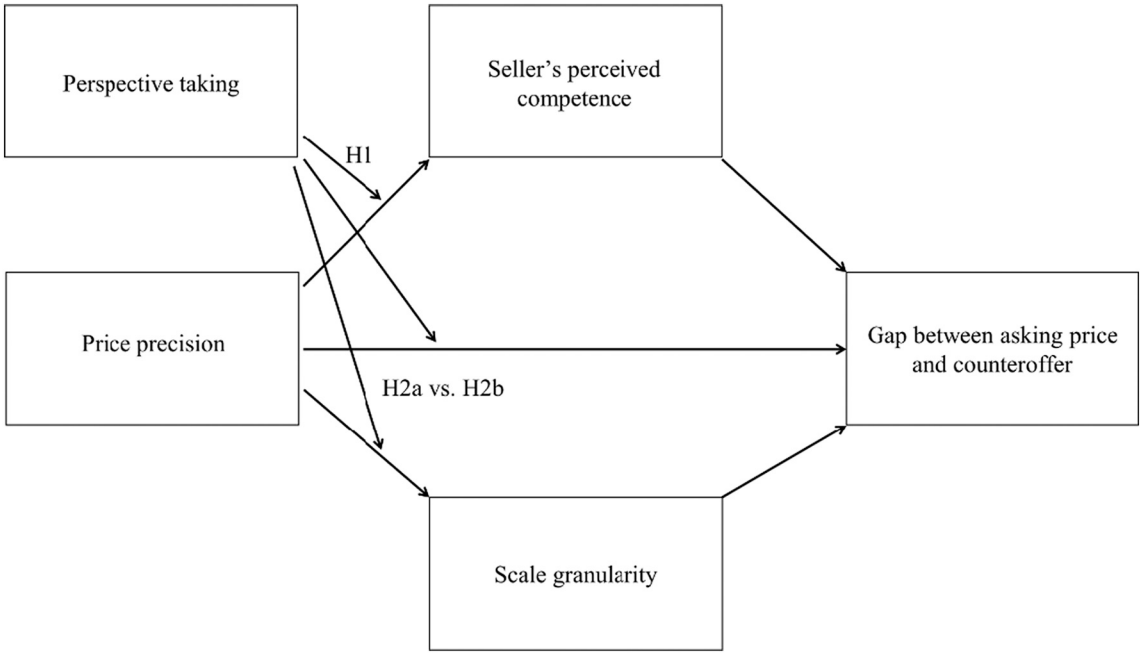

Fig. 1. The predicted moderating impact of perspective taking on the precision effect and its underlying mechanisms. H1: The more buyers take the seller's perspective, the more they perceive precise-opening sellers as competent, in turn leading to a stronger price precision effect. H2a: The more buyers take the seller's perspective, the more they mimic the seller's pricing scale, in turn, leading to a stronger price precision effect; H2b: The level of perspective taking does *not* affect the extent to which buyers mimic the pricing scale that sellers are using, thus perspective taking does not moderate the scale granularity mechanism.

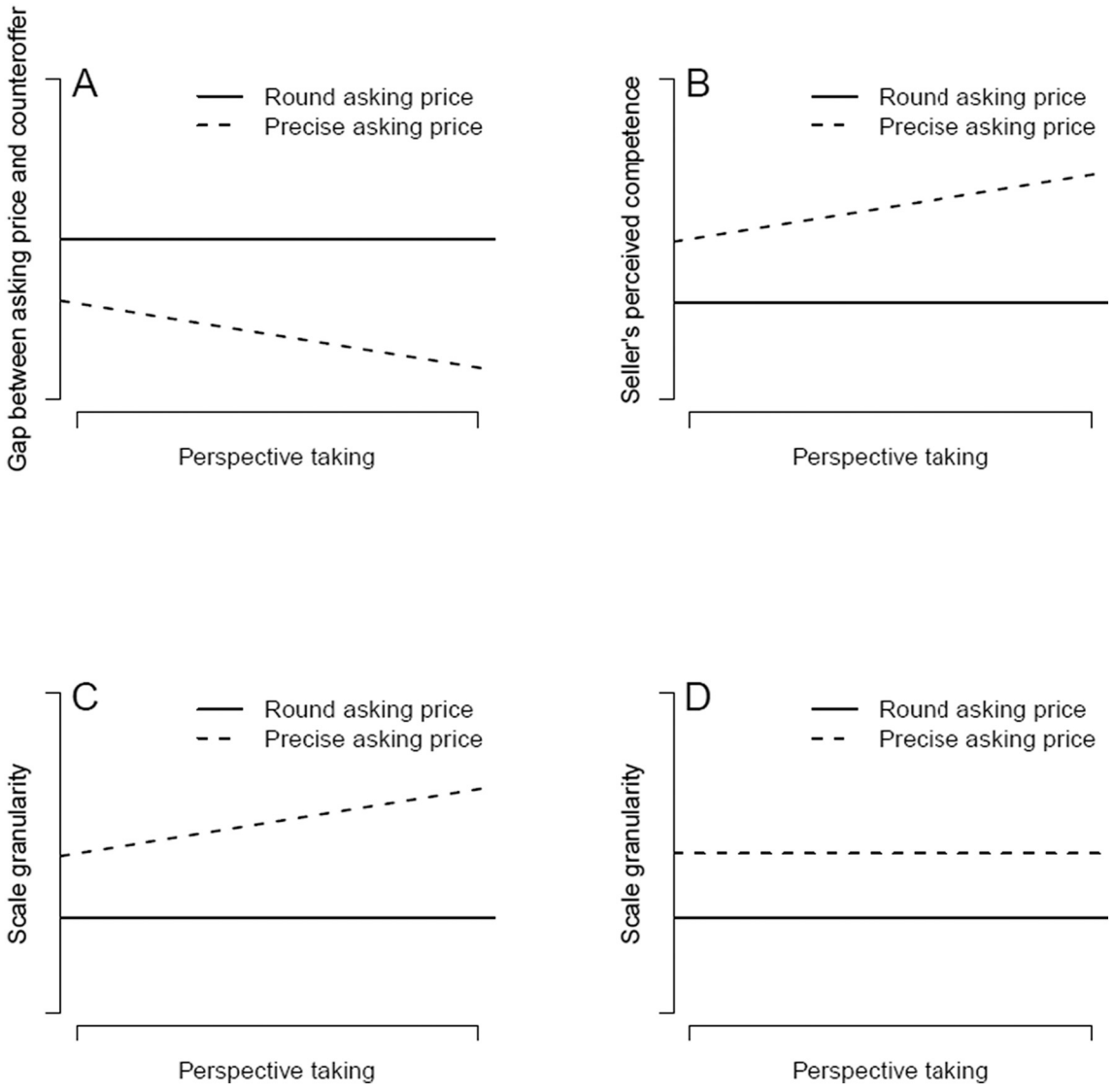

Fig. 2. Graphical representation of the predicted simple effects for the effect of price precision and perspective taking on the gap between the seller's asking price and buyers' counteroffer (A), the competence attributed to sellers (B, H1), and the competing hypotheses regarding scale granularity (C, H2a versus D, H2b). Note that the difference between the outcome variables when the asking price is round, compared to precise is either always positive (A) or always negative (B, C, and D). Further, the scales across the different graphical representations are not comparable with one another, but merely represent the trends of the predicted effects. Lastly, the hypothesis predicts a main effect for price precision (precise vs. round) and an interaction between perspective taking and price precision. It does not make a-priori predictions regarding the main effect of perspective taking, nor the exact simple effects (or lack thereof) of perspective taking in each of the price precision conditions.

between-participant factor, we manipulated the asking price to be round or precise to the hundreds. In Experiment 1, we measured individual differences in trait perspective taking; In Experiment 2, we experimentally manipulated perspective taking to test for causal effects. Further, in both experiments, we measured perceived competence of the seller, as well as recorded participants' scale granularity. Lastly, for exploratory purposes, in Experiment 2 we evaluated the way in which buyers perceive the seller-buyer transaction.

First, we expected to replicate the price precision effect. That is, we expected that counteroffers will be closer to the asking price when the asking price is precise compared to round (asking price-counteroffer gap; e.g., Simmons, LeBoeuf, & Nelson, 2010). Second, we expected to replicate the two mechanisms underlying the price precision effect. Namely that precise asking prices lead to (i) higher perceived competence of the seller, and (ii) more precise counteroffers as an indicator of finer-grained adjustment scales (Janiszewski & Uy, 2008). Third, we tested the new predictions regarding whether buyer's perspective taking moderates the price precision effect. We expected that (H1) the more buyers take the seller's perspective, the more buyers perceive sellers who set precise asking prices as competent, in turn leading to a stronger price precision effect. Moreover, we contrasted two competing hypotheses related to the scale granularity mechanism: (H2a) the more buyers take the seller's perspective, the more they mimic the pricing scale the sellers are using, in turn leading to a stronger price precision effect; versus (H2b) perspective taking does not affect the extent to which buyers mimic the seller's pricing scale, thus perspective taking does not moderate the price precision effect via the scale granularity mechanism. The data for Experiments 1 and 2 is on OSF. In the main text, we report how we determined our sample size, all data exclusions, all manipulations, and all measures.

5. Experiment 1

5.1. Methods and procedure

Our pre-registered plan was to collect responses from 1000 participants on *Academic Prolific*. A recent meta-analysis (Loschelder et al., 2021) found that the effect size of precision on estimation and negotiation tasks is $g = 0.578$ ($f = 0.289$), with a 95% confidence interval (CI) of [0.485; 0.672]. To adjust for potential publication bias and a smaller true effect due to file drawered null-findings (see Friese & Frankenbach, 2020), we used the lower limit of the CI as a conservative effect size estimate ($g = 0.485$ [$f = 0.242$]; see Perugini, Gallucci, & Costantini, 2014). An a-priori sample size analysis using G*Power 3.0.10 software (Faul, Erdfelder, Lang, & Buchner, 2007), with an $\alpha = 0.05$ and 95% power to detect an effect size of $f = 0.242$ indicated that a sample of $n = 112$ participants per cell (total $N = 224$) would suffice. Following Simonsohn's (2014) guidelines to double the sample when examining a two-way interaction, we multiplied the $n = 112$ per cell by 8 (to attain a 2 [precise vs. round price] by 2 [high vs. low perspective taking] design, and double the sample per cell), leading to a total sample of 896 [112 × 8]. To account for exclusion of participants based on our exclusion criteria (see 'Exclusion criteria'), we opted to collect data from 1000 participants.

The Experiment took about 5–7 min to complete, and participants received a £0.88 for their participation. We collected responses from a U. S. based sample because the study was run in English, and the currency and price range used in the task were relevant for the U.S. housing market.

All participants read a scenario prompting them to assume the role of a buyer who is interested in buying an apartment. Participants learned about an apartment's asking price and were asked to make a counteroffer. Between participants, we manipulated the precision of the asking price to be round versus precise to the hundreds. In line with prior work (e.g., Janiszewski & Uy, 2008; Loschelder et al., 2014; Mason et al., 2013), we varied the precise asking price to be slightly above or below the round asking price, to assess the robustness of the effect. Prior studies have largely found no significant differences for precise prices above and below the round prices and collapsed across these subconditions. Specifically, participants read the following scenario:

> "Imagine that you want to buy an apartment. After a few weeks of searching, you found an apartment you like. This apartment is in a great location, and has the exact facilities and rooms that you want. The seller set an asking price for the apartment. The asking price the seller set is $250,000 {$250,200/$249,800}. In a negotiation with the seller, most potential buyers make a counteroffer that is lower than the seller's asking price."

When asked to submit their counteroffer, participants read:

> "How much would you offer for this apartment?
> Reminder: The asking price the seller set is $250,000 {$250,200/$249,800}. In a negotiation with the seller, most potential buyers make a counteroffer that is lower than the seller's asking price."

After submitting their counteroffers, participants read two questions that served as part of the exclusion criteria: (i) a manipulation check, in which participants were asked to identify the asking price the seller set. Specifically, they read: "Please indicate what was the asking price set by the seller?" and had to choose one of the three options: (a) $250,000; (b) $250,200; (c) $249,800, and (ii) an attention-check item in which participants had to select a specific answer to ensure they carefully read the instructions. Specifically, they read: "This is an attention check, please select the second answer from the left for this item" (see Oppenheimer, Meyvis, & Davidenko, 2009).

5.1.1. Seller's perceived competence

To assess the extent to which buyers perceived the seller as competent, participants indicated on a 7-point scale (1 = "do not agree", to 7 = "strongly agree") the extent to which they agreed with the following four items: (a) The seller knows the property's adequate value; (b) The seller made a competent offer; (c) The seller proposed a fair price; and (d) The seller spent considerable energy researching the property's value (scale taken from Mason et al., 2013, as adapted to a real-estate setting by Loschelder, Friese, et al., 2016). The perceived competence was the average score of the four items. The order of the seller's evaluation and making the counteroffer was counter-balanced, such that half of the participants first made a counteroffer and then evaluated the seller, and vice versa for the other half. Thus, the complete experimental design was a 3 (Price Precision: round vs. precise below vs. precise above) × 2 (Order: counteroffer first vs. evaluation first) between-subjects design. Because we expected differences between the round and precise asking price conditions, but not between the precise above and precise below conditions, half of the sample was in the round asking price condition, and the other half was evenly split between the two precise asking price conditions.

5.1.2. Scale granularity

In line with prior work, we used the precision of the counteroffer as a proxy for the scale granularity mechanism. Buyers who adjust on finer-grained scale are likely to make more precise counteroffers. For instance, a counteroffer that resulted from adjustments of $250 steps is likely to be $242,750 or $243,250, whereas a counteroffer that resulted from adjustments of $5000 steps is likely to be $245,000 or $240,000. Thus, a very common approach in the literature (e.g., Janiszewski & Uy, 2008; Leib et al., 2020; Loschelder et al., 2017) is to test whether precise (vs. round) asking prices also lead participants to make more precise counteroffers, as evidence for usage of a finer-grained scale. Adopting this approach, we counted the number of trailing zeros in the counteroffer and divided this number by the total number of digits in the counteroffer (see similar approaches by Lee, Loschelder, Schweinsberg, Mason, & Galinsky, 2018; Leib et al., 2020; Loschelder, Friese, et al., 2016; Loschelder et al., 2017). Thus, a counteroffer of $220,000 receives a score of 4/6, a counteroffer of $215,300 receives a score of 2/6, and a counteroffer of $24,530 receives a score of 1/5. A higher score indicates more zeros at the end of the counteroffer, that is, the counteroffer is rounder.

5.1.3. Perspective taking

Individual differences in trait perspective taking were measured by employing the reliable and widely used Davis's (1983) scale (e.g., Galinsky, Maddux, et al., 2008; Galinsky, Wang, & Ku, 2008; Grant & Berry, 2011; Kemp & Smith, 1994; Skorinko, Laurent, Bountress, Nyein, & Kuckuck, 2014). The perspective taking subscale consists of seven items. Specifically, participants evaluated the extent to which each of the following items describe them on a 7-point scale (1 = 'does not describe me well'; 7 = 'describes me very well'): (a) Before criticizing somebody, I try to imagine how I would feel if I were in their place; (b) If I'm sure I'm right about something, I don't waste much time listening to other people's arguments (reverse-coded); (c) I sometimes try to understand my friends better by imagining how things look from their perspective; (d) I believe that there are two sides to every question and try to look at them both; (e) I sometimes find it difficult to see things from the other's point of view (reverse-coded); (f) I try to look at everybody's side of a disagreement before I make a decision; (g) When I'm upset at someone, I usually try to "put myself in their shoes" for a while.

Trait perspective taking was measured on a 7-point scale (as was done in e.g., Grant & Berry, 2011) instead of the original 5-point scale, to keep the scale consistent with the perceived competence scale (which is also assessed using a 7-point scale, see Loschelder, Friese, et al., 2016). Keeping the evaluation scale the same across all measures, was done to

avoid confusing participants and forcing them to change their reference point when completing different scales. To ensure that participants were not primed to take the seller's perspective by answering the scale, participants were only asked to complete the perspective taking scale after they provided a counteroffer and evaluated the seller's competence. Participants' trait perspective taking proclivity was the average score of the seven items.

5.1.4. Additional variables

At the end of the experiment, participants indicated their age, gender and monthly net income. Participants further indicated whether they were/are in the process of, or had experience with, buying or selling a real estate property, and whether they had heard of the price precision effect. The price precision effect was robust to controlling these variables, see supplementary online materials (SOM).

5.1.5. Exclusion criteria

We pre-registered several exclusion criteria. First, we included only participants who finished the experiment. That is, only participants who (i) provided a counteroffer, (ii) evaluated the seller's competence on the four-item scale, and (iii) completed the trait perspective taking scale. Second, we included only participants who answered both the manipulation check and attention check correctly. Third, prior work found that there might be unanticipated extreme counteroffers (e.g., $15 or $2,498,000) that are not captured by these exclusion criteria (Leib et al., 2020). Extreme counteroffers can be a result of typing errors – trying to make counteroffers in thousands of dollars without adding zeros (e.g., writing $225 to indicate $225 K) – or by not taking the task seriously. To minimize outlier effects, we included only counteroffers in the range of three standard deviations above and below the mean counteroffer (see similar approach by Thomas et al., 2010; Leib et al., 2020).

5.2. Results

A total of 1003 participants finished the experiment. Out of those, 30 did not answer the manipulation check correctly, and another 11 did not answer the attention check correctly. Lastly, 23 participants provided a counteroffer below the pre-registered −3 *SD* cutoff (no participant provided a counteroffer above the +3 *SD* cutoff). Excluding these participants resulted in a sample of 939 participants ($M_{age} = 33.40$, $SD_{age} = 12.23$; 49.30% females). Counteroffers ranged from $120,000 to $270,000 ($M = $221,455.76; $SD = 21,536.12$).

5.2.1. The price precision effect

A between-subjects ANOVA with the three precision conditions (round vs. precise below vs. precise above) predicting anchor potency—that is, the gap between the asking price and the counteroffer (asking price minus counteroffer; see Simmons et al., 2010)—revealed a main effect for the price precision condition, $F(2, 936) = 9.48$, $p < .001$, $\eta_p^2 = 0.020$. As predicted, planned contrast analyses revealed the asking price-counteroffer gap was larger when the asking price was round ($M = 31,298.71$, $SD = 21,606.64$) compared to precise (precise above and below, collapsed; $M = 25,565.86$, $SD = 21,096.71$), $p < .001$. There was no difference between the precise above ($M = 27,087.15$, $SD = 21,607.61$) and precise below conditions ($M = 24,197.97$, $SD = 20,576.06$), $p = .151$. Thus, in line with the pre-registration, we collapsed the two precise conditions for the remaining analyses.

The order of the tasks (counteroffer vs. evaluation of the seller first) did not moderate the price precision effect. Namely, a two way ANOVA with precision (round vs. precise) and order (counteroffer vs. evaluation first) revealed a main effect for price precision, $F(1, 935) = 16.84$, $p < .001$, $\eta_p^2 = 0.018$ and main effect for order, $F(1, 935) = 7.59$, $p = .006$, $\eta_p^2 = 0.008$, with a larger asking price-counteroffer gap when participants first evaluated the seller's competence ($M = 30,474.06$, $SD = 22,687.78$) compared to first provided a counteroffer ($M = 26,727.87$, $SD = 20,269.55$). The interaction between price precision and order, however, was not significant, $F(1, 935) = 1.05$, $p = .305$. Because the order did not affect the price precision effect, we collapsed the two order conditions in the remaining analyses. Controlling for order by adding it as a covariate led to the same conclusions as reported below.

5.2.2. Underlying mechanisms of price precision

To examine the processes underlying the precision effect, we ran a mediation analysis simultaneously assessing the extent to which (i) seller's competence and (ii) the precision of the counteroffer (indicating scale granularity) mediated the price precision effect, employing Hayes's (2017) process macro with a bootstrapping procedure with 5000 iterations (model 4).

Results revealed that the precision of the counteroffer mediated the effect of the price precision on the adjustment away from the asking price (i.e., support for the scale granularity mechanism), but perceived competence of the seller did not (i.e., no support for the attribution of competence mechanism). First, price precision predicted the asking price-counteroffer gap, $b = 5732.85$, $t = 4.11$, $p < .001$, 95% CI = [2994.64, 8471.04]. Further, price precision predicted the precision of the counteroffer (proportion of zeros at the end of the counteroffer), but not the perceived competence of the seller. Precise asking price led to more precise counteroffers (lower proportion of zeros at the end of the counteroffer; $M = 0.578$, $SD = 0.153$) compared to round asking price ($M = 0.625$, $SD = 0.128$), $b = 0.046$, $t = 5.03$, $p < .001$, 95% CI = [0.028, 0.064]. However, participants did not evaluate the seller as more competent when the asking price was precise ($M = 4.63$, $SD = 0.97$) versus round ($M = 4.71$, $SD = 0.98$), $b = 0.079$, $t = 1.24$, $p = .214$, 95% CI = [−0.046, 0.206].

When adding price precision, counteroffer precision, and perceived seller's competence into the model, both counteroffer precision, $b = 53,633.94$, $t = 11.81$, $p < .001$, 95% CI = [44,728.90, 62,538.97], and perceived competence, $b = −3777.84$, $t = −5.80$, $p < .001$, 95% CI = [−5055.53, −2500.14], predicted the asking price-counteroffer gap. Further, price precision still predicted the gap, $b = 3549.02$, $t = 2.74$, $p = .006$, 95% CI = [1009.18; 6088.85], suggesting partial mediation via the precision of the counteroffer – the scale granularity mechanism. The indirect effect of price precision on the asking price-counteroffer gap via the counteroffer precision was significant, $b = 2485.83$, 95% CI = [1522.01, 3487.58], whereas the indirect effect via perceived seller's competence was not, $b = −302.00$, 95% CI = [−846.56, 166.56], see Fig. 3.

5.2.3. Does trait perspective taking moderate the price precision effect?

Fig. 4 presents the effect of price precision and trait perspective taking (as a continuous measure) on (i) the asking price-counteroffer gap, (ii) scale granularity (the proportion of zeros at the end of the counteroffer), and (iii) the perception of the seller's competence.

First, following our pre-registration, we employed Hayes's (2017) process macro with a bootstrapping procedure with 5000 iterations, testing whether perspective taking, as a continuous measure centered around the mean ($M_{perspective\ taking} = 4.97$) would moderate the effect of price precision (round vs. precise [above and below, collapsed]) on the asking price-counteroffer gap (model 1). Hypotheses 1 and 2a predict that the interaction between price precision and perspective taking would be significant. Results revealed, however, that perspective taking did not moderate the precision effect as the interaction was not significant, $b = 649.07$, $t = 0.432$, $p = .665$, 95% CI = [−2294.29, 3592.43]. Further, there was no effect of perspective taking, $b = −33.21$, $t = −0.030$, $p = .975$, 95% CI = [−2158.23, 2091.81]. The effect of price precision (precise vs. round asking price) was significant, $b = 5733.95$, $t = 4.10$, $p < .001$, 95% CI = [2993.32, 8474.57].

To further interpret the non-significant perspective taking × price precision interaction we conducted exploratory Bayesian analysis comparing a linear regression model where only price precision is the predictor for the asking price-counteroffer gap with a model that includes price precision, perspective taking, and the perspective taking ×

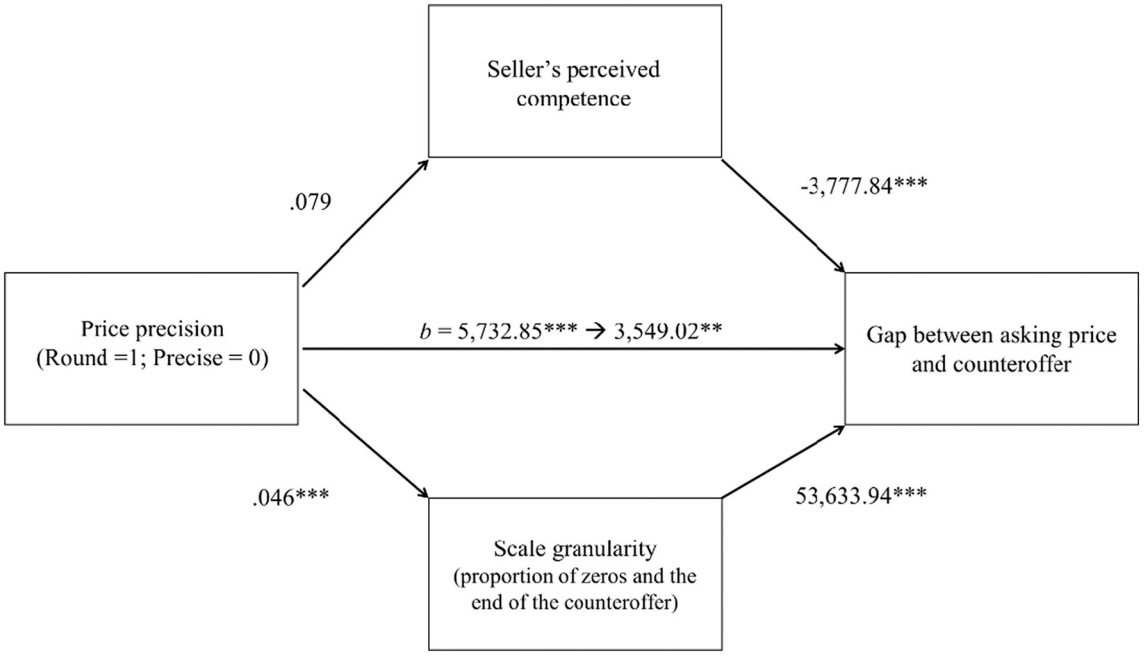

Fig. 3. The price precision effect and its underlying mechanisms in Experiment 1. Path coefficients are unstandardized regression coefficients. *$p < .05$, **$p < .01$, ***$p < .001$.

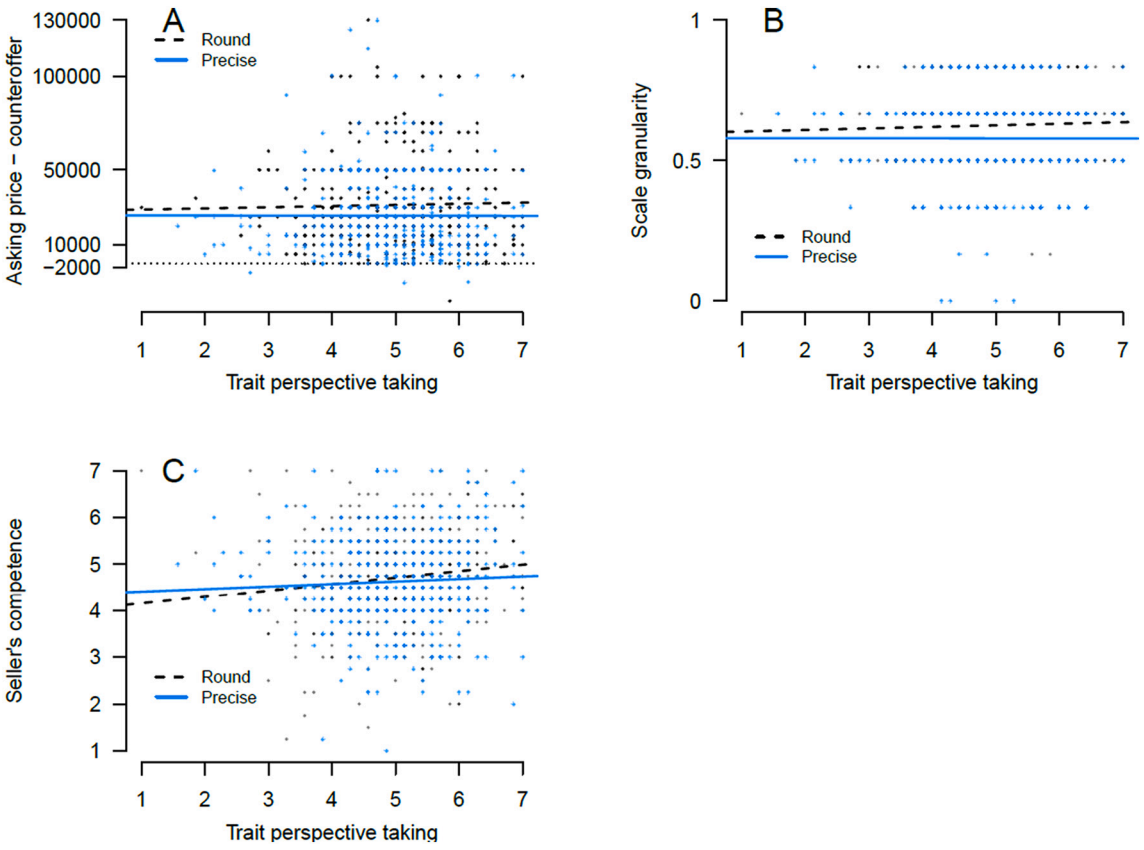

Fig. 4. The effect of price precision (round vs. precise) and trait perspective taking on (A) the gap between the asking price and counteroffer (i.e., lower values indicate a stronger anchoring potency), (B) scale granularity (lower numbers indicate a smaller portion of trailing zeros), and (C) seller's perceived competence (1–7 scale).

price precision interaction as predictors. Results revealed a Bayes factor of $BF_{10} = 0.017$, suggesting strong evidence in favor of a model where price precision is the only predictor. Specifically, the data was 58.32 times more likely to occur when price precision is the only predictor than when all three components of the model predicted the gap.

Second, a moderated mediation analysis using a bootstrapping procedure with 5000 iterations (Hayes, 2017, model 8) (i) corroborated that the price precision effect was driven by scale granularity but not by the attribution of seller's competence mechanism, and (ii) revealed that perspective taking did not moderate the effect via any of the process paths. Focusing on the scale granularity path, price precision ($p < .001$) predicted the precision of the counteroffer, whereas trait perspective taking (continuous measure, centered around the mean, $p = .976$), and the interaction between the two ($p = .562$) did not. Thus, the results from the scale granularity path are in line with H2b, and not H2a. Focusing on the seller's competence path, neither price precision ($p = .209$), trait perspective taking ($p = .272$), nor the interaction between the two ($p = .214$) predicted the extent to which participants evaluate the seller to be competent. Thus, the results from the seller's competence path do not support H1. In a model in which the asking price-counteroffer gap was predicted from all model components, price precision ($b = 3562.73$, $t = 2.75$, $p = .006$, 95% CI [1021.15, 6104.32]), counteroffer's precision ($b = 53{,}488.91$, $t = 11.77$, $p < .001$, 95% CI [44,572.84, 62,404.99]), and the competence of the seller ($b = -3840.14$, $t = -5.86$, $p < .001$, 95% CI [−5125.70, −2554.59]) predicted the gap. However, trait perspective taking ($p = .850$), and the interaction between price precision and perspective taking ($p = .625$) did not. Lastly, the moderated mediation index of perspective taking via competence of the seller, $b = -327.90$, 95% CI [−995.25, 255.65], and via scale granularity, $b = 306.97$, 95% CI [−675.22, 1287.16], were not significant.

Examining conditional effects, the direct effect of price precision (round vs. precise) on the asking price-counteroffer gap was significant at the mean point of perspective taking ($M_{\text{perspective taking}} = 4.97$, $p = .006$) as well as 1 *SD* above the mean (at perspective taking = 5.90, $p = .019$), but was only marginally significant at 1 *SD* below the mean (at perspective taking = 4.04, $p = .081$). The indirect effect of price precision on the asking price-counteroffer gap via scale granularity was significant at all three perspective taking levels. The indirect effect of price precision on the asking price-counteroffer gap via seller's competence was not significant at any of the three perspective taking levels.

5.2.4. Exploratory analysis on the role of perspective taking

We conducted additional exploratory analysis to examine whether trait perspective taking plays a role in participants' adjustments away from the asking price. Specifically, we examined whether perspective taking was associated with the adjustment away from the asking price, and whether the perception of the seller's competence drove this association.

Employing Hayes's (2017) process macro with 5000 bootstrapped iterations (model 4), revealed that (i) the direct association between trait perspective taking and the asking price-counteroffer gap was not significant, whereas (ii) the indirect association of trait perspective taking via seller's perceived competence onto the asking price-counteroffer gap was significant. Specifically, perspective taking (as a continuous measure, centered around the mean), did not predicted the asking price-counteroffer gap, $b = 298.58$, $t = 0.39$, $p = .692$. However, perspective taking predicted the evaluation of the seller – higher trait perspective taking coincided with participants evaluating the seller as more competent, $b = 0.098$, $t = 2.87$, $p = .041$, 95% CI = [0.031, 0.166]. When adding perspective taking and perceived seller's competence into the model, perceived competence predicted the gap, $b = -4389.95$, $t = -6.23$, $p < .001$, 95% CI = [−5772.41, −3007.53], but perspective taking did not, $p = .324$. Lastly, the indirect effect of perspective taking on the asking price-counteroffer gap via the evaluation of the seller was significant, $b = -433.86$, 95% CI = [−849.85, −82.89].

6. Discussion and introduction to experiment 2

Results of Experiment 1 replicated the price precision effect: compared to round asking prices, precise prices led to counteroffers closer to the asking price (i.e., a stronger anchoring potency; e.g., Simmons et al., 2010). The effect was driven by the scale granularity, but not the attribution of seller's competence mechanism. That is, precise asking prices led participants to provide more precise counteroffers, suggesting that they mentally adjusted their counteroffers on a more precise, finer-grained pricing scale. However, participants did not evaluate precise-opening seller as more competent than round-opening sellers. Thus, whereas prior work found evidence for the scale granularity (e.g., Leib et al., 2020; Loschelder et al., 2017) and seller's competence mechanism (e.g., Loschelder et al., 2017; Loschelder, Friese, et al., 2016; Mason et al., 2013), here we find evidence only for the former. Our results are in line with recent work suggesting that the role of scale granularity, a cognitive mechanism, may be relatively more dominant than the social, interpersonal attribution of competence mechanism in the price precision effect (Frech et al., 2020).

Trait perspective taking did not moderate the price precision effect. Round compared to precise asking prices affected the adjustment away from the asking price similarly, regardless of the extent to which participants naturally take others' perspective. These results seem less surprising considering that our a-priori prediction was that perspective taking would moderate the price precision effect mainly by strengthening the attribution of competence mechanism (H1); yet, we found no evidence for this attribution of competence mechanism as a driver of the price precision effect. Exploratory analysis, however, revealed that trait perspective taking did play an indirect role in the adjustment away from the asking price in general. The more participants are inclined to take others' perspectives, the more they also perceived the seller as competent. In turn, higher attribution of competence was associated with less adjustment away from the asking price.

In Experiment 1, trait perspective taking did not moderate the price precision effect. In the pre-registered Experiment 2, we extended our investigation and examined causally whether experimentally manipulating perspective taking would moderate the price precision effect.

6.1. Methods and procedure

Our pre-registered plan was to collect responses from 1000 participants on *Academic Prolific*. The Experiment took about 7–10 min to complete, and participants received £1.25 for their participation. As in Experiment 1, we collected responses from a U.S.-based sample because the study was run in English, and the currency and price range used in the task were relevant for the U.S. housing market.

We used the same materials as in Experiment 1. Namely, participant read a scenario prompting them to assume the role of a buyer who is interested in an apartment, asking them to make a counteroffer to an opposing seller. Between participants we manipulated (i) the price precision to be round versus precise (as in Experiment 1) and (ii) perspective taking, such that half of the participants were instructed to take the seller's perspective, whereas the other half of the participants were not instructed to take the seller's perspective.

6.1.1. Perspective taking

We employed a perspective taking manipulation used by Pierce et al. (2013), and slightly adapted it to the specific context in our experiment. Specifically, participants read the following scenario (square brackets highlight the unique text for the perspective taking condition which was omitted in the control condition):

> "Imagine that you want to buy an apartment. After a few weeks of searching, you found an apartment you like. This apartment is in a great location, and has the exact facilities and rooms that you want. The seller set an asking price for the apartment. The asking price the

seller set is $250,000 {$250,200/$249,800}. In a negotiation with the seller, most potential buyers make a counteroffer that is lower than the seller's asking price.

Before making your counteroffer, [please take a minute and take the perspective of the seller. That is, try to imagine what the seller was thinking when they set the asking price. Try to put yourself in the seller's head, predicting their process of setting the asking price]. Please take a minute and write down a few things that come to your mind.

When asked to submit their counteroffer, participants read:

"How much would you offer for this apartment?
Reminder: The asking price the seller set is $250,000 {$250,200/$249,800}. In a negotiation with the seller, most potential buyers make a counteroffer that is lower than the seller's asking price."

Thus, all participants were asked to write about what came to their mind. Participants were able to move to the next page and provide a counteroffer only after 1 min had passed and after they wrote at least 50 characters. Only participants in the perspective taking condition, however, were asked to take the seller's perspective and think and write about the seller's point of view. A pilot study revealed that the perspective taking manipulation indeed caused participants to take the seller's perspective more, without making the task more cognitively demanding (see SOM).

After making their counteroffer, participants answered the following manipulation check question: "Before making decisions that affect others, people sometimes try to take the perspective of others, and try to understand others' thoughts and motivations. Please answer the following question: while making a counteroffer, to what extent did you take the perspective of the seller (1 = 'I did not take the perspective of the seller at all'; to 7 = 'I very much took the perspective of the seller')."

6.1.2. Underlying processes

As in Experiment 1, we measured the perceived competence of the sellers and calculated a score assessing participants' scale granularity. We again counterbalanced the order of participants first making a counteroffer or first evaluating the seller's competence. As in Experiment 1, half of the sample was in the round asking price condition, and the other half was evenly split between the two precise asking price conditions. The complete design was a 3 (Price Precision: round vs. precise below vs. precise above) × 2 (Perspective taking: yes vs. no) × 2 (Order: counteroffer first vs. evaluation first) between-subjects design.

6.1.3. Perception of the buyer-seller interaction

Because prompting people to take others' perspective can affect their perception of a situation and consequently shape their behavior (depending on whether they perceive the situation as cooperative vs. competitive; Pierce et al., 2013), participants further indicated their perception of the seller-buyer transaction. Specifically, participants rated on a 7-point scale the following items: (a) to what extent do you feel the seller is trying to trick you financially (1 = *not at all* to 7 = *very much so*); (b) to what extent do you feel the seller is trying to harm you financially (1 = *not at all* to 7 = *very much so*); (c) to what extent do you perceive the situation you are in as (1 = *extremely cooperative*; 4 = *in between cooperative and competitive*; 7 = *extremely competitive*). Because we did not have a-priori predictions about participants' perception of the seller-buyer transaction, we conducted only exploratory analyses on these measures and report the results in the SOM.

6.1.4. Additional variables

As in Experiment 1, at the end of the experiment participants answered a manipulation and attention check and reported their age, gender, monthly income, whether they were/are in the process of, or had experience with, buying or selling a real estate property, and whether they heard about the price precision effect. The price precision effect was robust to controlling for these variables, see SOM.

6.1.5. Exclusion criteria

As in Experiment 1, we included only participants who finished the experiment, answered both the manipulation check and attention check correctly, and provided a counteroffer within the range of three standard deviations above and below the mean counteroffer (see similar approach by Thomas et al., 2010; Leib et al., 2020).

6.2. Results

A total of 1006 participants finished the experiment. Out of those, 31 did not answer the manipulation check correctly, and another 9 did not answer the attention check correctly. Lastly, 1 participant provided a counteroffer above the +3 *SD* cutoff (no participant provided a counteroffer below the −3 *SD* cutoff). Excluding these participants resulted in a sample of 965 participants (M_{age} = 33.63, SD_{age} = 13.10; 48.49% females). The counteroffers ranged from $0 to $270,000 ($M$ = $212,863.18; SD = 42,067.98). A total of 27 counteroffers were below $99,999 (4 counteroffers equal to $0, one counteroffer below $99, 4 below $999, and 5 below $9999). Exploratory analyses removing counteroffers with less than 6 digits did not change the conclusions reported below.

6.2.1. The price precision effect

A between-subjects ANOVA with the three precision conditions (round vs. precise below vs. precise above) predicting anchor potency – that is, the asking price-counteroffer gap – revealed a main effect for the price precision condition, $F(2, 962) = 4.87$, $p = .008$, $\eta_p^2 = 0.010$. As predicted, planned contrast analyses revealed the asking price-counteroffer gap was larger when the asking price was round (M = 41,216.10, SD = 41,452.62) compared to precise (precise above and below, collapsed; M = 32,853.67, SD = 42,329.72), $p = .002$. There was no difference in the gap between the precise above (M = 33,595.15, SD = 41,588.56) and below conditions (M = 32,146.03, SD = 43,099.74), p = .708. Thus, in line with our pre-registration we collapsed the two precise conditions for the remaining analyses.

The order of the tasks (counteroffer vs. evaluation of the seller first) did not moderate the price precision effect. A two way ANOVA with precision (round vs. precise) and order (counteroffer vs. evaluation first) again revealed a main effect for price precision, $F(1, 961) = 9.27$, p = .002, $\eta_p^2 = 0.010$, and main effect for order, $F(1, 961) = 6.04$, $p = .014$, $\eta_p^2 = 0.006$, with larger asking price-counteroffer gaps when participants first evaluated the seller's competence (M = 40,498.02, SD = 46,804.80) compared to first providing a counteroffer (M = 33,791.90, SD = 36,508.06). The interaction between price precision and order, however, was not significant, $F(1, 961) = 2.46$, $p = .116$. Because the order did not affect the price precision effect, we collapsed the two order conditions for the remaining analyses. Controlling for order by adding it as a covariate led to the same conclusions as reported below.

6.2.2. Underlying mechanisms of price precision

To examine the processes underlying the precision effect, we again ran a mediation analysis simultaneously assessing the extent to which (i) seller's competence and (ii) the precision of the counteroffer (indicating scale granularity) mediate the price precision effect, employing Hayes's (2017) process macro with a bootstrapping procedure with 5000 iterations (model 4).

Results revealed that the precision of the counteroffer mediated the effect of the price precision on the adjustment away from the asking price (i.e., support for the scale granularity mechanism), but perceived competence of the seller did not (i.e., no support for the attribution of competence mechanism). First, price precision predicted the asking price-counteroffer gap, b = 8362.42, t = 3.10, $p = .001$, 95% CI = [3069.18, 13,655.60]. Further, price precision predicted the precision of

the counteroffer (proportion of zeros at the end of the counteroffer), but not the perceived competence of the seller. Precise asking prices led to more precise counteroffers (lower proportion of zeros at the end of the counteroffer; $M = 0.567$, $SD = 0.161$), compared to round asking price ($M = 0.627$, $SD = 0.134$), $b = 0.060$, $t = 6.28$, $p < .001$, 95% CI = [0.041, 0.079]. However, participants did not evaluate the seller as more competent when the asking price was precise ($M = 4.65$, $SD = 1.10$) versus round ($M = 4.62$, $SD = 1.14$), $b = -0.020$, $t = -0.28$, $p = .772$, 95% CI = [−0.161, 0.119].

When adding price precision, counteroffer precision, and perceived seller's competence into the model, both counteroffer precision, $b = 46{,}738.65$, $t = 5.89$, $p < .001$, 95% CI = [31,170.68, 62,306.62], and perceived competence, $b = -12{,}493.99$, $t = -11.77$, $p < .001$, 95% CI = [−14,577.04, −10,410.94], predicted the asking price-counteroffer gap. Further, price precision still predicted the gap, $b = 5368.90$, $t = 2.25$, $p = .024$, 95% CI = [687.17, 10,050.64], suggesting partial mediation via the precision of the counteroffer – the scale granularity mechanism. The indirect effect of price precision on the asking price-counteroffer gap via the counteroffer precision was significant, $b = 2812.02$, 95% CI = [1347.04, 4380.88], whereas the indirect effect via perceived seller's competence was not, $b = 258.77$, 95% CI = [−1469.13, 2038.34], see Fig. 5.

6.2.3. Manipulation check for perspective taking

The perspective taking manipulation was successful. Participants in the perspective taking condition reported to take the seller's perspective more ($M = 4.63$, $SD = 1.61$) than participants in the control condition who did not receive perspective taking instructions ($M = 3.95$, $SD = 1.75$), $F(1, 963) = 39.95$, $p < .001$, $\eta_p^2 = 0.040$.

6.2.4. Does experimentally-manipulated perspective taking moderate the price precision effect?

Fig. 6 presents the effect of price precision (round vs. precise) and perspective taking (yes vs. no) on (i) the asking price-counteroffer gap, (ii) scale granularity (the proportion of zeros at the end of the counteroffer) and (iii) the perception of the seller's competence.

First, following our pre-registration, we conducted a 2 (Price Precision: round vs. precise) × 2 (Perspective taking: yes vs. no) ANOVA predicting the asking price-counteroffer gap. Hypotheses 1 and 2a predict that the interaction between price precision and perspective taking would be significant. Results revealed, however, that the interaction was not significant $F(1, 961) = 0.51$, $p = .472$. Further, there was no main effect of perspective taking, $F(1, 961) = 0.08$, $p = .771$. The effect of price precision (precise vs. round asking price) was significant, $F(1, 961) = 9.68$, $p = .002$, $\eta_p^2 = 0.010$.

To further interpret the non-significant perspective taking × price precision interaction we conducted exploratory Bayesian analysis comparing an ANOVA model where only price precision is the predictor for the asking price-counteroffer gap with a model that includes price precision, perspective taking, and the perspective taking × price precision interaction as predictors. Results revealed a Bayes factor of $BF_{10} = 0.009$, suggesting strong evidence in favor of a model where price precision is the only predictor. Specifically, the data was 108.98 times more likely to occur when price precision is the only predictor than when all three components of the model predicted the gap.

Second, a moderated-mediation analysis using a bootstrapping procedure with 5000 iterations (Hayes, 2017, model 8) (i) corroborated that the price precision effect was driven by scale granularity, but not by the attribution of seller's competence mechanism, and (ii) revealed that perspective taking did not moderate the effect via any of the process paths. Focusing on the scale granularity path, price precision ($p < .001$) predicted the precision of the counteroffer, whereas perspective taking (yes vs. no, $p = .371$), and the interaction between the two ($p = .830$) did not. Thus, the results from the scale granularity path are in line with H2b, and not H2a. Focusing on the attribution of competence path, perspective taking predicted the evaluation of the seller's competence. Specifically, participants evaluated the seller as more competent when they took the seller's perspective ($M = 4.86$, $SD = 1.05$), compared to when they did not ($M = 4.41$, $SD = 1.14$), $b = 0.502$, $t = 5.00$, $p < .001$, 95%CI = [0.305, 0.699]. However, neither price precision ($p = .854$), nor the interaction between price precision and perspective taking ($p = .489$) predicted the extent to which participants evaluate the seller to be competent. Thus, the results via the seller's competence path do not support H1. In a model in which the asking price-counteroffer gap was predicted from all model components, counteroffer's precision ($b = 46{,}933.93$, $t = 5.97$, $p < .001$, 95% CI [31,395.63, 62,472.24]), and the competence of the seller ($b = -12{,}993.87$, $t = -12.01$, $p < .001$, 95% CI

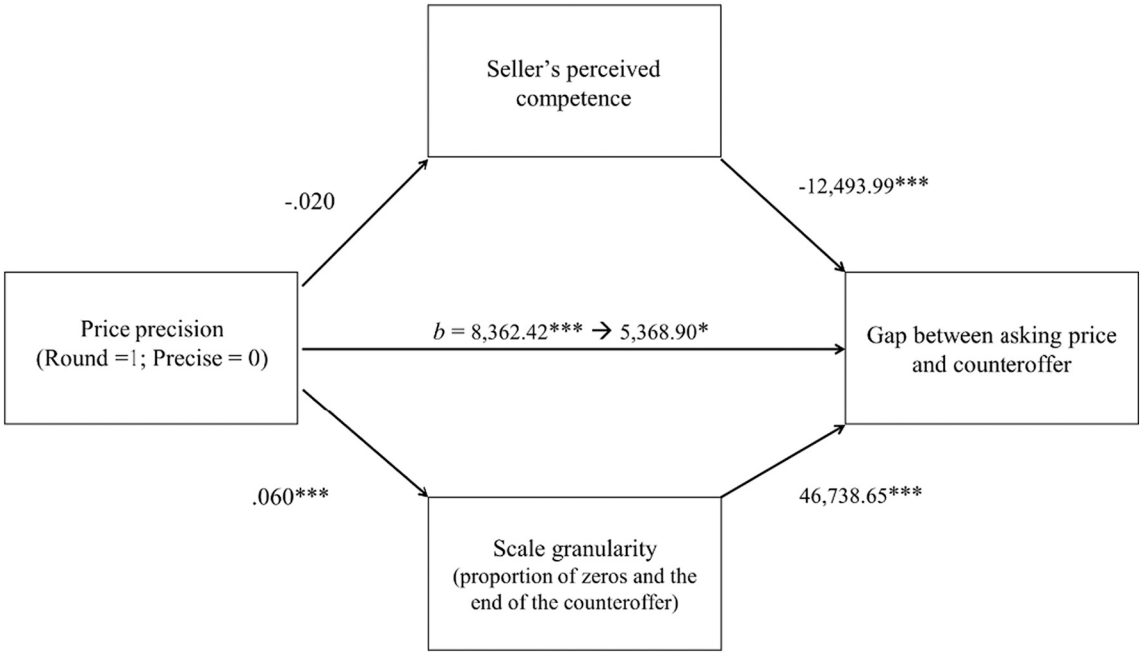

Fig. 5. The price precision effect and its underlying mechanisms in Experiment 2. Path coefficients are unstandardized regression coefficients. *$p < .05$, **$p < .01$, ***$p < .001$.

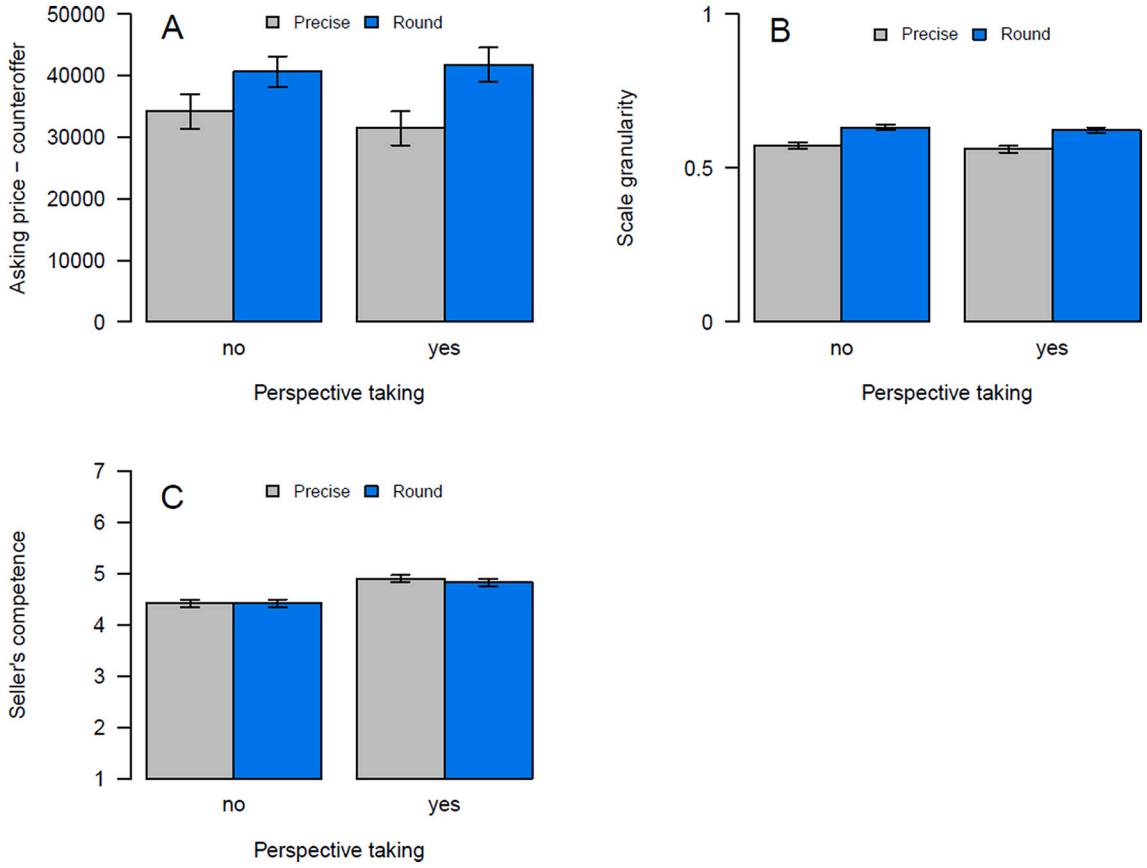

Fig. 6. The effect of price precision (round vs. precise) and perspective taking (yes vs. no) on (A) the gap between the asking price and counteroffer (i.e., lower values indicate a stronger anchoring potency), (B) scale granularity (lower numbers indicate a smaller portion of trailing zeros), and (C) seller's perceived competence (1–7 scale).

[−15,116.92, −10,870.81]) predicted the asking price-counteroffer gap. However, price precision ($p = .228$), perspective taking ($p = .203$), and the interaction between price precision and perspective taking ($p = .589$) did not. Lastly, the moderated mediation index of perspective taking via competence of the seller, $b = 1260.05$, 95% CI [−2148.19, 5051.58], and via scale granularity, $b = 192.13$, 95% CI [−1584.85, 2115.20], were not significant.

6.2.5. *Exploratory analysis on the role of perspective taking*

As in Experiment 1, we again conducted exploratory analysis to examine whether perspective taking would play a role in participants' adjustments away from the asking price. Specifically, we examined whether perspective taking would affects the asking price-counteroffer gap, and whether the evaluation of the seller's competence would drive this effect. Employing Hayes's (2017) process macro with 5000 bootstrap iterations (model 4) revealed that (i) the direct effect of perspective taking on the asking price-counteroffer gap was not significant, whereas (ii) the indirect effect of perspective taking via seller's perceived competence onto the asking price-counteroffer gap was significant. Specifically, perspective taking did not predict the asking price-counteroffer gap, $b = −572.88$, $t = −0.21$, $p = .832$. Further, perspective taking predicted the perception of the seller's competence, $b = 0.443$, $t = 6.24$, $p < .001$, 95% CI = [0.304, 0.583]. When adding perspective taking and seller's competence into the model, both competence of the seller, $b = −15,369.11$, $t = −13.65$, $p < .001$, 95% CI = [−17,577.82, −13,160.40], and perspective taking, $b = 6245.07$, $t = 2.46$, $p = .013$, 95% CI = [1277.50, 11,212.64], predicted the gap. Lastly, the indirect effect of perspective taking on the asking price-counteroffer gap via the evaluation of the seller was significant, $b = −6817.95$, 95% CI = [−9622.76, −4332.69].

6.3. *Discussion*

Experiment 2 replicated the price precision effect and the results of Experiment 1 – participants provided counteroffers closer to the asking price when it was precise, compared to round. Further, the scale granularity mechanism again drove the price precision effect, whereas the attribution of the seller's competence did not. Manipulating perspective taking did not moderate the price precision effect. In line with Experiment 1, exploratory analysis again revealed that perspective taking had a unique and indirect (causal) impact on counteroffers. When participants were asked to take the seller's perspective, they evaluated the seller as more competent. In turn, these elevated perceptions of seller's competence coincided with counteroffers that were closer to the asking price.

7. General discussion

Perspective taking plays a big role in negotiations. Taking others' perspective helps understanding the negotiation partner's interests and motivations, and enables people to take (e.g., Galinsky, Maddux, et al., 2008) and create more value in negotiations (e.g., Galinsky, Maddux, et al., 2008; Gilin et al., 2013; Trötschel et al., 2011), as well as to avoid impasses (Galinsky, Maddux, et al., 2008). In two pre-registered experiments, we examined whether perspective taking would also moderate the price precision effect—that is, the tendency for buyers to provide counteroffers closer to the seller's asking price when it is precise compared to round. Drawing on literature showing that the price precision effect is driven by a social attribution mechanism—buyers attributing higher competence to precise-opening sellers (e.g., Loschelder et al., 2014; Mason et al., 2013)—and the idea that

perspective taking could increase the extent to which precise prices signal competence, we predicted that (H1) perspective taking would amplify the price precision effect via the attribution of competence mechanism. Further, drawing on literature showing that the price precision effect is also driven by a cognitive, scale granularity mechanism (e.g., Frech et al., 2020; Leib et al., 2020; Loschelder et al., 2017), in which buyers adjust on a finer-grained mental scale away from precise prices more when providing a counteroffer to a precise price, we contrasted competing predictions on whether perspective taking would (H2a) or would not (H2b) amplify the price precision effect via the scale granularity mechanism.

Results of Experiments 1 and 2 yield large-scale, high-powered replications of the price precision effect: Participants provided counteroffers closer to the asking price when the asking price was precise compared to round. In the present setting, the price precision effect was driven by the scale granularity, but not the attribution of competence mechanism. That is, precise asking prices made participants mentally adjust on a finer-grained scale when providing a counteroffer. In turn, this scale granularity mechanism resulted in counteroffers closer to the asking price. However, in contrast to prior findings (Loschelder et al., 2014; Loschelder et al., 2017; Mason et al., 2013), participants did not evaluate sellers as more competent when the seller set a precise versus round asking price.

Examining the potential moderating role of perspective taking revealed that both trait perspective taking (in Experiment 1) and manipulated perspective taking (in Experiment 2) did not amplify the price precision effect. The gap in the adjustment away from round (versus precise) asking prices did not differ (i) as a function of participants' natural inclination to take others' perspective, nor (ii) when they were explicitly asked (vs. not asked) to take the seller's perspective. When considering that the main process through which we predicted perspective taking could moderate the price precision effect was via attribution of competence, and the lack of evidence for this process in the present study, it is less surprising that we did not find evidence for this perspective taking moderation.

Exploratory analyses revealed, however, that perspective taking played an indirect role in shaping counteroffers to asking prices. Perspective taking was positively associated with (Experiment 1) and experimentally increased (Experiment 2) the extent to which participants perceived the seller as competent. Higher attribution of competence, in turn, coincided with counteroffers closer to the asking price (i.e., led to higher anchoring potency). Thus, whereas perspective taking did not amplify the price precision effect, we found that, in line with prior work (e.g., Galinsky, Maddux, et al., 2008; Gilin et al., 2013; Trötschel et al., 2011), perspective taking does play a significant role in the negotiation process in general. Specifically, perspective taking may impact competence perceptions and thereby indirectly shape counteroffers to asking prices.

8. Limitations and future directions

The data from our experimental setting suggest that the cognitive, scale granularity mechanism underlies the price precision effect. We did not find evidence for the social, attribution of competence mechanism. Interestingly, prior work suggests that the different mechanisms are relevant in different contexts. For example, Loschelder et al. (2017) found that attribution of competence drives the price precision effect for recipients of asking prices in a negotiation, whereas the scale granularity mechanism drives the effect for the senders of the asking price. Whereas initial evidence suggest that the relevant mechanism may change depending on negotiation role and context, future research should systematically examine the factors that correspond with one mechanism being the main driver of the price precision effect over the other. Addressing this question can be done either by systematically varying the context and examining which mechanism is more prevalent (see approach by Frech et al., 2020; Loschelder et al., 2017) or by conducting a meta-analysis and aggregating the existing evidence for both mechanisms thus far (Loschelder et al., 2021). Uncovering moderating factors that predict the relative importance of each of the two process mechanisms (scale granularity and attribution of competence) will both enhance our theoretical understanding of anchor precision, as well as have practical implications for negotiation tactics.

In the present studies, perspective taking did not play a role in the price precision effect. It did, however, indirectly increase the anchoring potency of the asking price (via attribution of seller's competence). Further, research has shown that perspective taking does play a meaningful role in numerous other domains. For instance, when it comes to interpersonal relationships, perspective taking is positively linked to higher satisfaction in romantic relationships (Cahill, Malouff, Little, & Schutte, 2020; Long & Andrews, 1990) and better, stronger ingroup bonds (Todd & Galinsky, 2014). In the contexts of market transactions, perspective taking can help people to reach better negotiation outcomes (e.g., Galinsky, Maddux, et al., 2008; Gilin et al., 2013; Trötschel et al., 2011) and increase cooperation (Batson & Moran, 1999; Falk & Johnson, 1977). Moreover, in the context of ethical decision making, perspective taking facilitates ethical behavior (Martinez et al., 2014). Given the important role perspective taking plays in many relevant daily processes, and considering our exploratory results showing effects of perspective taking on participants' perceptions of their negotiation partner's competence, we wish to reiterate previous calls (e.g., Ku et al., 2015) for more research to examine the ways in which perspective taking shapes perceptions and behaviors in our daily lives.

9. Conclusions

People tend to provide counteroffers that are closer to precise compared to round asking prices. In two experiments, we examined the potential moderating role of trait (Experiment 1) and manipulated (Experiment 2) perspective taking on this price precision effect. Results revealed that, indeed, precise asking prices lead to more potent anchoring effect (i.e., counteroffers closer to the asking price). Neither trait, nor manipulated perspective taking moderated this price precision effect. Exploratory analyses, however, revealed that both trait and experimentally-induced perspective taking led participants to perceive the seller as more competent, which in turn led to counteroffers closer to the asking price. Overall, the present experiments suggest that price precision and perspective taking both shape counteroffers separately, making both factors important in negotiation processes.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jesp.2022.104323.

References

Backus, M., Blake, T., & Tadelis, S. (2019). On the empirical content of cheap-talk signaling: An application to bargaining. *Journal of Political Economy, 127*(4), 1599–1628.

Baron-Cohen, S. E., Tager-Flusberg, H. E., & Cohen, D. J. (2000). *Understanding other minds: Perspectives from developmental cognitive neuroscience*. Oxford University Press.

Batson, C. D., & Moran, T. (1999). Empathy-induced altruism in a prisoner's dilemma. *European Journal of Social Psychology, 29*(7), 909–924.

Bazerman, M. H., Curhan, J. R., Moore, D. A., & Valley, K. L. (2000). Negotiation. *Annual Review of Psychology, 51*(1), 279–314.

Cahill, V. A., Malouff, J. M., Little, C. W., & Schutte, N. S. (2020). Trait perspective taking and romantic relationship satisfaction: A meta-analysis. *Journal of Family Psychology, 34*(8), 1025–1035.

Chartrand, T. L., & Bargh, J. A. (1999). The chameleon effect: The perception–behavior link and social interaction. *Journal of Personality and Social Psychology, 76*(6), 893–910.

Corcoran, K. O. C., & Mallinckrodt, B. (2000). Adult attachment, self-efficacy, perspective taking, and conflict resolution. *Journal of Counseling & Development, 78*(4), 473–483.

Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113–126.

Davis, M. H., Conklin, L., Smith, A., & Luce, C. (1996). Effect of perspective taking on the cognitive representation of persons: A merging of self and other. *Journal of Personality and Social Psychology, 70*(4), 713–726.
Drolet, A., Larrick, R., & Morris, M. W. (1998). Thinking of others: How perspective taking changes negotiators' aspirations and fairness perceptions as a function of negotiator relationships. *Basic and Applied Social Psychology, 20*(1), 23–31.
Epley, N., Caruso, E. M., & Bazerman, M. H. (2006). When perspective taking increases taking: Reactive egoism in social interaction. *Journal of Personality and Social Psychology, 91*, 872–889.
Falk, D. R., & Johnson, D. W. (1977). The effects of perspective-taking and egocentrism on problem solving in heterogeneous and homogeneous groups. *The Journal of Social Psychology, 102*(1), 63–72.
Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G* power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods, 39*(2), 175–191.
Frech, M. L., Loschelder, D. D., & Friese, M. (2020). How attribution-of-competence and scale-granularity explain the anchor precision effect in negotiations and estimations. *Social Cognition, 38*(1), 40–61.
Friese, M., & Frankenbach, J. (2020). p-Hacking and publication bias interact to distort meta-analytic effect size estimates. *Psychological Methods, 25*(4), 456–471.
Galinsky, A. D., Ku, G., & Wang, C. S. (2005). Perspective-taking and self-other overlap: Fostering social bonds and facilitating social coordination. *Group Processes & Intergroup Relations, 8*(2), 109–124.
Galinsky, A. D., Maddux, W. W., Gilin, D., & White, J. B. (2008). Why it pays to get inside the head of your opponent: The differential effects of perspective taking and empathy in negotiations. *Psychological Science, 19*(4), 378–384.
Galinsky, A. D., & Mussweiler, T. (2001). First offers as anchors: The role of perspective-taking and negotiator focus. *Journal of Personality and Social Psychology, 81*, 657–669.
Galinsky, A. D., Seiden, V. L., Kim, P. H., & Medvec, V. H. (2002). The dissatisfaction of having your first offer accepted: The role of counterfactual thinking in negotiations. *Personality and Social Psychology Bulletin, 28*(2), 271–283.
Galinsky, A. D., Wang, C. S., & Ku, G. (2008). Perspective-takers behave more stereotypically. *Journal of Personality and Social Psychology, 95*(2), 404–419.
Gilin, D., Maddux, W. W., Carpenter, J., & Galinsky, A. D. (2013). When to use your head and when to use your heart: The differential value of perspective-taking versus empathy in competitive interactions. *Personality and Social Psychology Bulletin, 39*(1), 3–16.
Gino, F., & Galinsky, A. D. (2012). Vicarious dishonesty: When psychological closeness creates distance from one's moral compass. *Organizational Behavior and Human Decision Processes, 119*(1), 15–26.
Goldstein, N. J., & Cialdini, R. B. (2007). The spyglass self: A model of vicarious self-perception. *Journal of Personality and Social Psychology, 92*(3), 402–417.
Grant, A. M., & Berry, J. W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal, 54*(1), 73–96.
Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.
Huff, D. (1954). *How to lie with statistics*. New York: Norton.
Janiszewski, C., & Uy, D. (2008). Precision of the anchor influences the amount of adjustment. *Psychological Science, 19*(2), 121–127.
Jerez-Fernandez, A., Angulo, A. N., & Oppenheimer, D. M. (2014). Show me the numbers: Precision as a cue to others' confidence. *Psychological Science, 25*(2), 633–635.
Kemp, K. E., & Smith, W. P. (1994). Information exchange, toughness, and integrative bargaining: The roles of explicit cues and perspective-taking. *International Journal of Conflict Management, 5*(1), 5–21.
Ku, G., Wang, C. S., & Galinsky, A. D. (2010). Perception through a perspective-taking lens: Differential effects on judgment and behavior. *Journal of Experimental Social Psychology, 46*(5), 792–798.
Ku, G., Wang, C. S., & Galinsky, A. D. (2015). The promise and perversity of perspective-taking in organizations. *Research in Organizational Behavior, 35*, 79–102.
Laurent, S. M., & Myers, M. W. (2011). I know you're me, but who am I? Perspective taking and seeing the other in the self. *Journal of Experimental Social Psychology, 47*(6), 1316–1319.
Lee, A. J., Loschelder, D. D., Schweinsberg, M., Mason, M. F., & Galinsky, A. D. (2018). Too precise to pursue: How precise first offers create barriers-to-entry in negotiations and markets. *Organizational Behavior and Human Decision Processes, 148*, 87–100.
Leib, M., Köbis, N. C., Francke, M., Shalvi, S., & Roskes, M. (2020). Precision in a seller's market: Round asking prices lead to higher counteroffers and selling prices. *Management Science, 67*(2), 1048–1055.
Long, E. C., & Andrews, D. W. (1990). Perspective taking as a predictor of marital adjustment. *Journal of Personality and Social Psychology, 59*(1), 126–131.
Loschelder, D. D., Friese, M., Schaerer, M., & Galinsky, A. D. (2016). The too-much-precision effect: When and why precise anchors backfire with experts. *Psychological Science, 27*(12), 1573–1587.
Loschelder, D. D., Friese, M., & Trötschel, R. (2017). How and why precise anchors distinctly affect anchor recipients and senders. *Journal of Experimental Social Psychology, 70*, 164–176.
Loschelder, D. D., Stuppi, J., & Trötschel, R. (2014). "€ 14,875?!": Precision boosts the anchoring potency of first offers. *Social Psychological and Personality Science, 5*(4), 491–499.
Loschelder, D. D., Trötschel, R., Swaab, R. I., Friese, M., & Galinsky, A. D. (2016). The information-anchoring model of first offers: When moving first helps versus hurts negotiators. *Journal of Applied Psychology, 101*(7), 995–1012.
Loschelder, D. D., Weber, M., Friese, M., Frech, M.-L., Mason, M., & Galinsky, A. D. (2021). *The power and peril of precise numbers: An empirical and theoretical review, p-curve, and meta-analysis* (Working paper).
Martinez, A. G., Stuewig, J., & Tangney, J. P. (2014). Can perspective-taking reduce crime? Examining a pathway through empathic-concern and guilt-proneness. *Personality and Social Psychology Bulletin, 40*, 1659–1667.
Mason, M. F., Lee, A. J., Wiley, E. A., & Ames, D. R. (2013). Precise offers are potent anchors: Conciliatory counteroffers and attributions of knowledge in negotiations. *Journal of Experimental Social Psychology, 49*(4), 759–763.
Neale, M. A., & Bazerman, M. H. (1983). The role of perspective-taking ability in negotiating under different forms of arbitration. *ILR Review, 36*(3), 378–388.
Oppenheimer, D. M., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation checks: Detecting satisficing to increase statistical power. *Journal of Experimental Social Psychology, 45*(4), 867–872.
Perugini, M., Gallucci, M., & Costantini, G. (2014). Safeguard power as a protection against imprecise power estimates. *Perspectives on Psychological Science, 9*(3), 319–332.
Peterson, J. L., Bellows, A., & Peterson, S. (2015). Promoting connection: Perspective-taking improves relationship closeness and perceived regard in participants with low implicit self-esteem. *Journal of Experimental Social Psychology, 56*, 160–164.
Pierce, J. R., Kilduff, G. J., Galinsky, A. D., & Sivanathan, N. (2013). From glue to gasoline: How competition turns perspective takers unethical. *Psychological Science, 24*(10), 1986–1994.
Ritov, I. (1996). Anchoring in simulated competitive marketing negotiations. *Organizational Behavior and Human Decision Processes, 67*, 16–25.
Shalvi, S., Moran, S., & Ritov, I. (2010). Overcoming initial anchors: The effect of negotiators' dispositional control beliefs. *Negotiation and Conflict Management Research, 3*(3), 232–248.
Shih, M., Wang, E., Trahan Bucher, A., & Stotzer, R. (2009). Perspective taking: Reducing prejudice towards general outgroups and specific individuals. *Group Processes & Intergroup Relations, 12*(5), 565–577.
Simmons, J. P., LeBoeuf, R. A., & Nelson, L. D. (2010). The effect of accuracy motivation on anchoring and adjustment: Do people adjust from provided anchors? *Journal of Personality and Social Psychology, 99*(6), 917–932.
Simonsohn, U. (2014). [17] No-way interactions. Retrieved from http://web.archive.org/web/20150206205257/http://datacolada.org/2014/03/12/17-no-way-interactions-2/.
Skorinko, J. L., Laurent, S., Bountress, K., Nyein, K. P., & Kuckuck, D. (2014). Effects of perspective taking on courtroom decisions. *Journal of Applied Social Psychology, 44*(4), 303–318.
Skorinko, J. L., & Sinclair, S. A. (2013). Perspective taking can increase stereotyping: The role of apparent stereotype confirmation. *Journal of Experimental Social Psychology, 49*(1), 10–18.
Tarrant, M., Calitri, R., & Weston, D. (2012). Social identification structures the effects of perspective taking. *Psychological Science, 23*, 973–978.
Thomas, M., Simon, D. H., & Kadiyali, V. (2010). The price precision effect: Evidence from laboratory and market data. *Marketing Science, 29*(1), 175–190.
Thompson, L. (1990). Negotiation behavior and outcomes: Empirical evidence and theoretical issues. *Psychological Bulletin, 108*(3), 515–532.
Todd, A. R., & Galinsky, A. D. (2014). Perspective-taking as a strategy for improving intergroup relations: Evidence, mechanisms, and qualifications. *Social and Personality Psychology Compass, 8*(7), 374–387.
Trötschel, R., Hüffmeier, J., Loschelder, D. D., Schwartz, K., & Gollwitzer, P. M. (2011). Perspective taking as a means to overcome motivational barriers in negotiations: When putting oneself into the opponent's shoes helps to walk toward agreements. *Journal of Personality and Social Psychology, 101*(4), 771–790.
Vescio, T. K., Sechrist, G. B., & Paolucci, M. P. (2003). Perspective taking and prejudice reduction: The mediational role of empathy arousal and situational attributions. *European Journal of Social Psychology, 33*(4), 455–472.
Vorauer, J. D., & Quesnel, M. (2013). You don't really love me, do you? Negative effects of imagine-other perspective-taking on lower self-esteem individuals' relationship well-being. *Personality and Social Psychology Bulletin, 39*(11), 1428–1440.
Zhang, Y. C., & Schwarz, N. (2013). The power of precise numbers: A conversational logic analysis. *Journal of Experimental Social Psychology, 49*(5), 944–946.