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How and why precise anchors distinctly affect anchor recipients and senders☆

David D. Loschelder [a,*], Malte Friese [b], Roman Trötschel [c]

[a] Leuphana University Lüneburg, Faculty of Business and Economics
[b] Saarland University, Department of Psychology
[c] Leuphana University Lüneburg, Institute for Psychology

HIGHLIGHTS

- Precise anchors are more potent than round anchors.
- Prior research focused on anchor recipients only and disagreed about mechanisms.
- We extend the focus to anchor senders and contrast competing mechanisms.
- Opposing effects of anchor precision emerge for anchor recipient versus sender.
- Distinct psychological processes account for these opposed effects.

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ABSTRACT

A negotiation commonly starts with one party sending and the counterpart receiving a first offer. This first offer anchors recipients and yields higher profits to the sender. Recent research has shown that precise anchors (e.g., $28.75) – those featuring fewer trailing zeros – are more potent than round anchors ($30.00). The present studies extend this literature in two ways: First, prior research has exclusively focused on anchor recipients while ignoring the sender. Here, we examine precision effects for (1) recipients, (2) senders, and (3) both recipients and senders in a dyadic negotiation. Three experiments establish distinct and opposing effects: Whereas increasing precision elevates a first offer's anchoring potency for recipients, it lowers the first-offer extremity that senders opt for. Second, prior research has disagreed upon the theoretical mechanisms behind the precision effect: The *scale-granularity* account posits that decision-makers adjust in smaller steps on a finer-grained mental scale. The *attribution-of-competence* account posits that people ascribe more competence to a precise-opening individual. We examine these competing theoretical accounts simultaneously. Multiple mediation analyses across all three experiments suggested consistently that the beneficial impact of precise anchors on recipients is due to a social attribution-of-competence, whereas the detrimental impact on anchor-senders is due to a cognitive scale-granularity process. In all, the present findings show (a) that senders and recipients are distinctly affected by anchor precision, and (b) that these opposing effects are due to distinct psychological processes.

1. Introduction

Imagine for a moment you were to barter your present career for a position as Chief Financial Officer (CFO) at a chemical company. As CFO you need to sell one of the company's plants that should net between $17 and $25 million. A plethora of research suggests that you should choose to make the first offer because first offers function as anchors that sway negotiation outcomes in your favor (Galinsky & Mussweiler, 2001; cf. Schweinsberg, Ku, Wang, & Pillutla, 2012). A higher number, say $25 million rather than $21 million, leads to a higher sale price (reviewed by Galinsky, Ku, & Mussweiler, 2009). Recent research has also shown that you should not only start ambitiously,

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* Corresponding author at: Leuphana University Lüneburg, C1.016, Scharnhorststr. 1, Lüneburg, Germany
E-mail address: david.loschelder@leuphana.de (D. D. Loschelder).

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but also precisely: Precise numbers – for instance $24,725,000 – exert a stronger anchoring pull than round numbers (e.g., $25,000,000; Loschelder, Stuppi, & Trötschel, 2013; Mason, Lee, Wiley, & Ames, 2013; Thomas, Simon, & Kadiyali, 2010).

The present research expands this literature in two ways: First, prior research has exclusively focused on the anchor recipient while simulating and standardizing the behavior of anchor senders. The sender's simulated first offer varied in precision—$40.25 versus $40 (Janiszewski & Uy, 2008), €121.37 versus €120 (Loschelder et al., 2013), or $29.75 versus $30 (Zhang & Schwarz, 2013). Anchor recipients reacted with a counteroffer or named the price they were maximally willing to pay. Consistently, precise numbers exerted a stronger anchoring impact than round numbers. However, negotiations are a dynamic process—a cooperative and competitive back-and-forth between *two* negotiation parties (Bazerman, Curhan, Moore, & Valley, 2000; Gelfand, Fulmer, & Severance, 2011; Pruitt & Carnevale, 1993). Negotiation outcomes are strongly impacted by the first offer's anchoring impact on recipients but *also* by the extremity of the sender's first offer. To fully acknowledge this, the present paper examines the effects of anchor precision on recipients *and* senders, as well as the joint, total effects in a dyadic negotiation between recipient and sender. Extending the focus to senders is important because there is theoretical reason to believe that increasing precision may *undermine* the sender's first-offer extremity. Given the first offer's dominant anchoring impact on outcomes, factors that elevate or reduce first-offer extremity are of decisive importance for the first-mover's success (Maaravi, Ganzach, & Pazy, 2011; Loschelder, Trötschel, Swaab, Friese, & Galinsky, 2016).

The present research also expands prior literature by addressing competing psychological mechanisms of anchor precision. Despite the consistent finding that precise numbers are more potent anchors, the literature has markedly disagreed about the underlying processes that account for this effect. The *scale-granularity* account posits that people adjust in smaller steps on a finer-grained mental scale (Janiszewski & Uy, 2008). By contrast, the *attribution-of-competence* account posits that negotiators ascribe more competence to an individual who starts with a precise rather than a round anchor (Mason et al., 2013; Zhang & Schwarz, 2013). Prior studies have examined either one of these mechanisms in isolation and provide preliminary and limited support for each. Whereas the mediating role of a higher attributed competence has been shown through statistical mediation (Mason et al., 2013), the mediating impact of a more fine-grained mental scale has not yet been tested. As anchor senders have not yet been examined whatsoever, it remains completely unknown which process affects senders' decision-making and to what extent. To gain more conclusive insights into the psychological mechanisms and to gauge the extent to which each mediates the anchor precision effects, the present studies simultaneously examined two competing mechanisms.

In three experiments, we examined different degrees of anchor precision and tested competing predictions and underlying mechanisms for anchor recipients (Exp. 1), anchor senders (Exp. 2), and the interacting dyad of recipient and sender (Exp. 3). Before reporting these studies in detail, we review prior research, develop competing predictions from the literature, and outline distinct mediating mechanisms for senders versus recipients.

2. Anchor precision

The anchoring-and-adjustment heuristic constitutes one of the most robust phenomena in psychology (e.g., Englich, 2008; Epley & Gilovich, 2001; Mussweiler & Strack, 2000b; Tversky & Kahneman, 1974). Judges consistently assimilate their estimates to previously considered standards. The anchoring heuristic extends beyond the laboratory to seasoned professionals, such as car mechanics (Mussweiler, Strack, & Pfeiffer, 2000), judges (Englich, Mussweiler, & Strack, 2006), and real estate agents (Northcraft & Neale, 1987). Not surprisingly, anchoring also plays a crucial role in negotiations: Ambitious first offers function as anchors and sway outcomes in the sender's favor (Maaravi et al., 2011; Moran & Ritov, 2002).

Despite the profusion of anchoring research, there has only recently been a notable upsurge in studies on anchor precision. This research suggests consistently that precise anchors are more potent than round anchors (Janiszewski & Uy, 2008; Thomas et al., 2010; Zhang & Schwarz, 2012, 2013). For example, buyers are willing to pay more money when a car is listed at a precise $1865 rather than a round $2000 (Mason et al., 2013). However, the underlying processes behind this effect remain largely unknown and heavily debated. Indeed, two prominent theoretical accounts offer partially distinct predictions for anchor recipients versus senders.

2.1. Scale-granularity account

The scale-granularity account offers a cognitive explanation that builds on serial adjustment processes (Epley & Gilovich, 2006, 2010). The account argues that round numbers – $25 million for a company – create a coarse-grained mental scale that leads people to adjust away from the anchor in relatively large steps, such as incremental concessions of, say, $1 million, $2 million, or even $5 million. In contrast, precise numbers, such as $24,725,000, create a finer-grained mental scale that leads people to adjust in smaller steps, say, concessions of $5,000 or $25,000 (Janiszewski & Uy, 2008). As a consequence, precise numbers result in smaller overall concessions than round numbers. Janiszewski and Uy explain scale granularity as, "X units of adjustment along a fine-resolution scale will cover less objective distance than the same number of units of adjustment along a coarse-resolution scale" (2008, p. 121). Empirical support for this account shows that recipients of precise anchors respond with more precise numbers themselves compared to recipients of round anchors—a finer-grained cognitive scale led judges to terminate their adjustment process at a more precise number (Janiszewski & Uy, 2008, Experiment 1).

2.2. Attribution-of-competence account

In contrast, the attribution-of-competence account builds on a social-relational explanation, arguing that people ascribe more knowledge and competence to counterparts who provide precise rather than round estimates (e.g., Mason et al., 2013; Jerez-Fernandez, Angulo, & Oppenheimer, 2014). The account is based on conversational logic analyses: For instance, Zhang and Schwarz (2012, 2013; see Mason et al., 2013) argue that speakers adhere to *conversational maxims* (Grice, 1975; reviewed by Waenke, 2007). Communicators are expected to provide only information that is truthful (*maxim of quality*) and to provide as much information as is needed — yet neither less nor more (*maxim of quantity*). Based on these maxims, an anchor recipient may assume that each digit of a precise offer is necessary to express the true value of a negotiation issue. Consequently, negotiators perceive precise (vs. round) anchors as more informed and plausible and ascribe more competence to the anchor sender. For instance, sellers of a used car felt that a buyer who opened with a precise $1865 rather than a round $2000 had put more "energy into researching the value of the car" and had better "reasons for the price he suggested" (Mason et al., 2013). Similarly, people ascribed more confidence to another individual who estimated the Mount Everest to be a precise 29,035 ft high rather than a round 29,000 ft (Jerez-Fernandez et al., 2014).

The scale-granularity and the attribution-of-competence account offer distinct explanations for effects of anchor precision. Below, we will elaborate on these distinct predictions separately for recipients and senders.

3. Recipients and the competing precision mechanisms

To date, precision research has separately examined scale granularity (Janiszewski & Uy, 2008) and attribution-of-competence (Mason et al.,