

Starting Low but Ending High: A Reversal of the Anchoring Effect in Auctions

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Counter to the “start high, end high” effect of anchors in individual judgments and dyadic negotiations, 6 studies using a diverse set of methodologies document how and why, in the social setting of auctions, lower starting prices result in higher final prices. Three processes contribute to this effect. First, lower starting prices reduce barriers to entry, which increase traffic and generate higher final prices. Second, lower starting prices entice bidders to invest time and energy (creating sunk costs) and, consequently, escalate their commitments. Third, the traffic generated by lower starting prices can lead bidders to infer value in the item, thereby explaining previous findings that traffic begets more traffic. The authors show that barriers to entry that limit traffic (e.g., a misspelled brand name) lead to anchoring’s normal assimilative effect rather than its reversal. By broadening the understanding of anchors to extended social interactions and open markets, the authors identify when and why starting prices anchor.

Keywords: anchoring, auctions, escalation of commitment, value inference

Although they steadfastly claim that they are expert evaluators of property values and that they are unaffected by a home’s listed price, real estate agents’ property valuations are significantly anchored by list prices, with high list prices resulting in high valuations. In fact, their valuations are only marginally more accurate than those of untrained undergraduates (Northcraft & Neale, 1987). With or without expertise, people anchor on a house’s starting price when assessing its value. At the same time, however, a peculiar phenomenon has arisen in many active real estate markets: Low list prices are resulting in high sale prices. For instance, in early 2005, over 60% of the home sales in Santa Clara County (near San Francisco) had selling prices that were greater than the asking price, and 10% sold for 25% or more above asking price (Perkins, 2005). These two sets of observations, both in the realm of residential real estate, seem inconsistent, if not contradictory. On the one hand, real estate agents are inordinately anchored by list prices; on the other, low starting prices in Santa Clara are generating high final prices.

Our research unravels this inconsistency by investigating the anchoring-and-insufficient-adjustment bias (Tversky & Kahneman, 1974) in auctions. An anchor is “a starting value, which may be chosen arbitrarily, [that] is repeatedly updated or adjusted in light of relevant information until a final estimate is reached” (Fiedler, 1999, p. 9). Although this adjustment process is often conceived as occurring within a single individual or exogenously determined dyads and triads (e.g., Englich, Mussweiler, & Strack, 2005; Galinsky & Mussweiler, 2001; Mussweiler & Strack, 2000a; Northcraft & Neale, 1987; Tversky & Kahneman, 1974; Whyte & Sebenius, 1997), we contend that the process of updating and adjusting may also occur across many individuals. Thus, our research moves beyond intrapsychic cognitions and dyadic and triadic interactions to test whether low anchor values in auctions (i.e., low starting prices) can actually produce higher final prices than high anchor values (i.e., high starting prices). This research, then, investigates how anchors can catalyze social processes that ultimately reverse their normal, assimilative effects.

Across six studies, we identify three underlying causal mechanisms for this effect. First, low starting prices present lower barriers to entry, providing a low-cost means for more bidders to enter and place more bids (Ariely & Simonson, 2003; Kamins, Drèze, & Folkes, 2004; Simonsohn & Ariely, 2005). From an economic perspective, with more bidders and more bids, the probability of higher final prices is more likely (Ariely & Simonson, 2003; Kagel, 1995; Kamins et al., 2004). Thus, low starting prices can attract more bidders, which should induce a high final price. Second, research on escalation of commitment (Rubin & Brockner, 1975; Staw, 1976; Teger, 1980) suggests that early bids can act as sunk costs, that is, investments in pursuit of a course of action, which can then lead early bidders to make additional bids, pushing the final price higher. Finally, if a low starting price auction attracts bidders, others may also be attracted to what is now an “active” auction (Dholakia & Soltysinski, 2001; Simonsohn & Ariely, 2005). If bidders use bidding activity to assess an

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item's value—equating more bidding with higher value—then increased traffic can beget additional traffic, which will also push the final price higher. Thus, lower starting prices can lead to higher final prices by increasing traffic (i.e., increased entry and more participation), which conveys value, and by creating sunk costs for early bidders. Rather than “underestimating the market” as some have claimed, our data suggest that the low starting prices of Bay Area homes may be directly responsible for their high final prices.

Anchoring Effects

Rather than engaging in exhaustive and complete information processing, people tend to use cognitive heuristics to simplify their decision making (Fiske & Taylor, 1991). One prominent heuristic is the use of anchors. Few phenomena are as robust as the anchoring effect, in which final judgments and behavior are assimilated or become more similar to an initial anchor value (Tversky & Kahneman, 1974). Anchoring effects have had considerable impact in economic transactions (Galinsky & Mussweiler, 2001; Joyce & Biddle, 1981; Mussweiler, Strack, & Pfeiffer, 2000; Northcraft & Neale, 1987), public policy assessments (Plous, 1989), judicial verdicts (Englich & Mussweiler, 2001), and interpersonal perceptions (Gilovich, Medvec, & Savitsky, 2000; Gilovich, Savitsky, & Medvec, 1998). Anchors affect the judgments of both individuals and groups, with three-member negotiating teams displaying biased judgments similar to those of single negotiators (Whyte & Sebenius, 1997). Amazingly, regardless of applicability (Mussweiler & Strack, 2000a), plausibility (Mussweiler & Strack, 2000b; Strack & Mussweiler, 1997), expert proficiency (Englich & Mussweiler, 2001; Northcraft & Neale, 1987), or monetary incentives (Chapman & Johnson, 1999; Wilson, Houston, Etling, & Brekke, 1996), final judgments are often assimilated to previously considered anchor values.

In addition to affecting judgments, anchors also influence behavior. Mussweiler and Strack (2000a) found that participants who compared their expected performance with a high anchor increased their performance on two separate tasks, regardless of whether the initial anchor value was relevant and applicable (i.e., the average student's performance) or completely irrelevant and inapplicable (i.e., generated by rolling dice).

Anchors, in the form of starting prices, can also drive interpersonal processes, such as behavior and outcomes in dyadic negotiations (Galinsky & Mussweiler, 2001). For instance, buyer–seller negotiation experiments have repeatedly demonstrated that final outcomes are consistently and positively anchored by first offers, with correlation coefficients ranging from .72 to .93 (e.g., Galinsky, Leonardelli, Okhuysen, & Mussweiler, 2005; Galinsky & Mussweiler, 2001; Galinsky, Mussweiler, & Medvec, 2002; Kray, Thompson, & Galinsky, 2001). Thus, one party's starting price affects the concessionary behaviors of both sides, often accounting for more than 50% of the variance in final negotiated outcomes. Similarly, in the courtroom, the prosecutions' sentencing demands anchor defense attorneys' recommendations, which in turn drive judicial sentencing (Englich et al., 2005). Thus, evidence consistently shows that starting values, from list prices to opening offers to a prosecutor's demands, serve as anchors and have powerful assimilative effects on final outcomes.

Given these effects, a central issue concerns the underlying mechanisms that drive the assimilative effects of anchors. Muss-

weiler and Strack (1999a, 1999b, 2000b) proposed a selective accessibility model (for a related account, see Chapman & Johnson, 1999) to account for the diverse range of anchoring effects. According to their model, individuals selectively generate knowledge that is consistent with the anchor value, which then influences subsequent judgments. For example, Mussweiler and Strack (2000b) found that when participants were given a high anchor for the price of a car, semantic knowledge consistent with high prices (e.g., luxury features, reliability, low gas mileage) became more accessible.

Anchor-Produced Contrast Effects

The universality of anchoring's assimilation effects, however, remains open to question. As noted, the increased accessibility of anchor-consistent knowledge often produces assimilative effects on absolute judgments. For example, comparing one's drug consumption with Frank Zappa's (a high anchor value) as opposed to Steffi Graf's (a low anchor value) produced higher absolute estimates of how many times a person would consume drugs in the next month (Mussweiler & Strack, 2000a). However, anchors can also become reference points, acting as standards of comparison, resulting in a contrast effect. For instance, the same participants who predicted increased drug consumption after comparing themselves with Frank Zappa actually rated themselves as less habitual drug users (Mussweiler & Strack, 2000a).

Although high anchor values produce better performance (Cervone & Peake, 1986; Mussweiler & Strack, 2000a; Seta, 1982) and superior outcomes (Galinsky et al., 2002) because they serve as motivating goals that positively drive performance and outcomes (Garland, 1983; Mento, Locke, & Klein, 1992; Mossholder, 1980), these high values ironically result in reduced satisfaction when used as standards of comparison for evaluating one's own performance (Galinsky et al., 2002; Mussweiler & Strack, 2000a). Thus, high anchors that increase the number of anagrams solved also lead individuals to question their intelligence (Mussweiler & Strack, 2000a). High anchors increase performance but then serve as vexing standards of comparison.

Anchor-produced contrast effects, however, have only been demonstrated for judgments when they serve as reference points and have not been demonstrated for behaviors. Thus, there is little empirical or theoretical evidence for anchors producing contrast effects on performance, outcomes, or behavior. In addition, anchoring studies (e.g., Englich et al., 2005; Galinsky & Mussweiler, 2001; Mussweiler & Strack, 2000a; Northcraft & Neale, 1987; Tversky & Kahneman, 1974; Whyte & Sebenius, 1997) have only focused on the effects of anchoring on individuals or exogenously determined dyads and triads. In the present studies, we suggest that, in an open system that allows for extended social interaction, the normal anchoring effect may be behaviorally reversed.

Reversing the Anchoring Effect: Lower Barriers to Entry

Although the effects of starting values as anchors have resulted in assimilative effects on behavioral outcomes in dyadic negotiations (e.g., Galinsky & Mussweiler, 2001) and on judicial sentences in the courtroom (Englich et al., 2005), the extension of starting price anchors to more complex social interactions such as auctions, in which the number of parties is endogenously rather

than exogenously determined, may create processes that can reverse the traditional anchoring effect. Recent research has begun to examine the dynamics of auction bidding. Findings on the effects of starting prices have been inconclusive and mixed: Research has shown that starting prices have an assimilative effect on final prices (Ariely & Simonson, 2003; Lucking-Reiley, Bryan, Prasad, & Reeves, 2005), a contrastive effect (Kamins et al., 2004), or a U-shaped curvilinear effect (Simonsohn & Ariely, 2005). The present research systematically examines the effects of auction starting prices on final prices, demonstrating both when and why starting prices have contrastive and assimilative effects.

We suggest that three causal processes are responsible for the reversal of the typical assimilative effects of anchors. First, because starting prices create entry barriers into an auction, lower starting prices facilitate market entry and participation (Ariely & Simonson, 2003; Kamins et al., 2004; Simonsohn & Ariely, 2005). In competitive markets such as public auctions, the number of actors is endogenously determined, and variables that increase active participation in the market may then increase final prices (Ariely & Simonson, 2003; Kagel, 1995; Kamins et al., 2004). Second, early bids that are encouraged by low starting prices can act as sunk costs, psychologically committing bidders to the auction and leading them to place higher bids when they are outbid. Thus, escalation of commitment, brought on by lower starting prices, can also push prices higher. Finally, consistent with economic models of signaling in auctions (Kagel, 1995; McAfee & McMillan, 1987) and psychological theories of social proof (Cialdini, 1993; Tesser, Campbell, & Meckler, 1983), market activity may encourage additional entry and participation (Dholakia & Soltysinski, 2001; Simonsohn & Ariely, 2005) because bidders infer value from the amount of bidding.

By extending anchoring research to complex social interactions, we suggest that low anchors in auctions can produce higher final prices compared with high anchors through increased market entry, escalation of commitment, and increased participation that conveys value to fuel further bidding. We conducted six studies to examine these processes and outcomes. Study 1A investigates whether lower starting prices decrease barriers to entry and allow more bidders to enter and participate in an auction. Study 1B replicates this finding while showing that higher starting prices can simultaneously result in intrapsychic assimilative effects. Thus, even though bidders are more likely to judge an item's worth to be higher if the starting price is higher, they are simultaneously less likely to enter and participate in higher starting price auctions. In Studies 2 and 3, we examine archival data from the Internet auction site, eBay, showing that lower starting prices result in higher final prices and that traffic mediates this effect. Study 3 also demonstrates that lower starting prices increase sunk costs, escalation of commitment, and final prices. Study 4 shows that traffic conveys value to bidders, which can explain why traffic begets more traffic (Dholakia & Soltysinski, 2001; Simonsohn & Ariely, 2005). Finally, Study 5 finds that barriers to entry that limit traffic lead to anchoring's normal assimilative effect rather than its reversal. Across the six studies, the auction setting allows us to understand a number of anchor-induced processes that have been neglected in previous models of anchoring, including the insufficient adjustment model (Tversky & Kahneman, 1974) and the selective accessibility model (Mussweiler & Strack, 2000b).

Study 1A: Barriers to Entry

Study 1A investigated whether lower starting prices will decrease entry barriers and attract more traffic in terms of bidders and bids. In this scenario study, participants were asked to imagine being involved in an auction for a \$20 bill (Murnighan, 2002; Shubik, 1971). Consistent with Ariely and Simonson's study (2003) is our prediction that participants would indicate a greater inclination to bid in auctions with a lower rather than a higher starting price.

Method

Participants. Ninety MBA students¹ participated in the study as part of a class exercise.

Procedure. The experiment used a between-participants design with two conditions that varied the starting price of the auction: \$1 versus \$10. The scenario told participants to imagine that they were in a room of 30 people and that they had an opportunity to participate in an auction for a real \$20 bill. The rules of the auction were then explained: Participants were informed of the starting price (either \$1 or \$10) and were told that bidding would proceed in dollar increments without any jumps (i.e., a \$12 bid had to be followed by a \$13 bid). Additionally, participants were told that they could bid at any time and could make multiple bids if they so desired. At the end of the auction, the highest bidder would pay his or her final bid and receive the \$20 bill, and the second highest bidder would also have to pay his or her bid but would receive nothing. This created an escalation incentive for the second highest bidder (Murnighan, 2002; Shubik, 1971).

Participants were then asked to rate on 7-point scales, anchored at 1 = *very unlikely* and 7 = *very likely*, how likely they would be to place a first bid and how likely they would be to place any bid after the first bid. Finally, participants were asked to circle the number of bids they would make (ranging from 0 to 10) before letting another bidder win the auction. These questions allowed us to examine whether participants would be more likely to enter an auction and whether they would bid multiple times.

Results and Discussion

The lower starting price led participants to indicate that they would be more likely to make a first and other bids and to make more total bids than the higher starting price. A multivariate analysis of variance (MANOVA) with their responses to these three questions as dependent variables yielded a significant overall effect for starting price, $F(3, 83) = 3.81, p = .01$. Follow-up analyses of variance (ANOVAs) showed that, compared with the higher starting price auctions, the lower starting price auctions resulted in a greater likelihood that participants would make a first bid ($M = 2.93, SD = 2.58$ vs. $M = 4.05, SD = 2.75$), $F(1, 85) = 3.80, p = .055$; a greater likelihood that they would make other bids ($M = 3.27, SD = 2.41$ vs. $M = 4.60, SD = 2.40$), $F(1, 85) = 6.68, p = .01$; and more total bids ($M = 1.70, SD = 1.71$ vs. $M = 2.93, SD = 2.99$), $F(1, 85) = 5.55, p = .02$. Thus, lower starting prices reduced barriers to entry and created more market entry and participation.

Study 1B: Barriers to Entry and Value Inference

Study 1A was a simple first step, showing that lower starting prices can lead to increased traffic. However, just as anchors can

¹ Participants' sex was not recorded for Studies 1A and 1B and was not available for the eBay archival data examined in Studies 2, 3, and 5.

produce assimilation effects on absolute estimates but contrast effects in comparative judgments (Mussweiler & Strack, 2000a), anchors may differentially influence potential bidders' actions and their evaluation of an item's value: A low anchor value may result in lower valuations while simultaneously reducing barriers to entry. Thus, Study 1B sought to replicate these initial elements of a behavioral reversal of the anchoring effect even though starting prices anchor individuals' judgments of an item's value. Instead of the dollar auction, Study 1B asked participants to imagine participating in an online auction on eBay.

Method

Participants. Participants were 82 undergraduates who were compensated \$10 for their time.

Procedure. The experiment had a between-participants design with two conditions: starting prices of either \$1 or \$24.99. Participants were asked to imagine that they were considering buying a new shirt and that buying a shirt on eBay would be a fun way to find a good deal. They were asked to imagine that they had surfed eBay and found a new brand-name shirt up for auction. The starting price was either \$1 or \$24.99; it was still early in the auction and no bids were posted yet.

We then asked participants to estimate the shirt's value and rate on two 7-point scales (from 1 = *very unlikely* to 7 = *very likely*) how likely they would be to make the first bid and any subsequent bid. Participants also indicated the maximum number of bids that they would make before letting someone else win (ranging from 0 to 10).

Results and Discussion

We predicted that individuals' estimates of the shirt's worth would be assimilated toward the starting price anchor, with the low starting price resulting in lower estimates of worth than the high starting price. We also predicted that the low starting price would facilitate entry and participation in the auction, thus paving the way for a behavioral reversal of the anchoring effect (see Figure 1). Starting price did have an assimilative effect on estimates of worth: An independent-sample *t* test indicated that estimates in the low starting price condition were significantly less ($M = \$20.52, SD = \15.99) than the estimates in the high starting price condition ($M = \$29.67, SD = \13.49), $t(80) = -2.79, p = .007$. At the

same time, a significant MANOVA effect for starting price, $F(3, 78) = 9.22, p < .001$, replicated Study 1A's findings: The low starting price condition resulted in a greater likelihood of first bids ($M = 4.45, SD = 2.23$), a greater likelihood of other bids ($M = 4.69, SD = 1.55$), and more total bids ($M = 3.14, SD = 1.78$) than the high starting price condition ($M = 3.32, SD = 2.19; M = 3.18, SD = 1.78$; and $M = 1.50, SD = 1.28$, respectively), $F(1, 80) = 5.33, p < .03; F(1, 80) = 16.90, p < .001$; and $F(1, 80) = 22.90, p < .001$, respectively.

Thus, on an intrapsychic level, starting prices had an assimilative effect on value judgments, with low starting prices generating lower value estimates, consistent with traditional anchoring findings. Simultaneously, however, in the social setting of an auction, low starting prices sowed the seeds for a behavioral reversal of the anchoring effect, increasing the likelihood that individuals would enter and participate. These effects occurred for both undergraduates (Study 1B) and MBA students (Study 1A), with the latter having been selected for the MBA program based, in part, on their quantitative skills.

Studies 1A and 1B are initial demonstrations of the potential for low starting prices to increase final prices in auctions; they do not show a full behavioral reversal of the anchoring effect. In Study 2, we analyzed archival data from eBay to test for actual reversals of the typical assimilative effect of anchors.

Study 2: Starting Low and Ending High on eBay

In Study 2, we hoped to show that lower starting prices can lead to higher final prices by generating more traffic. We predicted that traffic would mediate the relationship between starting prices and final prices. From a strictly probabilistic standpoint, more bidders increase the likelihood that one bidder greatly desires the item and is willing to pay more for it; in economic terms, this bidder has a particularly high valuation for the item. In addition, the rules of eBay mean that even bidders with low valuations can push up final prices. eBay's modified second-price auction (see McAfee & McMillan, 1987) means that the highest bidder in an auction wins the item but only pays a small increment more than the second highest bid. Thus, lower bidders force individuals with higher valuations to make higher bids. For instance, imagine that Jack and Jill are the only bidders in a beanstalk auction, with Jill mildly interested and Jack highly excited by the thought of owning a beanstalk. If Jill is willing to pay \$10 and Jack is willing to pay three times as much, Jack should win the beanstalk. If Jill bids her maximum of \$10, Jack will win the beanstalk for \$11 (Jill's bid plus a small increment). However, if Jill never enters the auction, Jack will win the auction for \$1. Thus, Jill's final bid determines how much Jack ultimately pays. In general, the bids of bidders with lower valuations will cause higher valuation bidders to increase their bids. This logic is consistent with economic research demonstrating that, even though individuals should rationally decrease their maximum bids as the number of bidders increase, most people fail to do so, driving up final prices (Ariely & Simonson, 2003; Kagel, 1995).

Study 2 was designed to extend Studies 1A and 1B in several ways. First, we sought to replicate the starting price-traffic relationship in actual auctions by analyzing eBay bid histories (listings of the timing and amount of all of the bids for each item). Second, we hoped to document a full reversal of the anchoring effect,

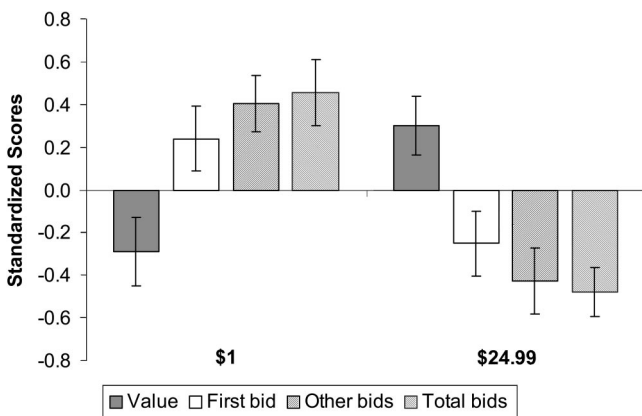


Figure 1. The effect of starting price on value inference, first bids, other bids, and total bids in an eBay shirt auction scenario (means with SEM represented by error bars).

showing that low starting prices generate higher final prices. Third, we explored the process behind the behavioral reversal of the anchoring effect, exploring whether traffic would mediate the relationship between starting and final prices. Fourth, because the notion of traffic is central to our understanding of the reversal effect, we wanted to explore the robustness of our findings by refining the operationalization of traffic. Specifically, in this study we operationalized traffic as the number of bids and the number of unique bidders, combined.

A final consideration in Study 2 pertains to the auction items. Auction theory generally categorizes auctions into two ideal types: independent private and common value auctions (Kagel, 1995). Bidders in independent private value auctions have idiosyncratic, private valuations that are independent of others' preferences. Examples include antiques that hold sentimental value and will not be resold. Alternatively, bidders in common value auctions know that the item has a "true" value even though this value remains unknown until the end of the auction. Common value auction bidders can estimate an item's true value. Typical examples of common value auctions are auctions for drilling rights (McAfee & McMillan, 1987).

To increase generalizability, a study that included prototypical independent private and common value auctions would be ideal. In addition, our archival analyses depended on finding items that were sufficiently numerous to provide sufficient analyzable data. Two products—Tabriz Persian rugs and Nikon digital cameras—fit these two criteria. Tabriz rugs have many features of independent private valuations: They appeal to buyers' esthetic senses, each is usually one of a kind, and people tend to use them rather than resell them. In contrast, Nikon digital cameras have many common value features: They are identical, easily purchased from many venues, and therefore have a true value that can be estimated. We decided on the rugs and digital cameras because they represent disparate auction types, they were plentiful on eBay, and their monetary values run into the hundreds of dollars, ensuring that bidding on and buying these items was probably not a frivolous endeavor. We did not collect archival data on any other products—these were the first and only two commodities that we investigated. Given the diversity of these two items, the findings from Study 2 should have high external validity; they may also have interesting implications for the millions of registered users on eBay.

Method

We collected data for 179 Tabriz Persian rug and 87 Nikon digital camera auctions (the total number available at the time, given that eBay allows auction Web pages to be viewed for a month after sales are completed). To balance external validity (e.g., a month's worth of completed auctions) while limiting unnecessary variance (e.g., rugs of unusual sizes or cameras with extra features), we downloaded all auctions that fit our criteria.²

For each auction, we recorded the starting and final prices and the bid history. The bid histories allowed us to tabulate the number of bids placed and the number of unique bidders in each auction. We standardized the raw scores for starting price, final price, number of bids, and number of unique bidders separately for the cameras and the rugs. Across both items, the number of bids and number of unique bidders were highly correlated, $r(264) = .84, p < .001$; their average was our measure of traffic (Cronbach's $\alpha = .91$).

Results and Discussion

Because some of the auctions did not result in a sale (either because no bids were placed or because the final bid failed to meet the seller's reserve price), we conducted logistic regressions with sale as the dependent variable (completed sales were coded as 1) and starting price as the independent variable. A first analysis that included all auctions showed that lower starting prices were more likely to result in a completed transaction than higher starting prices ($\beta = -3.44, p < .001$). Because some sellers set reserve prices, expressing an unwillingness to sell for a low final price, we ran a second analysis that excluded auctions with unmet reserve prices. Lower starting price still resulted in more sales ($\beta = -8.61, p = .003$). When a sale is not completed, the seller has wasted time and resources. Thus, high starting prices led to fewer transactions, higher transaction costs, and economic inefficiency.

To test our starting price \rightarrow traffic \rightarrow final price hypothesis, we used ordinary least squares regressions to analyze auctions that resulted in transactions ($N = 197$). This is a conservative test of our hypotheses, as it excludes auctions with high starting prices and final prices of \$0. Consistent with Baron and Kenny's (1986) criteria for mediation, in a first regression model, starting prices significantly predicted the mediator, traffic, with lower starting prices generating more traffic ($\beta = -.45, p < .001$). Starting prices also predicted final prices, with lower starting prices generating higher final prices ($\beta = -.16, p < .05$). When traffic was entered with starting prices, starting prices no longer significantly predicted final prices ($\beta = .10, p = .13$), but traffic did ($\beta = .59; p < .001$). The R^2 increase of .28 was statistically significant ($p < .001$), and a Sobel test ($Z = -5.49, p < .001$) confirmed that traffic fully mediated the relationship between starting prices and final prices (see Figure 2). Separate analyses for each auction category and for unique bidders and number of bids were robust, showing the same starting price \rightarrow traffic \rightarrow final price effect.

These findings provide strong evidence for the predicted relationships. Even though we only analyzed completed sales, higher starting prices still resulted in lower final prices. Study 2 also indicated why lower starting prices result in higher final prices: Lower starting prices led to more bids *and* more unique bidders, which led to higher final prices. Hence, across two different consumer items that mark the ends of an independent private value–common value continuum, we observed a systematic reversal of the anchoring effect. Low starting prices not only resulted in market entry and market participation but also resulted in higher final prices. Together, Studies 1A, 1B, and 2 provide strong evidence that, in public arenas such as auctions, in which the number of participants is endogenously determined, lower starting prices can draw in more bidders and more bids, leading to higher final prices.

² The Tabriz Persian rugs were all cotton and wool rugs measuring between 9.5 and 11.5 ft by 6.5 and 8.5 ft, listed as at least in fine or good condition with no defects. The cameras were all base model Nikon Coolpix 775 2.1MP 3X digital cameras with no additional features and were new or factory-refurbished with a 3-month warranty. All of these auctions were held between September 6 and September 26, 2002.

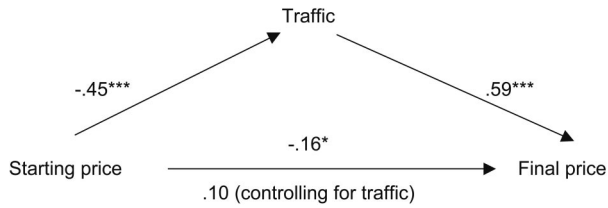


Figure 2. Mediation pathways (with standardized coefficients) for the Tabriz rug/Nikon digital camera auctions, showing complete mediation for the starting price \rightarrow traffic \rightarrow final price relationship. * $p < .05$; *** $p < .001$.

Study 3: Escalation of Commitment on eBay

Study 2 showed that lower starting prices can generate more unique bidders, more bids, and hence, higher final prices. As we noted, increased traffic results in probabilistically higher final prices. In Study 3, we consider another underlying mechanism—escalation of commitment—that may fuel final prices. In escalation of commitment, individuals allocate a resource—be it money, time, or intangibles such as self-identities—to further a particular goal, after which they receive negative feedback, which suggests that, at best, the goal has not been obtained. Facing an ambiguous choice of whether further resources will make goal attainment possible, many individuals feel the need to justify their original choices and do so by increasing their commitment and reinvesting in their failing course of action (Rubin & Brockner, 1975; Staw, 1976; Teger, 1980). Although economic rationality prescribes that people should ignore sunk costs and make decisions only on the basis of future costs and benefits, individuals are not *prospectively* rational; instead they seem to be *retrospectively* rational, justifying and rationalizing prior decisions (Staw, 1981). Escalation of commitment has been used to explain a wide variety of flawed decisions, ranging from organizational investment decisions (McCarthy, Schoorman, & Cooper, 1993; Staw, 1976), commitment to employees (Bazerman, Beekun, & Schoorman, 1982; Schoorman, 1988), playing time for professional basketball players (Staw & Hoang, 1995), and even the Vietnam War (Staw, 1976). Ku, Malhotra, and Murnighan (2005) studied the role of escalation of commitment in auction fever and overbidding, operationalizing sunk costs in terms of time spent in an auction. They found, in archival and experimental data, that people were more likely to bid past previously set limits when they had spent more time in an auction.

Early auction bidders accumulate sunk costs in terms of time and energy. When they are outbid, sunk costs may encourage them to escalate their commitments and bid more. Operationally, this should result in the winners of low starting price auctions spending more time and making more bids than both the winners of high starting price auctions and nonwinners. In addition, winners' sunk costs should be positively correlated with final prices. Thus, the traffic generated by lower starting prices may drive up final prices via multiple means, due to lowered entry barriers and escalation of commitment.

Study 3 was a naturally occurring field experiment that investigated the effects of lower starting prices on escalation of commitment and final prices. To further diversify our research, Study 3 used a different auction item—men's shirts—and an additional

item in our traffic index—number of bids above the high starting price—to explore these hypotheses.

Method

Study 3's data focused on a particular seller's (ID: Browncow) Tommy Bahama men's silk shirts. Tommy Bahama manufactures high-end Hawaiian-themed clothing. eBay prices for Tommy Bahama shirts vary widely, with used shirts selling for \$10 or more and new shirts with sought-after designs selling for over \$200 (twice their retail price).³ Because Browncow varied the starting price (\$9.99 vs. \$24.99) of his auctions (not an uncommon practice on eBay), we could independently and unobtrusively test our hypotheses. We downloaded the bid histories of 89 Tommy Bahama men's silk shirt auctions, all sold by Browncow between July 10 and August 12, 2001.

Starting price. The starting prices of these auctions were either \$9.99 or \$24.99.

Traffic. The bid histories provided the total number of bids, the number of bids above the high starting price, and the number of unique bidders, all of which were highly and significantly correlated (r s ranging from .39 to .93). Thus, we standardized and averaged these measures to form a traffic index (Cronbach's $\alpha = .82$).

Escalation of commitment. To examine the role of escalation of commitment from the bid histories, we also calculated each bidder's time in the auction (i.e., time of last bid minus time of first bid) and the number of bids each bidder made. Because these two items were significantly correlated, $r(570) = .48$, $p < .001$, we standardized and averaged them to form a measure of bidders' sunk costs in the auction (Cronbach's $\alpha = .64$). Although all of our previous analyses have been at the auction level, we used these bidder level data to determine if winners of low starting price auctions spent more time and made more bids than nonwinners and winners of high starting price auctions. In addition, the data for winners allowed us to test whether the escalation of winners' commitments affected final prices. Thus, for each auction, we also calculated auction winners' sunk costs, $r(87) = .53$, $p < .001$ (Cronbach's $\alpha = .70$).

Results and Discussion

Effects of starting price on traffic and final price. The two different starting prices led to the same effects on traffic and final price as we observed in Study 2. A MANOVA with starting price (\$9.99 vs. \$24.99) as the independent variable and the traffic index and final prices as dependent variables led to a significant main effect of starting price, $F(2, 86) = 13.28$, $p < .001$. Univariate tests revealed that low starting price auctions generated significantly more traffic ($M = 0.25$, $SD = 0.86$ vs. $M = -0.57$, $SD = 0.50$), $F(1, 87) = 21.18$, $p < .001$, and higher final prices ($M = \$59.78$, $SD = \$11.11$ vs. $M = \$49.31$, $SD = \$7.09$), $F(1, 87) = 20.29$, $p < .001$, than high starting price auctions. Regression analyses tested for mediation (see Figure 3). A first regression indicated that starting price significantly predicted traffic, with the low starting price resulting in more traffic ($\beta = -.44$, $p < .001$). A second regression indicated that the low starting price resulted in higher final prices ($\beta = -.44$, $p < .001$). When traffic was added to the second stage of this regression, both starting price ($\beta =$

³ Tommy Bahama shirts are arguably in the middle of the private independent value–common value continuum. Although Tommy Bahama apparel are commonly auctioned on eBay and retail in many major malls, suggesting commodity-like valuations, some flamboyantly designed shirts may evoke strong idiosyncratic valuations, rendering them closer to the independent private value end.

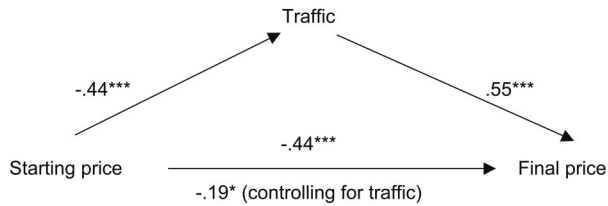


Figure 3. Mediation pathways (with standardized coefficients) for the Tommy Bahama shirt auctions, showing partial mediation for the starting price \rightarrow traffic \rightarrow final price relationship. * $p < .05$; *** $p < .001$.

$-.19, p < .05$) and traffic ($\beta = .55, p < .001$) significantly predicted final prices. The R^2 significantly increased by $.24$ ($p < .001$), and a Sobel test ($Z = -3.68, p < .001$) confirmed that traffic partially mediated the relationship between starting and final prices. Separate analyses for unique bidders, number of bids, and number of bids above the high starting price all showed the same starting price \rightarrow traffic \rightarrow final price effect.

Effects of starting price on escalation of commitment. The data also indicated that low starting price auctions allow individuals to enter the auction earlier and accumulate sunk costs, leading them to escalate their bidding. We tested whether low starting price winners had greater sunk costs (time spent and bids made) than high starting price winners and nonwinners. A 2 (starting price: low vs. high) $\times 2$ (bidder: winner vs. nonwinner) ANOVA yielded a main effect for starting price, $F(1, 568) = 5.73, p = .02$, with the low starting price ($M = 0.04, SD = 0.91$) resulting in more sunk costs than the high starting price ($M = -0.11, SD = 0.63$), and a main effect for bidder, with winners ($M = 0.34, SD = 1.13$) having more sunk costs than nonwinners ($M = -0.07, SD = 0.78$), $F(1, 568) = 14.29, p < .001$. Although the Starting Price \times Bidder interaction was not significant, $F(1, 568) = 1.50, p = .22$, a more specific contrast recommended by Rosnow and Rosenthal (1989) showed that winners in low starting price auctions ($M = 0.49, SD = 1.21$) had the highest sunk costs ($M = 0.11, SD = 0.90$; $M = -0.04, SD = 0.83$; and $M = -0.17, SD = 0.54$ for winners in high starting price, nonwinners in low starting price, and nonwinners in high starting price auctions, respectively), $F(1, 568) = 18.34, p < .001$ (see Figure 4). These data support the notion that low starting prices draw bidders in early, causing them to have higher sunk costs and escalate their commitments, so much so that they become auction winners.

A regression analysis also showed that winners' sunk costs significantly predicted final prices ($\beta = .27, p = .01$). Together, these data suggest that low starting prices encouraged bidders to enter the auction and accumulate sunk costs, which led them to escalate (i.e., make additional bids), pushing up final prices.

Thus, Study 3 demonstrated that lower starting prices resulted in more traffic and sunk costs, which then affected final prices. An additional regression analysis confirmed that both market entry and escalation of commitment contributed to higher final prices. Specifically, unique bidders ($\beta = .46, p < .001$) and winners' sunk costs ($\beta = .33, p = .001$) had separate and significant effects on final prices. Thus, two independent processes (winners' sunk costs and number of unique auction entrants) contributed to higher final prices.

Study 4: Inferring Value From Traffic and Current Prices

Studies 1–3 have shown that lower starting prices generate more traffic, either from lower barriers to entry or from escalation of commitment. Study 4 considers the effects of traffic on individuals' valuations. Although previous studies have shown that early traffic can stimulate later traffic as individuals flock to active auctions (Dholakia & Soltysinski, 2001; Simonsohn & Ariely, 2005), the psychological reasoning behind this observation is unclear. Consistent with the notion that additional bids can signal that an item's true value has not been reached (Kagel, 1995; McAfee & McMillan, 1987) and that the behavior of others can be used as guides for one's own actions (Cialdini, 1993), is our suggestion that bidders use traffic as an indicator of value, perceiving high-traffic items to have greater value. Thus, when bidders are drawn into low starting price auctions because of lower barriers to entry and escalation of commitment, the increase in traffic can also convey worth and value in the item, fueling further bidding.

In Study 4, we manipulated auction traffic and asked participants to estimate the value of a Cancun vacation that was ostensibly being auctioned on eBay. Study 1B showed that starting prices can have an assimilative effect on participants' intrapsychic assessments of value. In this experiment, we introduced an additional variable—current price—to examine how the dynamic nature of prices can influence value inferences over time. As with starting prices, we expected current prices to have an assimilative effect on value judgments. Thus, the experiment used a 2 (current price: low vs. high) $\times 2$ (traffic: low vs. high) between-participants design.

Method

Participants. Forty-six undergraduate students (17 male and 29 female) participated in the study for \$10 compensation.

Procedure. Participants were tested individually, with all information presented on a computer. They were informed that we were interested in understanding how individuals bid in auctions and were asked to imagine

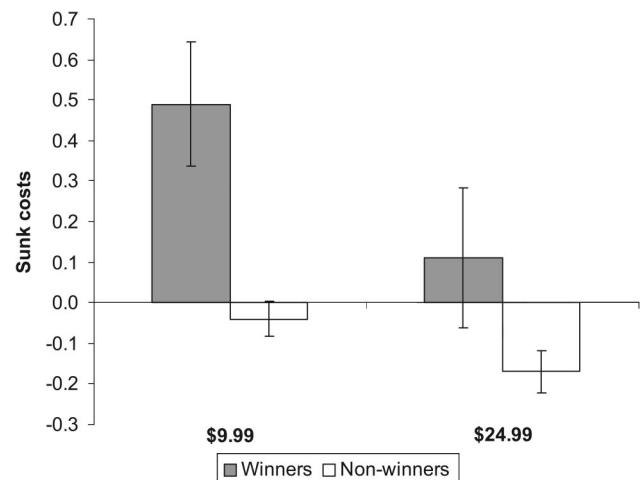


Figure 4. The Starting Price (\$9.99 vs. \$24.99) \times Bidder (winners vs. nonwinners) sunk costs interaction for the Tommy Bahama shirt auctions (means with SEM represented by error bars).

that they were considering buying an item on eBay. Participants then examined a simplified eBay auction page before answering questions about it.

Our fictitious auction page, which mimicked an actual eBay auction, had a small picture of a Cancun beach/hotel scene on the left. In the center of the screen were the manipulated variables of current price and traffic. In addition, we included standard eBay information such as the current high bidder's login, when the auction started, the auction end time, and the starting bid (\$210). Underneath this, we presented the auction title, "Cancun Mexico Vacation—All Inclusive With Air for 2," and the following description of the auction:

Your Cancun, Mexico vacation includes roundtrip airfare on Delta Airlines and 7 nights all inclusive hotel accommodations at the Yalmakan Cancun Beach Resort, Mexico. This vacation gives you the sun, the sand, and plenty of time to enjoy the beach facilities or just lay around doing nothing.

On the following computer screen, participants saw the same auction page at the top and were asked to indicate how much they thought the item was worth at the bottom of the screen.

Current price and traffic manipulations. We found only one completed Cancun vacation auction on eBay (which resulted in a final price of \$1,277), and our experimental materials duplicated the details of this auction. Because there were no other identical auctions on eBay, we used the variation that we observed in our other eBay archival data as a basis for calculating high and low current prices and high and low traffic for this vacation package. Extrapolations (using final price as the common statistic) from our rug, digital camera, and Tommy Bahama data led to 10th and 90th percentile current prices for the Cancun vacation auction of \$896.86 and \$1,633.33 and 10th and 90th percentile numbers of bids of 5 and 24.

Results and Discussion

Similar to Study 1B, a higher current price resulted in higher judgments of worth than did a lower current price. More important, more traffic led to higher valuations. A 2 (current price: low vs. high) \times 2 (traffic: low vs. high) ANOVA on participants' valuations revealed main effects for current price and traffic. A higher current price ($M = \$2,054$, $SD = \$800$) resulted in higher judgments of worth than did a lower current price ($M = \$1,084$, $SD = \$414$), $F(1, 42) = 30.19$, $p < .001$. Additionally, participants perceived greater value in the high-traffic auctions ($M = \$1,798$, $SD = \$923$) than in low-traffic auctions ($M = \$1,364$, $SD = \$593$), $F(1, 42) = 6.92$, $p = .012$. The Current Price \times Traffic interaction was not significant, $F(1, 42) = 0.73$, $p = .40$.⁴

Thus, although lower starting prices initially resulted in lower valuations, they precipitate market entry and participation, creating traffic and pushing up the current price, both of which then result in higher valuations. The fact that people infer value from traffic helps explain the finding that, even though individuals should rationally decrease their maximum bids as the number of bidders increase, most people fail to do so, resulting in traffic fueling even more traffic (Ariely & Simonson, 2003; Dholakia & Soltysinski, 2001; Kagel, 1995; Simonsohn & Ariely, 2005).

Study 5: Starting Low and Ending Low on eBay

Studies 1–4 have demonstrated that, counter to the typical assimilative effect of anchors, low starting prices in auctions can produce a reversal of the anchoring effect, that is, higher rather than lower final prices, via lower barriers to entry, escalation of

commitment, and inferred value. Study 5 assessed whether auctions with low starting prices will always lead to higher final prices and sought to explain previous, contradictory findings that starting prices can produce varying effects on final prices (Ariely & Simonson, 2003; Kamins et al., 2004; Lucking-Reiley et al., 2005; Simonsohn & Ariely, 2005).

Although low asking prices in the San Francisco area might push up final sale prices, our findings that traffic is an important mediator of the reversal suggest that less desirable locations (e.g., Antarctica) that tend to generate less traffic should *not* reverse the typical anchoring effect. With fewer interested parties, the normal, assimilative effect of anchoring should occur; that is, high starting prices should lead to high final prices. Thus, we predicted that auctions that inhibit traffic would generate the typical assimilative effect of anchors, and auctions that facilitate traffic would again lead to its reversal.

Study 5 tested this hypothesis in a naturally occurring field study of eBay auctions in which the brand name of a set of items was spelled either correctly or incorrectly. Spelling mistakes create a natural barrier to entry: Potential buyers who use eBay's search engine to locate items may not discover the misspelled items. Thus, we expected to replicate our reversal of the anchoring effect for correctly spelled items, in which traffic was not impeded, but we expected to find an assimilative effect of starting prices for incorrectly spelled items, in which traffic was inadvertently blunted.

Method

We collected data for 43 Michael Jordan (spelled correctly) and 33 Micheal Jordan (spelled incorrectly) short- and long-sleeve new shirts, all auctioned between April 29 and May 20, 2005 (the total number available at the time). For each auction, we recorded the starting and final prices and the bid history. The bid histories allowed us to tabulate the number of bids placed and the number of unique bidders in each auction, which we standardized and averaged to produce a measure of traffic, $r(74) = .93$, $p < .001$ (Cronbach's $\alpha = .97$).

Results and Discussion

Some of the auctions received no bids and thus did not result in a sale. Specifically, 72.7% of the misspelled items remained unsold, whereas only 37.2% of correctly spelled items were unsold, $\chi^2(1, N = 76) = 9.45$, $p = .002$. Misspelling the brand name of an item was thus a costly mistake for sellers, with items remaining unsold almost twice as often. Our subsequent analyses only included the sold items ($N = 36$).

As expected, correct spellings led to more traffic and higher final prices than incorrect spellings. A MANOVA revealed a significant effect for spelling, $F(2, 33) = 10.05$, $p < .001$ (see Figure 5), and follow-up ANOVAs showed that correctly spelled items resulted in more traffic ($M = 1.03$, $SD = 0.85$ vs. $M = -0.22$, $SD = 0.30$), $F(1, 34) = 18.25$, $p < .001$, and higher final

⁴ We conducted an additional ANOVA that included participant sex. Both main effects for traffic and current price remained significant. The only other significant effect was a Current Price \times Traffic \times Participant Sex interaction, $F(1, 38) = 4.34$, $p = .04$. We refrain from interpreting this interaction because several of the cell sizes were prohibitively small (e.g., $n = 2$).

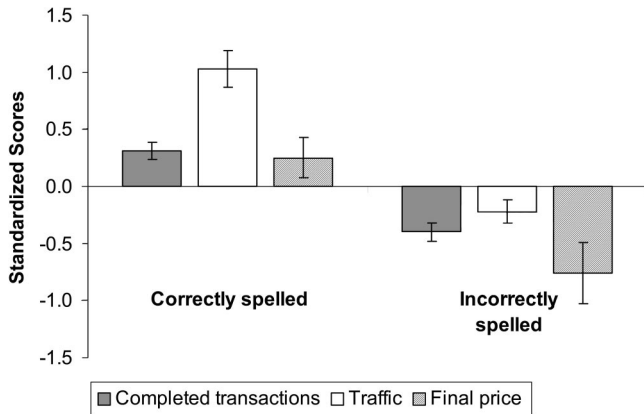


Figure 5. The effect of spelling on completed transactions, traffic, and final prices in Michael (Micheal) Jordan shirt auctions (means with SEM represented by error bars).

prices ($M = \$20.46$, $SD = \$8.83$ vs. $M = \$10.88$, $SD = \$7.68$), $F(1, 34) = 8.42$, $p = .006$, than did misspelled items.

A regression analysis with final price as the dependent variable and starting prices and spelling (0 for *incorrectly spelled* and 1 for *correctly spelled*) as the independent variables assessed whether low starting prices resulted in higher final prices for correctly spelled auctions (a contrast effect) but lower final prices for incorrectly spelled auctions (an assimilation effect). Main effects were entered into the model in the first stage, and then a mean-centered interaction term was entered in the second stage. There was a significant main effect for spelling ($\beta = .46$, $p < .02$) and a significant Spelling \times Starting Price interaction ($\beta = -.73$, $p < .001$). By using standard procedures (Aiken & West, 1991), simple slope analyses revealed a significant negative relationship for correctly spelled items ($\beta = -.44$, $p = .02$), replicating findings from Studies 2 and 3, and a significant positive relationship for incorrectly spelled items ($\beta = .96$, $p < .001$). Misspelled titles led to less traffic and the normal assimilative effect of anchors; this effect was reversed when traffic was abundant (see Figure 6). These data demonstrate that our documented reversal of the starting price effect on final prices is truly an interpersonal process.

General Discussion

Across six studies, using a range of methodologies and operationalizations, we have shown that lower starting prices can result in higher final prices. This reversal of the anchoring effect was driven by the increased traffic that lower starting values stimulated. Studies 1A and 1B demonstrated that lower starting prices decreased barriers to entry, promoting market entry and participation in auction scenarios. Studies 2 and 3 used a variety of different auction items to demonstrate for the first time a unique behavioral reversal of the typical anchoring effect. Lower starting prices reduced barriers to entry, increased market entry and participation, and ultimately resulted in higher final sale prices. In addition, lower starting prices produced more sunk costs and thus more opportunities for escalation of commitment; in fact, winners' sunk costs were correlated with final prices—the greater winners' escalation, the higher the final prices were. Study 4 demonstrated

that the traffic that is generated by low starting prices conveys value about the item and thus may also create more market entry and participation. Thus, rather than finding that final sale prices were assimilated to starting values, we found a contrast effect, with lower starting prices resulting in more traffic, and hence, higher final sale prices. In auctions, low starting prices create higher final prices by allowing more people to enter the market, producing sunk costs and leading people to infer value from high-traffic auctions.

Low starting prices do not, however, always produce a contrast effect. In Studies 1B and 4, we saw that low starting prices and low current prices (respectively) have assimilative effects on value estimates (intrapyschic judgments). Similarly, when a market has strong entry barriers, the typical assimilative effect of anchors occurs in auction outcomes: In Study 5, low starting prices resulted in low final prices when an item's brand name was misspelled, thereby reducing market entry and participation. Data from Study 5 identified an important criterion for the reversal phenomenon—when traffic in auctions is blunted, anchors will have an assimilative rather than contrastive effect—demonstrating that the reversal of the starting price effect results from interpersonal processes.

Finally, Studies 2 and 5 also found that higher starting prices and incorrect spellings of an item's brand name decreased the probability of an auction ending in a sale. Thus, barriers to entry had two costs for sellers: an increased chance of no sale and lower final prices.

Anchors as Catalysts

These findings represent a considerable departure from previous research, which has shown that anchors consistently produce assimilative effects. Although Mussweiler and Strack (2000a) found that anchors can produce contrast effects on judgments when the anchor values serve as reference points in the construction of a comparative judgment, on absolute judgments, anchors almost always produce assimilation effects. Even in dyadic, distributive negotiations, starting price anchors show an assimilation effect,

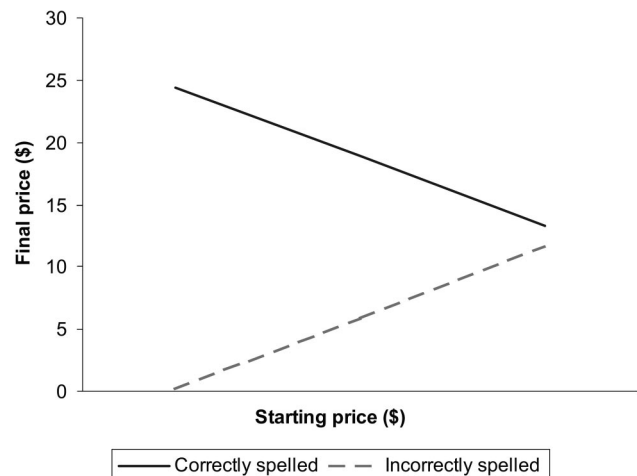


Figure 6. The Starting Price \times Spelling (correctly spelled vs. incorrectly spelled) interaction on final price for Michael (Micheal) Jordan shirt auctions using predicted values (Aiken & West, 1991).

with higher opening offers producing higher final values (Galinsky & Mussweiler, 2001). Indeed, no previous research has found a contrast effect for anchors on behaviors and outcomes. Given that final prices are more similar to absolute judgments than to comparative judgments, it would be reasonable to assume that starting prices would produce assimilation effects on an item's valuation. The work on the selective accessibility of anchor-consistent knowledge (Mussweiler & Strack, 2000b) would certainly support this assumption: Higher starting prices should make positive features of the item accessible, and this knowledge should imply a high value. Study 1B demonstrated this: Respondents' estimations of worth were assimilated to the starting price anchors. The fact that starting prices in auctions did not produce assimilation effects on final sale prices is therefore truly surprising.

Previous findings, however, have focused primarily on individual cognitions and occasionally on dyadic and triadic interactions. In contrast, auctions create broad social processes that can reverse the traditional anchoring effect of starting prices. It is the social interaction that is critical here: By reducing entry barriers, low starting prices activate traffic (which conveys value) and create sunk costs that, in the end, increase final auction prices. Our research, in essence, yields a new paradigm for understanding a number of social processes that were not contemplated in previous models of anchoring (Tversky & Kahneman, 1974; Mussweiler & Strack, 2000b).

Consistent with work showing that even implausible anchors create assimilative effects in intrapsychic judgments (Strack & Mussweiler, 1997), by opening a wide door to traffic, implausibly low starting prices can result in high final prices. For example, three Nikon cameras in Study 2 had \$0.01 starting prices, and all resulted in final prices (average of \$312) greater than the average price for completed camera auctions (\$204). Our findings stand in stark contrast to standard models of auction behavior (e.g., Milgrom & Weber, 1982; Myerson, 1981), which suggest that rational sellers should not set starting prices below the item's cost. What at first blush seems to be irrational seller behavior turns into financial acumen when traffic flows from low starting prices. In high-traffic auctions, it appears that riches do not result from sellers' high valuations but from lower starting prices and decreased barriers to entry.

Low starting prices in our auctions even influenced later value inference processes. Study 4 found that traffic influenced the estimated value of an auction item, demonstrating one mechanism that can explain the finding that traffic often begets more traffic (Dholakia & Soltysinski, 2001; Simonsohn & Ariely, 2005). Even when early traffic encourages later traffic, however, other countervailing forces can complicate the relationship between traffic and final prices. For instance, like high starting prices, high levels of traffic may become an entry barrier. As in Study 1B, in which high anchor values produced assimilation effects on valuation but contrast effects on bidding, heavy traffic may pique individuals' interest (going to a restaurant because everyone else is doing so) but may also create barriers to entry (à la Yogi Berra's famous quote, "No one goes there anymore; it's too popular").

An understanding of the social processes that are supported or impeded by low anchors also provides structure to the varying success our colleagues have had in following our "start low" advice. One colleague who wanted to sell a kitchen sink initially set a high starting price of \$225 on eBay. The auction came and

went without a single bidder. Based on our findings, he set up a new auction with a starting price of \$75, which led to a final price of \$275, \$50 more than the earlier auction that received zero bids! Another colleague wanted to sell some old rock albums, and following our "start low" advice, also set low starting prices for each album, hoping to incite traffic. As it turned out, he attracted only one individual with his tastes in music. This person was able to buy most of his albums at the low starting prices, without having any competition. Whether to start low or high, then, clearly depends on the interest in, and thus the expected amount of traffic for, auction items. Thus, both the size of the potential market and structural barriers to entry (e.g., misspellings) represent moderators to the "start low, end high" phenomenon we have chronicled.

More broadly, by considering the multiple processes that are triggered by starting values, we gain a deeper understanding of numerous social psychological phenomena, ranging from Milgram's (1963) obedience experiments to the foot-in-the-door technique. By starting low and asking participants to deliver an initial shock of only 15 V, Milgram allowed his participants to accumulate sunk costs, escalate their commitments, and eventually deliver potentially fatal shocks of up to 450 V. If Milgram had started high and immediately asked participants to provide a 450-V punishment, he would likely have found a stampede of disobedience. Similarly, the foot-in-the-door technique depends on making a small request before a much larger request. In their classic study, Freedman and Fraser (1966) found that, when they anchored high, only 17% of their sample agreed to place an unsightly sign advocating driving safety on their front lawn. However, when they started with a smaller first offer, the opportunity to sign a petition favoring safe driving, 55% subsequently agreed to place the ugly sign in their yard. Starting low has effects not only in auctions but also in the lab and in the home. It serves as a compelling tactic of influence, as an instigator of a number of social psychological processes.

Conclusions

The present research has documented a systematic reversal of the classic assimilation effect of anchors, showing that low starting prices lower barriers to entry, which in turn increase traffic and produce more sunk costs for early entrants, and ultimately increase final prices. These findings have implications for the millions of eBay auctions that occur daily, for live auctions worldwide (e.g., spectrum licenses, land auctions, and food markets), and possibly for the oft-observed increase in first-day stock prices of Initial Public Offerings. Overall, anchors have multifaceted effects, driving intrapsychic, dyadic, and group processes. Anchors can serve as reference points, they can create barriers to entry in markets, and they can increase sunk costs. Anchors can be used to infer value, to compare value, and to deny people access to value. Rather than calling into question the robustness of anchors, our reversal of the typical assimilative effect of anchors reemphasizes their strength, showing how influential they can be in everyday life.

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