STAKES AND SELF-CONTROL IN ORGANIZATIONAL DECISION MAKING:
THE CASE OF AUCTION FEVER IN ENGLISH AND PENNY AUCTIONS

Matthew W. McCarter¹,²,* and Abel M. Winn³

¹College of Business, University of Texas, San Antonio, TX, US
²Economic Science Institute, Chapman University, Orange, CA, US
³Argyros School of Business and Economics, Chapman University, Orange, CA, US

ABSTRACT

Self-control is an action central in bidding behavior in auctions. A factor that has significant impact on decisions surrounding self-control in auctions is the financial stakes. In the current article, we discuss the role of stakes in two auction formats: English and penny auctions. We review recent scholarship from McCarter and Winn (2019) about the role of stakes in English auctions over Amazon.com gift cards, consumer products on eBay, and items in the behavioral laboratory. We then report the results of an experiment manipulating stakes in penny auctions. A key finding between auction formats is that, as stakes increase, individuals are more likely to make rational decisions. In English auctions, individuals are less likely to fall victim to overbidding (or auction fever) as the stakes increase. In penny auctions, where losers incur a cost in addition to winners, we find auction fever less likely to occur compared to English auctions.


* Corresponding author: matthew.mccarter@utsa.edu
1. **Introduction**

Most of us have experienced, witnessed, or heard about someone catching auction fever, an irrational behavior where individuals bid more for an item than it is worth to them (Ku, Malhotra, & Murnighan, 2005). We hear anecdotes in the popular press about individuals paying large sums of money to win an item: such as Andy Warhol’s rendition of the Scream selling for $2.7 million – nearly 66% more than its appraised value (Tully, 2007) – and the bidding war of Saputo against Murray Goulburn over the purchase of Warrnambool Cheese and Butter (Chan, 2014). Such anecdotes may explain why some scholarship maintains that auction fever persists or even grows when an item’s price increases (Malhotra, Ku, & Murnighan, 2008). Furthermore, the bourgeoning discussion about auction fever in the academy and media leaves us with an impression that “auction fever is common” and costly (e.g. www.smithrealtyinc.com; Ku et al., 2005).

Auction fever occurs when the bidder fails to exercise self-control. **Self-control** is “the capacity to alter one's responses, such as by overriding some impulses … to bring behavior in line with goals and standards” (Mead et al., 2009, p. 594). Whether it be deciding to cheat (Mead et al., 2009), engaging in workplace aggression (Douglas & Martinko, 2001), or bidding at an auction (Kirby & Guastello, 2001), self-control is a critical factor in how individuals allocate resources in organizational decision making.

In recent years, scholars have turned their attention to how financial stakes impact self-control in auctions. Specifically, studies in organizational behavior (e.g. Malhotra et al., 2008), behavioral economics (e.g. Malmendier & Lee, 2011), and consumer behavior (e.g. Feng, Fay, & Sivakumar, 2016) have found mixed effects of financial stakes on auction fever, but more recent scholarship by McCarter and Winn (2019) took a step towards creating consensus. Drawing from
Caplan’s (2000) rational irrationality theory, McCarter and Winn’s (2019) study of English auctions found three things. First, whether it is for Amazon.com gift cards, consumer products on eBay, or items in the behavioral laboratory in English auctions – there was a negative relationship between an item’s value and the propensity to overbid on the item. Second, there was a negative relationship between an item’s value and the percentage of the value by which bidders overbid on the item. And finally, there was a negative relationship between the costliness of overbidding and the propensity to overbid. Overall, McCarter and Winn (2019) maintained that there was a negative relationship between financial stakes and losing self-control (succumbing to auction fever).

Despite the initial finding, an important step in developing a science about the relationship between financial stakes and auction fever is replication and extension. In the current article, we first replicate the core hypothesis of McCarter and Winn’s (2019) paper using archival data of contemporary art auctions (from Ku et al., 2005). Then we extend the hypothesis by testing it in an auction format different from the common English auction: the penny auction.

The remainder of the article is structured as follows. First, we summarize rational irrational theory – the framework used to understand why financial stakes may make people more in control and less likely to experience auction fever – and propose two hypotheses. Second, we outline Study 1, a field study examining contemporary art English auctions from Ku et al. (2005). Third, we detail Study 2, a laboratory experiment where we examine auction fever in penny auctions. Lastly, we conclude the article by discussing several implications of our findings.
2. THEORETICAL BACKGROUND AND HYPOTHESES

2.1. Rational Irrationality

McCarter and Winn (2019) utilized rational irrationality theory to predict how the financial stakes of the auction impacts the incidence of losing self-control and succumbing to auction fever. Originally applied to the domain of political economy, rational irrationality is the tendency for individuals to allow their decisions to be driven by cognitive biases (Caplan, 2008). These biases are themselves irrational, but Caplan (2000) submits that holding biased beliefs can be rational when the cost of doing so is low. It follows that there is a downward-sloping demand curve for irrationality. As the price of a particular form of irrationality rises, people will engage in less of it (Caplan, 2001). Considering that auction fever is an irrational behavior where self-control is lost (Ku et al., 2005), rational irrationality theory predicts a negative relationship between experiencing auction fever and the stakes associated with overbidding.

So long as bidders are budget constrained, there is an opportunity cost associated with winning the auction. Money spent on the item at auction is unavailable to pursue the next best alternative. Additionally, if inexperienced with the item at auction, a bidder faces the risk of finding out the item is not worth the price that was paid (Rothschild, 1979). Consequently, higher item values imply a higher price of irrationality. Empirical studies of consumer behavior in retail markets show that higher prices lead customers to greater levels of comparison shopping and information seeking behavior which we would characterize as cautious and rational. The pattern is found in markets for electrical appliances (Newman & Staelin, 1972; Udell, 1966), cars (Kiel & Layton, 1981), a variety of consumer goods (Laurent & Kapferer, 1985), and groceries (Urbany, Dickson, & Kalapurakal, 1996).
2.2. Hypotheses

Rational irrationality theory, as applied by McCarter and Winn (2019), predicts that the rationalizing effect of higher prices is not limited to retail markets but holds in auctions as well. In light of the evidence from consumer behavior studies and the limitations of the experimental evidence, we propose first a replication hypothesis from McCarter and Winn (2019).

**Hypothesis 1 (replication of McCarter & Winn, 2019):** There will be a negative relationship between bidders’ valuations of an item and their propensity to overbid on the item in an English auction.

A second way to investigate the stake-auction fever relationship using rational irrationality theory is the type or auction, or rules governing this economic exchange (Smith, 1994). Some auction institutions are designed so that only winners incur the economic costs of bidding – e.g., English auctions – whereas others require everyone, including the losers, to bear a cost for bidding – e.g., pay-to-bid auctions such as a penny auction (Platt et al., 2013). Penny auctions place greater stakes on bidders compared to English auctions because it is costly for everyone to bid.

A penny auction is a modified English auction – a pay-to-bid auction (Platt et al., 2013) – in which every participant who submits at least one bid incurs a cost (Griffiths, 2008; Kato, 2009). The item is put up for sale at an initial price that is low (often $0). There is a set bid increment which is also low, typically one cent, from whence the name of the auction is derived. Every time a bidder submits a bid the price increases by the bid increment, but the bidder must pay a small fee (usually $0.15 - $0.35) to submit the bid. The item is sold to the last bidder to submit a bid before time runs out.

The bidding fee feature of a penny auction makes it costly to be an active bidder. This feature, combined with the low bid increment, means that items typically sell for a low price. (The bulk of the auctioneer’s revenue comes from bidding fees.) The dilemma for the bidders is when
to stop bidding. The price of the item seldom comes close to the item’s value, so it is almost always profitable (ignoring the sunk cost of past bids) for a bidder to submit an additional bid provided his is the last bid in the auction. However, precisely because it is almost always profitable to do so, there is a high probability that one’s bid will not be the last, and one will have incurred a sunk cost with no return for one’s bid.

Deriving the equilibrium bidding strategy is beyond the scope of the current paper. For our purposes the usefulness of the penny auction institution is that it imposes costs on all bidders. A bidder who has set a spending limit for himself (i.e., a maximum amount he will spend in bidding fees) may well be tempted to spend beyond that limit because of psychological attachment to the auction item, competitive arousal, escalation of commitment, and/or the potential financial benefit to be accrued if one has the final bid. Yet spending beyond one’s spending limit is costly, whether the bidder wins or not. Rational irrationality theory predicts that this cost will discipline bidder behavior, resulting in a lower frequency of overbidding in a penny auction relative to the frequency of overbidding in an English auction. Related to our Hypothesis 1, we would expect all-pay auctions to generate a lower frequency of auction fever compared to winner-pay auctions.

**Hypothesis 2:** Auction fever will be less likely to occur in all-pay auctions compared to winner-pay auctions.

### 2.3. Overview of Current Research

Any theory of social behavior has tradeoffs among generalizability, accuracy, and simplicity (Thorngate, 1976). Weick (1979) submits navigating the tradeoffs through multiple research methods. We increase the generalizability of McCarter and Winn’s (2019) findings by, first, replicating the core relation they found across their studies (Rosenthal, 1990). Second, in the current article we use data sources from both the field and laboratory to show consistency in our posited patterns (Tsang & Kwan, 1999). In Study 1, we analyze archival data from Ku’s et al.
(2005) research on English auctions to test Hypotheses 1 – a replication. In Study 2, we test Hypothesis 2 by comparing two auction institutions: an English auction and a pay-to-bid auction: the penny auction.

3. STUDY 1: CONTEMPORARY ART AUCTIONS FROM KU ET AL. (2005)

3.1. Method

We use art auction data from Ku et al.’s (2005) study 1. Ku et al. (2005) conducted a large field study of live and Internet auctions in eight cities for idiosyncratic works of art, such as painted fiberglass cows (Chicago, Illinois), pigs (Cincinnati, Ohio), and horses (Lexington, Kentucky). The live auctions followed the English format of ascending bids. The Internet auctions were essentially modified English auctions in which participants submitted proxy bids, which they could update as often as they liked. The data were collected partly from bidder surveys and partly from archival data on bidding behavior in the Internet auctions. The data were organized by city and auction type (live versus Internet), and contained bidder responses on how many items they hoped to purchase, how much they wanted to spend in the auction, whether they had set a bid limit for themselves and what the bid limit was, their highest bid in the auction, whether they had won the auction, the number of items they bought, and the total amount they had spent.

3.2. Analysis

We use the archival data from the first study of Ku et al. (2005) to replicate Hypothesis 1, that auction fever becomes less frequent as the item value increases. For the purposes of the analysis we measure item value by the individuals’ self-reported bid limits in Ku et al.’s art auctions.

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1 We thank Gillian Ku for providing these data to us.
Figure 1 shows the percent of bidders who overbid plotted against the average reported bid limit in the city for Ku et al.’s (2005) data. With the exceptions of Chicago (which is omitted from the graph to improve visualization) and St. Paul there is a negative correlation between the two variables.

**Figure 1. There is a negative relationship between the average reported bid limit and the frequency of auction fever in Ku et al.’s (2005) contemporary art auctions.**

We tested for a negative relationship between item value and the propensity to overbid (Hypothesis 1) using logistic regressions with Overbidding as the binary dependent variable. For our model of the Ku et al. (2005) data Overbidding equals 1 if the bidder’s final bid exceeded the self-reported bid limit and 0 otherwise. In the Ku et al. (2005) model our primary control variable was Item Value, measured as the reported bid limit (scaled in thousands of dollars). We also included a binary variable, Internet, to allow for variation across auction formats. In addition, inspection of the data indicated that bidders in Chicago, where the first public art auctions had been conducted, and St. Paul behaved differently from bidders in the other seven cities. To prevent them from biasing the results, we also included interactions of Chicago and Item Value, as well as Chicago, Internet and Item Value.
3.3. Results and Discussion

The results of the Ku et al (2005) model are contained in Table 1. Hypothesis 1 is supported in our logistic regression model for the art auction data: the coefficient for Item Value is negative and marginally significant ($p = 0.061$). The lack of conventional statistical significance in a two-tailed test is likely due to bidding behavior in St. Paul. The coefficient of Item Value becomes significant at the 5% level if we include a two-way interaction of Item Value and St. Paul, but the interaction term is only marginally statistically significant ($p = 0.099$). At the median reported bid limit of $2,500, the estimated marginal effect of increasing the item’s value by $1,000 in a live auction is a 1.5 percentage point reduction in the probability of overbidding (from 23.9% to 22.4%). For internet auctions the probability of overbidding decreases by 2 percentage points (from 37.9% to 35.9%).

Table 1. In Study 1, there is a negative relationship between an individual’s willingness-to-pay and the likelihood of auction fever in Ku et al.’s (2005) contemporary art auctions.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.9388**</td>
<td>0.2279</td>
</tr>
<tr>
<td>Item Value (Reported bid limit)</td>
<td>-0.0872*</td>
<td>0.0465</td>
</tr>
<tr>
<td>Internet</td>
<td>0.6635**</td>
<td>0.2277</td>
</tr>
<tr>
<td>Item Value × Chicago</td>
<td>0.1756**</td>
<td>0.0562</td>
</tr>
<tr>
<td>Item Value × Chicago × Internet</td>
<td>-0.0909*</td>
<td>0.0160</td>
</tr>
</tbody>
</table>

Observations = 417
Likelihood Ratio $\chi^2 = 25.14$
Pseudo $R^2 = 0.0483$

* Significant at 10%, ** Significant at 5%, *** Significant at 1%

Note: Key relationship bolded.

In Chicago, however, Item Value had an insignificant or positive correlation with the propensity to overbid, depending on whether the auction took place online or in a live setting. The estimated coefficient for the interaction of Chicago and Item Value is 0.176 ($p = 0.002$). Even when we factor in the negative baseline relationship between overbidding and Item Value, the net effect is positive and statistically significant in the live Chicago auctions (Wald test, $p = 0.025$). The three-way interaction of Item Value, Chicago and Internet is negative and significant ($p =
0.028), but when taken together with the main effect of Item Value and the two-way interaction, the net effect is not significantly different from zero (Wald test, $p = 0.854$). Thus, whereas bidders in most cities became more rational as the stakes increased, online bidders in Chicago were unaffected and live bidders actually became less rational – losing self-control. This may be because the Chicago auctions were the first of this kind, which allowed the media hype and inexperience of the bidders to overwhelm the financial stakes. Alternatively, it could be driven by the high incomes of the Chicago bidders. Median reported income of the Chicago bidders was $225,000. This is more than 75% higher than the median income of the next highest income city, Cincinnati. Given their high incomes, the bidders in Chicago may not have been as concerned about the opportunity costs of overbidding.

Our re-analysis of the Ku et al. (2005) data replicate the findings of McCarter and Winn (2019): auction fever is inversely related to the financial stakes. In Study 2, we extend our analysis by conducting laboratory experiments using an auction institution in which all bids are costly: the penny auction.

4. **STUDY 2: PENNY AUCTIONS IN THE BEHAVIORAL LABORATORY**

4.1. **Method**

The penny auction experiments were conducted with 48 graduate and undergraduate students from a southwestern university in the United States. The location and population were the same as those used in McCarter and Winn’s (2019) Study 3, and no participant had previously participated in the English auctions in the McCarter and Winn (2019) study. In all sessions, the participants were escorted into a computer laboratory where they participated in a series of auctions.
using a software interface on desktop computers. An experimenter then read the instructions aloud from a script.

4.2. Design

All of the experimental penny auctions had the following elements in common:

1. **Penny auction format.** At the start of the auction a low initial price was posted for the item. Each time a participant submitted a bid (by pressing the space bar on his computer) the price increased by $0.25 and the participant who submitted the bid incurred a non-recoverable cost of $1. The last participant to submit a bid won the item at the price he had bid.

2. **Private values.** Each participant was given a unique private value for the item, representing that participant’s maximum willingness-to-pay (WTP). The values were drawn randomly without replacement from a pre-determined distribution for each auction. The difference between the (expected) highest and second highest values was always $1. Each participant’s value was displayed only on his own computer screen and could not be seen by any other participant.

3. **Budgets.** In each auction every participant received a budget that he could spend on bidding fees in that auction. Each participant’s budget was independently and randomly selected from the interval [$16, $24] and displayed on his computer screen. Budgets were private information. Bidders were informed that their budgets would vary from auction to auction and that different bidders had different budgets within the same auction, but they were not told the distribution from which the budgets were drawn.

4. **Spending limits.** Before the auction began, every participant entered a maximum amount he intended to spend in bidding fees (i.e., a spending limit) by the software interface. The spending limit was not binding, though it was displayed on his screen through the subsequent auction.

5. **Salient earnings.** Each time a subject won an auction he earned an amount equal to his private value minus the price he paid for the item plus any unspent money from his budget. Participants who lost an auction earned their budget minus the sum of their bidding fees. At the end of the experiment a random sample of the auctions was selected for payment.

6. **Time pressure.** The penny auctions used the same closing rule as in McCarter and Winn’s (2019) English auctions experiments. After the initial bid the auction continued until the participants allowed a three-second timer to run down to zero without submitting a higher bid.

7. **Display of public information.** Every participant was randomly assigned an ID color, which was displayed on their own private screens. A screen at the front of the computer laboratory conveyed information that was public knowledge to all of the participants. This information was 1) the auction timer, 2) the current price of the item, 3) the ID color of the
participant who currently had the high bid on the item, and 4) the bid that would be necessary for one of the other participants to submit to take the lead as high bidder.

For robustness, we implemented a 2×2 design, with the treatment variables being two-bidder vs. six-bidder auctions and certain value vs. uncertain value auctions. The same treatment variables were used by McCarter and Winn (2019). In the two-bidder sessions, eight participants were recruited, paired randomly, and participated privately in alternating blocks of three certain value and uncertain value auctions. In the six-bidder sessions, twelve participants were recruited, randomly grouped into two hexads, and participated privately in alternating blocks of nine certain value and uncertain value auctions. At the end of each uncertain value auction, the bidder was asked to indicate his belief about the item’s value. In all sessions each bidder was paid based on his earnings in one auction from each block. The auction was selected from each block by the roll of a six-sided die in the two-bidder sessions and by the roll of a 10-sided die (with a roll of zero resulting in a re-roll) in the six-bidder sessions.

4.3. Results and Discussion

Figure 2 displays the frequency with which participants spent more than their pre-set spending limits in the penny auctions with two bidders (Panel A) and six bidders (Panel B). Two things are immediately obvious. First, overbidding was less prevalent in the penny auctions than in McCarter and Winn’s (2019) Study 3 English auctions, particularly among losing bidders. The overall frequency of overspending was 12.7 percent in the penny auctions compared to an overbidding rate of 33.4 percent in the English auctions. Second, overspending was more common in the penny auctions with two bidders (20.8 percent) than in those with six (10 percent). This is sensible because in a penny auction the critical decision – whether one has reached one’s spending limit – is whether or not to bid again, which must be based on the probability that a competitor
will bid again in response. With fewer competitors in a two-bidder auction it is less risky to submit another bid.
We tested the effect of the penny auction institution on auction fever by pooling the data from our penny auction experiments with the data from McCarter and Winn’s (2019) English auction sessions in their Study 3. We analyzed the data with a random effects logistic regression. The binary independent variable was whether a bidder had succumbed to auction fever (yes = 1, no = 0), defined as bidding beyond one’s bid limit in the English auctions and spending beyond one’s spending limit in the penny auctions. We included the following independent variables.

_Treatment variables:_ Three binary variables indicating whether or not the auction was a penny auction, had six bidders or used certain values (Penny versus English Auction, Six versus Two Bidders and Certain versus Uncertain Values). We also included all two-way interactions of these variables, as well as their three-way interaction.

_Pre-set limits:_ We included the difference between an English auction bidder’s (perceived) item value and bid limit \(e\) to account for limit-setting behavior. This variable took a value of zero if the bidder was in a penny auction. We also included the penny auction bidder’s spending limit (Spending Limit) to account for the possibility that participants might chase sunk costs. Escalation of commitment suggests that it may be harder to stop paying bidding fees when one has accrued more of them. Consequently, bidders who set their bid limits higher may be more tempted to bid above those limits. This variable took a value of zero if the bidder was in an English auction.

_Other control variables:_ As in our analysis of English auctions, we included variables to account for learning (Auction), the item’s (perceived) value (Item Value), the participant’s bid rank (Rank 2, Rank 3, etc.) and whether or not the participant had lost money in a prior auction. For the penny auctions, losing money was technically nearly impossible. So, for those auctions we calculated the earnings the bidder would have received had he not bid in the auction at all. The difference between these counterfactual earnings and his actual earnings represents the money he
“lost” in a prior auction. All of these variables were interacted with the binary *Penny versus English Auction* variable, to allow for differences in behavior across institutions. Finally, for the penny auctions, we included the bidder’s budget for spending on bidding fees (*Spending Budget*). This was to allow for two opposing possibilities: more conservative bidding behavior as the financial stakes increased or more aggressive bidding as a bidder’s ability to outlast his competitors increased. The value of this variable was set to zero if the bidder was in an English auction.

Table 2 reports the logistic regression model’s results. Our Hypothesis 2, which predicts that auction fever will occur less frequently in an all-pay penny auctions than the only-winner-pay auctions, is generally supported. The two covariates of the largest absolute magnitude are whether the bidder was in a penny auction and the interaction of the penny auction institution with a six-bidder environment. Both estimates are negative and significant ($p < 0.05$ in both cases). However, the estimated interaction of the penny auction institution with certain item values is positive and significant ($p = 0.021$). A Wald test cannot reject the null hypothesis that this interaction offsets the main effect of the penny auction institution ($p = 0.157$), but a second Wald test does reject the null hypothesis that the sum of all penny auction treatment interactions offsets the main effect ($p = 0.011$). Consequently, we can be confident that our Hypothesis holds for every treatment except for two-bidder auctions with certain values. Since the frequency of auction fever is so low in the English auctions of this treatment, this is not surprising.

Within the penny auctions, the bidders’ spending budgets did not have a significant effect on overspending nor did their bid ranks. The estimated effect of *Spending Budget* is statistically insignificant, although pairwise Wald tests cannot reject the null hypothesis that the sum of the main effect of any *Bid Rank* variable with its *Penny Auction* interaction differs significantly from zero ($p > 0.2$ in all cases). We also find no evidence of escalation of commitment in the penny
auctions, as the effect of the interaction of the penny auction institution and the Spending Limit is negative and statistically significant ($p = 0.036$). This may be because bidders who set higher spending limits for themselves tended to successfully outlast their competition, winning the auction before reaching their limit.

4.4. Post hoc analysis

There is one aspect in which the penny auction encourages auction fever relative to the English auction: the value of the item. Whereas the English auction exhibits a negative relationship between Item Value and overbidding, bidders in the penny auction were more likely to spend beyond their initial limits when their (perceived) item values were higher ($p = 0.004$). This may be because a higher value constitutes a higher payoff of winning. To illustrate, suppose a bidder has a $10 value for an item and vows not to spend more than $5 to win it. Once she has spent $5, she may be able to rationalize that spending more to get the item is not worth additional effort. In contrast, suppose this bidder has a value of $100 for an item and she vows not to spend more than $5. Once she has spent $5 the temptation to go back on her decision is greater.

The current study supports McCarter and Winn’s (2019) findings by showing further evidence that auction fever is influenced by financial incentives. When losing the auction is (financially) costless, auction fever is most pronounced among losing bidders and comparatively uncommon among the winners. When all participants must bear a cost for their actions – as in the penny auction – overspending is uniformly low among winners and losers.
Table 2. In Study 2, there is less likelihood of auction fever occurring in penny auctions compared to English auctions.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-0.435</td>
<td>0.689</td>
</tr>
<tr>
<td>Six Bidders</td>
<td>1.007**</td>
<td>0.481</td>
</tr>
<tr>
<td>Certain</td>
<td>-1.153**</td>
<td>0.456</td>
</tr>
<tr>
<td>Six Bidders × Certain</td>
<td>0.115</td>
<td>0.510</td>
</tr>
<tr>
<td><strong>Penny Auction</strong></td>
<td><strong>-3.789</strong></td>
<td><strong>1.820</strong></td>
</tr>
<tr>
<td>Penny Auction × Six Bidders</td>
<td>-2.636***</td>
<td>0.821</td>
</tr>
<tr>
<td>Penny Auction × Certain</td>
<td>1.058**</td>
<td>0.457</td>
</tr>
<tr>
<td>Penny Auction × Six Bidders × Certain</td>
<td>0.276</td>
<td>0.773</td>
</tr>
<tr>
<td>Value Minus Limit</td>
<td>0.012***</td>
<td>0.004</td>
</tr>
<tr>
<td>Spending Limit</td>
<td>-0.013**</td>
<td>0.006</td>
</tr>
<tr>
<td>Auction</td>
<td>-0.024</td>
<td>0.024</td>
</tr>
<tr>
<td>Penny Auction × Auction</td>
<td>0.023</td>
<td>0.043</td>
</tr>
<tr>
<td>Item Value</td>
<td>-0.006**</td>
<td>0.003</td>
</tr>
<tr>
<td>Penny Auction × Item Value</td>
<td>0.032***</td>
<td>0.011</td>
</tr>
<tr>
<td>Spending Budget</td>
<td>0.015</td>
<td>0.015</td>
</tr>
<tr>
<td>Incurred Prior Loss</td>
<td>0.179</td>
<td>0.374</td>
</tr>
<tr>
<td>Penny Auction × Incurred Prior Loss</td>
<td>-0.062</td>
<td>0.569</td>
</tr>
<tr>
<td>Bid Rank 2</td>
<td>1.855***</td>
<td>0.340</td>
</tr>
<tr>
<td>Bid Rank 3</td>
<td>0.742*</td>
<td>0.405</td>
</tr>
<tr>
<td>Bid Rank 4</td>
<td>0.837**</td>
<td>0.420</td>
</tr>
<tr>
<td>Bid Rank 5</td>
<td>-0.490</td>
<td>0.474</td>
</tr>
<tr>
<td>Bid Rank 6</td>
<td>-0.216</td>
<td>0.541</td>
</tr>
<tr>
<td>Penny Auction × Bid Rank 2</td>
<td>-1.40***</td>
<td>0.490</td>
</tr>
<tr>
<td>Penny Auction × Bid Rank 3</td>
<td>-0.465</td>
<td>0.659</td>
</tr>
<tr>
<td>Penny Auction × Bid Rank 4</td>
<td>-1.099</td>
<td>0.732</td>
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<tr>
<td>Penny Auction × Bid Rank 5</td>
<td>0.387</td>
<td>0.737</td>
</tr>
<tr>
<td>Penny Auction × Bid Rank 6</td>
<td>-0.442</td>
<td>0.930</td>
</tr>
</tbody>
</table>

Observations = 1,054  Wald $\chi^2 = 115.95$  Log Likelihood = -484.97

* Significant at 10%, ** Significant at 5%, *** Significant at 1%

Note: Key relationship bolded.

5. DISCUSSION AND CONCLUSION

The current article detailed two studies examining the effect of financial stakes of an organizational phenomenon concerned with self-control: auction fever. Research on auction fever assumes that overbidding creates high costs for the afflicted bidders. The anecdotes (Murnighan, 2002; Malhotra et al., 2008), field settings (e.g., art and gift cards) (Jones, 2011; Ku et al., 2005),
and, more importantly, the managerial implication discussions of previous auction-fever research seems to form a consensus: “Individuals (managers, executives, and so on) should be wary of the consequences of … wanting to win at any cost” (Salls, 2005). Such a consensus would suggest that auction fever is not influenced by the amount of money at stake. Counter to this assumption, and in support of recent scholarship (McCarter & Winn, 2019), we found that auction fever – a self-control phenomenon – can be crowded out by the economics of the decision: financial stakes negatively affect auction fever’s frequency in English auctions and is less likely to arise in all-pay auctions compared to highest-bid auctions. Drawing from rational irrationality theory (Caplan, 2000), we highlight the economic significance (i.e., the financial costs incurred) in the science of auction fever by demonstrating that financial stakes impact the frequency to which people succumb to overbidding in auctions.

The consequences of auction fever shrink in economic significance as the stakes grow (Ziliak & McCloskey, 2008). With the exception of Chicago, a WTP of $7,700 would seem to immunize the art bidders from auction fever. Study 2 finds a similar effect: there is a 20 percent drop in auction fever in Penny auctions where there is a cost for bidding, compared to English auctions, where only the winner incurs a cost. Thus, as the stakes get higher and “the consequences of wanting to win at any cost” become graver (Salls, 2005), individuals are less likely to choose a path that leads to those consequences.

It is important to consider these findings in relation to the decision-making environment’s effects on organizational effectiveness. Zand and Sorensen (1975, p. 532) observed that “Management science seeks to improve the effectiveness of an organization primarily by persuading managers to use the conclusions of rigorous quantitative analysis to allocate resources … and make policy decisions.” Zand and Sorensen’s (1975) observation suggests that any
management theory – e.g., auction fever theory – is similar to an equation with rigorous quantitative analysis of explanatory variables on the left side and outcome variables of organizational effectiveness on the right side. Studying financial stakes in the context of auction fever expands both the left and right sides of the equation for auction fever theory. Financial stakes (a variable on the left side of the equation) affects auction fever, but it also suggests that an organization’s effectiveness, the rights side of the equation, may not be highly affected when it occurs.

Hinings and Greenwood’s (2002) discussion about consequences of organizational behavior suggests that management science becomes policy science when it considers the effect size of the independent variable on the dependent variable. Past auction fever research has primarily focused on whether an effect exists, not the size of the effect. The current article sought to increase the generalizability about the stakes-auction fever relationship and subjected auction fever to an acid test, “a conclusive test of the success or value of something” (Oxford English Dictionary, 2013). In agreement with previous work, auction fever does happen under certain conditions predicted by organizational behavior, consumer behavior, and economic theory.

6. REFERENCES


