Competition and Attachment in On-Line Auctions

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EXTENDED ABSTRACT - Ariely and Simonson (2003), among others, argue that bidding in an auction is fundamentally different from buying a product for a fixed price either on or off line. Auctions are dynamic affairs and making decisions in this environment could influence how bidders come to understand how they value items. Moreover, auctions present their participants with a task of setting the dollar amount they are willing to pay, which differs from deciding whether to buy at a known price. Evidence supporting the influences of these unique features of online auctions has shown that winning prices are positively related to the total number of bids and to the total number of bidders.

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EXTENDED ABSTRACT

Ariely and Simonson (2003), among others, argue that bidding in an auction is fundamentally different from buying a product for a fixed price either on or off line. Auctions are dynamic affairs and making decisions this environment could influence how bidders come to understand how they value items. Moreover, auctions present their participants with a task of setting the dollar amount they are willing to pay, which differs from deciding whether to buy at a known price. Evidence supporting the influences of these unique features of online auctions has shown that winning prices are positively related to the total number of bids and to the total number of bidders.

We propose two possible causes for increased valuations for goods as the auction progresses: quasi-endowment and the opponent effect. We define quasi-endowment as the feeling of ownership a bidder can get from an auction even though they are not actually the owner. It is possible that even without a legal claim high bidders could have a feeling of ownership for the duration they are the highest bidders, leading to similar changes in valuation as true ownership. “Endowment” because the they can construct a reference point such that losing the auction will feel like they had actually lost the item. “Quasi” because this counterfactual represents only a weakened or partial perception of ownership (Rosch, 1973). Opponent effect, on the other hand, involves an increase in the subjective value of winning a competitive auction. There are several psychological theories that support this possibility including: self-perception (Bem, 1965), goal achievement (Kaplan & Middleton, 2002), decision under hot states (Loewenstein, 1996), and reason-based choice (Shafir & Simonson, 2000). We investigate these two effects via two experiments.

The first experiment was a survey that tested for quasi-endowment and opponent effects. There were four different questionnaire forms based on a 2 competition (high competition vs. low competition) x 2 duration of ownership (Low duration of ownership vs. High duration of ownership) between subjects design. Each condition presented a common scenario followed by the manipulations after which participants stated the bid they would place at the end of a 9-week auction. The competition manipulation altered the number of bids that other people made while the quasi-endowment effect was based on a hypothetical bidding history from earlier in the week.

We use Analysis of Variance to study the effect of competition and duration on the final bid. The overall model was statistically significant [F(3,87)=3.20, p=.03] and the results supported both the quasi-endowment and the opponent effect hypotheses.

The second experiment consisted of real-money auctions in a laboratory experiment that included treatment conditions analogous to those of the first experiment, and repeated this process for four within-subject replications. The design was a 2 (duration of ownership) x 2 (competitiveness) x 2 (order of auctioned goods) x 4 items (2 gift certificates, t-shirt, chocolates) to be auctioned. Participants unknowingly were bidding against five computerized scripted competitors that varied according to the experimental conditions (see (Häubl & Popkowski-Leszczyc, 2004) for similar procedures). The auctions were in discrete time with durations defined by nine periods of bidding. The competitiveness condition was defined by the total number of bids generated by the five computerized bidders in the first seven rounds. Low competition condition had 3-5 bids in addition to the subject’s bid and high competition condition had between 20 and 35 bids.

The exposure length factor was defined by the number of bidding rounds subjects participated in and could perceived themselves to be in the lead. In the long exposure condition, subjects participated in all nine of the bidding rounds, increasing their bids as they please and spending at least a part of the rounds at the lead. In the short duration of ownership condition subjects were not allowed to participate until the eighth round. In the eighth round all subjects were presented with the same bidding history log. This information included all bids up to that point including bid amounts and round number for each bid (much like eBay’s proxy bidding system the amounts revealed were the second prices at each point). At this point subjects were given the opportunity to bid on the final ninth round.

The overall results replicated those of Experiment 1. The average bid for the subjects in the long duration of ownership condition was $6.39 as opposed to $4.02 for those people in the short duration group. This difference is highly significant substantively as well as statistically (F(1,125)=12.79, p<.000). We take this as evidence of the quasi-endowment effect. The results also support for the opponent effect [F (1,125)=3.10, p=.045].

These effects replicate those of Experiment 1 although in a more realistic environment. Experiment 2 also provides a more specific definition of competition. Our findings also provide another explanation to the common empirical observation of multiple bids by the same individual. If the attributes of the auction experience change over time, the subjective valuation also changes, leading to multiple bids. Therefore influences that can otherwise be seen as irrelevant, might matter for the bids, such as the number of people in the auction, how aggressive their behavior is, how long a person has participated in the auction, and if and how long she has been in the lead.

The implications of the current work are numerous. First, to the extent that the increases in bids as the auction progresses represent a bias rather than a change in core valuation, bidders should be aware of these potential biases and take actions to de-bias themselves (Fischhoff, 1982). One such method, particularly effective in second-price auctions, is to submit their true valuation and not look again until after the auction is complete.

REFERENCES


