

WHY CAN'T A WOMAN BID MORE LIKE A MAN?

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 - How do bidders respond to these reserve prices?
 - Does it matter for the bidders whether they face human auctioneers or exogenous experimenter-generated reserve prices?

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- Assuming two bidders, in the first-price auction (FPA):

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- In the FPA, if both the bidders and the auctioneer are risk-neutral, the same characterization applies. If the bidders and/or the auctioneer are risk-averse, then the optimal reserve price in the FPA is lower than in the SPA (Hu, Matthews, Zou 2010).

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- *Sale efficiency* (prob. of sale) is decreasing in the reserve price in either auction format.
- *Allocative efficiency* (prob. of selling to the high valuation bidder conditional on sale) is equal to 1 in either auction format.

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$$f^1(x) = \begin{cases} \frac{3}{200} & \text{if } x \in \{1, \dots, 50\} \\ \frac{1}{200} & \text{if } x \in \{51, \dots, 100\} \end{cases}$$

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- Admissible bids: integers between 1 and 100; fair tie-breaking

SUMMARY OF SESSIONS

Auction Mech.	Reserve Prices	No. of Auct's	Exch. Rates		No. of Sessions	Average Payoffs	
			Bidders	Auct's		Bidders	Auct's
FPA	no	0	20		5	\$12.37	
	yes	0	12		5	\$16.13	
	yes	4	12	60	5	\$17.64	\$18.91
SPA	no	0	20		5	\$19.08	
	yes	0	12		5	\$17.96	
	yes	4	12	60	5	\$20.65	\$17.62

SUMMARY STATISTICS

	Bidders						Auctioneers	
	FPA	FPA _R	FPA _{RA}	SPA	SPA _R	SPA _{RA}	FPA _{RA}	SPA _{RA}
<i>Demographics:</i>								
Female	0.48	0.45	0.45	0.44	0.50	0.50	0.45	0.60
Age	20.7 ^A	24.0 ^{AC}	20.0 ^C	23.0 ^B	23.1 ^C	20.5 ^{BC}	21.1	20.9
Number of Siblings	1.45	1.43	1.53	1.68	1.38	1.53	1.45	0.95
White	0.43	0.43	0.58	0.43	0.41	0.60	0.55	0.65
Asian/Asian American	0.48 ^b	0.38	0.23 ^b	0.45	0.45	0.38	0.25	0.25
African American	0.05	0.13	0.05	0.08	0.10 ^c	0.00 ^c	0.10	0.05
Hispanic	0.00	0.03	0.05	0.00	0.00	0.00	0.05	0.05
Native	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00
Other Ethnicity	0.05	0.05	0.05	0.05	0.04	0.03	0.05	0.00
<i>Major:</i>								
Mathematics and Statistics	0.03	0.05	0.00	0.00	0.05	0.03	0.00	0.00
Science and Engineering	0.30	0.50 ^c	0.23 ^c	0.20 ^A	0.55 ^{AC}	0.20 ^C	0.25	0.30
Economics and Business	0.08	0.08	0.05	0.25 ^{ab}	0.05 ^a	0.05 ^b	0.15	0.05
Other Social Sciences	0.03	0.08	0.05	0.03	0.10	0.08	0.20	0.20
Humanities and Others	0.05 ^A	0.30 ^{Ac}	0.10 ^c	0.15	0.25	0.13	0.05	0.15
Unknown	0.53		0.58	0.38		0.53	0.35	0.30

Notes:

1. "A" ("a") denotes statistically significant difference at 1% (5%) in the *t*-test of equality means when comparing FPA with FPA_R and SPA with SPA_R, respectively.
2. "B" ("b") denotes statistically significant difference at 1% (5%) in the *t*-test of equality means when comparing FPA with FPA_{RA} and SPA with SPA_{RA}, respectively.
3. "C" ("c") denotes statistically significant difference at 1% (5%) in the *t*-test of equality means when comparing FPA_R with FPA_{RA} and SPA_R with SPA_{RA}, respectively.

RESERVE PRICES: FPA

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DYNAMICS OF RESERVE PRICES: FPA

DYNAMICS OF RESERVE PRICES: SPA

REVENUE AND SALE EFFICIENCY BY RESERVE PRICE: FPA

REVENUE AND SALE EFFICIENCY BY RESERVE PRICE: SPA

REVENUE DIFFERENCE BETWEEN FPA AND SPA

SALE EFFICIENCY DIFFERENCE BETWEEN FPA AND SPA

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- Two possible interpretations for the FPA result:
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 2. bidder bid less when faced with human auctioneers as opposed to exogenous reserve prices

EFFECT OF THE PRESENCE OF HUMAN AUCTIONEERS: FPA

EFFECT OF THE PRESENCE OF HUMAN AUCTIONEERS: FPA (CONT'D)

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- Spite: I prefer to reduce what I perceive as disadvantageous inequality by reducing the payoff of the better-off person if I can do that at a minimal cost to myself
- It has been argued before (Morgan, Steiglitz and Reis 1984) that spite may explain overbidding in the SPA
- We only find a somewhat significant auctioneer-presence effect in the SPA, which is consistent with the spite hypothesis

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- In SPA, we do not find any significant gender differences in bidding, probability of dominant strategy play or probability of overbidding
- Pill non-users have a flat bidding profile in FPA over the cycle, bidding more than men, but the difference can statistically be accounted for by differences in treatment, demographics and risk aversion