Online Appendix

1.1 Theoretical Extensions

Below, we present two generalizations of the shape of the superiority-seeking motive described in the main text. While these two generalizations can be directly combined, for ease of exposition, we describe them separately. Let person i's consumption utility be just as before with the same properties. For notational simplicity only, we suppress the notation to a kind of good / attribute and ignore the corresponding subscript l, but all extends.

1.1.1 Weighted Average of Excess Valuations

First, we generalize the shape of the superiority-seeking motive and allow it to vary between the average excess valuation and the maximal excess valuation of others. Consider person i. Let her overall utility $U_i(c, t_i) : C \times \mathbb{R} \to \mathbb{R}$ be given by:

$$v_i(c_i) + \alpha(1-\beta)\frac{\sum_{j \in M \setminus i} v_{j,i}}{M-1} + \alpha\beta \max_{j \in M \setminus i} v_{j,i} + t_i, \quad (2)$$

where for any fixed consumption vector c, $v_{j,i} \equiv \max\{v_j(c_j + c_i) - v_j(c_j) - v_i(c_i), 0\}$ is j's excess valuation of i's consumption, and $\beta \in [0, 1]$.

In the above formulation, for any c and $\beta < 1$, (i) there is a strictly positive weight assigned to the excess valuation of each player; (ii) the sum of these weights always add up to one, (iii) for any given j, i's superiority boost increases in j's excess valuation.[53] If $\beta = 0$, the boost simply corresponds to the average excess valuation of others. As β increases, the boost also increases, and as $\beta \to 1$, it converges to the specification described in the main text. This formulation then always corresponds to a *smaller* impact of the superiority motive, relative to consumption utility, than that in the main text. The following is immediate.

Lemma 1. *For any $\alpha < 1$, $U_i(c, t_i)$ is increasing in c_i and in β.*

Consider now the predictions. Below, we make the same assumptions about consumption utility as we did in the main text, and also adopt the same notation. For the auction context, let $\Pi_\beta(M, K)$ denote the seller's expected revenue for a given β.

Proposition 6. a. *Corollaries 1-3, Proposition 2, Proposition 4, and Proposition 5 with the adjusted boost term in Eq.(2), continue to hold as stated for any $\beta \in$*

[53] Note that above if some j has no excess valuation for i's consumption, $v_{j,i} = 0$, she still receives a positive weight, although her contribution to i's superiority boost is 0. If instead the boost assigned such positive weights only to those who have a positive excess valuation in the above fashion, the boost may decrease in how much others like what i has.

$[0,1]$.[54]

b. *For Proposition 1 (and Corollary 4), fix any $\alpha > 0$ and $M > M_\alpha$. There exists a lowest $\beta_{M,\alpha} < 1$ such that for any $\beta \geq \beta_{M,\alpha}$ random exclusion is strictly beneficial for the seller. Furthermore, holding such an M constant, an increase in α leads to a decrease in $\beta_{M,\alpha}$.*

c. *For Proposition 3, if $\alpha < \alpha^*$, then $\Pi_\beta(M,K) < \Pi_\beta(M,0)$ for any $K > 0$; if $\alpha > \alpha^*$, there exists $\beta_{\alpha,M} < 1$ such that as long as $\beta \geq \beta_{\alpha,M}$, then $\Pi_\beta(M,K) > \Pi_\beta(M,0)$ for any $K \leq K_{M,\alpha}$.*

Proof. In bilateral contexts, $U_i(c,t_i)$ is constant in β. Hence, Corollaries 1-2 are immediate. Corollary 3 is also immediate since the boost is increasing in the excess valuation of any player j, and the expected boost of a cup owner is strictly decreasing in C. Consider Proposition 1. Fix any $\alpha > 0$ and $M > M_\alpha$. For a given M, a strict sufficient condition is that

$$(M-1)q(\alpha,\beta)p^* > V,$$

where we now made the dependence of the demand boost given random exclusion at p^* on the parameters α and β explicit. Note that $q(\alpha,\beta) > 0$ holds for any β as long as $\alpha > 0$. Since $q(\alpha,\beta)$ strictly and continuously increases in β and in α, for any given M, this sufficient condition continues to hold for all $\beta \geq \beta^*_{\alpha,M}$ where $\beta_{\alpha,M} < 1$ is decreasing in α (note that M_α is decreasing in α). For Corollary 4, note again that if $v^h > p^*$, then $q_{v^h}(\alpha,\beta) > 0$ and this quantity is smooth and increasing in β; if $v^h \leq p^*$ there is again no expected loss when charging p^*.

Consider the auction setting. Given symmetric monotone strategies, the superiority boost is still derived only from those excluded from bidding. Let then:

$$K_\beta(x) \equiv E[B(x) \mid v_i = y = x, K],$$

where $B(v_i)$ corresponds to the β-dependent superiority boost from Eq.(2), and y corresponds to the highest of the $M-K$ independent draws from $F(x)$. If $K=0$, then $K_\beta(x) = 0$ and $K_\beta(x)$ is strictly increasing in K for any $\beta \in [0,1]$, since $v_{j,i}$ takes a positive value with positive probability iff $j \in K$ and consumption utilities are i.i.d. Also $K_\beta(x)$ continuously increases in β.

It is easy to verify then that for any given β, M and K, the ranking of the overall expected utilities from winning the object amongst the N active bidders is the same as the ranking based on consumption utilities alone amongst these active bidders. In turn, the overall payoff from winning, $u_i(v_i, v_{-i}, \beta)$, is increasing in all of its arguments, and strictly so in v_i given any $\alpha < 1$. By the same logic as before,

[54] For point 3 of Proposition 2 we prove this only for $K=0$.

Milgrom and Weber (1982), a symmetric monotone equilibrium exists and is given by $b_\beta(v) = G(v)^{-1}\int_0^v g(x)(x + \alpha K_\beta(x))dx$.

Since $g(x)$ only depends on N, Proposition 2 follows immediately if for point 3 we assume $K = 0$. It also follows that $b_\beta(v_i)$ and $\Pi_\beta(M,K)$ are continuously increasing in β with $\lim_{\beta\to 1} K_\beta(x) = K(x)$ and $\lim_{\beta\to 1} \Pi_\beta(M,K) = \Pi(M,K)$. If $\alpha < \alpha^*$, then for any $K > 0$, it follows that $\Pi_\beta(M,K) < \Pi_\beta(M,0)$ since $\Pi_\beta(M,K) \leq \Pi(M,K) < \Pi(M,0) = \Pi_\beta(M,0)$. If $\alpha > \alpha^*$, then for any $K \leq K_{M,\alpha}$, $\Pi(M,K) > \Pi(M,0)$, and since $\Pi_\beta(M,K)$ is strictly and continuously increasing in β, iff $K > 0$, and K is discrete, the same holds for any β bounded away from 1, but not too low. For Proposition 4, note that under lowest exclusion $K_\beta(x) = 0$ for any β and other terms do not depend on β.

For Proposition 5, consider a symmetric equilibrium, $b(v)$. Within N, the ranking of the overall expected utility from obtaining the good is the same as that ranking based on consumption utility alone for any β as long as $\alpha < 1$. Suppose now that for some $v_i > v_s$ we have $b(v_s) > b(v_i)$. It must be true that conditional on paying $b(v_s)$, type v_s realizes a non-negative expected overall utility. Consider now type v_i deviating to the bid of v_s. This is consequential only if the realized price $p \in [b(v_i), b(v_s)]$. Type v_i, vis-a-vis type v_s, receives a relative gain from consumption utility equal to $v_i - v_s$ and a relative loss from superiority-seeking bounded by $\alpha(v_i - v_s)$. Hence, $b(v)$ must be monotone. Suppose then that $b(v_i) = v_i + \alpha E[B(v_i) \mid v_i = y, K]$. It is easy to see that there are no profitable deviations and no other symmetric equilibrium exists. ■

1.1.2 Multiplicative Case

Our second extension considers the case where superiority boost is a multiplicative rather than additive factor of consumption utility. To simplify notation, suppose that each $v_i(c_i)$ is bounded from above by 1. All our statements continue to hold given a general upper bound ω on $v_i(c_i)$ when replacing $v_i(c_i)^\gamma$ with $(v_i(c_i)/\omega)^\gamma$ in the second term of the equation below. Let then $U_i(c,t_i) : C \times \mathbb{R} \to \mathbb{R}$ be:

$$v_i(c_i) + \alpha v_i(c_i)^\gamma \max_{j\in M\setminus i}\{v_j(c_j + c_i) - v_j(c_j) - v_i(c_i), 0\} + t_i, \tag{3}$$

where $\gamma \in [0,1]$. If $\gamma = 0$, the above corresponds to the specification described in the main text. For any $\gamma > 0$, however, superiority-seeking is no longer an additive, but a multiplicative factor of basic consumption utility and $\gamma = 1$ describes the equiproportional case. We note the following lemma.

Lemma 2. *$U_i(c,t_i)$ increases in c_i and decreases in γ.*

Proof. The first part is immediate. If for some j, the expression $v_j(c_j + c_i) - v_j(c_j) - v_i(c_i) > 0$, the sign of $\partial U_i(c,t_i)/\partial\gamma$ is the same as the sign of $\ln v_i(c_i) < 0$. Otherwise $\partial U_i(c,t_i)/\partial\gamma$

is zero. ■

Consider now the predictions. Below, we again make the same assumptions about consumption utility as we did in the main text, and adopt the same notation. In the auction context, we denote the seller's expected revenue by $\Pi_\gamma(M,K)$.

Proposition 7. a. *Corollaries 1-4, Propositions 1, 2, 4, & 5, with the adjusted superiority boost term Eq.(3), continue to hold as stated for any* $\gamma \in [0,1]$.[55]

b. *For Proposition 3, for any* γ, *(i) if* $\alpha < \alpha^*$, *then* $\Pi_\gamma(M,K) < \Pi_\gamma(M,0)$ *for any* $K > 0$, *(ii) if* $\alpha \geq \alpha_\gamma$, *there exists* M_γ *such that if* $\alpha \geq \alpha_\gamma$ *and* $M \geq M_\gamma$, *then* $\Pi_\gamma(M,K) > \Pi_\gamma(M,0)$ *for any* K *positive but not too large.*

Proof. In bilateral trade, i's overall utility still strictly increases in j's excess valuation. Consider Corollary 3. The proof applies without change. For Proposition 1 note that while $q(\alpha,\gamma)$, where we made the dependence on parameters α and γ explicit, decreases in γ, it is independent of M. Hence, the statement follows, with an adjusted cutoff value for M given α, from the main proof. The same for Corollary 4.

Consider the auction setting. Let $K_\gamma(x) \equiv E[v_i^\gamma \max_{j\in M}\{v_j - v_i\} \mid v_i = y = x, K]$. $K_\gamma(x)$ is decreasing in γ, increasing in K, and is independent of N. Player i's overall utility has the same monotonicity properties as before and we can then use the same arguments as before. The symmetric monotone equilibrium is given by $b_\gamma(v) = G(v)^{-1}\int_0^v g(x)(x + \alpha K_\gamma(x))dx$. In turn, Proposition 2 continues to hold as stated. Furthermore, Proposition 4 continues to hold as stated.

Consider now Proposition 3. Note that $b_\gamma(v)$ is decreasing in γ for any fixed N and $K > 0$. It follows that while $\Pi_\gamma(M,0)$ is constant in γ, $\Pi_\gamma(M,K)$ is decreasing in γ if $K > 0$. In turn, if $\alpha < \alpha^*$, then $\Pi_\gamma(M,K) < \Pi_\gamma(M,0)$ for any $K > 0$. Consider $\alpha > \alpha^*$. Straightforward calculations show that $\Pi_\gamma(M,K)$ is:

$$\frac{N-1}{N+1} + \alpha N\frac{N-1}{N+\gamma}[\frac{K}{K+1}\frac{1}{N-1+\gamma} - \frac{1}{N+\gamma+1}] +$$
$$\alpha\frac{N-1}{K+N+\gamma}(\mathbf{1} - \frac{K}{K+1})\frac{N}{K+\gamma+N+1}.$$

Consider now $\lim_{\alpha\to 1}\Pi_{\gamma=1}(M,K) - \Pi(M,0)$. The sign of this difference is the same as the sign of $\{(M-K)^2 - 7M + K - 12\}$. This expression decreases in K. Furthermore, it strictly increases in M as long as M is not too small relative to K. It turn, there exists $\widehat{M}$ and $\hat{\alpha} < 1$ such that if $M \geq \widehat{M}$ and $\alpha \geq \hat{\alpha}$, then $\Pi_{\gamma=1}(M,K) > \Pi_{\gamma=1}(M,0)$ for K positive, but not too large. Since $\Pi_\gamma(M,K)$ is decreasing in γ, the same holds a fortiori for any $\gamma < 1$. For Proposition 5, the logic is the same as before. ■

[55] For Corollary 1, there may still be trade give ε transaction cost given $\alpha \to 1$ if $\gamma > 0$.

1.1.3 Corollary 6

Returning to our main specification, in the context of Section 2.2, bilateral trade, consider now the elicitation procedure of a multiple price list and, for simplicity, suppose that the density of valuations is uniform. Suppose that the full range of prices is given to each party and they have to simultaneously indicate whether or not they would be willing to trade at that price. Then an actual price is drawn randomly and trade is implemented iff both parties said yes to that price. The realization of consumption utilities is again private. The next corollary shows that superiority-seeking leads to the classic wedge between WTA and WTP.

Corollary 6 (WTA>WTP)**.** *For any $\alpha > 0$, there exists a cutoff equilibrium where the seller's reservation price $p_s(v)$ is increasing, the buyer's reservation price $p_b(v)$ is decreasing in v with $p_s(v) > p_b(v) = v$. The gap $p_s(v) - p_b(v)$ is increasing in α*

Proof. Consider the case where the buyer's reservation price is $p(v_b) = v_b$ and the seller's reservation price $p_s(v_s)$ solves $(1-\alpha)v_s + \alpha E[v \mid v > p_s] = p_s$. To show that this is an equilibrium note that since conditional on trade $v_b > v_s$, and the buyer does not experience a superiority boost. To check for the seller, note that differentiating $(1-\alpha)v_s + \alpha E[v \mid v > p_s] = p_s$ with respect to p_s, the RHS has a derivative of 1 and the LHS has a derivative of $\alpha/2$. Hence, there is a unique solution and this solution is strictly increasing in v_s and α. ■

1.2 Estimating Preferences for Superiority-seeking

In this simple setting of basic exchange Proposition 5, maintaining the assumption of well-calibrated expectations about F, Study 1 allows us to estimate the α parameter in the following equation outlined in Section 2.1:

$$\text{person } i\text{'s valuation} = \overbrace{v_i}^{\text{consumption utility}} + \overbrace{\alpha \max_{k \in K}\{v_k - v_i, 0\}}^{\text{superiority-seeking}}$$

The α parameter corresponds to the weight placed on superiority-seeking. We do this in two ways. The first employs standard maximum likelihood estimation to compute a 95% confidence interval. The second uses Bayesian methods assuming an improper uniform prior of $\alpha \geq 0$.

Both methods yield similar estimates. The mean of the maximum likelihood estimator is 0.94 with a 95% confidence interval of (0.86, 1.02). The mean of the Bayesian estimator is 0.91 with a 95% confidence interval of (0.78, 1.04). In both cases, α is estimated to be significantly greater than 0, implying substantial weight placed on superiority-seeking in our setting.

1.3 Additional Analyses

1.3.1 Study 1

Model:	M = 4	M=6	M=8
Exclusion	2.750	1.114	2.567**
	(1.686)	(1.165)	(1.196)
Constant	5.750***	2.542***	2.833***
	(1.104)	(0.8803)	(0.7416)
N	14	42	39

iid standard-errors in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table 1: Effect of Exclusion on WTP by Group Size M

1.3.2 Study 2

	M=4	M=6	M=8	M=4	M=6	M=8	M=4	M=6	M=8
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
K=1	1.012*			0.3383			0.4236		
	(0.5253)			(0.5177)			(0.5059)		
K=2		0.7843**			-0.2043			-0.3368*	
		(0.3561)			(0.1449)			(0.1786)	
K=3			0.6800**			0.2800			0.3438
			(0.1783)			(0.5436)			(0.5459)
Random							0.1992	-0.3312	0.1912**
							(0.3761)	(0.2626)	(0.0708)
K=1 × Random							0.4751		
							(0.7862)		
K=2 × Random								1.320***	
								(0.4239)	
K=3 × Random									0.2088
									(0.5664)
Constant	0.7729***	1.067***	1.720***	0.7729***	1.067***	1.720***	0.6875***	1.199***	1.656***
	(0.1762)	(0.1370)	(0.0775)	(0.1811)	(0.1373)	(0.0726)	(0.1705)	(0.1726)	(0.0708)
N	58	118	34	37	110	59	67	138	69

Clustered standard-errors at session level in parentheses
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Table 2: Effect of Exclusion on Bids by Group Size M and Treatment

1.3.3 Study 3

	(1)	(2)	(3)
Two-Coin (=1)	0.25***	-0.13	-0.13
	(0.08)	(0.09)	(0.09)
Three-Coin (=1)	0.62***	-0.09	-0.09
	(0.13)	(0.14)	(0.14)
No Information (=1)			0.18
			(0.31)
Two-Coin*No Information			0.38***
			(0.12)
Three-Coin*No Information			0.71***
			(0.19)
Constant	3.51***	3.33***	3.33***
	(0.23)	(0.21)	(0.21)
N	441	453	894

*** : $p \leq 0.01$, ** : $p \leq 0.05$, * : $p \leq 0.1$. Standard errors clustered at the individual level are reported in parentheses below each estimate. Column 1 reports the relationship between the number of coin flips and WTP in the No Information treatment. Column 2 reports reports the relationship between the number of coin flips and WTP in the Low Information treatment. Column 3 compares the No and Low Information treatments.

Table 3: Effect of Exclusion on WTP: No Information vs. Low Information

Online Appendix: Experimental Materials

Study 1: Protocol

1. Every participant who walks in either gets a number between 1 and 12 or sits down at a lab station with a number. Each lab station number should have a:
    a. Instructions
    b. Willingness to Pay Sheet

2. Participants will first read the instructions. The experimenter will read the instructions as well, and holds up the T-shirt so everyone can see it.

3. If running the **Random Exclusion** treatment, once everyone reads the instructions, the experimenter will announce who in the room will **not** be able to bid on the T-shirt. The experimenter will announce that the "People will have the opportunity to purchase the T-shirt based on the outcome of a dice roll. I will roll a 12-sided die to determine who will be not be able to purchase the T-shirt."

- If there are 4 participants, the experimenter will roll the die until one participant is eliminated. For example, if they roll a 3, the participant with the assigned number 3 cannot participate.
- If there are 6 participants, the experimenter will roll the die until two participants are eliminated. For example, if they roll a 3, the participant with the assigned number 3 cannot participate. They will then roll the die again, if they get 4, the participant assigned number 4 cannot participate. Roll again if either there are no participants at that number or the participant with the number has already been eliminated.
- If there are 8 participants, the experimenter will roll the die until 3 participants are eliminated.

4. In the **Random Exclusion** treatment, the experimenter should take away the payment sheets from the participants who are eliminated.

4. In the **Baseline** treatment, the experimenter will announce that everyone can potentially purchase the T-shirt.

5. Everyone who can write down a willingness to pay should do so.

6. After this the experimenter will collect the payment sheets and pay everyone accordingly. Remember to do all of this discretely. Participants should be called up one at a time and given plenty of opportunity to leave the lab before the next participant is called.

7. After the experiment is over, the RAs should write down the treatment, date and time on the WTP sheets and staple them together so it will be easy to tell what data is from what session.

Study 1: Instructions for all treatments

Instructions

Please enter your Lab Station Number ___

Today you may get the chance to purchase an item. If you are given this opportunity, you will be able to use up to $15 of the money you earned in this experiment to purchase a good. Specifically, you will have the opportunity to purchase a custom T-shirt.

The custom t-shirt is designed specifically for this experiment. You cannot get this t-shirt anywhere else! The shirt is available in all sizes.

If you are given the opportunity to purchase the T-shirt, you will write down the maximum you would be willing to pay for it and wait for the experimenter to collect all of the forms from everyone.

To determine whether or not you will actually purchase the T-shirt, the experimenter will randomly pick a number X between 1 and 15. If the number X is the same or smaller than the most you are willing to pay for the T-shirt, you will receive the T-shirt and $X will be subtracted from your earnings in the experiment. If the number X is larger than the most you are willing to pay for the T-shirt, you will not get the T-shirt and nothing will be subtracted from your earnings.

This method is used to ensure that it is in your best interest to report your true maximum willingness to pay for the shirt.

If you are not given the opportunity to purchase the shirt, the experimenter will collect your instructions before proceeding.

Please wait while the experimenter announces who will have the opportunity to purchase the shirt.

Study 1 and 2 Good

Study 2: Protocol (No scale)

1. Every participant who walks in either gets a number between 1 and 12 or sits down at a lab station with a number. The bid sheets will be on their desks.

2. Participants will first read the instructions. The experimenter will read the instructions as well, and holds up the T-shirt so everyone can see it.

3. If running the **Random Exclusion** treatment, once everyone reads the instructions, the experimenter will announce who in the room will **not** be able to bid on the T-shirt. As noted in the instructions, not everyone will have the opportunity to bid on the T-shirt. The experiment will announce that "People will have the opportunity to bid on the T-shirt based on the outcome of a dice roll. I will roll a 12-sided die to determine who will be not be able to bid on the T-shirt."

- If there are 4 participants, the experimenter will roll the die until one participant is eliminated. For example, if they roll a 3, the participant with the assigned number 3 cannot participate.
- If there are 6 participants, the experimenter will roll the die until two participants are eliminated. For example, if they roll a 3, the participant with the assigned number 3 cannot participate. They will then roll the die again, if they get 4, the participant assigned number 4 cannot participate. Roll again if either there are no participants at that number or the participant with the number has already been eliminated.
- If there are 8 participants, the experimenter will roll the die until 3 participants are eliminated.

4. In the **Random Exclusion** treatment, the experimenter should take away the bid sheets from the participants who are eliminated.

4. In the **Baseline** treatment, the experimenter will announce that everyone has the opportunity to bid.

5. Everyone who can bid should then write down their bids.

6. After this the experimenter will collect the bid sheets, determine the winner, and pay everyone accordingly. Remember to do all of this discretely. Participants should be called up one at a time and given plenty of opportunity to leave the lab before the next participant is called.

7. After the experiment is over, the RAs should write down the treatment, date and time on the bids and staple them together so it will be easy to tell what data is from what session.

Study 2: Protocol (with scale)

1. Every participant who walks in either gets a number between 1 and 12 or sits down at a lab station with a number. The bid sheets will be on their desks.

2. Participants will first read the instructions. The experimenter will read the instructions as well, and holds up the T-shirt so everyone can see it.

3. Participants are asked to fill out the Liking Sheet. The RA collects the sheets.

4. If running the **Non-Random Exclusion** treatment, once everyone reads the instructions, the experimenter will announce who in the room will **not** be able to bid on the T-shirt. As noted in the instructions, not everyone will have the opportunity to bid on the T-shirt. The experimenter will announce that "People will have the opportunity to bid on the T-shirt based on how much they wanted to own it. Those who wanted to own it *least*, will not have the opportunity to bid on the T-shirt."

- If there are 4 participants, the experimenter will select the person with the lowest Liking rating and say that this lab station cannot bid on the T-shirt.
- If there are 6 participants, the experimenter will select the two people with the lowest Liking ratings and say that these lab stations cannot bid on the T-shirt.
- If there are 8 participants, the experimenter will select the three people with the lowest Liking ratings and say that these lab stations cannot bid on the T-shirt.

4. In the **Non-Random Exclusion** treatment, the experimenter should take away the bid sheets from the participants who are eliminated.

4. In the **Baseline** treatment, the experimenter will announce that everyone has the opportunity to bid.

5. Everyone who can bid should then write down their bids.

6. After this the experimenter will collect the bid sheets, determine the winner, and pay everyone accordingly. Remember to do all of this discretely. Participants should be called up one at a time and given plenty of opportunity to leave the lab before the next participant is called.

7. After the experiment is over, the RAs should write down the treatment, date and time on the bids and staple them together so it will be easy to tell what data is from what session.

Study 2: Instructions for all treatments

Instructions

Please enter your Lab Station Number ___

Today you may get the chance to participate in an auction. If you are able to participate in the auction, you will have the opportunity to use up to $15 of the money you earned in the previous task to bid on a good. If you are selected as the highest bidder, this will be the final sale. No returns, exchanges or refunds are possible.

In the auction, you will have the opportunity to bid to win a custom T-shirt.

The custom T-shirt is designed specifically for this experiment. You cannot get this t-shirt anywhere else! The shirt is available in all sizes.

If you are given the opportunity to bid on the T-shirt, you will write down your bid on the form and wait for the experimenter to collect all of them. If you are the highest bidder, you will receive the T-shirt and your bid will be subtracted from your earnings in the previous experiment. If you are not the highest bidder, you will not get the T-shirt and nothing will be subtracted from your earnings.

If you are not given the opportunity to bid in the auction, the experimenter will collect your instructions before proceeding with the auction.

Please wait while the experimenter announces who will have the opportunity to participate in the auction.

Study 2: "Desire to own" scale

Please enter your Lab Station Number

___

On a scale of 1-10, please rate the extent to which you would like to own the T-shirt (1 *do not want to own* to 10 *very much want to own*):

____

Study 3 Instructions

Thank you for taking the time to participate in our study. The aim of this study is to gain insights about decision making under risk. The study takes approximately 8 minutes to complete. You will receive financial remuneration for participating. In addition, 1 in 10 participants will be randomly selected to have their decisions played out for real. The outcomes of your decisions will be delivered as a bonus through Prolific.

Click "Next" to proceed.

Page Break

You have been endowed with 10 Experimental Units. If you are selected to have your decisions played out for real, any earnings in Experimental Units will be delivered to you as a bonus on Prolific, where 1 Experimental Unit = $1.

You will be paired with three other participants who will also be asked similar question as you. You will be Participant 2. The other participants will be referred to as Participant 1, 3, and 4.

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You may have the opportunity to acquire an exclusive art print made specifically for this study. This art print can be placed on a T-shirt or embroidered on high-quality paper for hanging on the wall. It will be delivered to you through an online store set up specifically for this study.

The other participants in this study may have the same opportunity to acquire the art print.

Desire On a scale of 1-10, please rate the extent to which you would like to own this art print?

	Not at all				Indifferent				A lot		
	0	1	2	3	4	5	6	7	8	9	10
I would want the opportunity:											

Page Break

Before this is determined, we will elicit the most that everyone is willing to pay for the art print. The art print costs P experimental units, where P is some number between 0 and 10 and is set randomly by the computer. The computer will draw the same P for the entire group of four participants.

You will be asked to submit a bid describing the most experimental units you would be willing to pay for the art print. Your counterparts will also be asked to submit bids in a similar way.

Whether or not you acquire the art print will be determined as follows. If your bid is larger than the price **P,** you will purchase the print and give up **P** experimental units; if your bid is less than the price **P**, then you will not purchase the print and not give up any experimental units.

For example:

1. If **P** is 6 and your bid is 9, you will purchase the item and give up 6 experimental units.
2. If **P** is 9 and your bid is 6, then you will not purchase it and not give up any experimental units.

The other participants will submit bids in a similar way.

Page Break

Moreover, the other participants may or may not have the opportunity to purchase the art print depending on the outcome of a coin flip.

A coin is assigned to a particular participant, e.g. Participant 1. If the outcome of the coin flip is **Heads,** that participant will be able to purchase the art print depending on their willingness to pay for it; if the outcome is **Tails,** that participant will not be able to purchase the art print regardless of how much they're willing to pay for it.

The computer will randomly decide to flip one, two, or three coins. If a participant is not assigned a coin that is flipped, they will always have the opportunity to purchase the art print. For example, if only the coin assigned to Participant 1 is flipped, the other two participants (3 and 4) will always have the opportunity to purchase the art print.

Page Break

High (Low) Information treatment

Before we determine how many coins will be flipped, we'd like for you to submit a bid for the art print in each of the three scenarios that are equally likely to be played out.

We will also tell you the extent to which the other participants who you will be matched with want to own the art print compared to you.

On a 0-10 scale, **you** reported a desire to own of: [**Active Participant's Desire]**

Compared to your desire to own:

Participant 1's desire is: As **High (Low)** or **Higher (Lower)** than yours

How much would you be willing to pay for the art print if **one** coin is flipped?

	0	1	2	3	4	5	6	7	8	9	10
I would be willing to pay:											

Participant 3's desire is: As **High (Low)** or **Higher (Lower)** than yours

How much would you be willing to pay for the art print if **two** coins are flipped?

	0	1	2	3	4	5	6	7	8	9	10
I would be willing to pay:											

Participant 4's desire is: As **High (Low)** or **Higher (Lower)** than yours

How much would you be willing to pay for the art print if **three** coins are flipped?

	0	1	2	3	4	5	6	7	8	9	10
I would be willing to pay:											

No Information treatment

Before we determine how many coins will be flipped, we'd like for you to submit a bid for the art print in each of the three scenarios that are equally likely to be played out.

How much would you be willing to pay for the art print if **one** coin is flipped?

	0	1	2	3	4	5	6	7	8	9	10
I would be willing to pay:											

How much would you be willing to pay for the art print if **two** coins are flipped?

	0	1	2	3	4	5	6	7	8	9	10
I would be willing to pay:											

How much would you be willing to pay for the art print if **three** coins are flipped?

	0	1	2	3	4	5	6	7	8	9	10
I would be willing to pay:											

Study 4 Instructions

Thank you for taking the time to participate in our study. The aim of this study is to gain insights about decision making under risk. The study takes approximately 8 minutes to complete. You will receive financial remuneration for participating. The outcomes of your decisions will be delivered as a bonus through Prolific.

Click "Next" to proceed.

Page Break

We will recruit 100 participants for this study. Each of you will be endowed with 10 Experimental Units. Any earnings in Experimental Units will be delivered to you as a bonus on Prolific, where 1 Experimental Unit = $1.

You may or may not have the opportunity to acquire an exclusive art print made specifically for this study. This art print can be placed on a T-shirt or embroidered on high-quality paper for hanging on the wall. It will be delivered to you through an online store set up specifically for this study.

The other participants in this study may have the same opportunity to acquire the art print.

Page Break

We will elicit the most that everyone is willing to pay for the art print. The art print has a price, where the price is some number between 0 and 10 and is set randomly by the computer.

You will be asked to submit a bid describing the most experimental units you would be willing to pay for the art print.

Whether or not you acquire the art print will be determined as follows. If your bid is larger than the price, you will purchase the print and pay the price; if your bid is less than the price, then you will not purchase the print and not give up any money.

For example:

1. If the price is 6 and your bid is 9, you will purchase the item and pay 6 experimental units.
2. If the price is 9 and your bid is 6, then you will not purchase it and not pay anything.

Page Break

To determine who has the opportunity to purchase the art print, the computer will flip a coin.

- If the outcome is **Heads**, we will randomly select 60 participants to have the opportunity to purchase the print; others will not be able to purchase the print.
- If the outcome is **Tails,** all 100 people who complete the survey will be able to purchase the print.

If the outcome is **Tails,** what is the most that you'd be willing to pay for the art print?

	0	1	2	3	4	5	6	7	8	9	10
I would be willing to pay:											

If the outcome is **Heads,** what is the most that you'd be willing to pay for the art print?

	0	1	2	3	4	5	6	7	8	9	10
I would be willing to pay:											

Study 5 Instructions

Same initial instructions as Study 3

Page Break

The next part of the study will have three separate parts. If you are selected to have your decisions played out for real, we will randomly select one of these three parts. You will then be matched with other people in the experiment---different participants than from before---and your choices will be carried out accordingly.

Page Break

Dictator Game

In this scenario, you are matched with another participant in this experiment.

You are given $4. Your task is to decide how to split this amount with your partner. You can choose to give any amount up to $4, and keep whatever is left.

Please make the choice below.

	0	1	2	3	4
I will give:					

Page Break

Prisoner's Dilemma

In this scenario, you are matched with another participant in this experiment. Your earnings will depend on the decisions that **both you and your partner** make.

Each of you can choose between action **A** and action **B**. Your earnings will be determined as follows.

- If both of you choose **A,** then both of you will receive $4
- If you choose **B** and your partner chooses **A,** you will receive $5 and your partner will receive $1
- If you choose **A** and your partner chooses **B,** you will receive $1 and your partner will receive $5
- If both of you choose **B,** then both of you will receive $2

Please select the action you want to take:

○ Action A

○ Action B

Page Break

Public Goods Game

In this scenario, you are matched with 3 other participants in this experiment. Your earnings will depend on the decisions that all of the participants make across two parts of the interaction.

Part 1

All participants are given $4. Your task is to decide how much of this $4 to contribute to a **project** and how much to keep for yourself. Your income will come from two sources:

- How much of the $4 you kept for yourself.
- 0.4 times the **total** contribution to the project. Everyone else's income will be determined the same way.

For example, imagine that you contributed $2 for the project and so did everyone else, leading to a total sum of $8. Your income from the project would be 0.4*$8=3.2. Your total income would be the amount you kept ($2) plus the income from the project: $5.20.

Note that for every dollar you contribute, your income increases by $0.40, but the income for the entire group goes up by $1.60 (4*$0.40).

Part 2

Each person will also be able to assign deduction points based on the contributions of other participants. Each person will be matched with one other participant and assign deduction points based on their potential contribution. Each deduction point costs the assigner the equivalent amount in dollars, but takes away **3 times** that amount from the participant that the points are assigned to (up to their total income).

For example, suppose Participant 1 saw that Participant 2 contributed $2 and earned an income of $5.20. If Participant 1 assign 1 deduction point, then Participant 1 would lose $1 and Participant 2 would lose $3 (3*1 deduction point).

Decision

How much do you want to contribute:

	0	1	2	3	4
I will contribute:					

Page Break

You will be matched to another participant in your group. Please choose how much to deduct from their earnings in one of 5 possible scenarios. Your decision will be carried out depending on how much the matched participant actually contributed.

The participant contributed $0 to the project.

	0	1	2	3	4
I would like to deduct:					

The participant contributed $1 to the project.

	0	1	2	3	4
I would like to deduct:					

The participant contributed $2 to the project.

	0	1	2	3	4
I would like to deduct:					

The participant contributed $3 to the project.

	0	1	2	3	4
I would like to deduct:					

The participant contributed $4 to the project.

	0	1	2	3	4
I would like to deduct:					