Appendix S1: Reputation Instruments

Character Assessment: Study 1

Subjects were asked to read the following scenarios and answer honestly how they would behave in each.

Cooperative Disposition Questionnaire

1) You need to get gas before going to pick up your friends to go out to dinner. When you get to the pump you see a sign that says "If paying by credit card, slide your card after pumping your gas." A lot of people are getting gas while you are there. As you finish pumping your gas, the power goes out and all the pumps stop working. You look around and see that some of the other people are going inside to pay since the pay-at-the-pump option is no longer working. What would you do?

Option 1: I would go inside to pay

Option 2: I would leave without paying

2) You are renting a house with three other people. During your first week living together, you and your housemates made a list of twelve chores that need to be done every week. Everyone is supposed to do three of the chores. Each week, a new copy of the chore list is posted in the kitchen, and each person crosses out a chore after he or she completes it. To motivate yourselves, you and your housemates agreed that when someone doesn't do their three chores, that person will have to do double the next week. At the end of last week, "Take out the trash" remained on the list. Someone had not completed three chores. You think back and realize that you had only done two chores during the week. You don't want to have to do double next week. Your housemate asks everyone, "Okay, who didn't do three?" What would you do?

Option 1: I would insist that I had done my three chores

Option 2: I would admit that I had done only two chores

3) Whenever you go back to your home town, you have lunch at a nice restaurant with your friend Jesse from high school. You and Jesse have a tradition of alternating on who picks up the tab. The last time you were home, Jesse paid for lunch. You are home again, and have just finished a nice, leisurely, expensive lunch with Jesse. Jesse reaches for the check, saying, "Hey, this time it's my turn; you paid last time!" Obviously, Jesse has forgotten that it is your turn. What would you do?

Option 1: I would say nothing, and let Jesse pay the bill

Option 2: I would tell Jesse that it is my turn this time, and pay the bill

4) Six months ago, you landed a job as a reporter for the local newspaper. One of your older co-workers, Sarah, has been great - she's been teaching you a lot and explaining what your very demanding editor expects of your articles. On many nights she has stayed late, giving you advice and helping you rewrite the leads to your articles before your editor sees them. Tonight, Sarah comes to your desk, looking frantic. She tells you that she has an urgent situation to take care of at home, and she desperately needs you to finish her article for her. The problem is, tonight is your first date with someone you have been attracted to for a long time. What would you do?

      Option 1: I would cancel my date and help Sarah

      Option 2: I would go on my date and not help Sarah

5) You are playing in an intramural tennis tournament. In this tournament there are no official referees, and the players make their own calls. You made it to the semifinals and know you have a good chance of winning the whole thing. In the semifinal match, you and your opponent are both strong players, and the match is exhausting. You finally work your way to match point; one more point and you will win. But if your opponent wins the point, you will probably be playing for another half an hour. The ball is served and you hit a good return. Your opponent mis-hits the ball and it sails toward the far corner of the court. You race after it, just happening to block the ball from your opponent's view, and watch as it just hits the line. It was in, but you were a step away from being able to take a good swing at it. What would you do?

      Option 1: I would lie and tell my opponent that the ball was out

      Option 2: I would admit to my opponent that the ball was in

6) You are approaching a deadline on an advertising campaign. But you have to leave the office before finishing the job. Your co-worker offered to fill in for you and finish working on the campaign. Your co-worker then spent half the night finishing the job. The next morning, you arrive at work before your co-worker does. Your superiors are impressed; they compliment you on your hard work on the advertising campaign. What would you do?

      Option 1: I would tell them that it was actually my co-worker who had stayed late to finish the campaign.

      Option 2: I would thank them for the compliment, saying how tired I was from having stayed so late to finish it

Prior to each trust game subjects were provided with the complete text of four questions along with the answers chosen by their partner.

Character Assessment: Study 2

Subjects were matched with four partners and played a Prisoner's Dilemma (PD) game with each. In each game, subjects were endowed with 25 points. They could choose between keeping the points or giving them to their partner, in which case the points given to the partner would triple to 75. Both partners would earn the most points jointly if both gave their initial endowment. However, each subject could earn the most points individually if they kept their endowment and their partner gave them their endowment. Subjects did not receive feedback regarding their partner's decisions until the Trust Game portion of the experiment. (Payoffs expressed as: Subject, Partner)

Partner Decision

		Give	Keep
Subject	**Give**	75, 75	0, 100
Decision	**Keep**	100, 0	25, 25

For each trust game, subjects were provided with two of their partner's PD game decisions.

Example:

Your partner: Player 7

Player 7: GAVE the points when partnered with You

Player 7: KEPT the points when partnered with Player 3

Appendix S2: Credulity Measures

Credulity Check: Study 1

      Following the experiment, subjects were verbally probed for suspicion of the sham partner deception (loosely asking, "Was there anything you found odd about the study? Did you think that anything was not as it was described?"). Any mention of suspicion of the deception resulted in the subject being coded as suspicious. Thirty eight subjects (25 females) met this criterion.

Credulity Check: Study 2

      Following the experiment, subjects were probed for suspicion of deception with a six question debriefing. Without explicitly mentioning the nature of the deception—to avoid the demand characteristics of such a question—the debriefing was structured to implicitly probe for suspicion of the deception, as well as when the suspicion occurred and what effects the subject believed it may have had. These questions asked:

      1) What questions do you have about the study to this point?

      2) Was their anything unclear about the study? If so, What?

      3) Has anything struck you as odd about the study? If so, what?

      4) Do you think there was more to this study than was described in the instructions? If so, what?

      5) When did these thoughts occur to you?

      6) Do you think these thoughts influenced your decisions? If so, how?

If at any point during the debriefing subjects mentioned any suspicion that they were not partnered with real humans, or that the information they were given was fabricated in any way, they were coded as suspicious of the deception. Twenty four subjects (14 females) met this criterion.

Appendix S3: Data Coding Scheme and Results

Data Analysis: Coding schemes

Sex is coded: 1 for females, 0 for males

Credulity is coded: 1 for credulous subjects, 0 for suspicious subjects

Character assessment is coded as:

> Study 1: The number of questions for which the subject picked the cooperative option on the cooperative disposition questionnaire (0-6).

> Study 2: The number of PD games for which the subject gave their endowment to their partner (0-4).

3rd Party Reputation is coded as:

> Study 1: The number of times the partner reported they would cooperate with 3rd parties in the social dilemma questionnaire (0, 1, 3 or 4).

> Study 2: The number of times the partner was reported to have transferred their endowment to partners besides the subject in the previous PDs (0, 1 or 2).

1st Party Reputation is coded as:

> Study 2: The number of times the partner was reported to have transferred their endowment to the subject in the previous PDs (0 or 1).

Trust/Distrust is coded: 1 for trust, 0 for distrust

[1]Cooperation is coded: 1 if the partner cooperated, and 0 if the sham partner defected.

[1]Punished Defection is coded: 1 if the partner defected and was punished, and 0 otherwise.

[1]Unpunished Defection is coded: 1 if the partner defected and was not punished, and 0 otherwise.

Cooperate/Defect is coded: 1 if the subject cooperated in round 2, 0 if they defected.

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[1] Together, "Cooperation" and "Punished Defection" form a contrast set which compares the differences between these two outcomes (cooperation and punished defection) to the contrast category of unpunished defection. 'Unpunished Defection' then replaces 'Cooperation' to calculate the final contrast between cases where the sham partner cooperated and when they defected but were punished.

Study 1 Results

(population-averaged, non-linear models with logit link function and robust standard errors)

Table 1. HLM of Decisions to Trust / Distrust (Round 1)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	0.545	0.154	1.725	3.532	89	.001
Sex	-0.482	0.323	0.617	-1.491	89	.139
Credulity	-0.173	0.312	0.841	-0.553	89	.581
Character Assessment	0.112	0.165	1.119	0.678	89	.499
Within-Subjects Effects						
3rd Party Reputation	0.486	0.069	1.626	7.010	367	***

Table 2. HLM of Decisions to Punish / Not (Round 1)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	-0.125	0.226	0.883	-0.551	70	.583
Sex	-0.662	0.473	0.752	-1.399	70	.166
Credulity	-0.285	0.438	0.752	-0.650	70	.518
Character Assessment	0.134	0.215	1.143	0.622	70	.536
Within-Subjects Effects						
3rd Party Reputation	0.014	0.097	1.014	0.145	109	.885

Table 3. HLM of Decisions to Cooperate / Defect (Round 2)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	1.816	0.210	6.146	8.635	81	***
Sex	-0.141	0.444	0.868	-0.318	81	.751
Credulity	0.371	0.414	1.449	0.897	81	.373
Character Assessment	0.179	0.167	1.195	1.068	81	.289
Within-Subjects Effects						
3rd Party Reputation	0.021	0.090	1.021	0.234	222	.816
Cooperation vs. Unpunished Defection	2.517	0.407	12.394	6.182	222	***
Punished Defection vs. Unpunished Defection	2.391	0.481	10.919	4.973	222	***
Punished Defection vs. Cooperation	-0.127	0.511	0.881	-0.248	222	.804

Study 2 Results

(population-averaged, non-linear models with logit link function and robust standard errors)

Table 4. HLM of Decisions to Trust / Distrust (Round 1)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	2.288	0.177	9.858	12.869	115	***
Sex	-1.395	0.373	0.248	-3.742	115	***
Credulity	0.307	0.339	1.360	0.908	115	.366
Character Assessment	0.089	0.115	1.093	0.775	115	.440
Within-Subjects Effects						
1st Party Reputation	1.020	0.269	2.772	3.793	470	***
3rd Party Reputation	0.043	0.243	1.044	0.178	470	.859

Table 5. HLM of Decisions to Punish / Not (Round 1)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	0.614	0.184	1.848	3.341	101	.002
Sex	0.042	0.376	1.043	0.111	101	.912
Credulity	-0.232	0.468	0.793	-0.495	101	.621
Character Assessment	-0.121	0.131	0.886	-0.929	101	.355
Within-Subjects Effects						
1st Party Reputation	-0.266	0.235	0.766	-1.135	202	.258
3rd Party Reputation	0.032	0.224	1.032	0.142	202	.888

Table 6. HLM of Decisions to Cooperate / Defect (Round 2)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	1.942	0.167	6.976	11.617	115	***
Sex	0.319	0.318	1.376	1.004	115	.318
Credulity	-0.540	0.487	0.583	-1.110	115	.270
Character Assessment	0.562	0.112	1.755	4.999	115	***
Within-Subjects Effects						
1st Party Reputation	0.084	0.217	1.088	0.388	413	.698
3rd Party Reputation	-0.567	0.205	0.567	-2.765	413	.006
Cooperation vs. Unpunished Defection	2.080	0.317	8.001	6.564	413	***
Punished Defection vs. Unpunished Defection	2.402	0.375	11.040	6.400	413	***
Punished Defection vs. Cooperation	0.322	0.350	1.380	0.919	413	.359

Study 1 Results (Credulous Subjects Only)

(population-averaged, non-linear models with logit link function and robust standard errors)

Table 7. HLM of Decisions to Trust / Distrust (Round 1)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	0.465	0.199	1.591	2.329	52	.024
Sex	-0.344	0.439	0.709	-0.784	52	.437
Character Assessment	0.033	0.209	1.033	0.156	52	.877
Within-Subjects Effects						
3rd Party Reputation	0.479	0.088	1.614	5.418	216	***

Table 8. HLM of Decisions to Punish / Not (Round 1)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	-0.225	0.306	0.798	-0.735	40	.466
Sex	-0.498	0.635	0.608	-0.784	40	.438
Character Assessment	0.097	0.243	1.102	0.401	40	.690
Within-Subjects Effects						
3rd Party Reputation	0.005	0.150	1.005	0.031	61	.976

Table 9. HLM of Decisions to Cooperate / Defect (Round 2)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	2.106	0.300	8.217	7.014	47	***
Sex	0.147	0.579	1.159	0.254	47	.801
Character Assessment	0.174	0.225	1.190	0.774	47	.443
Within-Subjects Effects						
3rd Party Reputation	0.169	0.148	1.184	1.137	126	.258
Cooperation vs. Unpunished Defection	3.059	0.544	21.302	5.621	126	***
Punished Defection vs. Unpunished Defection	3.273	0.835	26.397	3.919	126	***
Punished Defection vs. Cooperation	0.214	0.869	1.239	0.247	126	.805

Study 2 Results (Credulous Subjects Only)

(population-averaged, non-linear models with logit link function and robust standard errors)

Table 10. HLM of Decisions to Trust / Distrust (Round 1)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	2.385	0.219	10.863	10.892	92	***
Sex	-1.506	0.468	0.222	-3.216	92	.002
Character Assessment	-0.023	0.139	0.977	-0.164	92	.871
Within-Subjects Effects						
1st Party Reputation	1.172	0.297	3.227	3.947	375	***
3rd Party Reputation	0.000	0.265	1.000	0.000	375	1.000

Table 11. HLM of Decisions to Punish / Not (Round 1)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	0.574	0.204	1.776	2.817	81	.007
Sex	-0.092	0.417	0.912	-0.220	81	.826
Character Assessment	-0.075	0.144	0.928	-0.519	81	.605
Within-Subjects Effects						
1st Party Reputation	-0.236	0.268	0.790	-0.881	165	.380
3rd Party Reputation	-0.013	0.252	0.988	-0.050	165	.961

Table 12. HLM of Decisions to Cooperate / Defect (Round 2)

Effect	b	S.E.	Odds Ratio	t	df	p
Between-Subjects Effects						
Intercept	1.899	0.182	6.680	10.459	92	***
Sex	0.859	0.354	2.361	2.428	92	.017
Character Assessment	0.643	0.125	1.901	5.128	92	***
Within-Subjects Effects						
1st Party Reputation	0.063	0.254	1.065	0.249	331	.804
3rd Party Reputation	-0.408	0.227	0.665	-1.801	331	.072
Cooperation vs. Unpunished Defection	2.324	0.349	10.220	6.656	331	***
Punished Defection vs. Unpunished Defection	3.082	0.460	21.807	6.669	331	***
Punished Defection vs. Cooperation	0.758	0.410	2.134	1.847	331	.065