Supplementary Material

Vignette Pre-Ratings

Vignettes were pre-rated by an independent sample on Amazon Mechanical Turk (n=71; $M(SD)_{age}$=34.49(10.93); 44 female, 27 male) in order to determine the extent to which participants indeed considered the protagonists in the vignettes to be demonstrating (a) "impartiality", (b) "reciprocity", and (c) "trying to help someone in need," using scales from 1 (Not At All) to 7 (Very Much). The results validated the vignettes (see means in Figure S1). The impartiality vignettes were rated as involving "impartiality" significantly more than the reciprocity, charity, and unspecified scenarios ($F(3,210)=38.11$, $p<.001$); the reciprocity vignettes were rated as involving "reciprocity" significantly more than the impartiality, charity, and unspecified vignettes ($F(3,210)=107.49$, $p<.001$); and the charity vignettes were rated as involving "trying to help someone in need" significantly more than the impartiality, reciprocity, and unspecified vignettes ($F(3,210)=119.58$, $p<.001$). All key contrasts were significant (p's<.001). Higher ratings of "impartiality" compared to "reciprocity" and "trying to help someone in need" in the unspecified condition suggest that participants inferred impartiality when allocation criteria were not explicitly presented.

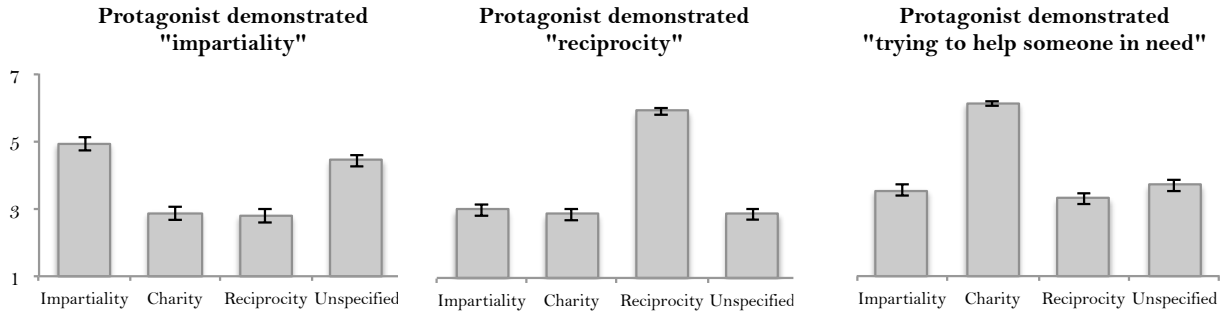

Figure S1. Vignette pre-ratings. Error bars indicate SEM.

Study 3:

Additional Tables

Table S1. Average peak voxels in Montreal Neurological Institute coordinates from whole-brain random-effects group analyses of fairness task.

Region	x	y	z	# voxels	*t* value	Cluster-wise *p*
Reciprocity > Unspecified						
DMPFC (superior frontal gyrus)	0	50	34	39	5.55	.002
DMPFC (superior frontal gyrus)	-12	32	58	22	4.82	.013
left IFG (inferior frontal gyrus, triangular part)	-48	26	-5	11	4.76	.064
Charity > Unspecified						
DMPFC (superior frontal gyrus)	0	53	34	14	5.23	.021
VMPFC (medial orbital gyrus)	-6	44	17	16	5.82	.015
VMPFC (inferior frontopolar gyrus)	-9	59	1	11	5.07	.037
Precuneus/subparietal sulcus)	0	-55	28	12	4.50	.030
Reciprocity > Charity						
right IFG (inferior frontal gyrus, triangular part)	42	26	-8	26	5.60	.003
Charity > Impartiality						
Cingulate gyrus	3	-55	13	63	7.57	.002
VMPFC (inferior rostral gyrus)	-6	41	-5	19	4.51	.013
Reciprocity and Charity > Unspecified						
DMPFC (superior frontal gyrus)	0	53	34	13	5.23	.025

Note: Voxel-wise threshold $p<.001$, uncorrected, k>10. Cluster-wise *p*-value uncorrected.

Table S2. Subject-level functional ROIs in Montreal Neurological Institute coordinates, derived from functional localizer task thresholded at $p < 0.001$, $k < 10$

Subject	ROI present	x	y	z	Number of voxels	Peak *t* value
DMPFC						
1		9	47	19	62	5.95
2	NONE					
3	NONE					
4		6	65	28	10	3.81
5		3	47	16	69	6.83
6		15	62	25	73	6.46
7		3	56	19	114	8.25
8		9	62	28	41	5.86
9		6	59	25	38	5.03
10	NONE					
11		12	62	25	41	4.71
12		9	56	34	28	5.82
13		6	53	46	23	5.89
14		0	56	22	41	5.33
15		-6	62	13	16	4.20
16	NONE					
VMPFC						
1		12	47	-20	14	4.60
2		0	56	-17	18	3.88
3		0	50	-17	44	4.57
4		-3	56	-17	23	5.16
5		3	56	-17	71	8.05
6		0	59	-11	25	4.63
7		-3	41	-26	17	4.39
8		3	59	-11	32	5.33
9		3	41	-23	53	5.88
10	NONE					
11		0	50	-17	19	4.60
12	NONE					
13		0	68	-14	9	5.19
14		-3	62	-14	17	4.69
15	NONE					
16	NONE					
PC						
1		-6	-49	34	95	8.09
2		0	-58	43	70	5.76
3		0	-61	31	106	10.12
4		-6	-58	43	71	8.65
5		6	-58	40	97	10.49
6		3	-61	37	52	7.80
7		3	-46	28	69	6.84
8		-6	-61	34	119	11.45
9		0	-67	34	106	10.65
10		3	-67	40	35	5.03
11		6	-55	37	68	6.31
12		0	-61	40	93	7.90
13		3	-55	40	113	10.85
14		6	-58	28	93	7.05
15		-6	-49	37	79	6.20
16		-3	-64	43	32	5.00

Table S2 (cont.)

Subject	ROI present	x	y	z	Number of voxels	Peak *t* value
LTPJ						
	1	-42	-52	22	63	5.66
	2	-48	-58	22	56	5.85
	3	-51	-64	19	89	10.15
	4	-51	-58	10	96	11.21
	5	-57	-58	22	100	10.87
	6	-45	-55	19	98	8.86
	7	-45	-70	25	115	8.87
	8	-51	-55	22	99	7.44
	9	-54	-64	22	100	9.95
	10	-48	-67	25	62	6.36
	11	-57	-58	28	86	7.19
	12	-48	-58	34	94	6.65
	13	-45	-52	22	100	8.15
	14	-51	-52	22	97	8.43
	15	-45	-52	22	96	8.47
	16	-42	-58	28	38	6.08
RTPJ						
	1	60	-58	19	88	9.10
	2	51	-58	22	32	5.17
	3	60	-49	25	54	4.82
	4	57	-46	19	78	7.88
	5	54	-61	25	108	11.08
	6	60	-52	25	116	10.03
	7	60	-55	31	61	8.58
	8	60	-49	22	120	9.20
	9	57	-55	25	118	11.90
	10	48	-64	28	50	5.73
	11	54	-58	19	115	8.20
	12	54	-61	22	98	10.12
	13	57	-55	25	119	9.09
	14	57	-58	22	104	11.22
	15	54	-49	16	105	6.95
	16	63	-52	22	23	4.86