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The Price of Racial Bias: Intergroup Negotiations in the Ultimatum Game

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 Mahzarin R. Banaji⁴, and Elizabeth A. Phelps^{1,5,6}

¹D art t f P , N Y r U r t; ²D art t f P , P U r t; ³IDG/M G r I t t f r Br a R ar , P U r t; ⁴D art t f P , Har ar U r t;
⁵C trf r N r S , N Y r U r t; ⁶Nat a K I t t t , N Y r U r t

Abstract

This study examined the effect of race on the ultimatum game. We found that Black participants were more likely than White participants to accept offers from Black senders and reject offers from White senders. This pattern was observed across all offer amounts, suggesting that Black participants did not have a general aversion to Black senders. These findings suggest that racial bias may play a role in intergroup negotiations.

R 1/5/13; R 6/11/13

Discussions of racial bias in the ultimatum game have focused on the effect of race on the offer amount (e.g., Baier & Fischbacher, 2011). Our study examined the effect of race on the acceptance rate. We found that Black participants were more likely than White participants to accept offers from Black senders and reject offers from White senders. This pattern was observed across all offer amounts, suggesting that Black participants did not have a general aversion to Black senders. These findings suggest that racial bias may play a role in intergroup negotiations.

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Method

Participants

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2 M E a t r r , 6 r a a r t r a a ,
a 1 t r a a . Part a t r r r t
fr t N Y r U r t a a rr
t .

Procedure

Ultimatum Game. Part ~~a~~ t ~~a~~ a ~~a~~ t r
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 (60 W ~~a~~, 60 B ~~a~~, 40 t ~~a~~ ~~a~~
 f A ~~a~~, M Eat ~~a~~, H ~~a~~ t; t -
~~a~~ ft r r r r r). B ~~a~~
 a r , t t, ~~a~~ tr t rt ~~a~~ r
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 Brat, 2010). Ot ~~a~~ r ~~a~~ r r r t
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 r ~~a~~ ~~a~~ t f \$10. Ar t tr r r
 r ~~a~~ r , t tr t ~~a~~ ~~a~~ ft ff r
 r ~~a~~ t (ff r ~~a~~ : \$0 \$3.80, $M = \$1.94$, $SD = \$0.99$). Part ~~a~~ t r t t at ft ~~a~~ t ~~a~~
 ff r, t r t at ~~a~~ t ~~a~~ t at t
 r ar r ~~a~~ t r r ~~a~~ fr
 ar ft . Par ~~a~~ 4 t ~~a~~
 ff r; f ~~a~~, t t r ~~a~~ t ~~a~~ 1t
 5 (rat ~~a~~ t). If t fa t r
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 t = \$11.40).

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ffrtr art a t . Part a t' tat fr at
a t att ft r t, a t
r t tatt ffrtr r a t t r ffr,
a t a ffrtr . Bfr
t r r t, art a t a rt
t rf t r rta ft a r .
T t at r f t ffrt Ut at
Ga , a t f t t ftt a
t f ffr r t a t a r t a
ffr, arat fr a a art a t' ata.
T a f r t at ft art a t'

t t t t far ft ff r , a t t f
ff r , a f r t at ft ff r , a t at
a art a t a t a t a t a t a
ff r , C a t r rt f a t a a r
ff r , a t r a a a a
t :

$$p(\text{accept}) = \frac{1}{1 + e^{-(mx - D)}}$$

T **a** **ta** **rat** **t r** **t m, t**
a **D, t** **t f** **ff r** **f r a** **t(x t**
ff r **). S r t** **f t** **ata r a** **arat**
t f tt **f t** **t f** **t . T r** **a t**
t at **a a** **f r f** **t a a** **t r t at**,
r f r **t f t** **t at** **(t ff t**
 R) **Frt'** (1993) **a -** **t**
r r **. A t a , t r r t** **f ff r a t**
a r **a t** **r a a t** **aft rr a f**
t - t tra .

Implicit race bias. After testing the implicit association test (IAT) on Black and White participants, the results showed that Black participants had a negative implicit association with Black people compared to White people, while White participants had a positive implicit association with Black people compared to White people. This finding suggests that implicit racial biases exist and can influence behavior without conscious awareness.

Part a t' IAT D r r a at t
a rt Gr a , N , a Ba a
(2003). D r r a t r a 0 a t r -W t a
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 a r a a IAT r a 0; r, -W t
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 T a a r t a t f f r r a x a r a
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 t a t -W t a a W t a t -
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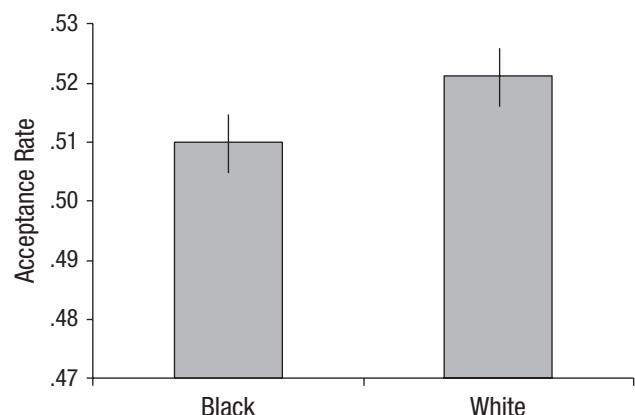


Fig. 1. A rat at a ± 1 SE. Err r ar

(La tia., 2007). T r f r t r a t
t - t a r a a t a f r t a t
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r a t). H r, a r r t r t f a a f
a , f r t a t -B a a W t
a r t a t f f t t a r t a t
r f r t t r a ; r r t t a a
t a t f a t r a r t r t t a t -
a r t f a a .

Results

Acceptance rates

After $r = .52$ ($p = .11$, $SD = .22$). A t test for the difference between Water and Barrier rates was significant, $F(1, 48) = 5.48$, $p = .02$, $\eta^2 = .10$ ($F = 1$).²

T *ta* *ta* *rat* -B *a* *art*
at *a* .48 (*ta* : .11 .91, $SD = .23$).³ R *t r* *a*
f at ratr a *ta* *rat* *fr W t r* -
r' ff r ($M = .49$) *ar* *t B a* *r r'*
ff r ($M = .48$) *t* *a*, $F(1, 35) = 4.84$, $p = .04$,
 $\eta_p^2 = .12$.⁴ T *ta* *ta* *rat* *frt* *W t ar*-
t a t a .44 (*ta* : .11 .91, $SD = .22$). A *W t*
art a t, t ff r *a ta rat t*
B a ($M = .44$) *W t* ($M = .45$) *r r f a t*
ra f a a fa ta ta f r,
 $F(1, 26) = 2.34$, $p = .14$, $\eta_p^2 = .08$, *at* *t a r -*
t a art t ff t ta fr t f a
a fr -B a art a t.

Modeling behavior

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 St 1 r a a f a t r a t t
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 $(\beta = 0.86)$, $t(48) = 11.50$, $p < .01$, $r^2 = .74$. W t
 a (IAT D r) a a a a r t r t r t
 ra a a ta rat ra a t ff t f
 t f ff r $(\beta = 0.22)$, $t(48) = 3.21$, $p < .01$,
 $pr^2 = .18$. M r r, t a a a r t r
 t a t f r 4.8% f a t a a a
 a ta rat, $\Delta r^2 = .048$, $\Delta F(1, 46) = 10.33$, $p < .01$.
 T a t fr a t a a a a
 ta t fr a t a a a a ta
 rat, a t r r a a f a t r t r
 t f, -Ba, rW t a . T r t -
 at t a t, ra t r r, a t a t
 r r a r r f r a t t a t Ba, a r
 t W t, r r' ff r a a t f r ff r
 fr Ba r r. A t a , rat r t a
 a a r t t IAT, tr f r t t r f a -
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 ar t W t r r .

Discussion

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a r a a . H r , a r r a r
a , t r a t r a a t r t r
t r a t a t r e t f a f f r . R t f f r
a a r a t a , t t f r a t a t r a
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f t a t (a) t r a f t r r t r
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t f r a . N t t a t r a a f f r
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S t a ., 2011), t t t fr t r a t f
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Author Contributions

J. T. K. J. L. t t t A t r
tr t t t . T t a a t
r ffr J. T. K. J. L. E. Bar-Da J. T.
K. J. L. ffr t a a a t r t
rt r f M. R. Ba E. A. P. J. T.
K. t a f t a r t J. L. M. R. Ba E. A.
P. r r t a r . A t r a r t
f a r ft a r t ffr .

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t a Ja R t ffr t t a r t .

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r t t r a r r t a f t a r t .

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t E. A. P. (MH08756 AG039238).

Supplemental Material

A t a r t f r a t a f a t t ://
. / t t / ta - a a

Notes

- R t f r t r-a r r r t t f f
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ft a a f r t r-a r r .
- T r a r t (2W t a 1A a) a t a
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- W f r t -B a r a r t a t
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t r-a a t r a t a f r r -
f f r a t t r a a f f a t .
- T f a t t a t r f r t r a a r a -
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a r t 27 a t t W t - a).
5. It r a t t a t f r a f I A T r
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a t r r a r a a r a t a t
a a t a a .

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