IS IN-KIND KINDER THAN CASH?

THE IMPACT OF MONEY VS. FOOD AID ON SOCIAL EMOTIONS AND AID TAKE-UP

Samantha Kassirer
Northwestern University

(R&R at PNAS)
Imagine that, due to the economic crisis brought on by COVID-19 and the dramatic rise in prices of basic life necessities (e.g., groceries and gas), you have not been able to buy fresh groceries, and you have been living off of mostly cheap fast food for months. If this situation continues, you will have to face skipping meals or going hungry.
Globally, 25% of people (1.9 billion) struggle with food insecurity

https://ourworldindata.org/hunger-and-undernourishment

Even in the U.S., 1 in 10 households were food insecure in 2020

Coleman-Jehnson et al., 2021

Imagine that, due to the economic crisis brought on by COVID-19 and the dramatic rise in prices of basic life necessities (e.g., groceries and gas), you have not been able to buy fresh groceries, and you have been living off of mostly cheap fast food for months. If this situation continues, you will have to face skipping meals or going hungry.
How would you feel and respond if a charity offered you in-kind food aid?
How would you feel and respond if a charity offered you cash (to buy groceries)?
How do food insecure individuals feel and respond when offered food aid vs. money for food?
How do food insecure individuals feel and respond when offered food aid vs. money for food?

<table>
<thead>
<tr>
<th>Monetary Aid</th>
<th>In-kind Food Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Greater sense of autonomy (Shapiro, 2019)</td>
<td></td>
</tr>
<tr>
<td>• More fungible and flexible</td>
<td></td>
</tr>
<tr>
<td>• Most studied poverty intervention in low- and middle-income countries*</td>
<td></td>
</tr>
<tr>
<td>• Philanthropic endorsement (e.g., GiveDirectly Evaluations &amp; Effective Altruism (EA))</td>
<td></td>
</tr>
</tbody>
</table>

*Vivalt, 2015; McGuire, Kaiser, Bach-Mortensen, 2022; Kabeer & Waddington, 2015; Baird et al., 2013; Millan et al., 2019; Owusu-Addo et al., 2018; Garde et al., 2007; Behrman & Parker, 2010; Crea et al., 2015; Baranov et al., 2020; Buller et al., 2018; Kabeer & Waddington, 2015; Banerjee et al., 2017; McGuire et al., 2022
How do food insecure individuals feel and respond when offered food aid vs. money for food?

**Monetary Aid**
- Greater sense of autonomy (Shapiro, 2019)
- More fungible and flexible
- Most studied poverty intervention in low- and middle-income countries*
- Philanthropic endorsement (e.g., GiveDirectly Evaluations & Effective Altruism (EA))

**In-kind Food Aid**
- Relatively less poverty stigma + negative social emotions
- Relatively more belonging + positive social emotions

*Vivalt, 2015; McGuire, Kaiser, Bach-Mortensen, 2022; Kabeer & Waddington, 2015; Baird et al., 2013; Millan et al., 2019; Owusu-Addo et al., 2018; Garde et al., 2007; Behrman & Parker, 2010; Crea et al., 2015; Baranov et al., 2020; Buller et al., 2018; Kabeer & Waddington, 2015; Banerjee et al., 2017; McGuire et al., 2022
Prior Research on Cash vs. In-kind Transfers

- Utilization of cash & in-kind food aid (vs. a control) similarly reduce food insecurity & poverty (review from Gentilini, 2015)

- Recipients in Ethiopia prefer food to money (Hirvonen & Hoddinott, 2020)

<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2008</th>
<th>2010</th>
<th>2012</th>
<th>2014</th>
<th>all years</th>
</tr>
</thead>
<tbody>
<tr>
<td>All food</td>
<td>37</td>
<td>60</td>
<td>46</td>
<td>44</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>75% food; 25% cash</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>10</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>50% cash; 50% food</td>
<td>30</td>
<td>16</td>
<td>24</td>
<td>27</td>
<td>32</td>
<td>26</td>
</tr>
<tr>
<td>25% food; 75% cash</td>
<td>10</td>
<td>8</td>
<td>13</td>
<td>10</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>All cash</td>
<td>17</td>
<td>9</td>
<td>12</td>
<td>9</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>


- Givers prefer to give in-kind (vs. cash) (Schroeder, Waytz, & Epley, 2017)
“…elementary models that people use (unselfconsciously) to construct, understand, respond to, evaluate, and coordinate social relationships.” (Fiske, 1991, pg. 1)
Charity

Relational Models Theory

Market Pricing

Communal Sharing

Fiske, 1991, 1992; Kay et al. 2004; Gallus et al., 2021; Wheeler & Bechler, 2021: “objects are not merely objects”
Relational Models Theory

Relational Models Theory

Relational Mode Pilot Study ($N = 514$)

Description of Social Relationship Mode 1 [CS]
“…In short: Mode 1 represents a relationship where individuals offer objects or benefits because they feel unity with one another.”

description adapted from Haslam & Fiske, 1991

Description of Social Relationship Mode 2 [MP]
“…In short: Mode 2 represents a relationship where individuals offer objects or benefits in exchange for some proportional resource they value.”

When the charity offered you [money / groceries], does this indicate that you and the charity would be relatively more likely to use social relationship Mode 1 or Mode 2 when interacting with each other?

![Bar chart showing the comparison between Mode 1 and Mode 2 for money and food donations.]

$1 = $only CS, $2 = $equal mix, $3 = $only MP

$p = .033$
Hypotheses

- **Hypothesis 1**: Food insecure individuals are more likely to take-up in-kind food (vs. monetary) aid from charity.

- **Hypothesis 2**: The effect of aid-type on take-up will be simultaneously mediated by NSEs (shame) & PSEs (cared for).

*NSE = Negative Social Emotions, PSE = Positive Social Emotions*
How does aid-type impact recipient psychology & take-up? 
(N = 5,336)

• Study 1: Field experiment in Kenya
• Study 2: Impact of aid-type with NSEs & PSEs
• Study 3: Impact of aid-type with Poverty Stigma + NSEs
• Study 4: Impact of aid-type with Belonging + PSEs
• Study 5: The effect of aid-type on take-up when aid comes from charity vs. the gov’t

• Three Supplemental Studies

*NSE = Negative Social Emotions, PSE = Positive Social Emotions

OSF Link: https://tinyurl.com/ReceivingMoneyvsFood
How does *aid-type* impact recipient psychology & take-up? 
\( (N = 5,336) \)

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- **Study 5:** The effect of aid-type on take-up when aid comes from charity vs. the gov’t
- **Three Supplemental Studies**

*NSE = Negative Social Emotions, PSE = Positive Social Emotions*
$N = 500$ food insecure individuals
(1 = moderate FI, 5 = very high FI)
$M = 3.34, SD = 1.33$

$M_{\text{daily income}} = 303$ KES ($\sim$2.50 USD)
$M_{\text{education}} = \text{until 14 years of age}$

$M_{\text{age}} = 36$ years old
50% female, 50% male

72.9% married
77.6% head of household
$M_{\text{children}} = 2.98$ per household
“Hello! We are contacting you to let you know that the Busara Center has deemed you as qualified to receive...

“...money for food (to purchase items such as maize flour, sugar, & cooking oil).”

“...food (maize flour, cooking oil, & sugar)”

(gave 600 KES worth of cash or food; equivalent to 2 days’ wage)
Randomization Check in Study 1

<table>
<thead>
<tr>
<th></th>
<th>Cash Condition</th>
<th>Food Aid Condition</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>$M$</td>
</tr>
<tr>
<td>Age</td>
<td>36.15</td>
<td>7.60</td>
<td>35.39</td>
</tr>
<tr>
<td>Daily Income (KES)</td>
<td>301.57</td>
<td>149.58</td>
<td>303.46</td>
</tr>
<tr>
<td>Education Level</td>
<td>11.50</td>
<td>3.77</td>
<td>11.70</td>
</tr>
<tr>
<td>Food Insecurity</td>
<td>3.26</td>
<td>1.34</td>
<td>3.41</td>
</tr>
</tbody>
</table>

Notes. Results come from conducting a one-way ANOVA with aid-type as the independent variable. Education level average is between Form 2 (ages 13-14) and Form 3 (ages 14-15). Food insecurity (FEIS Scale, Items 4-8) is a total of the number of questions (out of 5) participants answered yes to: 1. You had to skip a meal? 2. You ate less than you thought you should? 3. Your household ran out of food? 4. You were hungry but did not eat? 5. You went without eating for a while day?
Walking Distance to Pick-up Site (in minutes)

- **Money**: $M = 18.70$, $SD = 8.36$
- **Food Aid**: $M = 18.47$, $SD = 8.00$

$F(1,489) = 0.97$, $p = .755$
Take-up Behavior in Study 1

$B = .59, \ SE = .25, p = .017$

<table>
<thead>
<tr>
<th>% Who Picked-up the Aid</th>
<th>Money</th>
<th>Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>79.6%</td>
<td>87.6%</td>
</tr>
<tr>
<td>90%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>50%</td>
<td></td>
<td></td>
</tr>
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## Effect of Aid-type on Take-up in Study 1

**Controlling for Demographics, Income, Education-level, Food Insecurity, & Walking Distance**

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<tr>
<th>Survey</th>
<th>Variables</th>
<th>$B$ ($SE$), $p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Aid-type ($1=$food, $0=$money)</td>
<td>$0.61 (0.26), p = 0.017$</td>
</tr>
<tr>
<td>Entry (T1)</td>
<td>Gender ($1=$female, $0=$male)</td>
<td>$0.17 (0.33), p = 0.611$</td>
</tr>
<tr>
<td>Entry (T1)</td>
<td>Age ($18-55$)</td>
<td>$0.02 (0.02), p = 0.205$</td>
</tr>
<tr>
<td>Entry (T1)</td>
<td>Head of Household ($1=yes, 0=no$)</td>
<td>$-0.09 (0.37), p = 0.811$</td>
</tr>
<tr>
<td>Entry (T1)</td>
<td>Number of Children</td>
<td>$-0.02 (0.07), p = 0.806$</td>
</tr>
<tr>
<td>Entry (T1)</td>
<td>Daily Income ($0-500 KES$)</td>
<td>$0.00 (0.00), p = 0.547$</td>
</tr>
<tr>
<td>Entry (T1)</td>
<td>Education Level</td>
<td>$0.00 (0.04), p = 0.989$</td>
</tr>
<tr>
<td>Entry (T1)</td>
<td>Food Insecurity (FI; $1=moderate, 5=very high$)</td>
<td>$0.21 (0.09), p = 0.025$</td>
</tr>
<tr>
<td>Follow-up (T3)</td>
<td>Walking Distance to Pick-up Site (in minutes)</td>
<td>$-0.31 (1.01), p = 0.757$</td>
</tr>
</tbody>
</table>

**Notes.** Results come from a logit testing the effect of aid-type on take-up rates, controlling for a series eight variables. The food insecurity (FI) measure represents the total number of FI questions (questions 4-8 of FEIS) the participant answered yes=1 vs. no=0 to.
Study 1: Field Study in Kenya (Endline Survey Results)

Both those who did and did not pick up the aid; 96.2% (481/500) response rate

Satisfaction Being Offered [Money / Food] from Busara

\[ F(1,479) = 4.86, \ p = .006 \]

Aid-type*Take-up: \( B = -0.95, \ SE = 0.58, \ p = .100 \)
Study 1: Field Study in Kenya (Endline Survey Results)
Both those who did and did not pick up the aid; 96.2% (481/500) response rate

“Please share with us the first 10 words that come to mind when thinking about how being offered [food/money for food] from charity makes you feel about yourself."

Positive Social Emotions: loved, adored, cared for, respected, valued, favored, supported, recognized

Negative Social Emotions*: shame, ashamed, embarrassed, humiliated, guilty, culpable, remorseful, insecure, vulnerable, self-conscious

*Adapted from Han, Duhachek, & Agrawal, 2014; Johnson, Matear, & Thomson, 2011
Study 1: Field Study in Kenya (Endline Survey Results)

Both those who did and did not pick up the aid; 96.2% (481/500) response rate

Positive Social Emotions
(1=mentioned 1+ PSEs, 0=didn’t mention any PSEs)

Money: 120 / 243
Food: 141 / 238

- Money: 49.4% (120/243)
- Food: 59.2% (141/238)

Negative Social Emotions
(1=mentioned 1+ NSEs, 0=didn’t mention any NSEs)

Money: 6 / 243
Food: 1 / 238

- Money: 2.5% (6/243)
- Food: 0.4% (1/238)

Aid-type*Take-up: B = -0.09, SE = 0.13, p = .474

Aid-type*Take-up: B = 0.03, SE = 0.03, p = .379
Hypothesis 1: Food insecure individuals are more likely to take-up food (vs. monetary) aid from charity.

Forest plot of the Effect of Aid-type on Take-up Intentions from an Internal Meta-analysis for U.S. Experiments 2-5

<table>
<thead>
<tr>
<th>Study</th>
<th>Aid Take-up DV: All Experiments SMD</th>
<th>95%-CI</th>
<th>Weight (common)</th>
<th>Weight (random)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiment 2</td>
<td>0.49 [0.33; 0.65]</td>
<td>25.94%</td>
<td>25.82%</td>
<td></td>
</tr>
<tr>
<td>Experiment 3</td>
<td>0.32 [0.16; 0.47]</td>
<td>30.86%</td>
<td>28.65%</td>
<td></td>
</tr>
<tr>
<td>Experiment 4</td>
<td>0.25 [0.09; 0.42]</td>
<td>25.76%</td>
<td>25.71%</td>
<td></td>
</tr>
<tr>
<td>Experiment 5</td>
<td>0.42 [0.22; 0.62]</td>
<td>17.44%</td>
<td>19.82%</td>
<td></td>
</tr>
<tr>
<td>Common effect model</td>
<td>0.36 [0.28; 0.45]</td>
<td>100.00%</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>0.36 [0.26; 0.47]</td>
<td>--</td>
<td>100.00%</td>
<td></td>
</tr>
</tbody>
</table>

Notes. This figure displays a forest plot from a fixed-effect model of the inverse-variance method, documenting the effect size ($d$) with 95% CIs of aid-type on take-up intentions for each individual study and the overall effect across studies. SMD = standardized mean difference. The squares represent the effect size for each individual study and the diamond represent the overall effect size.
Study Design for U.S. Experiments

**Negative Social Emotions (NSEs; 1=not at all, 7=extremely):** Ashamed, embarrassed, humiliated, guilty, culpable, remorseful, insecure, vulnerable, and self-conscious (adapted from Han, Duhachek, & Agrawal, 2014 and Johnson, Matear, & Thomson, 2011)

**Positive Social Emotions (PSEs; 1=not at all, 7=extremely):** Respected, loved, cared for, adored, favored, supported, recognized, valued

1. Need-state Thought Experiment

2. Hypothetical Aid Opportunity
   - Aid-type Manipulation: Money vs. Food Aid

3. Experiment 2
   - Key Outcome Measure: Take-up
   - Simultaneous Mediators: NSEs & PSEs
Hypothesis 2: The effect of aid-type on take-up will be serially mediated by NSEs (Shame) & PSEs (Cared for)

Indirect Effect through NSE = .10 (.04), 95% CI [.027, .181]

Indirect Effect through PSE = .13 (.05), 95% CI [.048, .236]

Note. This figure displays the results Study 2, testing simultaneous mediation using Hayes’ PROCESS (Model 4), testing the effect of X(aid-type: money=0, food=1) on Y(take-up) with NSE & PSE as simultaneous mediators. *p < .05, **p < .01, ***p < .001
Hypothesis 3: The effect of aid-type on take-up will be serially mediated by poverty stigma & NSEs

Note. This figure displays the results from Study 3, testing serial mediation using Hayes’ PROCESS (Model 6), testing the effect of X(aid-type: money=0, food=1) on Y(take-up) with Stigma (M1) & Negative Social Emotions (NSE; M2) as serial mediators. *p < .05, **p < .01, ***p < .001

$$a_1 \times d \times b_2 = .06 (.03), 95\% \text{ CI } [.010, .115]$$
Hypothesis 4: The effect of aid-type on take-up will be serially mediated by belonging & PSEs

Note. This figure displays the results from Study 4, testing serial mediation using Hayes’ PROCESS (Model 6), testing the effect of X(aid-type: money=0, food=1) on Y(take-up) with Belonging (M1) & Positive Social Emotions (PSE; M2) as serial mediators. *p < .05, **p < .01, ***p < .001

\[ a_1 \times d \times b_2 = .04 (.02), 95\% \text{ CI } [.003, .085] \]
Supplemental Studies S1-S3: Alternative Mechanisms

Nadler, 2015

*p < .05, **p < .01, ***p < .001
How do food insecure individuals feel and respond when offered food aid vs. money for food?

Communal Sharing Relationship

Market-pricing Relationship
Should I accept this help?

BIG QUESTION

How can we get more people in need to take-up and actually use the aid available to them?
Thank you!

Samantha.Kassirer@kellogg.northwestern.edu
How does aid-type impact recipient psychology & take-up? ($N = 5,336$)

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*NSE = Negative Social Emotions, PSE = Positive Social Emotions

**OSF Link:** https://tinyurl.com/ReceivingMoneyvsFood
***All participants read descriptions of the 4 relational modes***

*Adapted from Haslam & Fiske, 1991*

DV: If they were to support you during your hard time, to what extent would you feel like you were in a [communal sharing, market-pricing, authority ranking, equality matching] relationship with [close friends & family, charities, the government]?

(1=not at all, 4=somewhat, 7=completely)
### Descriptions of Social Relationships

*adapted from Haslam & Fiske, 1991*

<table>
<thead>
<tr>
<th>Market-pricing Relationship</th>
<th>Authority Ranking</th>
<th>Equality Matching</th>
<th>Communal Sharing</th>
</tr>
</thead>
<tbody>
<tr>
<td>You interact with them in a purely rational, businesslike way. You both feel entitled to a fair rate of return, in return for what you put into the interaction. What you get out of your dealings with them depends on precisely what you put in. So you each keep track of the ratio of your “costs” (in terms of money, time, effort, or aggravation) in relation to your “benefits.” The interaction basically comes down to practical matters like these.</td>
<td>They tend to “call the shots” and take the initiative in this relationship and you tend to follow along. They make most of the decisions and you go along with their choices. They are in charge and usually get their way and take responsibility for things. You are a follower in this relationship and back them up, knowing that you can depend on them to lead and protect you when it is needed.</td>
<td>Your relationship is structured on a 50: 50 basis. If they do something for you, you will try to do the same thing in return for them sometime. As a way of keeping things balanced, you more or less keep track of favors and obligations. And you get irritated when you feel that they are taking more than they are giving (and vice versa). What you each want is equal treatment and equal shares.</td>
<td>They take a “one for all and all for one” approach in their relationship with you. They feel that “what’s mine is yours” and that what happens to you is nearly as important as what happens to them. If you needed their help, they would help you—out of genuine care for you—and you would do the same for them.</td>
</tr>
</tbody>
</table>
## Within-Subjects Social Relations Pilot Study (N = 150)

<table>
<thead>
<tr>
<th>Social Relation</th>
<th>Mean (M)</th>
<th>Standard Deviation (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Close Friends &amp; Family</td>
<td>5.54</td>
<td>1.48</td>
</tr>
<tr>
<td>Communal Sharing</td>
<td>2.28</td>
<td>1.64</td>
</tr>
<tr>
<td>Market Pricing</td>
<td>4.30</td>
<td>1.94</td>
</tr>
<tr>
<td>Equality Matching</td>
<td>2.35</td>
<td>1.72</td>
</tr>
</tbody>
</table>

*Notes. 1=not at all, 4=somewhat, 7=completely*
## Within-Subjects Social Relations Pilot Study (N = 150)

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<tr>
<th></th>
<th>Charities</th>
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Poverty

Stigma

Aid Take-up

Food Aid (vs. Money)

NSEs
(e.g., Shame)

M

PSEs
(e.g., Cared for)

M

NSE = Negative Social Emotions, PSE = Positive Social Emotions
Poverty
Stigma
Aid Take-up
Food Aid (vs. Money)

Giver-type (Charity vs. Gov’t)

NSEs (e.g., Shame)
PSEs (e.g., Cared for)

*NSE = Negative Social Emotions, PSE = Positive Social Emotions
Now, further imagine that after living without any source of income for the past few months, and mostly living off of cheap fast food, you saw a flyer posted near your street about an opportunity to receive [money / groceries] from [the U.S. government / a charity]. On the flyer, you learn the following information:

"The COVID-19 crisis has given us plenty of cause for concern. Our country's economy has been suffering ever since the COVID-19 shutdown. We created a COVID-19 relief program to help Americans in need during these uncertain times.

We are currently giving away [money / groceries] to anyone who needs it.

If you are struggling and need a helping hand, sign up today and we will send you [money / groceries]."
Study 5 Results ($N = 764$)

2(aid-type: money, food) x 2(giver-type: government, charity)

...In short: a communal relationship represents a relationship where all individuals support each other because they feel unity with one another.

...In short: an exchange relationship represents a relationship where individuals offer objects or benefits in exchange for some resource they value.
Study 5 Results \((N = 764)\)

2(aid-type: money, food) x 2(giver-type: government, charity)

**Aid-type Main Effect:** \(p < .001\)

**Giver-type Main Effect:** \(p < .001\)

**Aid-type * Giver-type:** \(p = .851\)

**Aid-type Main Effect:** \(p = .002\)

**Giver-type Main Effect:** \(p < .001\)

**Aid-type * Giver-type:** \(p = .297\)
Study 5 Results ($N = 764$)

Aid-type Main Effect: $p = .002$
Giver-type Main Effect: $p < .001$
Aid-type * Giver-type: $p = .450$

Positive Social Emotions

<table>
<thead>
<tr>
<th></th>
<th>Money</th>
<th>Food</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charity</td>
<td>4.66</td>
<td>4.99</td>
</tr>
<tr>
<td>U.S. Government</td>
<td>4.16</td>
<td>4.37</td>
</tr>
</tbody>
</table>

$p = .006$  
$p = .092$
Aid-type Main Effect: \( p = .002 \)
Giver-type Main Effect: \( p < .001 \)
Aid-type * Giver-type: \( p = .450 \)
Study 5 Results ($N = 764$)

Aid-type Main Effect: $p = .219$

Giver-type Main Effect: $p = .005$

Aid-type * Giver-type: $p < .001$
Study 5 Results \((N = 764)\)

Aid-type Main Effect: \(p = .043\)

Giver-type Main Effect: \(p < .001\)

Aid-type * Giver-type: \(p < .001\)
Study 5 Results (N = 764)

Aid-type Main Effect: \( p = .370 \)
Giver-type Main Effect: \( p = .007 \)
Aid-type * Giver-type: \( p = .003 \)
Study 5 Results ($N = 764$)

Index of moderated mediation: .24 (.07), 95% CI [.106, .393]

*Note. This figure displays the results from the new study, testing moderated mediation using Hayes’ PROCESS (Model 8), testing the effect of $X$ (aid-type: money=0, food=1) on $Y$ (take-up) with Negative Social Emotions (NSE; M) as mediator and giver-type (gov’t=0, charity=1) as moderator (W). *$p < .05$, **$p < .01$, ***$p < .001$
Study 5 Results ($N = 764$)

Serial Indirect Effect: .04 (.02), 95% CI[.011, .074]

Note. This figure displays the results from the new study, testing moderated mediation using Hayes' PROCESS (Model 6), testing the effect of $X$(aid-type: money=0, food=1) on $Y$(take-up) with Communal Sharing and Positive Social Emotions (PSE) as mediators (Ms). Results come from the full data set. $^*p < .05$, $^{**}p < .01$, $^{***}p < .001$
Study 5 Results \((N = 764)\)

Aid-type Main Effect: \(p < .001\)

Giver-type Main Effect: \(p < .001\)

Aid-type * Giver-type: \(p = .004\)