Online Appendix

Decision-makers self-servingly navigate the equality-efficiency trade-off of free partner choice in social dilemmas among unequals

Luuk L. Snijder, Mirre Stallen, and Jörg Gross

Correspondence to: l.snijder@fsw.leidenuniv.nl

This file includes:

Appendix A1. Results on Political Ideology.
Appendix A2. Experimental Instructions.
Appendix A3. Supplementary Tables.

Appendix A1. Results on Political Ideology.

We explored how individual-level political orientation (leftist to rightist, on a scale from 1-7), economic ideology (progressive to conservative, on a scale from 1-7), and social ideology (social to liberal, on a scale from 1-7) impacted partner preferences, cooperation rates, the creation of pairs, and self-reported motives underlying the creation of pairs.

Partner Preferences

Political ideology, including political orientation, economic ideology and social ideology, did not impact partner preferences. Participants most often preferred to be paired with partners who were assigned a high endowment and a high productivity, and least often preferred to be paired with partners who were assigned a low-endowment low-productivity type, independent of their political orientation (first preference for H_eH_p types, $b = 0.35$, $p = .703$, 95% CI [-0.32, 0.39]; last preference for L_eL_p types, $b = 0.05$, $p = .956$, 95% CI [-0.33, 0.33]), economic ideology (first preference for H_eH_p types, $b = -0.03$, $p = .943$, 95% CI [-0.18, 0.20]; last preference for L_eL_p types, $b = -0.10$, $p = .837$, 95% CI [-0.17, 0.19]), and social ideology (first preference for H_eH_p types, $b = -0.38$, $p = .624$, 95% CI [0.32, 0.30]; last preference for L_eL_p types, $b = -0.22$, $p = .780$, 95% CI [-0.30, 0.31]).

Cooperation Rates

Political orientation ($b = -0.85$, $p = .614$, 95% CI [-4.16, 2.45]) and social ideology ($b = 0.09$, $p = .954$, 95% CI [-2.90, 3.07]) also did not impact cooperation. However, participants who were more progressive with regards to their economic ideology did invest a larger part of their

endowment in cooperation than participants who were more conservative (b = -2.66, p = .005, 95% CI [-4.48, -0.83]).

Creation of Pairs

Political orientation did not impact participants' willingness to pair H_eH_p with L_eL_p types (b = 0.04, p = .826, 95% CI [-0.32, 0.40]). However, when creating pairs, participants with a leftist political orientation were mostly driven by self-reported motives to reduce inequality (b = -0.24, p = .038, 95% CI [-0.46, -0.01]), while participants with a rightist political orientation reported that their choices were mostly driven by the (dis)similarity between types (b = 0.36, p = .009, 95% CI [0.09, 0.64]). Political orientation did not impact self-reported motives to maximize efficiency (b = 0.06, p = .596, 95% CI [-0.18, 0.31]).

Social ideology (b = -0.24, p = .154, 95% CI [-0.58, 0.09]) and economic ideology (b = -0.11, p = .254, 95% CI [-0.31, 0.08]) also did not impact participants' willingness to pair H_eH_p with L_eL_p types. Furthermore, social and economic ideology did not impact self-reported motives related to reducing inequality (social ideology, b = -0.003, p = .974, 95% CI [-0.20, 0.20]; economic ideology, b = 0.04, p = .509, 95% CI [-0.08, 0.16]), type (dis)similarity (social ideology, b = -0.19, p = .130, 95% CI [-0.44, 0.06]; economic ideology, b = -0.02, p = .799, 95% CI [-0.18, 0.13]), or maximizing efficiency (social ideology, b = 0.02, p = .842, 95% CI [-0.20, 0.24]; economic ideology, b = 0.03, p = .695, 95% CI [-0.11, 0.16]).

Appendix A2. Experimental Instructions.

The experimental instructions that were provided to participants before the start of the main task are provided below. The full experimental materials are openly available in an OSF repository (https://doi.org/10.17605/OSF.IO/3WRSU).

Instructions

The main decision-making task will now start!

You will take part in this task **and can earn an additional payment**. Therefore, please read the instructions carefully.

Instructions

This main decision-making task is performed by two persons. **Each person receives a certain number of units (Income).**

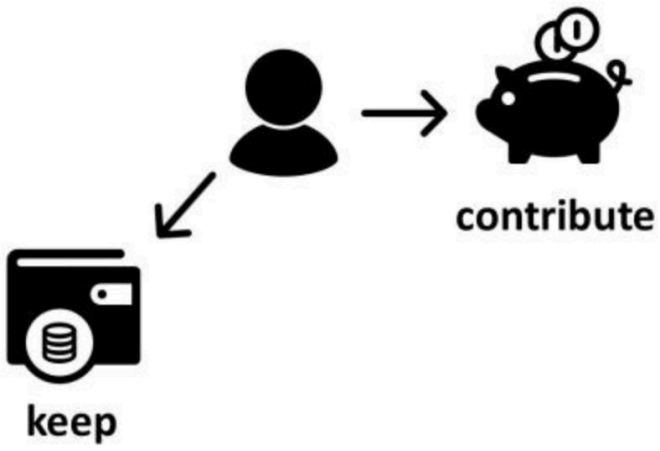
Units are worth real money. All units will be exchanged to pounds and may be added to your additional payment.

The conversion rate is: **25 units = £1.00.**

Instructions

Both persons have to decide how much of their Income they want to contribute to a common account and how much to keep for themselves. Both persons can distribute their Income freely across these options.

Neither person is informed about the decision of the other person.



Instructions

So, persons have 2 options in distributing their Income.

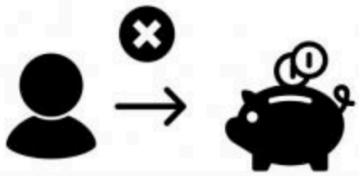
First, **they can decide to keep units.** In this case, the units remain theirs.

Second, **they can contribute units to a common account.** This common account is shared by both persons.

Instructions

All units contributed to the common account will be multiplied with a certain factor called **"the Multiplier".** This means that every unit contributed to the common account will be worth more.

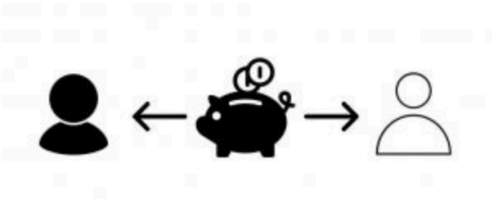
For example, if the Multiplier is 2 and a person contributes 10 units to the common account, the common account will consist of 2 x 10 = 20 units.



Instructions

Once multiplied, **the total number of units in the common account is split evenly among both persons.**

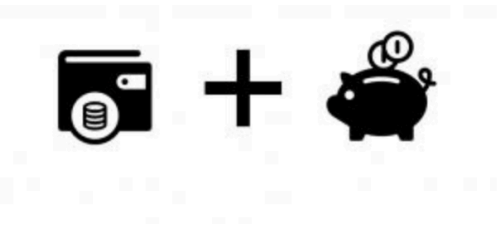
Thus, if the common account consists of 20 units, each person will receive 20 ÷ 2 = 10 units.



Instructions

At the end of the decision-making task, both persons earn:
the units that they receive from the common account
+ the units that they kept.

This means that if a person kept 20 units and got 10 units from the common account, this person will earn 20 (the number of units kept) + 10 (the number of units from the common account) = 30 units.



Instructions

At this point, it is important that you understand the general rules of this task. Please answer the following practice questions to continue.

If a person contributes 5 units to the common account and the Multiplier is 2, how many units does the common account have?

10

20

If the common account consists of 40 units, how many units does each person receive from the common account?

10

20

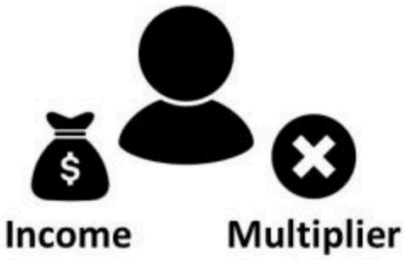
Instructions

Persons can differ:

a) in their **Income**: the units a person has

and

b) in their **Multiplier**: by how much units are multiplied when contributed to the common account.



Instructions

The **Income** of a person can be either 75 or 25 units.

Instructions

The **Multiplier** of a person can be either 1.7 or 1.3.

Instructions

Person's **Income** and **Multiplier** define what Type they are. **There are 4 different Types.**

Both persons will be assigned one of these Types. Before the start of the task, both persons will learn about each other's Type.

You can see the different Types on the next page.

Instructions

Type 1

Type 1 has an Income of 75 units and a Multiplier of 1.7.

Type 2

Type 2 has an Income of 75 units and a Multiplier of 1.3.

Type 3

Type 3 has an Income of 25 units and a Multiplier of 1.7.

Type 4

Type 4 has an Income of 25 units and a Multiplier of 1.3.

Instructions

Here are the rules again:

Each person will be assigned a certain **Type**:

- A person's Income is either 75 or 25 units.
- A person's Multiplier is either 1.7 or 1.3.

Two persons will be **paired** to participate in the decision-making task together.
Before the start of the task, both persons will be informed about their own and their partner's Type.

Both persons decide how many units to **contribute** to the common account and how many units to **keep**.

- Both persons can distribute their **Income** (75 or 25 units) freely across these options.

- Units contributed to the common account will be multiplied by each person's **Multiplier** (1.7 or 1.3).

After multiplication, units in the common account will be **equally divided** among both persons.

At the end of the task, each person **earns**:
the units that they receive back from the common account
+ the units that they kept.

Instructions

Below you can find a hypothetical scenario. This scenario is just an example that aims to explain the rules of the task.

Example

In the current example, a person of Type 2 is paired with another person of Type 3.

- Type 2 has an Income of 75 units and a Multiplier of 1.3.
- Type 3 has an Income of 25 units and a Multiplier of 1.7.

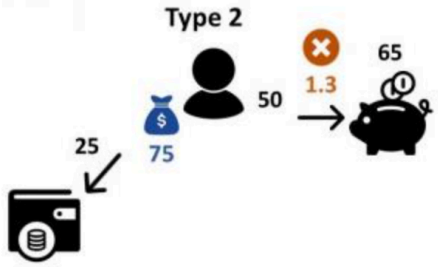
Instructions

Example

Both Type 2 and Type 3 can choose between contributing to the common account or keeping their Income.

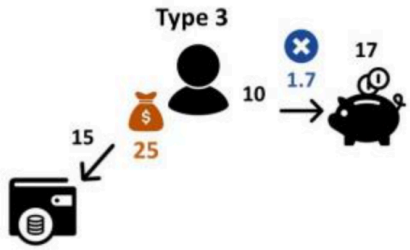
The person with Type 2 **contributes** 50 units to the common account and **keeps** 25 units.

Since Type 2 has a Multiplier of 1.3, this person thus **adds** 50 x 1.3 = 65 units to the common account.

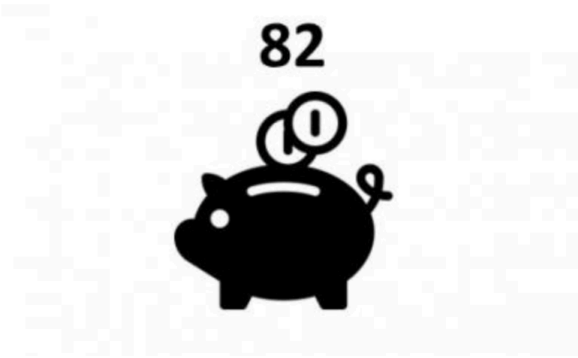


The person with Type 3 **contributes** 10 units to the common account and **keeps** 15 units.

Since Type 3 has a Multiplier of 1.7, this person thus **adds** 10 x 1.7 = 17 units to the common account.



The common account for this pair consists of 65 + 17 = 82 units.

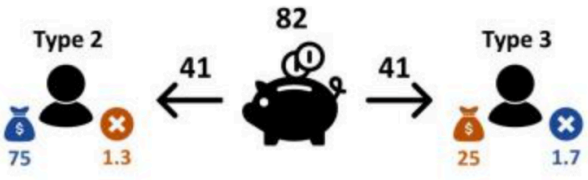


Instructions

Example

The common account is **shared equally** among both persons, regardless of how much they contributed or what Type they are.

Both persons will thus receive 82 ÷ 2 = 41 units from the common account.



Participants earn the units that they kept + the units they got from the common account.

Therefore, in this example:

- The person with Type 2 **earns**
  25 (units kept) + 41 (from the common account) = 66 units.
- The person with Type 3 **earns**
  15 (units kept) + 41 (from the common account) = 56 units.

Practice questions

We will now ask you to answer some practice questions to make sure that you understand the rules of the task. You will have to answer all practice questions correctly before you can start with the decision-making task.

How much I earn in this task depends on my own behaviour and on the behaviour of the other participants.

- Correct
- Incorrect

Persons can differ in their Income and Multiplier

- Correct
- Incorrect

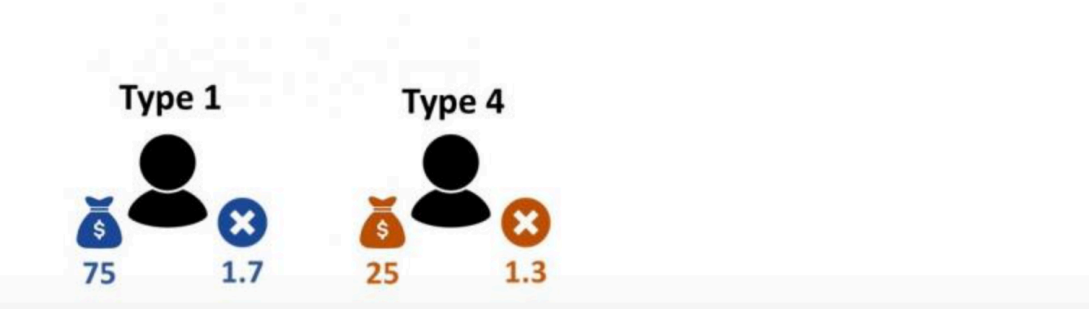
Practice questions

Please calculate the earnings for the following, hypothetical scenario. The scenario is just an example and aimed to test your understanding of the rules of the task.

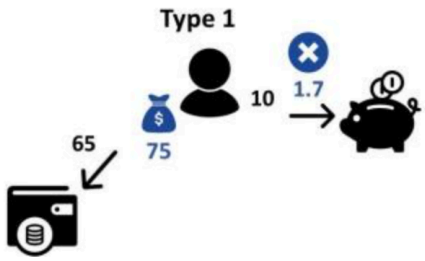
You may use a calculator.

In this example, a person of Type 1 is paired with another person of Type 4:

- The person with Type 1 has an Income of 75 units and a Multiplier of 1.7.
- The person with Type 4 has an Income of 25 units and a Multiplier of 1.3.



The person with Type 1 decides to **contribute** 10 units to the common account and to **keep** 65 units.



The person with Type 4 decides to **contribute** 10 units to the common account and to **keep** 15 units.

After multiplication, how many units does the person with Type 1 contribute to the common account?

- 0
- 17
- 34
- 42

After multiplication, how many units does the person with Type 4 contribute to the common account?

- 0
- 13
- 25
- 50

How many units are in the common account in total?

- 0
- 30
- 47
- 56

How many units did the person with Type 1 keep?

- 0
- 15
- 50
- 65

How many units did the person with Type 4 keep?

- 0
- 15
- 22
- 25

How many units does the person with Type 1 earn at the end of this example version of the task, i.e., when units are received back from the common account and added to the units that this person kept?

- 0
- 45
- 58
- 80

Appendix A3. Supplementary Tables.

We used (logistic) regression models to analyse single decisions from participants. Whenever participants made repeated decisions, we used multilevel (logistic) regression models including random intercepts for participants to account for violations of independence. All reported statistical tests were two-tailed. If multiple contrasts were analysed within the same model, we corrected for multiple testing using a Bonferroni correction.

Each participant was randomly assigned one out of five possible types (H_eH_p, H_eL_p, L_eH_p, or L_eL_p type, or participants were assigned to the role of third-party). Each type, except the third-party, had an endowment and a productivity factor. The combination of participants' endowment and productivity factor determined their type: the H_eH_p type (high endowment = 75, high productivity = 1.7), the H_eL_p type (high endowment = 75, low productivity = 1.3), the L_eH_p type (low endowment = 25, high productivity = 1.7), the L_eL_p type (low endowment = 25, low productivity = 1.3). We refer to these participants, who were assigned a type, made cooperation decisions, and for whom partner pairings potentially influenced their own earnings as 'decision-makers'. The remaining participants acted as third-parties who did not have a 'stake in the game' and were not assigned an endowment and productivity factor.

3.1 Free Partner Choice Leads to Segregation and Increases Inequality

These results (3.1) are only about participants who were assigned a type with an endowment and productivity (i.e., all types except the third-party) and took part in the one-shot public goods game with partner choice.

We fit a multilevel logistic regression model to test if types differed in how often they selected high-endowment high-productivity (H_eH_p) types as their first partner choice (Table S1). The dependent variable was a dummy variable coding whether the H_eH_p type was ranked first (1), or not (0). The fixed effect consisted of participants' own type. The intercept refers to participants with an H_eH_p type.

Supplementary Table S1. Mixed effects logistic regression modelling how often H_eH_p types were selected as participants' first partner choice depending on participants' own type.

		Estimate	SE	z	p	95% CI
Model	intercept	14.34	1.55	9.24	< .001	[11.11, 12.58]
	H_eL_p type	-0.54	1.99	-0.27	.786	[-0.82, 0.77]
	L_eH_p type	-0.35	2.01	-0.18	.860	[-0.79, 0.73]
	L_eL_p type	-0.22	2.08	-0.11	.915	[-0.86, 0.83]

Next, we fit a multilevel logistic regression model to test if types differed in how often participants selected low-endowment low-productivity (L_eL_p) types as their least preferred partner choice (Table S2). The dependent variable was a dummy variable coding whether the L_eL_p type was ranked last (1), or not (0). The fixed effect consisted of participants' own type. The intercept refers to participants with an H_eH_p type.

Supplementary Table S2. Mixed effects logistic regression modelling how often L_eL_p types were selected as participants' last partner choice depending on participants' own type.

		Estimate	SE	z	p	95% CI
Model	intercept	14.37	1.52	9.43	< .001	[11.16, 12.53]
	H_eL_p type	-0.29	2.09	-0.14	.890	[-0.64, 0.76]
	L_eH_p type	-0.29	1.99	-0.15	.885	[-0.71, 0.72]
	L_eL_p type	-0.15	2.10	-0.07	.943	[-0.72, 0.78]

Next, we fit a multilevel regression model to examine if cooperation depended on the type participants were paired with (Table S3). Participants' relative cooperation rate (i.e., the average contributions to the public good as a percentage of participant's individual endowment) was the dependent variable. The fixed effect consisted of the partner type participants were paired with. The intercept refers to being paired with an H_eH_p type.

Supplementary Table S3. Mixed effects regression modelling how participants' partner type related to their cooperation rates.

		Estimate	**SE**	**t**	**p**	**95% CI**
Model	intercept	49.42	1.52	32.48	< .001	[46.44, 52.41]
	H_eL_p partner	-2.57	1.04	-2.49	.013	[-4.60, -0.55]
	L_eH_p partner	-5.42	1.04	-5.24	< .001	[-7.45, -3.39]
	L_eL_p partner	-8.65	1.04	-8.36	< .001	[-10.68, -6.62]
		Estimate	**SE**	**z**	**p**	**95% CI**
Contrasts[a]	contrast 1	5.55	0.85	6.57	< .001	[3.61, 7.48]
	contrast 2	-5.99	0.85	-7.08	< .001	[-7.92, -4.05]
	contrast 3	-4.65	0.90	-5.19	< .001	[-6.70, -2.60]

[a] Contrast 1 tests (two-sided) whether participants cooperated more when being paired with H_eH_p partners vs. when they were not paired with this type ($p < .001$), and contrast 2 tests (two-sided) whether participants cooperated less when being paired with L_eL_p partners vs. when they were not paired with this type ($p < .001$). Note that contrast 2 is not orthogonal to contrast 1. We therefore added contrast 3 which tests (two-sided) whether participants cooperated less when being paired with L_eL_p partners vs. H_eL_p and L_eH_p partners ($p < .001$). We corrected for multiple testing using a Bonferroni correction.

3.3 Decision-makers Self-servingly Navigate the Equality-Efficiency Trade-off

3.3.1 Creation of Types

We fit a logistic regression model to test if decision-makers differed in how often they created H_eL_p and L_eH_p types or H_eH_p and L_eL_p types, depending on their own type (Table S4). The dependent variable was a dummy variable coding whether participants created H_eL_p and L_eH_p types (1), or H_eH_p and L_eL_p types (0). The fixed effect consisted of participants' own type. The intercept refers to participants who acted as third-parties.

Supplementary Table S4. Logistic regression modelling whether participants created H_eL_p and L_eH_p types or H_eH_p and L_eL_p types depending on their own type.

		Estimate	SE	z	p	95% CI
Model	intercept	0.16	0.20	0.80	.424	[-0.23, 0.56]
	H_eH_p type	-0.20	0.28	-0.71	.479	[-0.76, 0.35]
	H_eL_p type	0.55	0.29	1.87	.061	[-0.02, 1.13]
	L_eH_p type	0.16	0.29	0.57	.569	[-0.40, 0.72]
	L_eL_p type	0.16	0.29	0.57	.569	[-0.40, 0.72]

3.3.2 Creation of Pairs

Next, we fit two logistic regression models to investigate how participants, who previously created H_eL_p and L_eH_p types, subsequently created pairs. The dependent variable of the first model (Table S5) was a dummy variable coding whether participants formed mixed (H_eL_p-L_eH_p) pairs (1), or not (0). The dependent variable of the second model (Table S6) was a dummy variable coding whether participants formed similar (H_eL_p-H_eL_p and L_eH_p-L_eH_p) pairs (1), or not (0). The fixed effect of both models consisted of participants' own type. Both models only included the data of participants who previously created H_eL_p and L_eH_p types. The intercept of both models refers to participants who acted as third-parties.

Supplementary Table S5. Logistic regression modelling if participants, who previously created H_eL_p and L_eH_p types, created H_eL_p-L_eH_p pairs, depending on their own type.

		Estimate	SE	z	p	95% CI
Model	intercept	0.07	0.27	0.27	.786	[-0.46, 0.61]
	H_eH_p type	-0.28	0.40	-0.71	.481	[-1.06, 0.50]
	H_eL_p type	0.32	0.37	0.86	.388	[-0.40, 1.05]
	L_eH_p type	-0.64	0.39	-1.66	.097	[-1.41, 0.11]
	L_eL_p type	-0.14	0.38	-0.38	.705	[-0.89, 0.60]

Supplementary Table S6. Logistic regression modelling if participants, who previously created H_eL_p and L_eH_p types, created H_eL_p-H_eL_p and L_eH_p-L_eH_p pairs, depending on their own type.

		Estimate	SE	z	p	95% CI
Model	intercept	-1.61	0.37	-4.41	< .001	[-2.39, -0.94]
	H_eH_p type	0.25	0.51	0.49	.625	[-0.75, 1.26]
	H_eL_p type	0.09	0.48	0.18	.858	[-0.86, 1.06]
	L_eH_p type	0.04	0.50	0.08	.935	[-0.95, 1.05]
	L_eL_p type	0.37	0.48	0.76	.446	[-0.57, 1.34]

We also fit two logistic regression models to investigate how participants, who previously created H_eH_p and L_eL_p types, subsequently created pairs. The dependent variable of the first model (Table S7) was a dummy variable coding whether participants formed mixed (H_eH_p-L_eL_p) pairs (1), or not (0). The dependent variable of the second model (Table S8) was a dummy variable coding whether participants formed similar (H_eH_p-H_eH_p and L_eL_p-L_eL_p) pairs (1), or not (0). The fixed effect of both models consisted of participants' own type. Both models only included the data of participants who previously created H_eH_p and L_eL_p types. The intercept of both models refers to participants who acted as third-parties.

Supplementary Table S7. Logistic regression modelling if participants, who previously created H_eH_p and L_eL_p types, created H_eH_p-L_eL_p pairs, depending on their own type.

		Estimate	SE	z	p	95% CI
Model	intercept	0.44	0.30	1.46	.144	[-0.14, 1.05]
	H_eH_p type	-1.98	0.48	-4.17	< .001	[-2.96, -1.08]
	H_eL_p type	-1.14	0.48	-2.38	.017	[-2.10, -0.22]
	L_eH_p type	-1.14	0.45	-2.55	.011	[-2.03, -0.28]
	L_eL_p type	-0.15	0.43	-0.36	.723	[-1.01, 0.70]

Supplementary Table S8. Logistic regression modelling if participants, who previously created H_eH_p and L_eL_p types, created H_eH_p-H_eH_p and L_eL_p-L_eL_p pairs, depending on their own type.

		Estimate	SE	z	p	95% CI
Model	intercept	-1.56	0.39	-4.01	< .001	[-2.40, -0.85]
	H_eH_p type	1.12	0.48	2.32	.021	[0.20, 2.11]
	H_eL_p type	1.00	0.53	1.88	.060	[-0.03, 2.07]
	L_eH_p type	0.26	0.54	0.48	.632	[-0.81, 1.34]
	L_eL_p type	-0.23	0.59	-0.40	.691	[-1.43, 0.92]

We fit two multilevel regression models to investigate how much participants who were assigned an H_eH_p type or an L_eL_p type earned in mixed (H_eH_p-L_eL_p) versus similar (H_eH_p- H_eH_p and L_eL_p-L_eL_p) pairs. The dependent variable of both models included how many units participants earned. The fixed effect of both models consisted of a dummy variable coding whether participants were paired with an H_eH_p type partner (1), or with an L_eL_p type partner (0). The first model (Table S9) only included the data of participants who were assigned an H_eH_p type themselves. The second model (Table S10) only included the data of participants who were assigned an L_eL_p type themselves.

Supplementary Table S9. Mixed effects regression modelling how many units participants who were assigned an H_eH_p type earned in mixed or similar pairs.

		Estimate	SE	t	p	95% CI
Model	intercept	78.99	1.18	66.72	< .001	[76.67, 81.31]
	H_eH_p partner	21.89	1.67	13.07	< .001	[18.61, 25.17]

Supplementary Table S10. Mixed effects regression modelling how many units participants who were assigned an L_eL_p type earned in mixed or similar pairs.

		Estimate	SE	t	p	95% CI
Model	intercept	28.65	1.24	23.06	< .001	[26.22, 31.09]
	H_eH_p partner	15.18	1.76	8.64	< .001	[11.74, 18.62]

3.4 Additional Results

3.4.1 Origins of the Equality-Efficiency Trade-off

We fit three multilevel regression models to investigate how many units, according to third-parties, each type should cooperate, within each unique pair. First, we wanted to investigate if third-parties believed that individuals should cooperate more within same-type pairs compared to mixed-type pairs (Table S11). The dependent variable in the model was how many units third-parties believed that types should relatively cooperate. The fixed effect consisted of a dummy variable coding whether types were paired with a similar partner type (1), or not (0).

Second, we wanted to investigate if third-parties believed that individuals who were assigned an H_eH_p type should cooperate less (or more) when they were paired with a partner with a different type than theirs compared to a partner with a similar type to theirs (Table S12). The dependent variable in this model was how many units third-parties believed that types should relatively cooperate. The fixed effect consisted of the partner type. This model only included decisions regarding the cooperation of H_eH_p types. The intercept refers to being paired with an H_eH_p type.

Third, we wanted to investigate if third-parties believed that individuals who were assigned an L_eL_p type should cooperate less (or more) when they were paired with a partner with a different type than theirs compared to a partner with a similar type to theirs (Table S13). The dependent variable in this model was how many units third-parties believed each type should relatively cooperate. The fixed effect consisted of the partner type. This model only included decisions regarding the cooperation of L_eL_p types. The intercept refers to being paired with an H_eH_p type. All models only included the data of participants who were assigned a third-party type.

Supplementary Table S11. Mixed effects regression modelling how many units third-parties believed individuals should cooperate in same-type versus mixed-type pairs.

		Estimate	SE	t	p	95% CI
Model	intercept	61.59	2.42	25.41	< .001	[56.82, 66.36]
	same type pair	6.91	0.91	7.62	< .001	[5.13, 8.68]

Supplementary Table S12. Mixed effects regression modelling how many units third-parties believed H_eH_p types should cooperate with each partner type.

		Estimate	SE	t	p	95% CI
Model	intercept	71.92	2.62	27.46	< .001	[66.78, 77.06]
	H_eL_p partner	-4.21	1.95	-2.16	.032	[-8.03, -0.40]
	L_eH_p partner	-7.71	1.95	-3.95	< .001	[-11.52, -3.89]
	L_eL_p partner	-7.68	1.95	-3.94	< .001	[-11.50, -3.86]

Supplementary Table S13. Mixed effects regression modelling how many units third-parties believed L_eL_p types should cooperate with each partner type.

		Estimate	SE	t	p	95% CI
Model	intercept	58.88	3.04	19.40	< .001	[52.92, 64.84]
	H_eL_p partner	-4.00	1.92	-2.08	.038	[-7.76, -0.24]
	L_eH_p partner	0.32	1.92	0.17	.868	[-3.44, 4.08]
	L_eL_p partner	7.40	1.92	3.85	< .001	[3.64, 11.16]

Finally, we fit a multilevel regression model to investigate how third-parties believed that earnings from public goods should be redistributed (Table S14). The dependent variable was how many units third-parties believed that types should relatively receive from the public good (i.e., defined as the earnings that each type should receive from the public good divided by the total number of units that was in the public good). The fixed effect consisted of the partner type. This model only included the data of participants who were assigned a third-party type and only included decisions regarding H_eH_p types. The intercept refers to being paired with an H_eH_p type.

Supplementary Table S14. Mixed effects regression modelling how many units third-parties believed H_eH_p types should receive from the public good with each partner type.

		Estimate	SE	t	p	95% CI
Model	intercept	50.57	0.80	63.03	< .001	[49.00, 52.14]
	H_eL_p partner	0.63	0.95	0.66	.509	[-1.23, 2.48]
	L_eH_p partner	4.24	0.95	4.47	< .001	[2.39, 6.10]
	L_eL_p partner	4.67	0.95	4.92	< .001	[2.81, 6.52]

3.4.2 Social Preferences can Reduce Inequality via the Creation of Pairs

We fit two models to investigate how social preferences impacted partner preferences. The first model tests whether individuals differed in how often they selected H_eH_p types as their first partner choice based on their social preferences (Table S15). The dependent variable was a dummy variable coding whether the H_eH_p type was ranked first (1), or not (0). The fixed effect consisted of participants' social value orientation (svo) angle. The second model tests if individuals differed in how often they selected L_eL_p types as their last partner choice based on their social preferences (Table S16). The dependent variable was a dummy variable coding whether the L_eL_p type was ranked last (1), or not (0). The fixed effect consisted of participants' social value orientation (svo) angle.

Supplementary Table S15. Mixed effects logistic regression modelling how social preferences impacted preferences for H_eH_p types.

		Estimate	SE	z	p	95% CI
Model	intercept	13.70	1.51	9.09	< .001	[11.07, 12.42]
	svo angle	0.01	0.05	0.30	.762	[-0.02, 0.02]

Supplementary Table S16. Mixed effects logistic regression modelling how social preferences impacted preferences for L_eL_p types.

		Estimate	SE	z	p	95% CI
Model	intercept	13.79	1.53	9.02	< .001	[11.08, 12.44]
	svo angle	0.02	0.05	0.33	.742	[-0.02, 0.02]

Next, we fit a multilevel regression model to examine if relative cooperation depended on social preferences (Table S17). Participants' relative cooperation rate was included as the dependent variable. The fixed effect consisted of participants' social value orientation (svo) angle.

Supplementary Table S17. Multilevel regression modelling how social preferences impacted cooperation rates.

		Estimate	SE	t	p	95% CI
Model	intercept	32.19	2.63	12.22	< .001	[27.03, 37.36]
	svo angle	0.52	0.09	5.75	< .001	[0.34, 0.70]

Next, we fit two logistic regression models to investigate how participants, who previously created H_eL_p and L_eH_p types, subsequently created pairs, based on their social preferences. The dependent variable of the first model (Table S18) was a dummy variable coding whether participants created mixed (H_eL_p-L_eH_p) pairs (1), or not (0). The dependent variable of the second model (Table S19) was a dummy variable coding whether participants created similar (H_eL_p-H_eL_p and L_eH_p-L_eH_p) pairs (1), or not (0). The fixed effect of both models consisted of participants' social value orientation (svo) angle. Both models only included the data of participants who previously created H_eL_p and L_eH_p types.

Supplementary Table S18. Logistic regression modelling if participants, who previously created H_eL_p and L_eH_p types, created H_eL_p-L_eH_p pairs, depending on their social preferences.

		Estimate	SE	z	p	95% CI
Model	intercept	-0.45	0.25	-1.79	.073	[-0.96, 0.04]
	svo angle	0.01	0.01	1.79	.074	[-0.001, 0.03]

Supplementary Table S19. Logistic regression modelling if participants, who previously created H_eL_p and L_eH_p types, created H_eL_p-H_eL_p and L_eH_p-L_eH_p pairs, depending on their social preferences.

		Estimate	SE	z	p	95% CI
Model	intercept	-1.06	0.29	-3.68	< .001	[-1.65, -0.51]
	svo angle	-0.02	0.01	-1.58	.115	[-0.04, 0.004]

We also fit two logistic regression models to investigate how participants, who previously created H_eH_p and L_eL_p types, subsequently created pairs, based on their social preferences. The dependent variable of the first model (Table S20) was a dummy variable coding whether participants created mixed (H_eH_p-L_eL_p) pairs (1), or not (0). The dependent variable of the second model (Table S21) was a dummy variable coding whether participants created similar (H_eH_p-H_eH_p and L_eL_p-L_eL_p) pairs (1), or not (0). The fixed effect of both models consisted of participants' social value orientation (svo) angle. Both models only included the data of participants who previously created H_eH_p and L_eL_p types.

Supplementary Table S20. Logistic regression modelling if participants, who previously created H_eH_p and L_eL_p types, created H_eH_p-L_eL_p pairs, depending on their social preferences.

		Estimate	SE	z	p	95% CI
Model	intercept	-1.05	0.28	-3.71	< .001	[-1.63, -0.51]
	svo angle	0.03	0.01	2.74	.006	[0.01, 0.05]

Supplementary Table S21. Logistic regression modelling if participants, who previously created H_eH_p and L_eL_p types, created H_eH_p-H_eH_p and L_eL_p-L_eL_p pairs, depending on their social preferences.

		Estimate	SE	z	p	95% CI
Model	intercept	-0.46	0.27	-1.73	.084	[-1.00, 0.06]
	svo angle	-0.03	0.01	-2.63	.009	[-0.05, -0.01]

Finally, we fit three logistic regression models to investigate participants' underlying motivations regarding the creation of pairs, based on their social preferences. The dependent variable of the first model (Table S22) was a dummy variable coding whether participants were primarily motivated by a self-reported desire to reduce inequality (1), or not (0). The dependent variable of the second model (Table S23) was a dummy variable coding whether participants were primarily motivated by a self-reported desire to maximize efficiency (1), or not (0). The dependent variable of the third model (Table S24) was a dummy variable coding whether participants were primarily motivated (self-reported) by the (dis)similarity between types (1), or not (0). The fixed effect of all models consisted of participants' social value orientation (svo) angle.

Supplementary Table S22. Logistic regression modelling if participants, when creating pairs, were primarily motivated by a desire to reduce inequality, depending on their social preferences.

		Estimate	SE	z	p	95% CI
Model	intercept	-1.13	0.20	-5.64	< .001	[-1.54, -0.75]
	svo angle	0.03	0.01	4.88	< .001	[0.02, 0.05]

Supplementary Table S23. Logistic regression modelling if participants, when creating pairs, were primarily motivated by a desire to maximize efficiency, depending on their social preferences.

		Estimate	SE	z	p	95% CI
Model	intercept	-0.55	0.19	-2.96	.003	[-0.92, -0.19]
	svo angle	-0.02	0.01	-2.56	.010	[-0.03, -0.004]

Supplementary Table S24. Logistic regression modelling if participants, when creating pairs, were primarily motivated by the (dis)similarity between types, depending on their social preferences.

		Estimate	SE	z	p	95% CI
Model	intercept	-0.96	0.20	-4.77	< .001	[-1.37, -0.57]
	svo angle	-0.02	0.01	-2.36	.018	[-0.03, -0.003]