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Framing Effects in the Prisoner's Dilemma but not in the Dictator Game

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Abstract

We systematically investigate prisoner's dilemma and dictator games with valence framing. We find that give versus take frames influence subjects' behavior and beliefs in the prisoner's dilemma games but not in the dictator games. We conclude that valence framing has a stronger impact on behavior in strategic interactions, i.e., in the prisoner's dilemma game, than in allocation tasks without strategic interaction, i.e., in the dictator game.

Keywords: Prisoner's Dilemma, Dictator Game, Framing, Give, Take, Cooperation, Generosity

JEL Codes: A13, C72, C91, F51, Z13

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1. Introduction

Countless papers have demonstrated that framing can affect behavior despite underlying information and options remaining the same (see recent reviews by Gerlach and Jaeger, 2016; Cartwright, 2016). But when and how precisely do frames change behavior?

There is ample evidence in the literature suggesting that frames affect behavior in social dilemmas (e.g., Dufwenberg et al., 2011; Khadjavi & Lange, 2015; Gächter et al., 2017; Fosgaard, et al., 2017). However, for dictator games, the evidence is mixed with some studies reporting significant differences (e.g., Korenok et al., 2014; Kupka and Weber, 2013) while others do not (e.g., Grossman and Eckel, 2015; Gächter et al., 2017).

Hence, based on the literature, it seems that framing effects are more pronounced and robust in public good games than in dictator games. However, most of the aggregated evidence is based on studies that use different designs and, for example, vary subject pools, efficiency gains, number of repetitions, and numbers of players.

With this paper, we attempt to compare the impact of framing in social dilemmas and dictator games by making the different classes of games and the conducted experiments as similar as possible. We run experiments with two-person social dilemma games¹ and dictator games in the same subject-pool, apply give and take frames without loaded language, and introduce comparable efficiency gains for generosity or cooperation. We observe that give and take frames influence subjects' behavior and beliefs significantly in our social dilemma games but not in the dictator games.

Related Literature

Without additional assumptions, most theories of other-regarding preferences (e.g., Fehr and Schmidt 1999; Bolton and Ockenfels, 2000; Charness and Rabin, 2002) predict no differences between two frames of the same decision problem. Yet, simply naming a

¹The two-person social dilemma games are continuous prisoner's dilemma games which Goerg and Walkowitz (2010) show to be analogous to two-person public good games. With regard to the action set, Gangadharan and Nikiforakis (2009) experimentally show that for two players similar results can be observed with two actions (full or no contribution) as with 11-actions (11 levels of contributions). However, this does not hold for four players.

prisoner's dilemma game "Community Game" or "Wall Street Game" influences cooperation rates significantly, with higher cooperation under the first frame (e.g., Liberman et al., 2004). Engel and Rand (2014) observe significantly more cooperation in prisoner's dilemma games with a cooperative frame compared to a competitive frame and show that behavior in a neutral frame follows the behavior of the cooperative frame. Ellingsen et al. (2012) argue that social frames, like naming a game, provide a coordination device helping to select between multiple equilibria with social preferences. They support this account by showing framing effects in simultaneous but not sequential prisoner's dilemmas.

Another common form of framing is valence framing which describes the identical strategic decision as a decision to take or give a certain amount. In repeated public good games, higher contributions are usually observed in the give frame (e.g., Andreoni, 1995; Sonnemans et al., 1998; Willinger and Ziegelmeyer, 1999; Cookson, 2000). However, the size of the framing effect might differ between subject-pools (Goerg and Walkowitz, 2010). Investigating valence and social-frames in one-shot public good games, Dufwenberg et al. (2011) demonstrate that frames affect not only subjects' contributions but also their first- and second-order beliefs. Cox et al. (2013) argue, based on revealed altruism (Cox et al., 2008), that positive and negative frames result in different games with different degrees of expected reciprocity. Similarly, Gächter et al. (2017) observe that people seem inclined to cooperate more when establishing a common resource compared to maintaining it. They argue that this finding can be explained by the share of conditional cooperators and their beliefs about cooperation which are influenced by the give and take frames.

If framing effects are at least partially caused by beliefs about strategic behavior they should be weaker in games without strategic interaction. However, no clear picture emerges from the literature on framing effects in dictator games.² Dreber et al. (2012) observe no significant effects of social frames on generosity. Investigating give and take frames for

² We ignore dictator games with give and take options that do not focus on framing effects, e.g., papers that investigate property rights (e.g., Hoffmann et al., 1994; Eichenberger and Oberholzer-Gee, 1998; Oxoby and Spraggon, 2008).

donations to charity, Grossman and Eckel (2015) conclude that generosity is not influenced by the frame.

Cartwright and Ramalingam (2019) observe no significant differences between average levels of generosity. However, framing affects the distributions and the take frame leads to more extreme contributions with greater free-riding. Gächter et al. (2017) demonstrate that framing influences individuals' perceptions of norms on fair sharing but not on actual generosity in the presence of peers. Other studies extend the action set of the dictator games into both domains with the choice to give or take being present at the same time (Bardsley, 2008; List, 2007). Korenok et al. (2014) show for such games that giving is not equivalent to not taking. Krupka and Weber (2013) compare a standard dictator game with a bully version where both options of giving and taking are available. Outcomes that result from giving under the standard frame of the dictator game are considered more socially appropriate than the same outcomes resulting from taking in the bully game.

Strong framing effects are reported by Capraro and Vanzo (2019). In their extreme dictator games, the dictator chooses between two options: \$0.50 for the dictator and \$0 for the recipient or vice versa. The decisions are framed with words having different connotations. Generosity is higher if the decision is framed as one of stealing or taking compared to giving and donating. Similar effects can be observed in the Trade-Off Game (Capraro and Rand, 2018; Tappin and Capraro, 2018). There, players unilaterally determine the payoffs for themselves and two others by choosing either an equitable or an efficient option. Framing options as, e.g., equalize, fair, or do good, result in significant framing effects.

To summarize, across different designs and frames there is ample evidence that framing affects behavior in social dilemmas. However, in dictator games the evidence is mixed with some studies reporting framing effects while others do not. Yet, most of the designs are not directly comparable, especially between the papers investigating social dilemmas and the ones investigating dictator games. In the following, we try to bridge this gap and investigate framing effects in social dilemma games and dictator games within a comparable

framework. Our give and take frames are based on a neutral description of the situation and our experiments are all conducted within the same subject-pool.

2. Experimental Design

We investigate a give and a take frame of the prisoner's dilemma game and the dictator game. The games are implemented as one-shot games and each participant plays only one game and one frame.

2.1. Prisoner's Dilemma Games

The prisoner's dilemma games are implemented as continuous choice games. They allow subjects to simultaneously choose a degree of cooperation instead of a dichotomous decision to cooperate or to defect (Goerg and Walkowitz, 2010). Cooperation is welfare enhancing and increases the joint payoffs. In the give frame cooperation is expressed by the amount given to the other player. In the take frame it is expressed by the amount left to the other player. Words like "give" or "take" are avoided and we only change the direction of the transfer. In both frames two players are randomly matched and each subject receives an initial endowment of 100 Talers.

In the *give* frame subject i decides about an integer amount a_i^{PDG} between 0 and 100 to be transferred to the matched player. The transferred amount is doubled and credited to the matched player's account. The game is symmetric. The matched player j simultaneously decides on an amount a_j^{PDG} to be doubled and transferred to player i . Thus, the payoff function for player i , based on amounts a_i^{PDG} and a_j^{PDG} , is given as:

$$\pi_i = 100 - a_i^{PDG} + 2a_j^{PDG}, \text{ with } a_i^{PDG}, a_j^{PDG} \in \{0, 1, \dots, 100\}$$

The payoff for player j is derived analogously.

The *take* frame is very similar. However, the players simultaneously decide on amounts a_i^{PDT} and a_j^{PDT} they want to transfer from the matched player's endowment. The amount remaining in the matched player's account is doubled. Player i 's payoff function is given as:

$$\pi_i = 2 * (100 - a_j^{PDT}) + a_i^{PDT}, \text{ with } a_i^{PDT}, a_j^{PDT} \in \{0, 1, \dots, 100\}$$

The payoff for player j is derived analogously.

2.2. Dictator Games

The dictator games mimic our prisoner's dilemma games but with one player remaining passive. Therefore, our dictator games have the following features, similar to the social dilemma games: a neutral framing is applied to identical action sets; we avoid terms like “give” or “take”; we induce efficiency gains from generosity; the initial endowment is not earned.

One player is endowed with 200 Talers. The other player receives no initial endowment. In the *give* frame, the endowment is allocated to the dictator i who decides on an integer amount a_i^{DGG} between 0 and 200 to be transferred *to* the passive receiver j . As in the prisoner's dilemma game with the give frame, the transfer is doubled. Thus, the payoff functions for dictator i and receiver j are given as:

$$\pi_i = 200 - a_i^{DGG}, \text{ with } a_i^{DGG} \in \{0, 1, \dots, 200\}$$

$$\pi_j = 2a_i^{DGG}, \text{ with } a_i^{DGG} \in \{0, 1, \dots, 200\}$$

In the *take* frame the endowment is given to the passive player j . The dictator i decides on the amount to be transferred away *from* the passive player. The amount left to the passive player is doubled resulting in the following payoff functions:

$$\pi_i = a_i^{DGT}, \text{ with } a_i^{DGT} \in \{0, 1, \dots, 200\}$$

$$\pi_j = 2 * (200 - a_i^{DGT}), \text{ with } a_i^{DGT} \in \{0, 1, \dots, 200\}$$

2.3. Parameter choice

The games and the parameters are chosen to generate a large overlap between the games.³ We use two games with two players. The introduction of the efficiency gain in the dictator games ensures that cooperation as well as generosity increase the overall welfare (as measured by total payoffs in Euros). Hence, potential differences in the magnitude of

³ Since the prisoner's dilemma game is a strategic game and the dictator game is an individual decision, an exact match of both games is not possible. Several approaches are viable but they result in different areas of overlap in decisions or payoffs.

framing effects cannot be attributed completely to the absence or presence of efficiency gains.

In the prisoner's dilemma games, every combination of actions and resulting payoffs in the give frame can be linked to corresponding decisions in the take frame that result in the same payoffs. Thus, both frames are strategically identical and do have the same Nash equilibrium of "no cooperation", i.e., no transfers in the give frame and full transfers in the take frame. Every level of generosity in the give frame of the dictator game with the resulting payoffs can also be linked to a corresponding decision in the take frame. A purely selfish money maximizing dictator would show no generosity in both frames, i.e., no transfer in the give and full transfer in the take frame. The total sum of payoffs would be the same in all four treatments if players were rational money-maximizers.⁴ Similarly, the total sum of payoffs would be the same in all treatments if subjects would be unconditional cooperators who fully cooperate or are completely altruistic with maximal generosity.⁵

In dictator games average generosity is typically around 30% of the initial endowment (see Engel, 2011).⁶ At roughly this point our games have another overlap in payoffs and decisions. If player's cooperation level is 1/3 (give or leave 1/3 of the initial endowment) and if the generosity level is 1/3 (again give or leave 1/3 of the initial endowment) payoffs would correspond in all frames and games (around 133 Talers).

2.4. Implementation

The experiments were conducted at the Cologne Laboratory for Economic Research at the University of Cologne. Subjects received a show-up fee of 2.5 Euro. After the experiment, earned Talers were converted into Euros and individually paid to the subjects. We applied an exchange rate of 1 Taler = 0.08 Euro Cent.

⁴ No cooperation and no generosity would result in payoffs of (100,100) in the prisoner's dilemma games and (200,0) in the dictator games.

⁵ Full cooperation and full generosity would result in payoffs of (200,200) in the prisoner's dilemma games and (400,0) in the dictator games.

⁶ Albeit, there is usually no peak at the 30% level of individual contributions.

We implemented a between-subjects design with each subject playing only one one-shot game with one frame. In each session, one game type (either prisoner's dilemma or dictator game) and both types of frames (give and take frame, for different subjects) was implemented. Subjects were not aware of the fact that the other frame was also applied in the same session, respectively, and received private instruction sheets only for their actual frame. There was only one decision round. While we confronted subjects with the different frames, we implemented the frames using language that was as neutral as possible. Instead of labeling decisions as "give" or "take" decisions, only the recipient of the transfers was changed in the description. In the give frame subjects in the role of Person A were told that they had the opportunity to transfer any part of their endowment to Person B. In the take frame they had the opportunity to transfer any part of Person B's endowment to themselves.⁷ After the decision we elicited beliefs. In the prisoner's dilemma games, we asked subjects which amount they believed the matched player would transfer (first-order belief) and what amount the matched player would expect to be transferred (second-order belief). In the dictator games we asked the recipient which amount they believed the matched dictator would transfer (first-order belief) and we asked dictators what matched recipients thought would be transferred (second-order belief). Beliefs were incentivized. Subjects received 10 Talers for a correctly stated belief.

Game	Frame	#Observations/Decisions	# Subjects	%Female	Av. Age
Prisoner's Dilemma	Give	52	52	55.7	24.4
Prisoner's Dilemma	Take	54	54	50	23.1
Dictator Game	Give	48	96	65.1	25.2
Dictator Game	Take	48	96	49.8	26.0

Table 1: Summary of gathered observations.

⁷ This is in contrast to other papers which used give and take frames. A translation of the instructions is provided in Appendix A.

Subjects were recruited from the local ORSEE database (Greiner, 2015). Decisions and beliefs were gathered using pen and paper followed by a questionnaire programmed in z-Tree (Fischbacher, 2007).

In total 298 subjects participated: 106 in the prisoner's dilemma games, 192 in the dictator games (96 in the role of the dictator and 96 in the role of the passive receiver).⁸ 55% of the subjects were female and the average age was 24.9 years (see Table 1).

3. Results

Figure 1 gives the level of cooperation in the prisoner's dilemma games and generosity in the dictator games. In addition, corresponding first-order beliefs and standard errors are reported.⁹

In the prisoner's dilemma game cooperation is significantly higher in the give frame than in the take frame ($p < 0.001$)¹⁰. On average, the cooperation level is more than twice as high when subjects can transfer to the matched player instead of transferring to themselves. Table 2 provides the results of Tobit regressions confirming the negative and significant influence of the take frame ($r = -35.97$, $p > 0.001$, Model 1). Model 2 demonstrates that women tend to cooperate more and cooperation increases with age. Yet, the framing effect remains large and significant when controlling for gender and age ($r = -31.15$, $p < 0.001$).

Cooperation levels and first-order beliefs are significantly correlated in the give frame and in the take frame (both $\rho > 0.46$, $p < 0.001$, Spearman rank correlation). Analogously, cooperation levels and second-order beliefs are also correlated in both frames (both $\rho > 0.51$, $p < 0.001$). Thus, beliefs mirror give and take decisions: higher cooperation is expected in the give

⁸ We initially ran dictator sessions in which we matched one passive receiver to several dictators. To avoid a potential problem of deception, we dropped these sessions and re-run the dictator sessions with a one-on-one matching.

⁹ To make transfers comparable across give and take frames, transfers in the take frames were transformed. In the take frame cooperation is measured by $(100-a)$ in the prisoner's dilemma game, and generosity by $(200-a)$ in the dictator game.

¹⁰ Two-sided Mann-Whitney-u tests are applied if not stated otherwise.

frame than in the take frame. These differences are highly significant for first- and second-order beliefs (both $p < 0.001$).

Figure 1: Box plot for the degree of cooperation in the prisoner's dilemma games and the degree of generosity in the dictator games. The bold line gives the median, the box the 25th and 75th quartiles, and whiskers the 1.5xIQR. In the give frame of the prisoner's dilemma game transferring everything would correspond to 100% cooperation, in the give frame of the dictator game transferring everything would correspond to 100% generosity. Transfers in the take frames are transformed for comparability.

In the dictator games we do not observe significant differences between the two frames. Neither do we observe significant differences in dictators transfers ($p=0.699$), nor in receivers' first-order beliefs about transfers ($p=0.14$), nor in dictators' second-order beliefs ($p=0.449$). In the regressions of Table 2 the frame coefficient is small and insignificant on its own ($r=-3.618$, $p=0.695$, Model 3) and while controlling for gender and age ($r=-1.713$, $p=0.849$, Model 4). Again, we observe gender differences with women exhibiting higher levels of generosity.

Table 2: Tobit regressions

	Cooperation in the Prisoner's Dilemmas		Generosity in the Dictator Games	
	(1)	(2)	(3)	(4)
Frame (1=take)	-35.97*** (9.68)	-31.15*** (8.101)	-3.619 (9.212)	-1.71 (8.953)
Gender (1=female)		24.93*** (9.29)		17.18* (9.54)
Age		2.723*** (0.734)		0.60 (0.61)
Constant	28.54*** (6.20)	-26.40** (18.02)	34.80*** (5.10)	8.78 (17.09)
Subjects/Observations	106	106	96	96

Robust standard errors in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

4. Discussion

We run a series of prisoner's dilemma and dictator games with give and take frames. While the framing influences behavior and beliefs significantly in the prisoner's dilemma game, it neither influences behavior nor beliefs in the dictator game.

These results are in line with the results on social frames by Ellingsen et al. (2012) and Dreber et al. (2012) who find strong effects in strategic interactions but no, or only minor, effects in non-strategic situations. One possible reason could be that in strategic interactions subjects try to predict matched players' behavior and the exact framing of the decision problem might provide a focal point or serve as a coordination device. This explanation was already proposed by Nikiforakis (2010), Dufwenberg et al. (2011), and Ellingsen et al. (2012). If players have other-regarding preferences, a social dilemma can turn into a coordination game and framing could act as a coordination device affecting beliefs and equilibrium selection. Thus, frames would not influence preferences, but only relevant

beliefs. Our data from the dictator and prisoner's dilemma games would support this argument.¹¹

Our findings in the prisoner's dilemma games are also in line with the findings by Gächter et al. (2017) who investigate common pool resource games and observe different beliefs when transfers establish a common pool resource (give decision) versus when they maintain a common pool resource (take decision). They show that the combination of beliefs and attitudes on conditional cooperation can explain the decreased cooperation when trying to maintain the common pool resource. The same argument would be in line with our results and would explain why we observe differences in the prisoner's dilemma game (where beliefs of conditional cooperators and attitudes matter) but not in the dictator game (where beliefs have no strategic value and mostly attitudes matter).

While we observe no framing effects in our dictator games, Capraro and Vanzo (2019) observe strong framing effects in their extreme dictator games. However, the frames in Capraro and Vanzo (2019) are based on words with strong normative connotations (e.g, give, take, donate, steal), whereas our framing manipulation is rather conservative and subtle, based on a neutral description of the situation. Krupka and Weber (2013) also observe significant differences in their dictator games with give and take options. However, the take option is not investigated independently, but in conjunction with a give option. Thus, subjects judge the social appropriateness of the take and give option in direct comparison. Again, our manipulation is more subtle using a between-subjects design that prevents subjects from comparing give and take options at the same time.

Besides our main results on framing, we observe that women tend to be more cooperative in the prisoner's dilemma game and more generous in the dictator game. In addition, cooperation tends to increase with age. Both effects are consistent with the previous

¹¹ Our data does not allow for a causal claim of frames influencing beliefs that subsequently influence behavior as we did not elicit them separately. The correlation could also stem from a false consensus effect.

literature (e.g., List, 2004; Gächter and Herrmann, 2011; Arechar et al, 2018; Brañas-Garza et al., 2018).

In this paper we used a comparable framework for prisoner's dilemma and dictator games to jointly investigate framing effects based on a neutral description of decision situations in the same subject-pool. While our results, together with the existing literature, do not rule out framing effects in dictator games, our paper implies that valence framing leads to larger effects in prisoner's dilemma games than in dictator games. Naturally, other parameter combinations, resulting in different overlaps between the two game types, are conceivable and it remains to be shown whether our results hold for these combinations, too.

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Appendix: Instructions for the experiment

Opening paragraph for all experiments

Thank you for taking part in this experiment. Please read these instructions very carefully. It is very important that you do not talk to other participants for the time of the entire experiment. In case you do not understand some parts of the experiment, please read through these instructions again. If you have further questions after this, please give us a sign by raising your hand out of your cubicle. We will then approach you in order to answer your questions personally.

To guarantee your anonymity you will draw a personal code before the experiment starts. Please write this code on top of every sheet you use during this experiment. You will later receive your payment from this experiment by showing your personal code. This method ensures that we are not able to link your answers and decisions to you personally.

During this experiment you can earn money. The currency within the experiment is 'Taler'. The exchange rate from Taler to Euro is:

$$1 \text{ Taler} = 0.08 \text{ Euro}$$

Your personal income from the experiment depends on both your own decisions and on the decisions of other participants. Your personal income will be paid to you in cash as soon as the experiment is over. During the course of the experiment, you will interact with a randomly assigned other participant. The assigned participant makes his/her decisions at the same point in time as you do. You will get no information on who this person actually is, neither during the experiment, nor at some point after the experiment. Similarly, the other participant will not be given any information about your identity. You will receive information about the assigned participant's decision after the entire experiment has ended.

After the experiment, please complete a short questionnaire, which we need for the statistical analysis of the experimental data.

Prisoner's dilemma (give frame)

In this experiment, you are randomly matched with another participant. You are Person A, and the randomly assigned other participant is Person B. You and Person B simultaneously face the same decision.

Person A and Person B first receive an initial endowment of 100 Talers. You now have the opportunity to transfer any part of your endowment to Person B. You can only transfer integer amounts - thus, you can choose whole numbers between 0 and 100 (including 0 and 100).

The amount you transfer to Person B is doubled. That means that Person B receives twice the amount you have transferred to him/her.

The randomly assigned participant acting as Person B is given exactly the same alternatives as you have. He/she also has the possibility to transfer any amount to you. The amount Person B transfers to you is also doubled. That means that you receive twice the amount Person B has transferred to you.

You will make your decisions simultaneously. During the course of the experiment, neither person receives any information concerning the decision of the other person.

How the income is calculated

Your personal income can be calculated as follows:

Initial endowment

- amount you choose to transfer to Person B from your endowment
 + 2 * the amount b Person B transferred to you from his/her endowment
 = your personal income

Prisoner's dilemma (take frame)

In this experiment you are randomly matched with another participant. You are Person A, and the randomly assigned other participant is Person B. You and Person B simultaneously face the same decision.

Person A and Person B first receive an initial endowment of 100 Talers. You now have the opportunity to transfer any part of Person B's endowment to yourself. You can only transfer integer amounts - thus, you can choose whole numbers between 0 and 100 (including 0 and 100).

The remaining amount - that is the amount that you do not transfer from Person B's endowment to yourself - is doubled. This means that Person B receives twice the amount that you do not transfer from him/her.

The randomly assigned participant acting as person B is given exactly the same alternatives as you have. He/she also has the possibility to transfer any amount to himself/herself. The remaining amount that he/she does not transfer from your endowment to himself/herself is doubled. This means that you receive twice the amount that he/she does not transfer from you.

You will make your decisions simultaneously. During the course of the experiment, neither person receives any information concerning the decision of the other person.

How the income is calculated

Your personal income can be calculated as follows:

+ amount you choose to transfer from Person B's endowment to yourself
 + 2 * the amount Person B did not transfer from your endowment to himself/herself
 = your personal income

Dictator game-dictator (give frame)

In this experiment, you are randomly matched with another participant. You are Person A, and the randomly assigned other participant is Person B.

Person A first receives an initial endowment of 200 Talers, Person B receives no initial endowment. You now have the opportunity to transfer any part of your endowment to Person B. You can only transfer integer amounts - thus, you can choose whole numbers between 0 and 200 (including 0 and 200).

The amount you transfer to Person B is doubled. That means that Person B receives twice the amount you have transferred to him/her.

The randomly assigned participant with the role of Person B does nothing.

During the course of the experiment, Person B does not receive any information concerning the decision of Person A.

How the income is calculated

Your personal income can be calculated as follows:

Initial endowment

- amount you choose to transfer to Person B

= your personal income

Dictator game-receiver (take frame)

In this experiment, you are randomly matched with another participant. You are Person B, and the randomly assigned other participant is Person A.

Person A first receives an initial endowment of 200 Talers. Person B receives no initial endowment. Person A now has the opportunity to transfer any part of his/her endowment to you. Person A can only transfer integer amounts - thus, Person A can choose whole numbers between 0 and 200 (including 0 and 200).

The amount Person A transfers to you is doubled. That means that you receive twice the amount Person A has transferred to you.

You do nothing.

During the course of the experiment, Person B does not receive any information concerning the decision of Person A.

How the income is calculated

Your personal income can be calculated as follows:

$2 * \text{amount Person A chooses to transfer to you from his/her endowment}$
= your personal income

Dictator game-dictator (take frame)

In this experiment, you are randomly matched with another participant. You are Person A, and the randomly assigned other participant is Person B.

Person A receives no initial endowment. Person B first receives an initial endowment of 200 Talers. You now have the opportunity to transfer any part of the endowment of Person B to yourself. You can only transfer integer amounts - thus, you can choose whole numbers between 0 and 200 (including 0 and 200).

The remaining amount - that is the amount that you do not transfer from Person B's endowment to yourself - is doubled. This means that Person B receives twice the amount that you do not transfer from him/her.

The randomly assigned participant with the role of Person B does nothing.

During the course of the experiment, Person B does not receive any information concerning the decision of Person A.

How the income is calculated

Your personal income can be calculated as follows:

Amount you choose to transfer to yourself from Person B' endowment

= your personal income

Dictator game-receiver (take frame)

In this experiment, you are randomly matched with another participant. You are Person B, and the randomly assigned other participant is Person A.

Person A receives no initial endowment. Person B receives an initial endowment of 200 Talers. Person A now has the opportunity to transfer any part of your endowment to himself/herself. Person A can only transfer integer amounts - thus, Person A can whole numbers between 0 and 200 (including 0 and 200).

The remaining amount - that is the amount that Person A does not transfer from your endowment to himself/herself - is doubled. This means that you receive twice the amount that Person A does not transfer from you.

You do nothing.

During the course of the experiment, Person B does not receive any information concerning the decision of Person A.

How the income is calculated

Your personal income can be calculated as follows:

$2 * \text{amount Person A chooses not to transfer to himself/herself from your endowment}$
= your personal income