

# Appendix A: Overview of the Employed Inclusion Criteria

The present study consisted of three different parts. Throughout these three different parts, we included a total of six different inclusion criteria.

Of the 222 participants that completed the entire study, 44 participants (19.8%) were unable to answer—for each inclusion criterion—at least  $n - 1$  (i.e., the number of checks minus one) check questions correctly, and were, therefore, excluded from the reported analyses.

Of the 44 excluded participants, 33 participants (75%) failed on one of the six inclusion criteria, whereas the remaining 11 participants (25%) failed on more than one of the six inclusion criteria.

Of the 11 participants who failed on more than one of the six inclusion criteria, 8 participants (72.7%) failed on two inclusion criteria, 1 participant (9.1%) failed on three inclusion criteria, and 2 participants (18.2%) failed on four inclusion criteria.

Below, we provide more detailed information on the six employed inclusion criteria.

## **Part 1: Prosocial behavior**

### *Inclusion criterion 1:*

In the first part of the study, participants answered the prosocial behavior measures. Following the recommendations of Meade and Craig (2012), several instructional attention check were deployed to exclude participants who answered with insufficient care. More specifically, in this part of the study participants were asked four times to select a particular response box (e.g., “please select the second response box”).

Of the 222 participants, 207 participants (93.2%) answered at least three of these four attention checks correctly.

## **Part 2: Mixed-motive games**

In the second part of the study, participants were presented with the mixed-motive games. Before the start of each game, participants were asked several questions that probed their comprehension of the game’s outcome structure.

An overview of these comprehension checks can be found on our OSF webpage (<https://osf.io/gzb4j>).

### *Inclusion criterion 2:*

Of the 222 participants, 203 participants (91.4%) answered at least two of the three comprehension checks regarding the Prisoner’s Dilemma correctly.

### *Inclusion criterion 3:*

Of the 222 participants, 221 participants (99.5%) answered at least one of the two comprehension checks regarding the Commons Dilemma correctly.

Inclusion criterion 4:

Of the 222 participants, 221 participants (99.5%) answered at least one of the two comprehension checks regarding the Public Goods Dilemma correctly.

Inclusion criterion 5:

Of the 222 participants, 212 participants (95.5%) answered at least three of the four comprehension checks regarding the iterative games correctly (note that the iterative games were not used in the present manuscript).

**Part 3: Individual difference measures**

Inclusion criterion 6:

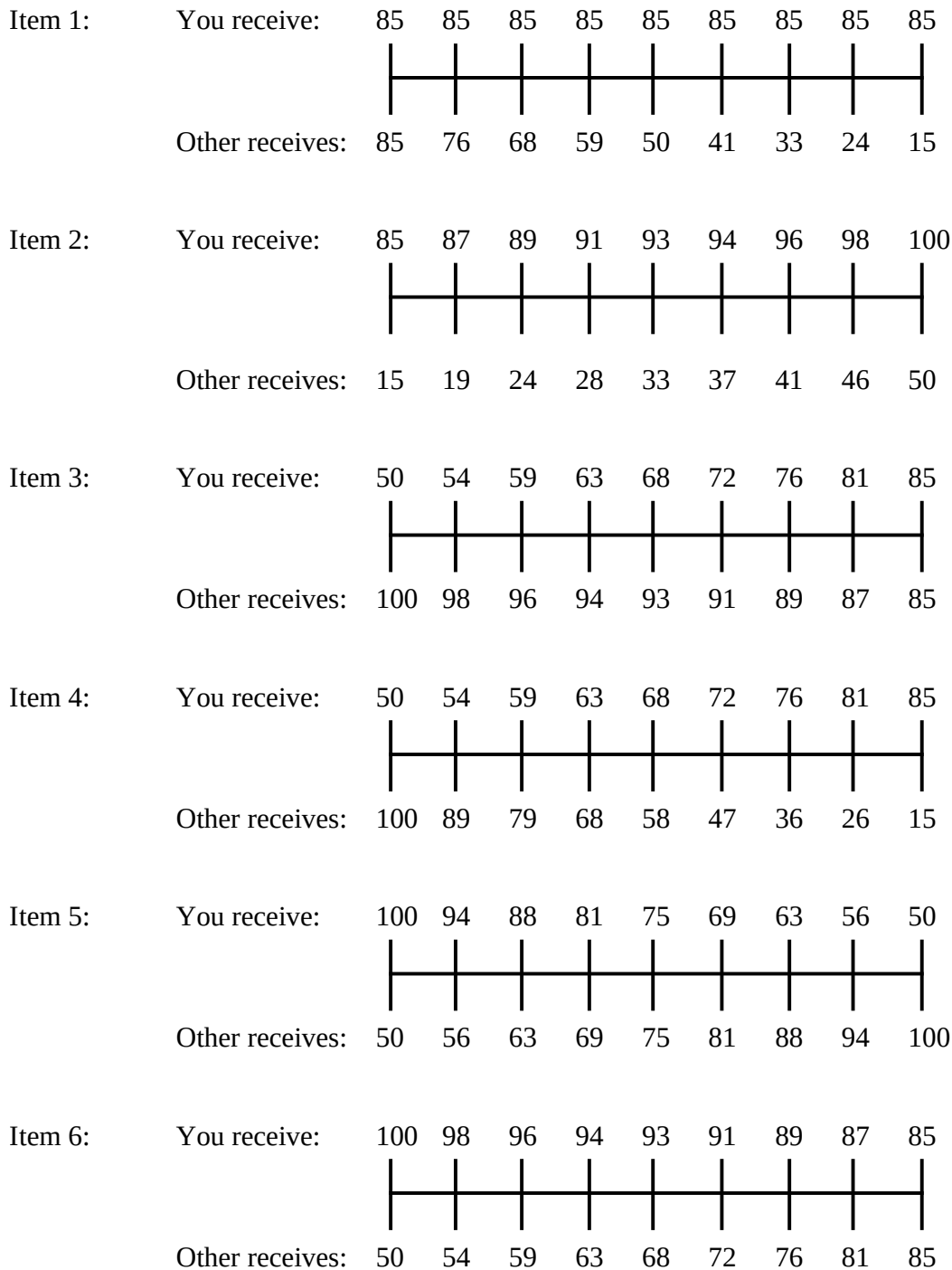
In the third part of the study, participants answered the individual difference measures (note that, besides SVO, these measures were not used in the present manuscript). In this part of the study, participants were presented with five instructional attention checks that were similar to those used in the first part of the study.

Of the 222 participants, 208 participants (93.7%) answered at least four of the five attention checks correctly.

Reference:

Meade, A. W., & Craig, S. B. (2012). Identifying careless responses in survey data. *Psychological Methods, 17*, 437-455.

## Appendix B: SVO Slider Measure



## Appendix C: Overview of the Mixed-Motive Game Trials

### Prisoner's Dilemma (1 unit is worth 0.01 euro)

The cooperative option was always denoted as "Option A" (and scored with value "1"), whereas the defective option was always denoted as "Option B" (and scored with value "0").

The *K*-index was calculated as follows: (outcome of mutual cooperation minus outcome of mutual defection) / (outcome of unilateral defection minus outcome unilateral cooperation).

#### Game trial 1: Low endowment x low non-correspondence

Participant's decision	Other Player's decision	
	Cooperate	Defect
Cooperate	45, 45	0, 50
Defect	50, 0	5, 5

$$K\text{-index} = (45-5)/(50-0) = 0.80$$

#### Game trial 2: Low endowment x medium non-correspondence

Participant's decision	Other Player's decision	
	Cooperate	Defect
Cooperate	40, 40	0, 50
Defect	50, 0	10, 10

$$K\text{-index} = (40-10)/(50-0) = 0.60$$

#### Game trial 3: Low endowment x high non-correspondence

Participant's decision	Other Player's decision	
	Cooperate	Defect
Cooperate	35, 35	0, 50
Defect	50, 0	15, 15

$$K\text{-index} = (35-15)/(50-0) = 0.40$$

#### Game trial 4: Low endowment x very high non-correspondence

Participant's decision	Other Player's decision	
	Cooperate	Defect
Cooperate	30, 30	0, 50
Defect	50, 0	20, 20

$$K\text{-index} = (30-20)/(50-0) = 0.20$$

Game trial 5: High endowment x low non-correspondence

Participant's decision	Other Player's decision	
	Cooperate	Defect
Cooperate	90, 90	0, 100
Defect	100, 0	10, 10

$$K\text{-index} = (90-10)/(100-0) = 0.80$$

Game trial 6: High endowment x medium non-correspondence

Participant's decision	Other Player's decision	
	Cooperate	Defect
Cooperate	80, 80	0, 100
Defect	100, 0	20, 20

$$K\text{-index} = (80-20)/(100-0) = 0.60$$

Game trial 7: High endowment x high non-correspondence

Participant's decision	Other Player's decision	
	Cooperate	Defect
Cooperate	70, 70	0, 100
Defect	100, 0	30, 30

$$K\text{-index} = (70-30)/(100-0) = 0.40$$

Game trial 8: High endowment x very high non-correspondence

Participant's decision	Other Player's decision	
	Cooperate	Defect
Cooperate	60, 60	0, 100
Defect	100, 0	40, 40

$$K\text{-index} = (60-40)/(100-0) = 0.20$$

**Commons Dilemma (1 unit is worth 0.01 euro)**

*Game trial 1: Low endowment x low multiplication factor*

- Common resource pool consists of 80 units; each player can harvest 0-20 units
- Units that are not harvested are multiplied by factor 1.5

*Game trial 2: Low endowment x medium multiplication factor*

- Common resource pool consists of 80 units; each player can harvest 0-20 units
- Units that are not harvested are multiplied by factor 2

*Game trial 3: Low endowment x high multiplication factor*

- Common resource pool consists of 80 units; each player can harvest 0-20 units
- Units that are not harvested are multiplied by factor 2.5

*Game trial 4: Low endowment x very high multiplication factor*

- Common resource pool consists of 80 units; each player can harvest 0-20 units
- Units that are not harvested are multiplied by factor 3

*Game trial 5: High endowment x low multiplication factor*

- Common resource pool consists of 160 units; each player can harvest 0-40 units
- Units that are not harvested are multiplied by factor 1.5

*Game trial 6: High endowment x medium multiplication factor*

- Common resource pool consists of 160 units; each player can harvest 0-40 units
- Units that are not harvested are multiplied by factor 2

*Game trial 7: High endowment x high multiplication factor*

- Common resource pool consists of 160 units; each player can harvest 0-40 units
- Units that are not harvested are multiplied by factor 2.5

*Game trial 8: High endowment x very high multiplication factor*

- Common resource pool consists of 160 units; each player can harvest 0-40 units
- Units that are not harvested are multiplied by factor 3

### **Public Goods Dilemma (1 unit is worth 0.01 euro)**

*Game trial 1: Low endowment x low multiplication factor*

- Each player can contribute 0-20 units
- Contributed units are multiplied by factor 1.5

*Game trial 2: Low endowment x medium multiplication factor*

- Each player can contribute 0-20 units
- Contributed units are multiplied by factor 2

*Game trial 3: Low endowment x high multiplication factor*

- Each player can contribute 0-20 units
- Contributed units are multiplied by factor 2.5

*Game trial 4: Low endowment x very high multiplication factor*

- Each player can contribute 0-20 units
- Contributed units are multiplied by factor 3

*Game trial 5: High endowment x low multiplication factor*

- Each player can contribute 0-40 units
- Contributed units are multiplied by factor 1.5

*Game trial 6: High endowment x medium multiplication factor*

- Each player can contribute 0-40 units
- Contributed units are multiplied by factor 2

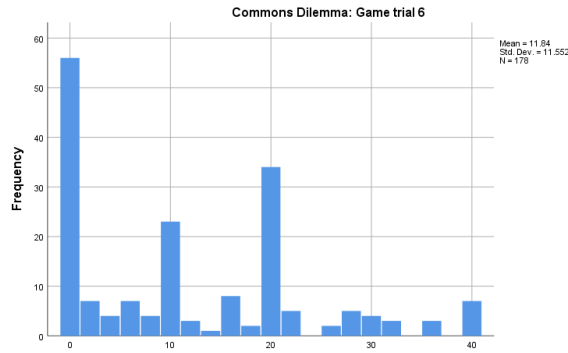
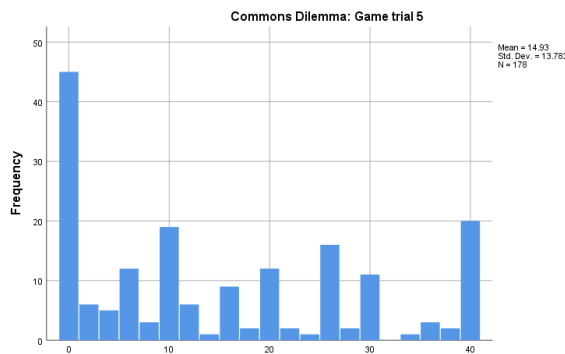
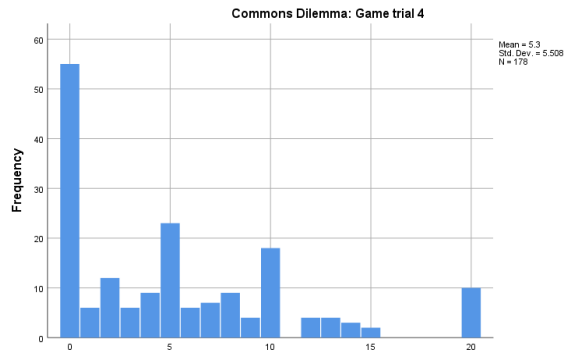
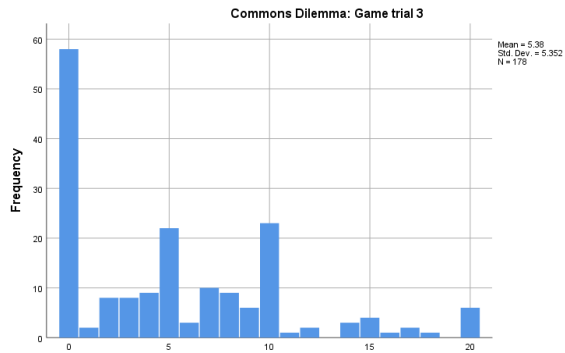
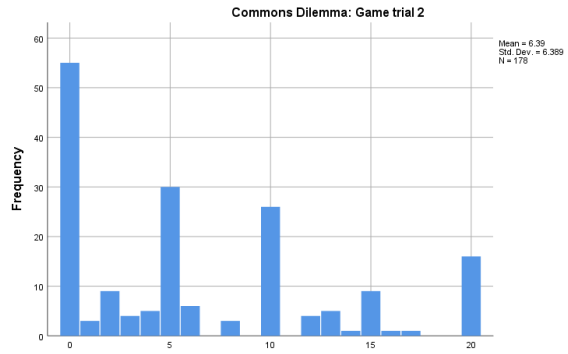
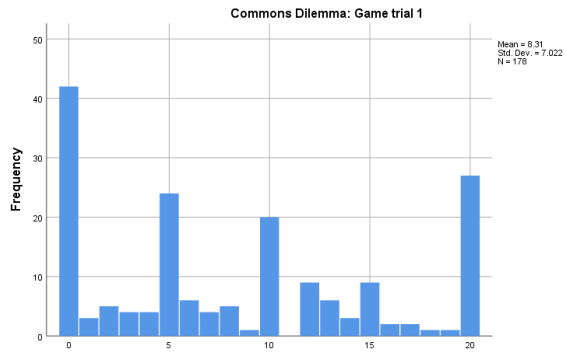
*Game trial 7: High endowment x high multiplication factor*

- Each player can contribute 0-40 units
- Contributed units are multiplied by factor 2.5

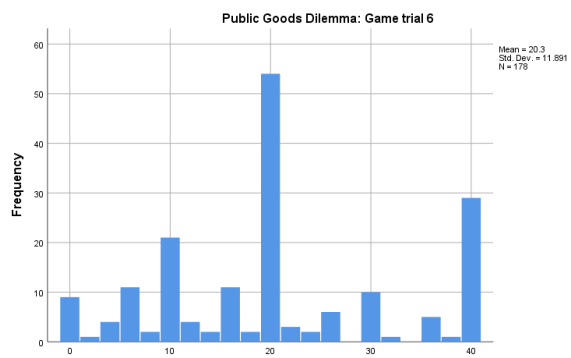
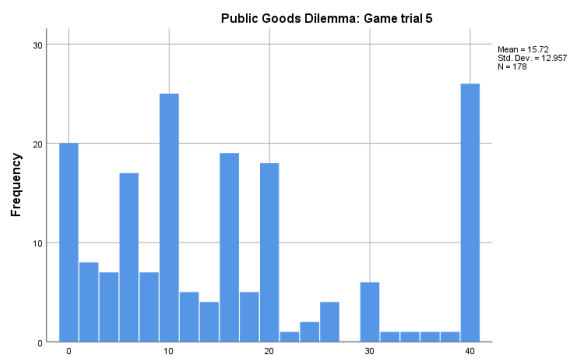
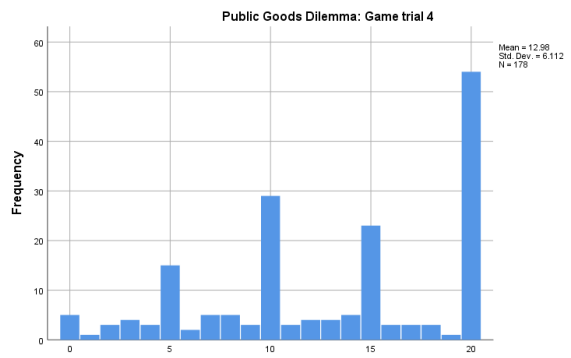
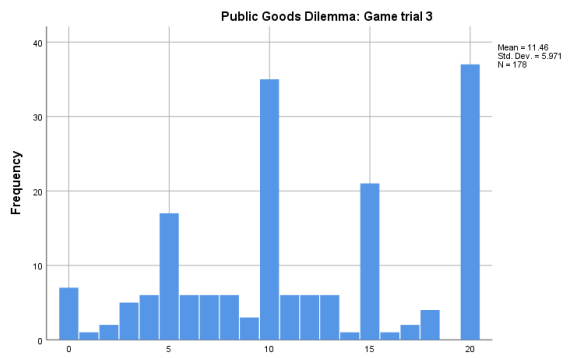
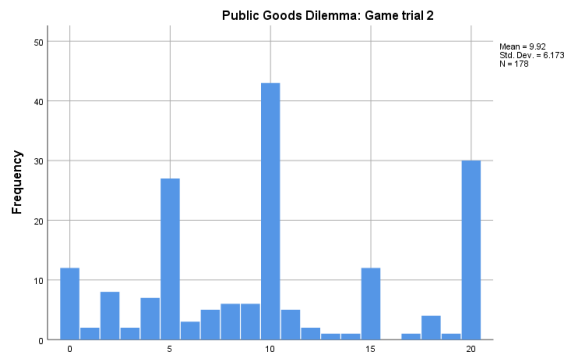
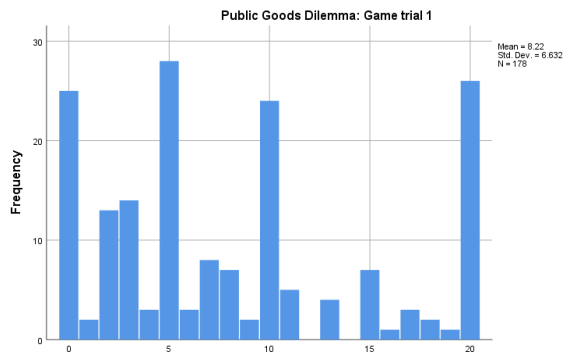
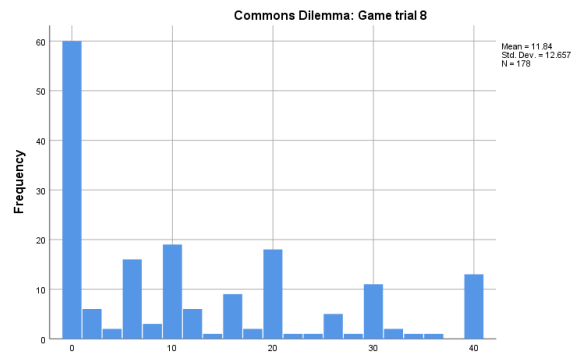
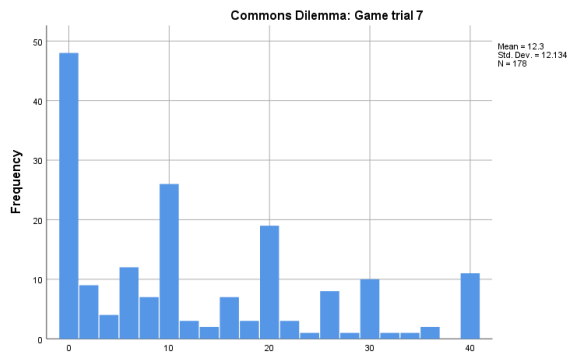
*Game trial 8: High endowment x very high multiplication factor*

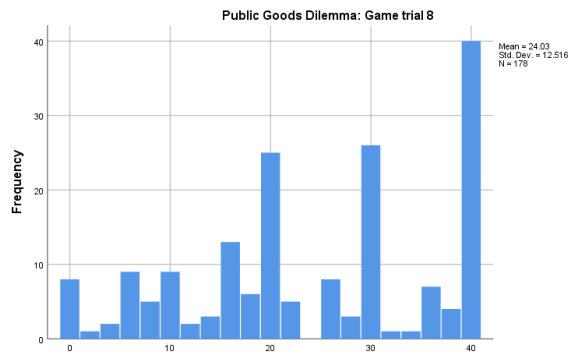
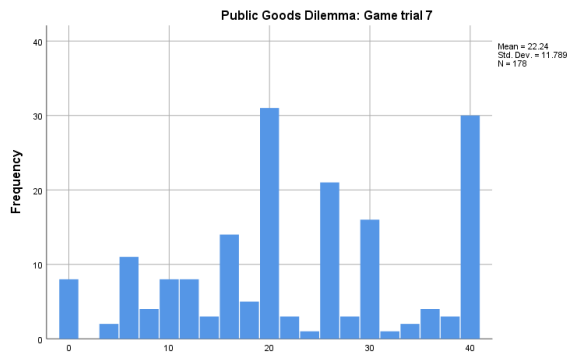
- Each player can contribute 0-40 units
- Contributed units are multiplied by factor 3

# Appendix D: Histograms of the Game Behaviors









# Appendix E: Overview of the Prosocial Behavior Measures

## Blood donating behavior

The Flanders Red Cross is looking for new blood donors. Do you want to register as a blood donor?

- No
- Maybe, I want to think about it
- I think so, please send me more information (\*)
- Yes, please provide this foundation my name and address (\*)

(\*) Those who selected one of the latter two responses were asked to write down their name and address.

## Volunteering behavior

The Public Centre for Social Welfare (which is committed to improving the situation of the less fortunate, such as homeless people and refugees) is looking for new volunteers. Do you want to register as a volunteer?

- No
- Maybe, I want to think about it
- I think so, please send me more information (\*)
- Yes, please provide this foundation my name and address (\*)

(\*) Those who selected one of the latter two responses were asked to write down their name and address.

## Money donating behavior

The Public Centre for Social Welfare is currently looking for financial donations. Do you want to donate money to this organization (and if yes, how much)?

- No
- Yes. I want to donate .... euro

## Commuting behavior

### *Hypothetical scenario*

Imagine that, within 10 years from now, you find yourself in the following commuting situation: You are living in a suburb of a medium-sized city in Belgium. The company you are working for is located 40 kilometers from your house. This distance can be covered by taking your car or by taking public transportation. There is a train station within a three-minute walk of your house. Alternatively, near your home is the onramp to the highway that leads directly to your work. Commuting by train is better for the environment, but commuting by car is the quicker option. It is a weekday morning.

### *Commuting behavior (binary measure)*

Please decide whether you want to commute by car or by public transportation.

- Car
- Train

*Commuting behavior (continuous measure)*

Please indicate your preference for commuting by car or by public transportation.  
(1 = strong preference for car, 7 = strong preference for train)

**Donations to noble causes**

Did you donate in the past year money or goods through (*No/Yes*):

1. A solicitation at home.
2. Buying lottery tickets for a good cause.
3. Alternative means of giving (e.g., donating used clothes in clothes containers).
4. Financially supporting someone in his/her actions for a good cause (e.g., a race).
5. Being a registered contributor (e.g., foster parents) involving periodic donation of money via a bank or other financial institution.
6. A collection in a church.
7. A collection on the street.
8. A regular contribution to church, mosque, or humanistic organization.
9. Buying something for a good cause (e.g., at the door or through a friend or acquaintance).
10. A personal letter along with a bank transcript.
11. Buying something at a charity event (“fancy fair” or flea market).
12. Buying something in a “third world shop” or “environment shop.”

*Note.* We counted the total number of donation acts (out of 12) that participants engaged in during the past year.

**Ecological behaviors**

*Pro-environmental behavior*

1. I look for ways to reuse things.
2. I recycle newspaper.
3. I recycle cans or bottles.
4. I encourage friends or family to recycle.
5. I purchase products in reusable or recyclable containers.
6. I pick up litter that is not my own.
7. I compost food scraps.
8. I conserve gasoline by walking or bicycling.

*Ecologically conscious behavior*

1. I have purchased a household appliance because it uses less electricity than other brands.
2. I have purchased light bulbs that are more expensive but saved energy.
3. I will not buy products that have excessive packaging.
4. If I understand the potential damage to the environment that some products can cause, I do not purchase these products.
5. I have switched products for ecological reasons.
6. I have convinced members of my family or friends not to buy products that are harmful to the environment.

7. When I have a choice between two equal products, I always purchase the one less harmful to other people and the environment.
8. I will not buy a product if the company that sells it is ecologically irresponsible.
9. I do not buy household products that harm the environment.
10. I choose the environmentally friendly alternative of a product, if there is one, regardless of its price.
11. I am interested in asking about the environmental consequences of a product before buying it.
12. I try to find eco-label products.
13. I prefer to buy organic fruits and vegetables.
14. I would change my usual detergent brand for another that is more friendly to the environment.
15. I prefer the recycled paper products, even if they are more expensive.
16. I take part into cleaning shore, parks, yards etc.
17. I do not throw rubbish on the ground.
18. I often get annoyed when I think of how much water is wasted.

#### *Student environmental behavior*

1. I put the lights off when I leave a room.
2. I do not leave the water running while brushing my teeth.
3. I fully turn my computer off at night.
4. I use reusable shopping bags.
5. I always print documents double-sides.
6. I avoid using paper towels to dry my hands in the bathroom.
7. I do not leave electronics plugged in when not in use.
8. I buy clothing at second hand stores.

All items were rated on seven-point Likert scales ranging from (1) *strongly disagree* to (7) *strongly agree*.

### **Participatory behaviors**

The following list includes a list of behaviors characterizing civic and political engagement. Can you indicate to what extent you recognize these behaviors as your behaviors?

#### *Civil participation*

1. Being interested in political issues and events.
2. Writing to the newspaper editor.
3. Donating money to charity.
4. Discussing politics with friends and/or on the Internet.
5. Buying newspapers or watch TV programs that address political themes.
6. Recycling or separately collects rubbish.
7. Volunteering in a social/civic/religious organization.
8. Adopting a lifestyle with a clear social orientation (e.g., vegetarianism, anti-consumerism, punk subculture, etc.).

#### *Activism*

1. Boycotting products (for ethical or ideological reasons).

2. Signing petitions.
3. Distributing political materials.
4. Writing political slogans or draw graffiti on the walls of buildings.
5. Being active in a movement/forum.
6. Participating in strikes, protests, demonstrations.

All items were rated on seven-point Likert scales ranging from (1) *not at all* to (7) *very much so*.

### **Prosocial behaviors**

1. Sometimes I give change to panhandlers.
2. From time to time I contribute money to charity.
3. If an elderly or disabled person enters a crowded bus or subway, I offer him or her my seat.
4. If I were an employer, I would consider hiring a person previously convicted of a crime.
5. In fast-food restaurants, I usually leave the tray on the table. (R)
6. If a friend or relative had to stay in the hospital for a week or two for minor surgery (e.g., appendix, broken leg), I would visit him or her.
7. Sometimes I ride public transportation without paying a fare. (R)
8. I would feel uncomfortable if people of a different ethnicity lived in the apartment next door. (R)

All items were rated on seven-point Likert scales ranging from (1) *strongly disagree* to (7) *strongly agree*. (R) = Reverse-scored item.

## Appendix F: Results of the Factor Analysis

**Table F1. Factor analysis of the twelve prosocial behavior measures (Factor Matrix).**

	Factor loadings
Ecologically Conscious Consumer Behavior	<b>.84</b>
Civil Participation	<b>.78</b>
Pro-Environmental Behavior	<b>.73</b>
Activism	<b>.64</b>
Prosocial Behaviors	<b>.59</b>
Student Environmental Behavior	<b>.49</b>
Commuting Behavior (continuous)	<b>.41</b>
Donations to Noble Causes	<b>.39</b>
Commuting Behavior (binary)	<b>.37</b>
Volunteering Behavior	<b>.37</b>
Blood Donating Behavior	<b>.30</b>
Money Donating Behavior	.15
% variance explained	29.6

*Note.* Factor loadings are sorted by size. Factor loadings greater than .30 in bold