

## Two exercises on social preferences

### 1 Describing revealed social preferences

B has been playing four independent versions of the dictator game:

1. B chooses (800,200) vs. (0,0)
2. B chooses (300,600) vs. (700,500)
3. B chooses (200,700) vs. (600,600)
4. B chooses (0,800) vs. (400,400)

In these four experiments, B chose the option that is on the left hand side in the text above. What can we conclude about B? That he is irrational? inequity averse? That he wants to maximise social welfare? Or has he just narrow self-interests?

Apply Charness and Rabin model to answer these questions.

### 2 Choice when facing people with social preferences

Gyuri is going to play an Ultimatum game with an anonymous player. He does not know who the anonymous player is, but he knows that the player is coming from his own village. As a consequence, he can estimate the social preferences of the player. They are 1000 people in his village (without counting Gyuri), and he estimates that among those, 400 are inequity averse and 600 have no other-regarding preferences (i.e. they do not care about what others' material payoffs are, they just want to maximise their own material payoff).

The inequity aversion of the 400 people can be expressed as  $\rho = 0.2$  and  $\sigma = -0.35$  in Rabin and Charness' expression of inequity aversion:

If  $\pi_B \geq \pi_A$  (I have more money or an equal amount) then

$$u_B(\pi_A, \pi_B) = (1 - \rho)\pi_B + \rho\pi_A$$

If  $\pi_B < \pi_A$  (I have less money) then

$$u_B(\pi_A, \pi_B) = (1 - \sigma)\pi_B + \sigma\pi_A$$

Gyuri has no other-regarding preferences and just wants to maximise his expected material payoffs. He is risk-neutral. The ultimatum game is framed such that Gyuri has to choose among the following possibilities:

- (a) Offer €1, keep €9
- (b) Offer €3, keep €7
- (c) Offer €7, keep €3

Which option will Gyuri choose? Explain.