

GAME PROCEDURES AND PROTOCOLS

CORE GAMES: DICTATOR, ULTIMATUM, THIRD PARTY PUNISHMENT

Translation: Each researcher will have to adapt these instructions to fit their particular field site by translating them into the appropriate local language and adjusting the currency and stake sizes. Researchers will use the method of back-translation to obtain the best possible game translation. This involves having one bilingual assistant with no knowledge of the game translate the game instructions into the local language and a second translate it back, thus identifying any problems in translation. Supply the translation in Appendix of your paper.

Game Administrator: All games should be run by you with a native speaker to assist/interpret unless you yourself are completely fluent in the local language. If a local interpreter is used, he/she should be asked to turn around when offers are made so that no local individuals have knowledge of the offers being made.

Gather Participants in One Place: All participants must be brought together in the same place prior to playing the game. Use research assistants to control the logistical flow once the game begins. Those who have completed the game must depart (or be assigned to a separate waiting area) and cannot interact with those waiting to play. Participants should be told that anyone waiting to play who talks to someone who has already played the game will be disqualified from participation. They can talk amongst themselves, but not about the game. Only explain the game to the group as a whole if you have sufficient assistants to avoid discussions among players that could lead to the 3 C's (contagion, contamination and collusion).

Teaching examples: In both teaching and testing the participants, researchers will use actual coins and paper currency to illustrate the game. By presenting the mathematics visually, people with limited or no mathematics skill can still understand the game. If necessary, players can manipulate piles and count coins or bills in decision-making and testing. Teaching examples are scripted in written protocols. Please stick as closely as possible to the script. (Note, there is no longer a table or random examples in the Excel file)

Examples from list: Examples are pre-selected and scripted in the written protocols. Use these for instruction and testing. Repeat from this list if more examples are needed.

Show-up Fee and Stakes: Before the game begins, players in the dictator, ultimatum, and punishment games will receive a "show-up" fee paid in cash at a rate of approximately 20-25% of one day's wage in the local economy. It will be made clear to the player that this money is strictly for their *participation* in the game, and is not part of the game. Participants who fail to pass the required tests of game understanding can keep the show-up fee—which makes it somewhat easier to reject them, if the need arises. The game stakes will be set at roughly one day's minimum wage in the local community (i.e. if there were casual wage labor work available, the wage this would

earn for one day). Set stakes with convenient increments of 10% (use 11 divisions in all games except the trust game, which uses 5 divisions). In all of the examples illustrated below we have used a decimal scale assuming a \$10 per day minimum wage. Note: there is no show-up fee for the trust game, as the game requires that both Player 1 and Player 2 begin with the same endowment.

Introductory instructions: All game instructions will begin with a reminder to those present that participation in the games is completely voluntary, and that they are free to leave at any time if they are uncomfortable with any aspect of the games. Given that the populations we work with are not generally familiar with such exercises we have explained a number of details that would be obvious to more experienced subjects. Thus, the game instructions emphasize the anonymity aspect of their behavior in the game, the fact that they are not taking money away from the researcher personally through their participation but rather that the money comes from a university. Furthermore, the instructions explain that we are running these games in many other sites around the world.

Sampling: You should draw your game subjects from the adult population over the age of 18. Both the NSF proposal and our Human Subject's clearance state that we will not use subjects below the age of 18. If you need to, get HS clearance for sub-18's from your home institution. Ideally you will have a census of the village and be able to select a random sample. On the first day of play you need not be concerned with any contamination problems, but thereafter, you should give as little warning as possible to people prior to calling them to play so that they do not coordinate strategies based on what they have heard about the games. For those who have played games before, it is best to go to new villages unless you are specifically testing the stability of individual play over time.

Monitors: Be sure that you have sufficient research assistants to monitor the logistical flow in the game and avoid contact between those who have played and those who have not. While doing this monitoring, the research assistants can also help informants fill in the demographic survey forms (see below).

Collusion/Contagion: Several members of our team have experienced some serious collusion among players in large villages where they have run significant numbers of experiments. The degree of collusion was extreme in all cases in spite of the fact that offers were anonymous. You should be aware of this potential problem and be on the look out for it if you are returning to a village where you have played games before, or if you play a series of games this time in the same village. One strategy that has worked is to play the games in rapid succession (over very few days) before the community can organize, and to call people for games with very little notice. But bear in mind that many come to the gathering spot early, and this is the perfect opportunity for collusion. It also helps to finish one game in one day and begin a new game the next day. Another solution is to play only one game per village, but this introduces the possibility of different village effects. You will have to use some discretion in weighing and balancing these trade-offs if you encounter problems.

Checklist

1. Assure participants of the voluntary nature of the games, as required by human subjects.
2. Explain the rules regarding waiting and not talking about the game. Make it clear that they will be able to ask questions once they are alone with the game administrator, but not while they are in the room waiting to play. They will not be allowed to interact in any way with those who have already played the game. Those who have completed the game should depart the game area.
3. Pay show-up fee.
4. Remind people that all money in the game is real and they will be paid according to their decisions in the game.
5. Assign players to their order for the game in an overtly random fashion.
6. Begin RA's taking demographic data.
7. Bring each player in one by one and explain the game.
8. Perform pre-game tests—don't assume people understand.
9. No sham offers; no deception. This is a requirement of our human subject clearance.
10. Stick to the procedures as closely as possible. But as some amount of modification is inevitable, be sure to document all deviations and modifications.

General Procedure For Administering The Core Package

Prior to administering the game for a given session, all players who will play during that session are gathered in one location with monitors. After completing the game(s), players may mix with the general population, but not with the players waiting to play.

Game Day 1

Goal: 2 sessions with the *same* 10 pairs playing both the dictator game (DG) and strategy method ultimatum game (SMUG). The morning session is the DG and the afternoon session is the SMUG. Each player will assume either the role of Player 1 or 2 in both games (Player 1 in the DG and Player 1 in the SMUG, or Player 2 in DG and Player 2 in SMUG). Do not permit individuals to cross roles—e.g., Player 1 in DG and Player 2 in the UG. You will need two holding areas, one for players who have not played the current game, and one for those who have finished but are being held for the next game, or held for payment.

In morning DG-session (which will be shorter than the afternoon SMUG session), people are gathered together, paid the show-up fee, explained the game in a group (if you are doing that) and brought individually into the gaming area. Allow players to enter in an overtly random order (picking names from a hat). Explain to the players up front that they will be paid for this game after completing the next game. At that time they will be paid for both games.

After the DG session, do the SMUG session as soon as possible. If possible, supply food and drink, and continue directly into this next game. Otherwise release them for as short a time as possible and admonish them not to discuss the game.

For the SMUG session, emphasize that this is an entirely different game, and they will be playing with a different person. Overtly establish a new random order of entry into the gaming area. After playing, send all players to a holding area, and bring them in one-by-one for payment (in envelopes) after this second session is complete. Pay them for both games.

Do not tell people there will be more games on the following day.

Day 2 and Day 3:

Repeat the same procedure as in Day 1. Your minimum goal is 30 pairs, so our estimates suggest 3 2-session days will be required. However, fewer days is better, so if you can do it in 2, do it.

Day 3:

If you are *not* planning to do the 3PP Game in the same village, do the post-game interview questions (see protocol) during the last (DG-SMUG) session of Day 3. That is,

do the post-questions anytime you are not planning more experiments in a particular place.

Third Party Punishment (Begin next day or wait 3+ weeks):

Goal: 30 trios for the Third Party Punishment Game (3PPG). If possible, use all fresh players who have not played any of the prior games. If you are running short of fresh players you can substitute repeat players for Player 2, but not for Player 1 or Player 3. This means that you need a minimum of 60 fresh adults in the same village plus 30 repeat players. If this is not possible, you can substitute another 30 repeat players in the role of Player 1, but only if they played that role before. You must use fresh players in the role of Player 3.

Use the same 2-session day to administer games. 8 trios per session, 2 sessions per day, two days to completion.

Order of Supplemental Games: Be sure that you finish all core games before playing any of the supplemental games. If there is contagion, we want to be sure that the core games are as uncorrupted as possible.