

## Appendix

### Composite Experimental Instructions and General Questionnaire

#### Versions of Instructions

<u>Treatment</u>	<u>Phase</u>	<u>Allocation Decision</u>	<u>Forms by Subject</u>		
			<u>X</u>	<u>Y</u>	<u>Z</u>
Spectator	1		I (X)	I (Y)	
	2	Spectator	III	III	IV
Anonymous Stakeholder	1		I (X)	I (Y)	
	2	Anonymous Stakeholder	II	II	
Group Stakeholder	1		VII(X)	VII(Y)	
	2	Group	V	V	
	3	Known Stakeholder	VI	VI	

#### Phase 1 Instructions

##### Room (X)[Y] (Versions I and VII)

#### No talking allowed

We ask that you do not talk or communicate with one another in any way, unless the experimenter instructs you to do so. If you have any questions after we finish the instructions or at any time during the experiment, please raise your hand, and the experimenter will approach you and answer your question in private.

#### Subjects

You have been assigned a Subject ID, which appears on the top right of this sheet. This is used only to track your decisions. You will never know the Subject IDs of subjects in any other group, and they will never know yours.

There are subjects in another room, who are also participating in this experiment. We will call this room Room (X)[Y] and the other room Room (Y)[X]. Subjects in Room X have Subject IDs that begin with the letter X, and subjects in Room Y have Subject IDs that begin with the letter Y. Subjects in both rooms read the same instructions throughout this experiment.

#### Two phases of experiment

There are two phases to this experiment. In Phase 1, every subject performs a task that involves preparing letters for mailing. For each letter correctly produced, 100 points are earned. **Each point is worth [¥ 1.5/1 cent], so each correct letter is worth [¥ 150/1 dollar].** The subjects in the other room face the same task and also generate 100 points of earnings for each correct letter. Subjects in both rooms are working under the same conditions, with the same kind of materials and producing the same kind of letters. After this task is complete, the letters are counted, and the second phase begins.

In Phase 2 of the experiment, subjects in this room are matched with counterparts in another room to form groups. For each group, the points of the matched subjects are added up and credited to its group account. All of the points in every account will be distributed in cash to the group that shares that account. A given group member cannot be guaranteed any specific amount, however, since that will depend on the decisions of arbitrarily chosen persons. The details of these distributional procedures will be provided after Phase 1 is complete.

### **Phase 1 task**

Now we will explain the details of the first phase. Each of you has in front of you a stack of twenty green sheets, twenty blue sheets and twenty envelopes and to the right of your seat a sealed box. My assistant will now demonstrate the tasks you are to complete. You are to fold the sheets in thirds and put one green and one blue sheet separately in each envelope. Then you close the envelope but do not seal it, and put it through one of the two slots at each end of the box. You may accomplish these tasks in any way you wish as long as the basic results are obtained. Everyone will have five {six} minutes to prepare the letters. The more letters you correctly prepare, the more points are credited to your group account. When I call "Time!" you must cease all activity: leave the remaining materials on your desk – any envelope not already in your box when time is called does not count.

## **Phase 2 Instructions** (Version II)

### **Matching of subjects**

In a moment, we will tell you the results of the Phase 1 task. For the purposes of calculating points to group accounts, subjects will be matched as follows. In this session, each person in Room X is paired with one other person in Room Y to form an X/Y Pair consisting of two people. Each X/Y Pair is assigned an account; the points credited to this account equal the sum of the points earned by the X Subject and the Y Subject in the Phase 1 task.

### **Allocation of earnings**

The subjects in Room X have been arbitrarily chosen to decide how the total points in their accounts will be distributed between the X Subject and the Y Subject. The form you are about to receive will indicate separately for the X Subject and the Y Subject how many letters each correctly prepared, the total number prepared by both subjects, and how many total points have been credited to their account. For subjects in Room X, the form will also include spaces for indicating how much, if any, of the total points each X Subject wishes to allocate to him- or herself and how much, if any, to his or her matched Y Subject. This decision is completely up to the X Subject and is confidential. The X Subject just needs to make sure that the total allocated to the two subjects equals the total available in their account. X Subjects will have five minutes to make their decision and to place the form in the envelope provided. These forms will then be collected, and the individual results of the task and the X Subject decisions sent to the paired Y Subjects along with their payments. We will distribute the results of the Phase 1 task as soon as they have been calculated. Please continue to sit and wait without talking until the results arrive. If you have any questions now or after you receive the form, raise your hand, and I will approach you to answer your question in private.

## **Phase 2 Instructions**

(Version III)

### **Matching of subjects**

In a moment, we will tell you the results of the Phase 1 task. For the purposes of calculating points to group accounts, subjects will be matched as follows. In this session, each person in Room X is paired with one other person in Room Y to form an X/Y Pair consisting of two people. Each X/Y Pair is assigned an account; the points credited to this account equal the sum of the points earned by the X Subject and the Y Subject in the Phase 1 task. In addition, there are subjects in a third room, Room Z, each of whom is matched with one X/Y Pair.

### **Allocation of earnings**

The subjects in Room Z have been arbitrarily chosen to decide how the total points in the X/Y accounts will be distributed between the X Subject and the Y Subject. The form they are about to receive will indicate separately for the X Subject and the Y Subject how many letters each correctly prepared, the total number prepared by both subjects, and how many total points have been credited to their account. The form will also include spaces for indicating how much, if any, of the total points each Z Subject wishes to allocate to his or her matched X Subject and how much, if any, to his or her matched Y Subject. This decision is completely up to the Z Subject and is confidential. The Z Subject just needs to make sure that the total allocated to the two subjects equals the total available in their group account. Z Subjects will have five minutes to make their decision and to place the form in the envelope provided. These forms will then be collected, and the individual results of the task and the Z Subject decisions sent to the X/Y Pairs along with their payments. We will distribute these results as soon as they are available. Please continue to sit and wait without talking until the results arrive.

## **Instructions**

### **Room Z (Version IV)**

#### **No talking allowed**

We ask that you do not talk or communicate with one another in any way. If you have any questions after we finish the instructions or at any time during the experiment, please raise your hand, and the experimenter will approach you and answer your question in private.

#### **Subjects**

You have been assigned a Subject ID, which appears on the top right of this sheet. This is used to track your decisions, but it is known only to you and the experimenter. You will never know the Subject ID of any other subject, and they will never know yours.

There are subjects in two other rooms, who are also participating in this experiment. We will call this room Room Z and the other rooms Rooms X and Y. Subjects in all rooms have Subject IDs that begin with the letter of their room, hence, subjects in this room have Subject IDs that begin with Z.

## **Two phases of experiment**

There are two phases to this experiment. In Phase 1, every subject in Rooms X and Y performs a task that involves preparing letters for mailing. For each letter correctly produced, 100 points are earned. **Each point is worth [¥ 1.5/1 cent], so each correct letter is worth [¥ 150/1 dollar].** Subjects in both rooms are working under the same conditions, with the same kind of materials and producing the same kind of letters. They also read the same instructions throughout the experiment. After this task is complete, the letters are counted, and the second phase begins. In Phase 2 of the experiment, X and Y subjects are matched together in groups of two. The points of the matched subjects are added up and credited to their group accounts. The people in this room, the Z Subjects, have been arbitrarily chosen to decide the allocation of these earnings between X and Y Subjects.

### **Phase 1 task**

Now we will explain the details of the first phase. Each of the subjects in Rooms X and Y has in front of them a stack of twenty green sheets, twenty blue sheets and twenty envelopes and to the right of their seat a sealed box. My assistant will now demonstrate the tasks they are to complete. They are to fold the sheets in thirds and put one green and one blue sheet separately in each envelope. Then they close the envelope but do not seal it, and put it through one of the two slots at each end of the box. They may accomplish these tasks in any way they wish as long as the basic results are obtained. Everyone will have five minutes to prepare the letters. The more letters they correctly prepare, the more points are credited to their group account.

### **Phase 2 Decision**

In Phase 2 of the experiment, each person in Room X is paired with one other person in Room Y to form an X/Y Pair consisting of two people. Similarly, every person in this room, Room Z, is matched with an X/Y Pair. Each X/Y Pair is assigned an account; the points credited to this account equal the sum of the points earned by the X Subject and the Y Subject in the Phase 1 task. All of the points in every account will be distributed in cash to the matched subjects who share that account. The subjects in this room, Room Z, have been chosen to allocate these earnings between their matched X Subject and Y Subject. For this task all Z Subjects will themselves receive a separate ¥1500/\$10 payment, which has nothing to do with the payments to their X/Y Pairs. This is in addition to the ¥750/\$5 on-time fee all subjects were already paid at the start.

In a moment the results of the task will be made available to you. The exact same information will also be made available to your X/Y Pair. The form you are about to receive will indicate separately for the X Subject and the Y Subject how many letters each correctly prepared, the total number prepared by both subjects, and how many total points have been credited to their account. The form will also include spaces for indicating how much, if any, of the total points you wish to allocate to your matched X Subject and how much, if any, to your matched Y Subject. This decision is completely up to you and is confidential. You just need to make sure that the total allocated to the two subjects equals the total available in their group account. You will have five minutes to make your decision and to place the form in the envelope provided. These forms will then be collected. After all Z Subjects have been paid and have departed, the individual results of the task and the Z Subject decisions will be sent to the X/Y Pairs along with

their payments. If you have any questions now or after you receive the form, raise your hand, and I will approach you to answer your question in private.

## **Phase 2 Instructions**

(Version V)

### **Matching of subjects**

In a moment, we will tell you the results of the Phase 1 task. For the purposes of calculating points to group accounts, subjects will be matched as follows. In this session, each person in Room X is paired with one other person in Room X to form an X Group. Similarly, each person in Room Y is paired with one other person in Room Y to form a Y Group. Each X Group in Room X is also matched with one Y Group in Room Y to form an X/Y Group consisting of four people: two X Subjects in an X Group plus two Y Subjects in a Y Group. Each X/Y Group is assigned an account; the points credited to this account equal the sum of the points earned by the X Group and the Y Group in the Phase 1 task.

### **Allocation of earnings**

The subjects in Room X have been arbitrarily chosen to decide how the total points in their accounts will be distributed between the X Group and the Y Group. The form you are about to receive will indicate how many letters the X Group and the Y Group combined correctly prepared, and how many total points have been credited to their X/Y Group account. For subjects in Room X, the form will also include spaces for indicating how much, if any, of the total points each X Group wishes to allocate to itself and how much, if any, to its matched Y Group. This decision is completely up to the X Group and is confidential. The X Group just needs to make sure that the total allocated to the two groups equals the total available in their X/Y Group account. X Groups will have five minutes to make their decision and to place the form in the envelope provided. During this phase of the experiment, the two subjects in each X Group may, of course, speak quietly with one another. They are not, however, to speak with other X Groups or to speak loudly enough to be heard by other groups. Each X Group will then put its decision in the envelope provided. If at the end of the five minutes, the two subjects in an X Group cannot agree on an allocation, one member of the group will be randomly chosen to make the allocation. These forms will then be collected, and the results sent to the matched Y Groups. At that point, the two subjects in each Y Group may speak quietly with one another. They are not, however, to speak with other Y Groups or to speak loudly enough to be heard by other groups. We will distribute the results as soon as they have been calculated. At that time, some subjects will be asked to stand up and change seats in order to sit next to the subject in their group. Please continue to sit and wait without talking until the results arrive. If you have any questions now or after you receive the form, raise your hand, and I will approach you to answer your question in private.

## **Further Phase 2 Instructions**

(Version VI)

### **No talking allowed**

Once again, we ask that you do not talk or communicate with one another in any way. You will have an opportunity to ask questions after we finish reviewing the instructions.

**Final decision**

The final decision of Phase 2 also concerns the distribution of earnings. Each X Group has now chosen an amount of the total points to allocate to itself and an amount to allocate to its matched Y Group. The current decision is how to allocate those amounts to the two subjects within each separate group in Room X and Room Y. This decision will be made independently for every group in Rooms X and Y. For each group, one person, called Subject A, will be arbitrarily chosen to decide how the points in their group account will be distributed between himself/herself, Subject A, and the other subject, called Subject B, in their group.

Each Subject A is about to receive a form that indicates, for his/her group, how many letters Subject A and Subject B each correctly prepared, the total number prepared by both subjects, and how many total points have been credited to their account according to the previous decision by the X Group. The form will also include spaces for indicating how much, if any, of the total available points Subject A wishes to allocate to himself/herself and how much, if any, to A's paired Subject B. This decision is completely up to Subject A. Subject A just needs to make sure that the total allocated to the two subjects equals the total available in their group account. Subject A will have five minutes to make this decision and to place the form in the envelope provided. These forms will then be collected. After all A Subjects have been paid and have departed, the individual results of the task and the A Subject decisions will be sent to the paired B Subjects along with their payments.

Please continue to sit and wait without talking until the results arrive. If you have any questions now or after you receive the form, raise your hand, and I will approach you to answer your question in private.

### General Questionnaire

Please answer these questions about yourself, indicating just one answer per question.

1. What is your college?

- |                                |                           |
|--------------------------------|---------------------------|
| 1 Business                     | 3 Liberal Arts            |
| 2 Communications and Fine Arts | 4 Science and Engineering |

2. What is your first major (if undeclared, write UD)?

\_\_\_\_\_

3. What year in college are you?

- |             |            |
|-------------|------------|
| 1 Freshman  | 3 Junior   |
| 2 Sophomore | 4 Senior   |
|             | 5 Graduate |

4. What is your age?

\_\_\_\_\_ years

5. What is your gender?

- |        |          |
|--------|----------|
| 1 Male | 2 Female |
|--------|----------|

6. What is your ethnicity (if several apply, please choose the one that you consider most accurate)?

- |                          |                                   |
|--------------------------|-----------------------------------|
| 1 Asian/Pacific-Islander | 4 Latino/Hispanic                 |
| 2 Black/African-American | 5 Middle-Eastern                  |
| 3 Caucasian              | 6 Native-American/American Indian |

7. What is your best estimate of your total expenditures this school year (September through May)? Please consider all expenses including tuition, housing, food, clothing, transportation, entertainment, etc., even if some are covered by financial aid or grants.

\$\_\_\_\_\_ for the current school year (September through May)

8. What was the total (gross) income last year of your parents or guardians? Exclude your own earnings. Please choose a single response, even if it is a guess.

- |                                   |                                    |
|-----------------------------------|------------------------------------|
| 1 \$0 to less than \$25,000       | 5 \$100,000 to less than \$125,000 |
| 2 \$25,000 to less than \$50,000  | 6 \$125,000 to less than \$150,000 |
| 3 \$50,000 to less than \$75,000  | 7 \$150,000 or more                |
| 4 \$75,000 to less than \$100,000 |                                    |

9. How many hours per week do you usually work (Enter 0 if none)?

\_\_\_\_\_ hours per week

10. Approximately how much money have you earned total through your work over the past year (the past twelve months)?

\$ \_\_\_\_\_

Please indicate your agreement or disagreement with the statements below on the four-point scale provided.

11. Consider the task in this experiment, and indicate your agreement or disagreement with this statement:

The performance of subjects on the task in this experiment was due mostly to things that they could control, like their effort or their decisions, as opposed to things they cannot control, like innate ability.

1	2	3	4
Strongly agree	Agree	Disagree	Strongly disagree

12. The basic needs of people for food, clothing and shelter differ greatly across individuals.

1	2	3	4
Strongly agree	Agree	Disagree	Strongly disagree

13. There should be the same income guarantee for all people.

1	2	3	4
Strongly agree	Agree	Disagree	Strongly disagree

14. The way for companies to be most productive and efficient is by minimizing differences in pay across workers.

1	2	3	4
Strongly agree	Agree	Disagree	Strongly disagree

15. The way for companies to be most productive and efficient is by paying workers according to their productivity.

1	2	3	4
Strongly agree	Agree	Disagree	Strongly disagree

Consider now the questions below. Respond on the nine-point scale provided, the key to which is repeated at the top of each of the following pages.

Please indicate your sense of the event's frequency or your degree of agreement with each statement below. Use the following scale where 1 means *never* or *definitely no* and 9 means *always* or *definitely yes*:

Never								Always
1	2	3	4	5	6	7	8	9
Definitely no								Definitely yes

1. I often do "my own thing."

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

2. One should live one's life independently of others.

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

3. I like my privacy.

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

4. I prefer to be direct and forthright when discussing with people.

1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---

Never									Always
1	2	3	4	5	6	7	8	9	
Definitely no									Definitely yes

5. I am a unique individual.

1      2      3      4      5      6      7      8      9

6. What happens to me is my own doing.

1      2      3      4      5      6      7      8      9

7. When I succeed, it is usually because of my abilities.

1      2      3      4      5      6      7      8      9

8. I enjoy being unique and different from others in many ways.

1      2      3      4      5      6      7      8      9

9. It annoys me when other people perform better than I do.

1      2      3      4      5      6      7      8      9

10. Competition is the law of nature.

1      2      3      4      5      6      7      8      9

11. When another person does better than I do, I get tense and aroused.

1      2      3      4      5      6      7      8      9

12. Without competition, it is not possible to have a good society.

1      2      3      4      5      6      7      8      9

13. Winning is everything.

1      2      3      4      5      6      7      8      9

14. It is important that I do my job better than others.

1      2      3      4      5      6      7      8      9

15. I enjoy working in situations involving competition with others.

1      2      3      4      5      6      7      8      9

16. Some people emphasize winning; I'm not one of them.

1      2      3      4      5      6      7      8      9

17. The well-being of my co-workers is important to me.

1      2      3      4      5      6      7      8      9

18. If a co-worker gets a prize, I would feel proud.

1      2      3      4      5      6      7      8      9

Never									Always
1	2	3	4	5	6	7	8	9	
Definitely no									Definitely yes

19. If a relative were in financial difficulty, I would help within my means.

1 2 3 4 5 6 7 8 9

20. It is important to maintain harmony within my group.

1 2 3 4 5 6 7 8 9

21. I like sharing little things with my neighbors.

1 2 3 4 5 6 7 8 9

22. I feel good when I cooperate with others.

1 2 3 4 5 6 7 8 9

23. My happiness depends very much on the happiness of those around me.

1 2 3 4 5 6 7 8 9

24. To me, pleasure is spending time with others.

1 2 3 4 5 6 7 8 9

25. I would sacrifice an activity that I enjoy very much if my family did not approve of it.

1 2 3 4 5 6 7 8 9

26. I would do what would please my family, even if I detested that activity.

1 2 3 4 5 6 7 8 9

27. Before taking a major trip, I consult with most members of my family and many friends.

1 2 3 4 5 6 7 8 9

28. I usually sacrifice my self-interest for the benefit of my group.

1 2 3 4 5 6 7 8 9

29. Children should be taught to place duty before pleasure.

1 2 3 4 5 6 7 8 9

30. I hate to disagree with others in my group.

1 2 3 4 5 6 7 8 9

31. We should keep our aging parents with us at home.

1 2 3 4 5 6 7 8 9

32. Children should feel honored if their parents receive a distinguished award.

1 2 3 4 5 6 7 8 9