Social Image and the 50-50 Norm:
A Theoretical and Experimental Analysis of Audience Effects
On-Line Appendices

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Appendix A
A Model with Costly Exit

Suppose that opting out permits the dictator to consume $y < x$. We will assume that, all else equal, the dictator is indifferent between remaining unknown to the recipient and having a social image with the recipient of B^*, where $\bar{t} > B^* > 0$; that is, the dictator would prefer to have the best possible image rather than remain unknown, and remain unknown rather than have the worst possible image.

We focus here on the analog of a blended-double pool equilibrium. We divide the types into three segments, $[0, t_0]$, $(t_0, t_1]$, and $(t_1, \bar{t}]$, where $t_0 \leq t_1$. For $t \in [0, t_0]$, the dictator opts out; for $t \in (t_0, t_1]$, $Q(t) = S_{t_0, x^*(t_0)}(t)$; and for $t \in (t_1, \bar{t}]$, $Q(t) = \frac{1}{2}$. This structure resembles that of a blended double-pool equilibrium with $x_0 = 0$, except that, instead of choosing $x = 0$, the lowest segment opts out. Type t_0 must be indifferent between opting out and separating (where separation involves his first-best alternative, $x^*(t_0)$). Opting out provides a type t dictator with the utility level $F(y, B^*) + tG\left(-\frac{y}{2}\right)$.Thus, the following indifference condition takes the place of equation (2) in the text:

$$F(y, B^*) + t_0 G\left(-\frac{y}{2}\right) = U(x^*(t_0), t_0, t_0).$$

For $t_0 = \bar{t}$, the right-hand side of the preceding expression is necessarily greater than the left; separating provides the dictator both with a better image and with a preferred distribution of consumption. If the penalty for opting out is sufficiently small (in other words, if y is sufficiently close to x), then, for $t_0 = 0$, the left-hand side is greater than the right-hand side; opting out provides a better image and virtually the same distribution of consumption. Therefore, with a small opt-out penalty, the solution is interior, which means that a positive mass of dictator types opts out.

Appendix B
Details of the Experimental Protocol

The design of our experiment addresses four main challenges.

First, we must gather a substantial amount of data from a limited subject pool at reasonable cost. Second, we must induce subjects to focus on *ex post* fairness within each game. Third, we must establish a salient audience and minimize the likelihood that a subject will concern himself with the inferences of some spurious audience. Finally, we must make sure that subjects comprehend both the game's information structure and the odds that govern nature's choices. Dictators must understand that if they select $x = x_0$, the receiver will not be able to determine whether nature or the dictator chose the allocation. In this appendix, we describe how particular design elements addressed these four challenges. On-line Appendix D contains copies of the subjects' instructions.

Each session included 20 subjects, all of whom were paid a $5 show-up fee. As they entered the experiment, participants were randomly assigned seats. Ten subjects sat on each side of the room. Those on one side were designated dictators, the others recipients. Each recipient was seated opposite the dictator with whom he or she was paired. Each pair was assigned a group number.

We began the experiment by asking each matched pair of subjects to stand and face each other, as in Bohnet and Frey (1999). They recited to each other the phrase, "Hello. I am in Group Number X . I am your partner." Subjects were told that one of them would be the "decision maker" (that is, the dictator), and that the other would be idle. Each dictator was given three envelopes. One, marked "blanks," contained nine decision sheets, described below. The other two, marked "completed" and "chosen," were empty.

We then assigned to each dictator a "private number" using the following procedure. Dictators came to the front of the room one at a time, and each rolled a die until he obtained a number between 1 and 4. This private number was then written in ink at the top of each of the dictator's decision sheets (which already included the dictator's group number). The

Decision Sheet 7

My group number is 5

My private number is ______

Private Numbers 1 and 2 make a choice:

> "Divide $20: I allocate ______ to myself, and ______ to my partner."

Private Numbers 3 and 4: we are forcing you to make this choice:

> Write "forced" on this line: _______________
>
> If the coin flip is Heads:
> "Divide $20: I allocate __$20_ to myself, and __$0_ to my partner."
>
> If the coin flip is Tails:
> "Divide $20: I allocate __$0__ to myself, and __$20__ to my partner."

Features of the decision sheet we will report to your partner:

Odds of an intended decision:	2 in 4 (50%)
Odds of a forced decision:	2 in 4 (50%)

Figure 1: Example Decision Sheet

subject was instructed not to share this private number with anyone else.

Each decision sheet corresponded to a separate modified dictator game. We used separate sheets for separate games to underscore the notion that the dictator should consider each game in isolation. Figure 5 is an example of a decision sheet.

Notice that the method of allocating the $20 prize in Figure 5 depends on the dictator's private number. For some private numbers, the dictator determined the allocation of the prize by filling in the blanks in the following statement:[1] "Divide $20: I allocate ______ to myself, and ______ to my partner." For other private numbers, the dictator made

[1] Subjects were asked to check that the amounts summed to 20. All choices did.

no decision, instead submitting to a rule for determining the allocation. In that case, the dictator was asked to write "forced" on the decision sheet. Because each dictator wrote something on each sheet whether or not he or she chose the allocation, participants were unable to infer whether a particular decision was forced by watching the dictator.

For the decision sheet in Figure 5, the forced-choice rule was to allocate \$20 to one partner and \$0 to the other based on an unobserved coin flip. This rule corresponds to condition 0 ($x_0 = 0$). We replace these values with \$19 and \$1 for condition 1 ($x_0 = 1$). Note that nature's rule treats the dictator and recipient symmetrically. With this symmetric rule, we are more confident that no subject will, for instance, choose $x = 20$ to balance out the possibility that nature might have chosen $x_0 = 0$. Since nature is equally likely to be nice or nasty to the recipient, $x = 10$ remains the most natural fair allocation.

Notice that the dictator makes choices *ex post* within each game, that is, after nature determines whether the dictator controls the allocation for that game. This design feature has several advantages. First, it focuses the dictator's attention on *ex post* fairness. Second, it eliminates possible spurious audience effects arising from the experimenter's ability to observe choices that turn out to be irrelevant within a given game. Third, it underscores the fact that the dictator, unlike the audience, knows whether nature is responsible for the outcome.

We varied the value of p from one decision sheet to the next by changing the set of private numbers for which the dictator chose the allocation. This procedure made the odds of forced decisions transparent. For example, for the decision sheet in Figure 5, dictators with private numbers of 1 or 2 chose the allocation of the prize. Consequently, this decision sheet corresponds to a modified dictator game with parameter values $x_0 = 0$ and $p = 0.5$. To assure transparency, we also listed the odds at the bottom of the decision sheet.

To guarantee that every dictator actually made at least one allocation decision for every value of p, we used nine decision sheets. The nine sets of private numbers for which the dictator chose the allocation were $\{1\}$, $\{2\}$, $\{3\}$, $\{4\}$, $\{1,2\}$, $\{3,4\}$, $\{1,2,3\}$, $\{2,3,4\}$, and

$\{1,2,3,4\}$. With the sets $\{1\}$, $\{2\}$, $\{3\}$, and $\{4\}$, one out of four dictators chose an allocation, so $p = 0.75$. Similarly, with the sets $\{1,2\}$ and $\{3,4\}$ we have $p = 0.5$, with sets $\{1,2,3\}$ and $\{2,3,4\}$ we have $p = 0.25$, and finally with the set $\{1,2,3,4\}$ all dictators chose allocations, so $p = 0$. Notice that we obtain at least one observation from each dictator for each p. [2]

Prior to each session, the order of the decision sheets was determined at random. However, all dictators within a single session filled out the sheets in the same order and at the same time. Once all private numbers had been assigned, dictators were instructed to remove the top decision sheet from the envelope marked "blanks." A copy of the sheet was displayed on an overhead projector so both dictators and recipients could see it. When subjects completed a form, they put it in the envelope marked "complete." Once all subjects completed a sheet, they were instructed to remove the next sheet from the "blanks" envelope.

After all nine forms were completed, the experimenter randomly selected the one that would be used to determine payments.[3] All dictators were instructed to remove the chosen decision sheet from the "complete" envelope and put it in the envelope marked "chosen." Both envelopes were sealed and the "chosen" envelopes were collected. Those envelopes were then handed to an assistant waiting outside the room. The assistant opened the envelopes in another room, determined payoffs, and placed earnings in "earnings envelopes" marked with the subjects' numbers. Without entering, the assistant returned the earnings envelopes to the original room, along with a summary of the outcomes. Since the assistant did not view any of the participants, it is doubtful that subjects regarded him as part of the audience.

The experimenter then wrote the final allocation for each pair on a board at the front of the room. The following example, which illustrates how outcomes would be displayed, was included in the subjects' instructions:

[2] For $p = 0.25$, we obtain one observation if the dictator's private number is 1 or 4 and two observations if that number is 2 or 3. In our experiment, 35 dictators actually made two decisions for $p = 0.25$. Of those, 29 made the same choice both times and 6 made different choices. When analyzing the data, we average the duplicative choices. Our results are not sensitive to this convention. Using the first, second, maximum, or minimum value leads to virtually identical conclusions.

[3] Randomization involved rolls of a 10-sided die. If a 10 appeared, the experimenter rolled the die again. Subjects observed this process.

Chosen Decision Sheet: 8
Odds of an intended decision: 1 in 4 (25%)
Odds of a forced decision: 3 in 4 (75%)

Group 1	Decision maker - $10	Partner - $10
Group 2	Decision maker - $20	Partner - $0
Group 3	Decision maker - $9.10	Partner - $10.90
Group 4	Decision maker - $18	Partner - $2
Group 5	and so forth...	

The subjects' instructions also made it clear that, in this example, all participants would be able to infer that the dictators in groups 1, 3, and 4 surely determined the allocations for their groups, while the allocation for group 2 might have been chosen either by the dictator or by chance. Subjects were also assured that the "complete" envelopes would be opened much later, and that at no time would anyone who had been present in the room view any of their decision sheets.

While subjects were waiting for their payments, they answered a questionnaire. This tested their understanding of the game by having them compute payoffs for both dictators and recipients in several examples, and state whether recipients could distinguish an intentional choice from a forced choice. All subjects—dictators and recipients—correctly answered the test questions, giving us confidence that the instructions were well understood.

As a check on our motivational assumptions, the questionnaire also asked about their goals and attitudes during the experiment. We discuss their responses in on-line Appendix C.

Appendix C
Analysis of Motivations

The theory developed in this paper is based on two main assumptions concerning preferences: first, that people are fair-minded to varying degrees; second, that people like others to see them as fair. As a check on the validity of those assumptions, we included in the subjects' questionnaire several questions concerning attitudes and motives. We acknowledge that answers to such questions are potentially open to interpretation and rarely suffice to prove or disprove an economic theory. However, since the motives envisioned in our model are nonstandard, we feel it is useful to supplement our examination of indirect behavioral evidence (discussed in the text) with direct evidence concerning objectives.

Subjects were presented with a list of possible objectives and asked to indicate the importance of each on a scale of 1 to 5, with 1 signifying "not important" and 5 signifying "very important." The list included the following three objectives: a) Making the most money I could; b) Being generous to my partner; c) Not getting caught when I chose X for me (where $X = 20$ in condition 0 and 19 in condition 1).

The importance of objective (a) should correlate with selfishness, while the importance of objective (b) should correlate with altruism or fairness. We would expect those who endorse (a) to be more likely to choose $x = x_0$, and those who endorse (b) to be more likely to choose $x = 10$. Statement (c) acknowledges a desire to mask intentions by disguising selfish actions. Those who endorse (c) should be more likely to select $x = x_0$ and less likely to choose $x = 10$, but only when $p > 0$.

We verify these hypotheses using random-effects probit models, which we report in Table D-1, below. Column (1) shows that endorsing (a) is strongly positively related to choosing $x = x_0$, while endorsing (c) is strongly positively related to choosing $x = x_0$ when $p > 0$, but not when $p = 0$, exactly as our theory predicts. Column (2) shows that endorsing (b) is significantly related to choosing $x = 10$, while endorsing (c) is significantly negatively related to choosing $x = 10$ when $p > 0$, but not when $p = 0$, again exactly as our theory predicts.

TABLE D-1

Random-effects probit models: marginal effects for regressions describing (1) the probability of choosing $x = x_0$,and (2) the probability of choosing equal division ($x = 10$), conditional on self-reported motivations, and interactions with an indicator for $p > 0$.†

	(1) $\Pr(x = x_0)$	(2) $\Pr(x = 10)$
a. Making money	0.351**	-0.161
	(0.125)	(0.109)
b. Being generous	-0.005	0.232*
	(0.100)	(0.092)
c. Not getting caught	0.011	0.064
	(0.082)	(0.065)
$a.\times 1(p > 0)$	0.101	-0.138*
	(0.070)	(0.067)
$b.\times 1(p > 0)$	-0.173	0.152*
	(0.099)	(0.071)
$c.\times 1(p > 0)$	0.296**	-0.180*
	(0.095)	(0.081)
Observations	236	236

†Standard errors in parentheses. Significance: ** at $\alpha < 0.01$, * at $\alpha < 0.05$

Appendix D

Instructions

GROUP NUMBER: _____

Welcome.

Welcome and thank you for participating. Just for agreeing to participate you will automatically be given $5 as a “thank you” payment. Anything else you earn today will be in addition to this.

Your Group Number

Your name will never be recorded in this study, or revealed to anyone. Instead, you will be known by your Group Number. This number is shown above.

Your Partner

You will be paired with another person in the room today. We’ll call this person your *partner*. The decisions made today will concern how much money you and your partner earn.

Before we tell you about the decisions, we will take a minute to introduce you to your partner. You and your partner have the same Group Number, but are sitting on opposite sides of the room.

We’ll start at the front of the room. We will first ask the two in Group Number 1 to stand and face each other. Then each should say to their partner, “Hello. I am in Group Number 1. I am your partner.” We’ll then ask Group 2 to do the same, and will repeat this for all groups.

Begin now with Group Number 1.

Please wait until all introductions are done before turning the page….

Your Task

Your group has been given $20 to divide between the two of you. Although you and your partner are in the same group, only one of the two partners will have responsibility for deciding for how to divide the $20.

Before the study today, we randomly selected those on the right/left side of the room as the ones who make decisions, while those on the left/right must accept the decisions made by their partners.

Even though only one of you makes decisions, it is very important for everyone to understand how decisions will be made, so please pay attention to all of the instructions.

Here's the basic procedure you'll use to divide up the $20.

The decision making partner will roll a die. ***None of the other participants in this study will see what number he/she rolls***. Depending on the roll of the die, one of the following two things will happen:

EITHER…

- We'll let the decision making partner chose a division of the $20 by filling in a line like the following:

  "Divide $20: I allocate ______ to myself, and ______ to my partner."

  Notice that the amounts in the two blank spaces must sum to $20.

  No one here will see what this person writes – not even his/her partner.

OR…

- We will automatically allocate $20 to one partner and $0 to the other partner. Someone in another room will flip a coin to determine which partner gets $20 and which get $0.

Everyone in this room will know how the $20 was divided between the two partners in each group. But no one will be told whether the decision making partner made this choice, or whether we made it automatically. No one will be told what number the deciding partner rolled, or whether the coin flip came up heads or tails.

Thinking about this from the point of view of the decision maker:

- If your division is $20 for yourself and $0 for your partner, no one will know whether this was your choice, or our choice.

- Likewise, if your division is $0 for yourself and $20 for your partner, no one will know whether this was your choice, or our choice.

- However, if you choose any other division – say $2, $10, or $15 for yourself and the rest for your partner – everyone will be able to figure out that you are responsible for this choice.

Thinking about this from the point of view of the other partner:

- If you are allocated $0, you won't know whether your partner made this choice, or whether we made it.

- Likewise, if you are allocated $20, you won't know whether your partner made this choice, or whether we made it

- However, if you are allocated any other amount – say $2, $10, or $15 – you'll know that your partner is responsible for this choice.

Thinking about this from the point of view of everyone else in the room:

- If you see that a decision maker is allocated $0, you won't know whether he/she made this choice, or whether we made it.

- Likewise, if you see that a decision maker is allocated $20, you won't know whether he/she made this choice, or whether we made it.

- However, if any partner receives any other amount – say $2, $10, or $15 – you'll know that the decision making partner is responsible for this choice.

The Decision Sheets

The decision maker will actually see nine sheets, with nine different decisions. These sheets are contained in the envelope marked “Blanks.” All of the decisions have the same form as the one we’ve just described. The only difference is that, for some decisions, the odds that the decision making partner gets to make a choice are higher than for others.

Only one of these decisions will count. After all decisions are made we will randomly select one of the nine decision sheets and use only that one decision sheet to determine payments. It makes good sense, therefore, to make each decision as though it will actually be carried out.

We’re going to start with the dice rolls. One by one, each decision maker will come to the front of the room, carrying the envelope containing the blank decision sheets. There he will roll a die until a number from 1 to 4 comes up. The number on the die will be his *private number*. To make sure he doesn’t forget this number, he’ll write it on each decision sheet before returning to his station. ***No one else will see this number.***

Here is what one of the Decision Sheets may look like:

Decision Sheet 7

My group number is 5

My private number is ______

Private Numbers 1 and 2 make a choice:

"Divide $20: I allocate ______ to myself, and ______ to my partner."

Private Numbers 3 and 4: we are forcing you to make this choice:

Write "forced" on this line: _______________

If the coin flip is Heads:
"Divide $20: I allocate __$20_ to myself, and __$0__ to my partner."

If the coin flip is Tails:
"Divide $20: I allocate __$0__ to myself, and __$20__ to my partner."

Features of the decision sheet we will report to your partner:
Odds of an intended decision: 2 in 4 (50%)
Odds of a forced decision: 2 in 4 (50%)

As you can see, on this Decision Sheet those who have drawn a private number of 1 or 2 actually get to make a choice. Those who have drawn 3 or 4 don't. For these subjects we will have someone outside of this room flip a coin. If the coin turns up heads, we force the decision maker to allocate all $20 to him/herself and $0 to his/her partner. However, if the coin turns up tails, we force the decision maker to allocate all $20 to his/her partner and $0 to him/herself. ***We won't tell anyone whether we've flipped a coin, or the result of the coin flip.***

Here, the odds are 2 in 4 (50%) that a decision maker makes a choice, and 2 in 4 (50%) that his choice is forced.

When we ask the decision makers to fill in this decision sheet, those with private numbers 1 and 2 will fill in their decisions. Those with private numbers 3 and 4 will just write "forced" on the line provided. This is to make sure everyone is writing something, so that no one can figure out your private number based on whether or not you're writing. (If someone who should not be making a decision mistakenly fills in a decision, we will ignore it.)

At the end of the experiment, everyone will know which decision sheet was used, and what the payment was to every person. However, no one will know any decision maker's private number, or whether the decision was forced, or whether the coin landed on heads or tails. We'll just write the features of the selected decision sheet and the outcomes on the board. That may look something like this:

Selected Decision Sheet:	7
Odds of an intended decision:	2 in 4 (50%)
Odds of a forced decision:	2 in 4 (50%)

Group 1	Decision maker - $10	Partner - $10
Group 2	Decision maker - $20	Partner - $0
Group 3	Decision maker - $0	Partner - $20
Group 4	Decision maker - $18	Partner - $2
Group 5 …and so forth.		

Though people will not be told whose decisions were forced and whose were not, they may be able to figure this out from choices. For example, if the results above came from the sample decision sheet we just saw, it would be clear that:

- The choice for the decision makers in groups 1 and 4 were definitely not forced. Since the allocation was *not* for one of the two partners to get $20 and one to get $0, the decision must have been intended. However,
- The choice for the decision maker in group 2 may or may not have been forced. Either he voluntarily chose $20 for himself and $0 for his partner, or we forced his choice and the coin we flipped for group 2 landed on Heads.
- The choice for the decision maker in group 3 may or may not have been forced. Either he voluntarily chose $0 for himself and $20 for his partner, or we forced his choice and the coin we flipped for group 3 landed on Tails.

To say this differently, imagine you are *not* the decider. If the allocation leaves both players something between $0 and $20, you know for sure that this choice was made by the decision maker. However, if the allocation leaves one player $20 and one $0, this can be for two reasons. First, the decision maker could have voluntarily chosen this allocation. Second, the decision maker could have chosen something else, but instead we applied the forced choice.

Here's another example Decision Sheet:

Decision Sheet 1

My group number is 3

My private number is ______

Private Numbers 1, 2, 3, and 4 make a choice:

"Divide $20: I allocate ______ to myself, and ______ to my partner."

There is no forced choice.

Features of the decision sheet we will report to your partner:

Odds of an intended decision:	4 in 4 (100%)
Odds of a forced decision:	0 in 4 (0%)

In this case there is no forced choice. If this is the decision sheet we select for payments, once again we'll write the outcomes on the board. In this case, everyone will know that every decision maker actually chose the outcome for his/her group.

Here is one more example Decision Sheet:

Decision Sheet 8

My group number is 6

My private number is ______

Private number 3 makes a choice:

"Divide $20: I allocate ______ to myself, and ______ to my partner."

Private numbers 1, 2, and 4: we are forcing you to make this choice:

Write "forced" on this line: _______________

If the coin flip is Heads:
"Divide $20: I allocate __$20_ to myself, and __$0__ to my partner."

If the coin flip is Tails:
"Divide $20: I allocate __$0__ to myself, and __$20__ to my partner."

Features of the decision sheet we will report to your partner:

Odds of an intended decision:	1 in 4 (25%)
Odds of a forced decision:	3 in 4 (75%)

Note that this is a lot like the first example except here the odds are 1 in 4 that a decision maker makes a choice, and 3 in 4 that his decision is forced.

If this is the decision selected for payments, once again we'll write the features of the sheet and the outcomes on the board. It may look something like this:

Decision Sheet:	8
Odds of an intended decision:	1 in 4 (25%)
Odds of a forced decision:	3 in 4 (75%)

Group 1	Decision maker - $10	Partner - $10
Group 2	Decision maker - $20	Partner - $0
Group 3	Decision maker - $9.10	Partner - $10.90
Group 4	Decision maker - $18	Partner - $2
Group 5 …and so forth.		

Again, people will not be told whose decisions were forced and whose were not. As before, however, they may be able to figure this out from choices. In this example, it would be clear that:

- The choices for the decision makers in groups 1, 3, and 4 were definitely not forced. Since both people got an allocation between $0 and $20, this must have been intended. However,
- The choice for the decision maker in group 2 may or may not have been forced. Either the decision maker voluntarily chose to take $20, or we used the forced choice and the coin flip for group 2 landed on heads.

To say this differently, imagine you are the decision maker and are using the decision sheet above. Suppose that your choice is $19 for yourself and $1 for your partner. Then you can be sure that when your partner sees the allocation he will know that you are responsible for this division. Suppose, instead, that you chose $20 for yourself and $0 for your partner. Then your partner will definitely be told the that he/she will get $0 but he/she will never know for sure whether you voluntarily chose $20 for yourself or were forced to do it.

Finally, imagine you are the decision maker and that we are using a decision sheet where you do *not* get to make a choice. Then, depending on the result of the coin toss, your partner will either be told the allocation is $20 for you and $0 for him/her, or $0 for you and $20 for him/her. But your partner will never know whether the allocation was chosen by you for whether it was the forced decision.

Some procedures

We will go through each Decision Sheet together. When we begin, we will ask you to take the top Decision Sheet from the envelope marked “Blanks.” We will show this on the overhead. Make a decision if you are free to do so, or write “forced” in the designated line if you are not. When you are done, put the completed Decision Sheet in the envelope marked “Complete.” When everyone is done, we will then turn to the next Decision Sheet.

When we have finished all of the Decision Sheets, we will randomly choose a number to determine which Decision Sheet will apply. You will take this Decision Sheet – and ONLY this sheet -- out of the envelope marked “Complete,” and put it in the envelope marked “Selected.”

You will then seal both envelopes, and we will collect them.

The envelope marked “Complete,” which will contain all the Decision Sheets we are NOT using, will be opened much later, and the person opening it won’t have any idea who filled these sheets out. ***No one here will see the unused sheets.***

We will hand the envelopes marked “Selected” to an assistant who is not currently in this room. The assistant will compile the results, put the payments in envelopes, return all of this to me, and then leave. ***No one else will see the selected decision sheet.***

We will then write the odds of a forced choice and the outcome for each group on the board. Remember, though, that we won’t indicate whether or not any decision was forced. Then we’ll hand the payments out, calling the groups one by one. After that, you will all be free to leave.

Summary:

- Each group has been given $20 to divide between the two partners.
- One person in a group will get to make decisions.
- Every decision maker will have a randomly chosen private number, which only they will know.
- There are 9 Decision Sheets. For each sheet, depending on a person's private number, they will either be free to make a choice, or their decision will be forced.
- If their decision is forced, we will flip a coin for that group to determine whether the allocation will be $20 for the decision maker and $0 for the partner (Heads), or $0 for the decision maker and $20 for the partner (Tails).
- After all decisions are made we will randomly choose one of the decision sheets to determine payments. Everyone will know which decision sheet we've chosen.
- If a person *voluntarily* chooses $20 for one person and $0 for the other, there is no way for their partner or anyone else to tell whether their particular decision was made or forced.
- If a person *voluntarily* chooses something different from $20 for one person and $0 for the other, then their partner and everyone can be sure that this is the choice they intended.
- Before we give you your payment envelopes, we will write on the board both the features of the selected decision sheet and all of the final payments to all participants, by Group Number.

We can begin by asking the decision maker in Group 1 to come up and roll the die to determine his/her Private Number.

Decision Sheet 1

My group number is ______

My private number is ______

Private Numbers 1, 2, 3, and 4 make a choice:

> "Divide $20: I allocate ______ to myself, and ______ to my partner."

There is no forced choice.

Features of the decision sheet we will report to your partner:

Odds of an intended decision:	4 in 4 (100%)
Odds of a forced decision:	0 in 4 (0%)

Decision Sheet 2

My group number is ______

My private number is ______

Private number 3 makes a choice:

“Divide $20: I allocate ______ to myself, and ______ to my partner.”

Private numbers 1, 2, and 4: we are forcing you to make this choice:

Write “forced” on this line: _______________

If the coin flip is Heads:
“Divide $20: I allocate __$20_ to myself, and __$0__ to my partner.”

If the coin flip is Tails:
“Divide $20: I allocate __$0__ to myself, and __$20__ to my partner.”

Features of the decision sheet we will report to your partner:

Odds of an intended decision:	1 in 4 (25%)
Odds of a forced decision:	3 in 4 (75%)