Online Appendix 1 to "Narrow Bracketing and Dominated Choices": Part II of the laboratory experiment

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In the second part of the laboratory experiment, we tried out different lottery-choice problems that also addressed narrow-bracketing issues. These problems were used as a pre-test for the survey experiment, and potentially for further laboratory experiments. The initially announced payoff regime with respect to real versus hypothetical payments was always maintained in the second part. As mentioned in the main text, the second part also guaranteed an average overall payoff of about £22.

The first two treatments of the laboratory experiment, (Incentives-Small Scale and Flat Fee-Small Scale) were conducted with analogous second parts, which differed only with respect to real/hypothetical payments. In each of the two treatments, the first set of sessions (sessions 1 and 2 in the first treatment, and sessions 5 and 6 in the second treatment) first involved the Example 1 choices described in the text, and then a single investment choice for each participant, which followed the design of Redelmeier and Tversky (1992). Each participant was randomly assigned to one of the following three choices (presented to the participants without the labels in brackets, and with the sentence in curly parentheses only for participants in the first treatment):

[One Gamble:] You now have the opportunity to play a gamble that offers a 50% chance to win £4 and a 50% chance to lose £2. {The gamble will be payoff relevant, i.e. all gains and losses will be added to your overall payment.} Which of the following do you choose?

[Y1.] Play the gamble.

[N1.] Do not play the gamble.

[Five v Six Gambles:] You now have the opportunity to play a gamble that offers a 50% chance to win £4 and a 50% chance to lose £2.

You can play the gamble several times, not just once. For each gamble that you play (50% chance to win £4 and 50% to lose £2), there will be a separate coin flip. Which of the following do you choose?

[Y2.] Play the gamble six times.

[N2.] Play the gamble five times.

[Five v Five-Plus-One Gambles:] You now have the opportunity to play a gamble that offers a 50% chance to win £4 and a 50% chance to lose £2.

You can play the gamble several times, not just once. For each gamble that you play, there will be a separate coin flip.

You will play the gamble (50% chance to win £4 and 50% chance to lose £2) five times, but you do not yet know your wins and losses. Which of the following do you choose?

[Y3.] Play the gamble for the sixth time.

[N3.] Do not play the gamble for the sixth time.

In the remaining Incentives-Small Scale sessions 3 and 4, after the Example 1 choices, the participants received a sheet that (i) announced an increase in the show-up fee by £10, and (ii) reminded them of the overall expected payoff of £22. Then they faced the following two choices, similar to Example 2:

[Example 2':]You face the following pair of concurrent decisions. First examine both decisions, then indicate your choices, by circling the corresponding letter. Both choices will be payoff relevant, i.e. the gains and losses will be added to your overall payment.

Decision 3: Choose between

E. a sure gain of £0.50

F. a 50% chance to gain £6.00 and a 50% chance to lose £4.00.

Decision 4: Choose between

G. a sure loss of £5.00

H. a 50% chance to lose £10.00, and a 50% chance to lose £0.00.

In the remaining session of the Flat Fee-Small Scale treatment, the participants also received an additional sheet after the Example 1 choices, which reminded them of (i) the fact that all payments were hypothetical, and (ii) that the participation fee was £22. Then they faced the same two choices

of Example 2', except for the sentence concerning the payoff relevance. As the final two sheets in both treatments, the participants received the math problems and the personal questionnaire.

Table OA1.1 summarizes the choice frequencies of these two treatments, split up according to the different choices in the second part.

Sessions	# of obs.	A and C	A and D	B and C	B and D	Y1	Y2	Y3	E and G	E and H	F and G	F and H
1,2	33	0.18	0.24	0.15	0.42	11/11	8/11	8/11	-	-	-	-
3,4	20	0.25	0.35	0.05	0.35	-	-	-	0.05	0.00	0.35	0.60
5,6	35	0.17	0.37	0.11	0.34	11/12	12/12	11/11	-	-	-	-
7	9	0.13	0.52	0.30	0.36	-	-	-	0.00	0.11	0.11	0.78

Table OA1.1: Choice frequencies in the first two treatments.

In the the first two sessions of the third treatment (sessions 8,9), Incentives-Small Scale-Broad Presentation, the participants first made the four-way choice of Example 1, then they received a sheet that announced an increase in the show-up fee by £10, then they filled in the personal questionnaire, then they received the following choices, which are analogous to Example 2 (but with smaller payoffs):[1]

[Example 2":]You face the following pair of concurrent decisions. First examine both decisions, then indicate your choices, by circling the corresponding letter. Both choices will be payoff relevant, i.e. the gains and losses will be added to your overall payment.

Decision 2: Choose between

E. a sure gain/loss of £0.00

F. a 50% chance to gain £6.00 and a 50% chance to lose £5.00

Decision 3: Choose between

G. a sure loss of £5.00

H. a 50% chance to gain/lose £0.00, and a 50% chance to lose £10.00

Finally, the participants received the math problems.

In the remaining two sessions of this treatment (sessions 10,11), the procedure was the same, but

[1]The order of choice options within the two decisions was randomized across participants in this treatment. In the other treatments, the order was always constant.

instead of the Example 2" choices, the participants received three sheets asking for their certainty equivalents for the three 50/50 gambles between -£10.00 and £0.00, -£5.00 and £5.00, and £0.00 and £10.00. For the example of the second of these three tasks, the wording was the following:

[CE for {-5,5}:]Consider the following uncertain gain/loss:

U: a 50% chance to gain £5.00 and a 50% chance to lose £5.00

Also consider the following fixed gain/loss:

V: a sure gain/loss of £Z

The exact value of Z is randomly chosen at the end of the experiment: All multiples of £0.10 that lie between -£4.90 and +£5.00 are equally likely. Negative numbers indicate that you lose, and positive numbers indicate that you gain.

Make the following choice:

I want to make the fixed gain/loss V if the gain/loss £Z is higher than £_____ (insert a number between -5.00 and +5.00). If £Z is lower than or equal to that, I want to make the uncertain loss U.

In the Flat Fee-Large Scale treatment (sessions 12, 13, 14 and 15), the procedure was analogous to sessions 8,9 of the Incentives-Small Scale-Broad Presentation treatment, except for differences with respect to paid/hypothetical payments and small/large payoff scale: The participants first made their (separately presented) Example 1 choices, then received a sheet that reminded them of the show-up fee, then filled in the personal questionnaire, then made the same choices as in Example 2", but with all payoff numbers mulitplied by 100, and finally answered the math problems.

Table OA1.2 summarizes the lottery choice frequencies in the last two treatments. Table OA1.3 reports the mean responses in the CE tasks of sessions 10 and 11 (with standard deviation in parentheses), as well as the mean across participants of the variation in the participant's risk premia between two lotteries (reported for two of the three pairs of lotteries). In each participant's

case, a value of 0 would indicate constant absolute risk aversion between the two lotteries.

Sessions	# of obs.	A and C	A and D	B and C	B and D	E and G	E and H	F and G	F and H
8,9	21	0.14	0.00	0.33	0.52	0.29	0.05	0.24	0.43
10,11	24	0.08	0.00	0.42	0.50	-	-	-	-
12,13,14,15	48	0.15	0.54	0.08	0.22	0.15	0.21	0.15	0.50

Table OA1.2: Choice frequencies in the last two treatments.

Sessions	# of obs.	CE for {-10,0}	CE for {-5,5}	CE for {0,10}	difference in π between {0,10} and {-10,0}	difference in π between {0,10} and {-5,5}
10,11	24	-4.40	0.45	4.97	-0.63	-0.48
		(1.67)	(2.38)	(2.09)	(2.90)	(2.72)

Table OA1.3: Certainty equivalent statements.