

ONLINE APPENDIX TO: “SALIENCE AND SKEWNESS PREFERENCES”

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Appendix D: Two Experiments on Saliency and Skewness

D.1. Instructions

Information about the experiment

Welcome to this experimental study. Please do not talk to other participants or use your mobile from now on and throughout the entire experiment. Please read the following instructions carefully. For the successful completion of the experiment it is important that you have fully understood the instructions. Should you have any questions at any point in time please raise your hand. An experimenter will then answer your questions at your seat.

In this experiment you can earn an experimental currency (Taler) which will be converted into Euro at the end of the experiment. The conversion rate is

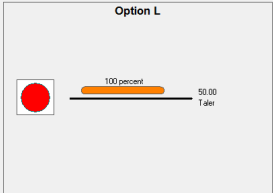
1 Euro = 2 Taler.

Altogether you will make 12 decisions. These decisions only concern your personal preferences, there are no right or wrong answers. You choose between two choice options that are denoted (L) and (R). Option (L) always denotes a safe option that gives you a certain payoff with 100% probability. Option (R) gives you a payoff that depends on a turn of the wheel of fortune with 100 fields that is simulated by your computer. In the following we show you some examples. Please study them carefully.

Example 1:

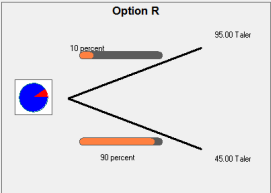
Decision 1
Please choose between Option L and Option R.

Option L



100 percent
50.00 Taler

Option R



10 percent 95.00 Taler
90 percent 45.00 Taler

Please choose.

L

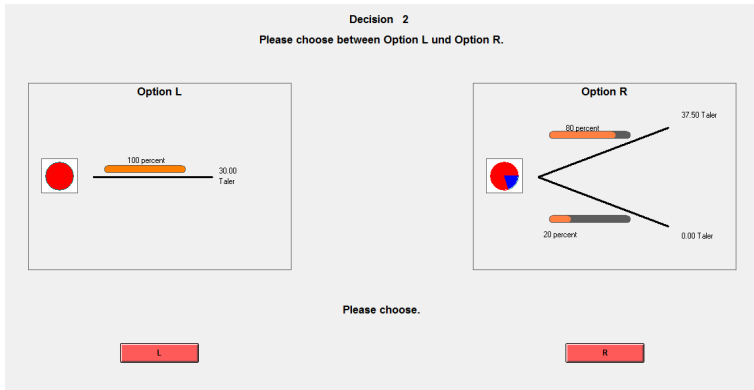
R

Option (L): You obtain 50 Taler.

Option (R): You obtain 45 Taler with 90% probability (that is, if the wheel of fortune stops on fields 1-90) and 95 Taler with 10% probability (that is, if the wheel of fortune stops on fields 91-100).

FIGURE D.1. Instructions for Experiment 1, translated into English (first part).

Example 2:



Option (L): You obtain 30 Taler.

Option (R): You obtain 0 Taler with 20% probability (that is, if the wheel of fortune stops on fields 1-20) and 37.5 Taler with 80% probability (that is, if the wheel of fortune stops on fields 21-100).

Payoffs:

At the end of the experiment the computer will choose one of your 12 choice tasks randomly. If you have chosen (L) in this task you will receive the according sum. If you have chosen (R) your payoff will be determined through the simulation of the turn of a wheel of fortune. Your payoff will be paid in cash at the end of the experiment.

Please look carefully at each of the 12 choice tasks. Between tasks the payoff probabilities and the corresponding payoffs change.

FIGURE D.2. Instructions for Experiment 1, translated into English (second part).

Information about the experiment

Welcome to this experimental study. Please do not talk to other participants or use your mobile from now on and throughout the entire experiment. Please read the following instructions carefully. For the successful completion of the experiment it is important that you have fully understood the instructions. Should you have any questions at any point in time please raise your hand. An experimenter will then answer your questions at your seat.

In this experiment you can earn an experimental currency (Taler) which will be converted into Euro at the end of the experiment. The conversion rate is

1 Euro = 4 Taler.

Altogether you will make 12 decisions. These decisions only concern your personal preferences, there are no right or wrong answers. You choose between two choice options that are denoted A and B. The payoffs of these options depend on a turn of the wheel of fortune with 100 fields that is simulated by your computer. The probability of being hit is the same for all fields. In the following we show you some examples. Please study them carefully.

Example 1:

Decision 2
Please choose between Option A und Option B.

	Fields 1-90	Fields 91-100
Option A	120	0
Option B	96	216

A

B

If the wheel of fortune stops on fields 1-90 (that corresponds to a 90% probability) with Option A you will receive exactly 120 Taler and with Option B exactly 96 Taler. If the wheel of fortune stops on fields 91-100 (that gives a 10% probability) you will receive with Option A exactly 0 Taler and with Option B exactly 216 Taler.

FIGURE D.3. Instructions for Experiment 2, translated into English (first part).

Example 2:

Decision 1
Please choose between Option A und Option B.

	Fields 1-36	Fields 37-72	Fields 73-100
Option A	90	40	90
Option B	104	54	54

A

B

If the wheel of fortune stops on fields 1-36 (that corresponds to a 36% probability) with Option A you will receive exactly 90 Taler and with Option B exactly 104 Taler. If the wheel of fortune stops on fields 37-72 (that gives a 36% probability) you receive with Option A exactly 40 Taler and with Option B exactly 54 Taler. If the wheel of fortune stops on fields 73-100 (that corresponds to a 28% probability) you receive with Option A exactly 90 Taler and with Option B exactly 54 Taler.

Payoffs:

At the end of the experiment the computer will choose one of your 12 choice tasks randomly. This choice task is payoff relevant. Your payoff will be determined through the simulation of the turn of a wheel of fortune. Assume, for instance, the choice task given in Example 1 is payoff relevant and the wheel of fortune stops on field 93. If you have chosen option A you will receive 0 Taler. If you have chosen Option B you will receive 216 Taler.

Your payoff will be paid in cash at the end of the experiment.

Please look carefully at each of the 12 choice tasks. Between tasks the payoff probabilities and the corresponding payoffs change.

FIGURE D.4. Instructions for Experiment 2, translated into English (second part).

D.2: Additional Results

Experiment 1. We report further results of Experiment 1. Table D.1 presents the numbers underlying Figure 3, and Figure D.5 illustrates additional results regarding our within-subjects predictions. In particular, we have estimated the Regression Model (1) of Table 4 for each subject separately and plot the point estimates for the coefficient on the lottery’s skewness together with the corresponding 95%-confidence intervals. We observe that—in line with Proposition 3—the point estimates are positive for the majority of subjects.

TABLE D.1. *Descriptives for Experiment 1.*

	Choice of lottery for $E = 30$		Choice of lottery for $E = 50$	
	# of choices	% of choices	# of choices	% of choices
$S = -1.5$	2	3%	7	11%
$S = -0.6$	3	5%	9	15%
$S = 0$	9	15%	15	24%
$S = 1.5$	22	35%	43	69%
$S = 2.7$	34	55%	47	76%
$S = 6.9$	49	79%	52	84%

Notes: The table presents the number and share of risk seeking choices for each combination of skewness level and expected value.

Experiment 2. In the following, we provide further results on Experiment 2. Table D.2 presents the numbers underlying Figure 4, and Figure D.6 illustrates the results for the combined data separately for each Mao pair. In particular, we find that the results are robust across Mao pairs.

TABLE D.2. *Descriptives for Experiment 2.*

		Perfectly Negative Correlation		Maximal Positive Correlation	
		# of choices	% of choices	# of choices	% of choices
Initial Study	$S = 2.7$	224	95%	214	90%
	$S = 0.6$	145	61%	113	48%
Replication	$S = 2.7$	313	92%	318	94%
	$S = 0.6$	216	64%	175	52%
Combined	$S = 2.7$	537	93%	532	92%
	$S = 0.6$	361	63%	288	50%

Notes: The table presents the number and share of choices of the right-skewed lottery of a Mao pair pooled over all symmetric and skewed Mao pairs, respectively, as introduced in Table 3. We present results separately for the initial study and the replication as well as the combined results for both studies.

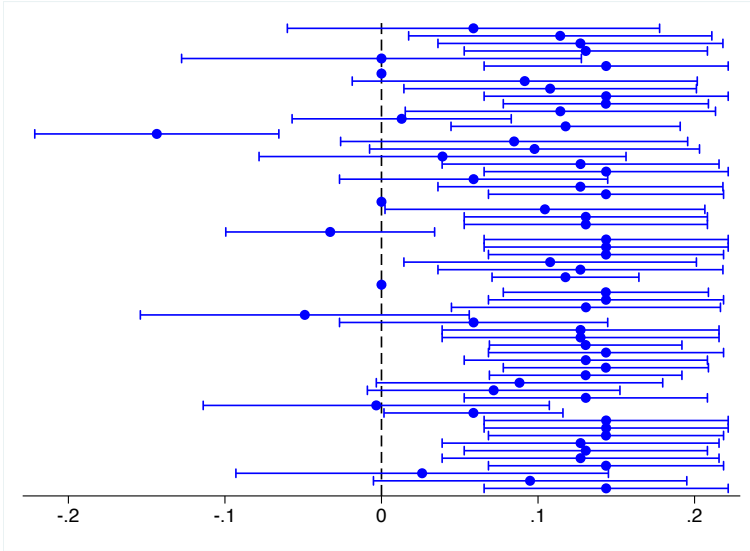


FIGURE D.5. The figure illustrates the point estimates and 95%-confidence intervals for the coefficient on the risky option's skewness in individual-level versions of Regression Model (1) presented in Table 4. Each of the 62 point estimates corresponds to a specific subject and is based on twelve observations at six different skewness levels. A positive coefficient implies that the average probability that this subject chooses the lottery over its expected value increases with the lottery's skewness. Due to the small number of observations per subject the confidence intervals should be interpreted with caution.

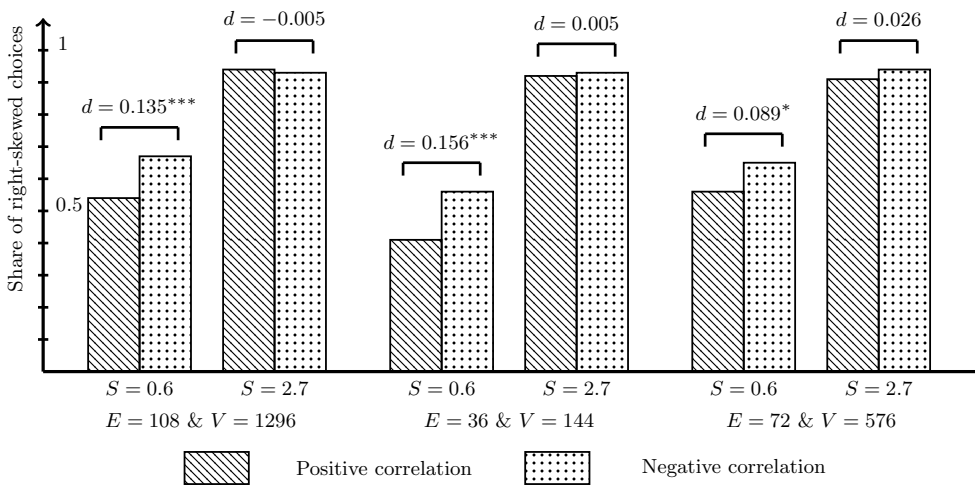


FIGURE D.6. The figure illustrates the share of choices of the right-skewed lottery under the maximal positive and the perfectly negative correlation, respectively. We present the combined results for both studies separately for each Mao pair. We further report the results of paired t-tests. Significance level: *: 10%, **: 5%, ***: 1%.

Finally, we extend our analysis of relative skewness by regressing a binary indicator of whether the right-skewed lottery of a given Mao pair is chosen on the left-skewed lottery's relative skewness (see Table D.3). We find that the average probability of choosing the right-skewed lottery of a Mao pair significantly decreases in the relative skewness of the left-skewed lottery. Figure D.7 presents individual-level versions of our regression model using the combined data, and we observe that—in line with Proposition 5—the majority of point estimates are negative.

TABLE D.3. *Additional regressions for Experiment 2.*

Parameter	Initial Study	Replication	Combined
Constant	0.602*** (0.025)	0.635*** (0.021)	0.622*** (0.016)
Relative Skewness	-0.140*** (0.011)	-0.126*** (0.010)	-0.132*** (0.007)
# Subjects	79	113	192
# Choices	948	1,356	2,304

Notes: *The table presents the results of OLS regressions of a dummy indicating the choice between the lotteries of a Mao pair (which takes a value of one if the subject chooses the right-skewed lottery and a value of zero otherwise) on the relative skewness of the left-skewed lottery. All standard errors are clustered at the subject level and provided in parenthesis. Significance level: *: 10%, **: 5%, ***: 1%.*

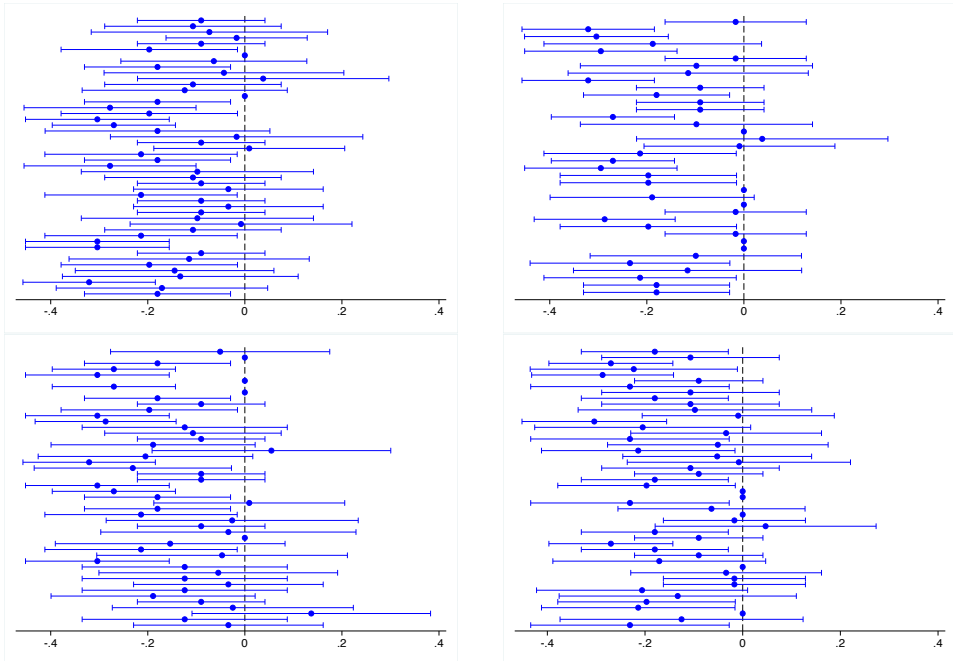


FIGURE D.7. The figure illustrates the point estimates and 95%-confidence intervals for the coefficient on the left-skewed lottery's relative skewness in individual-level versions of the regression model presented in Table D.3 using the combined data. Each of the 192 point estimates corresponds to a specific subject and is based on twelve observations. A negative coefficient implies that the average probability that this subject chooses the right-skewed lottery decreases with the left-skewed lottery's relative skewness. But due to the small number of observations per subject the confidence intervals should be interpreted with caution.