• Two-sample t test comparing Coefficient of EV in a logistic regression on choice in simple versus simple condition against complex versus complex condition in a mixed-effects regression participant-level intercept and slope.

We expect higher Coefficient of EV in simple versus simple condition than in complex versus complex condition.

• Two-sample t test comparing percentage of risky choices in simple versus simple condition against complex versus complex condition. We have no theoretical reasons to expect a significant difference when we assume that complexity might increase processing noise equally for risky and not the risky (in terms of variance) options.

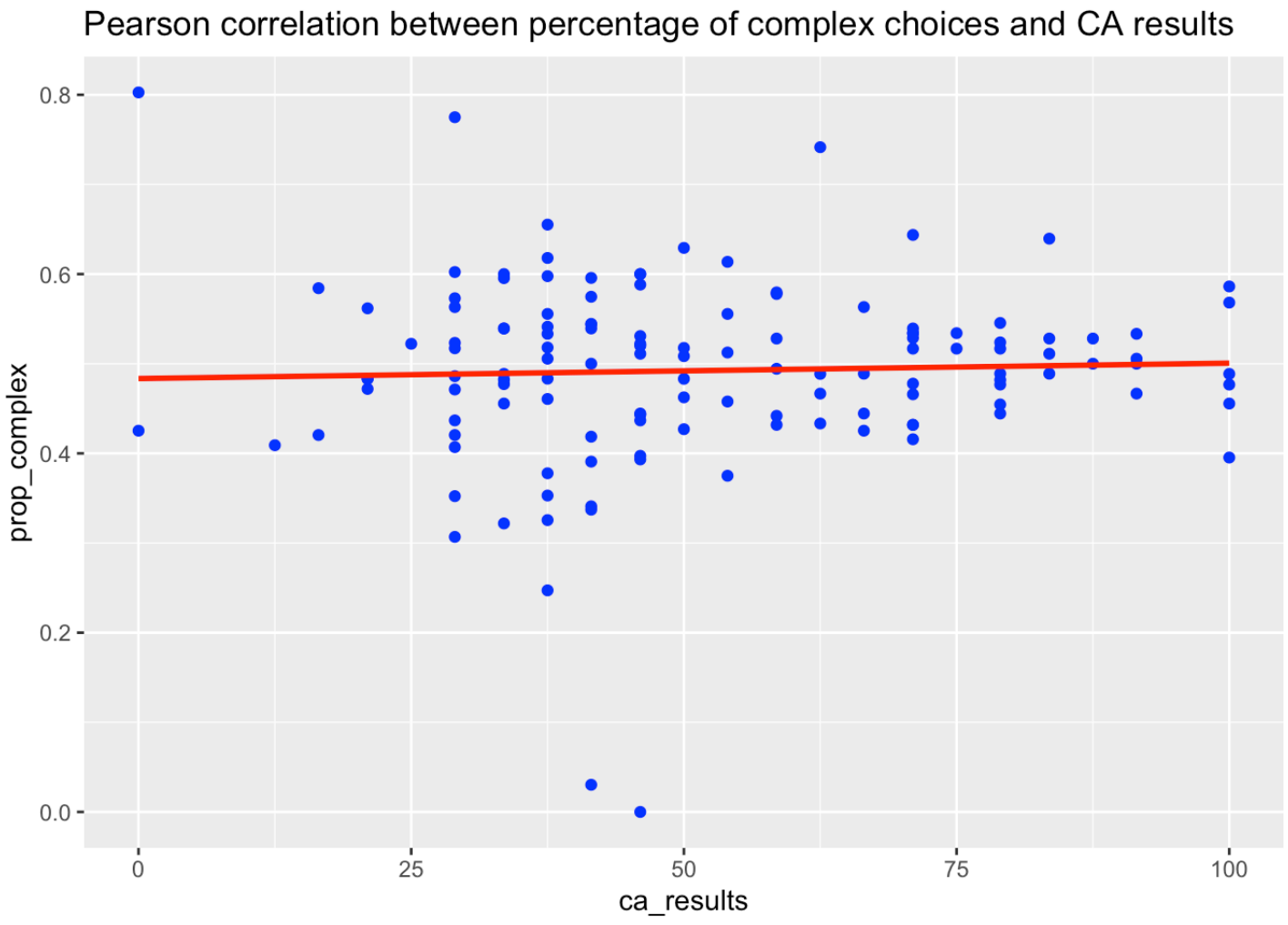
	Condition	cc_mean	ss_mean	t_value	df	p_value	conf_interval_lower	conf_interval_upper
t	risky choice proportion in cc and ss	0.4858764	0.4574342	-3.496096	131	0.000645	-0.0445359	-0.0123484

Correlation Hypotheses

Hypothesis 4.1: Pearson correlation test between percentage of complex choices in the condition simple versus complex and averaged cognitive ability test scores

We expect positive correlation

	Estimate	P_Value	Confidence_Interval_Lower	Confidence_Interval_Upper
cor	0.0374414	0.6699427	-0.1342902	0.2069895



skewness test

separate t-tests for just the subset of trials were the complex option is right-skwed as well as for the subset of trials were the complex option is left-skewed.

Also in the cc and ss conditions, test the choice proportion of option A when option A is right-skwed or left-skwed

Result Table of cs condition:

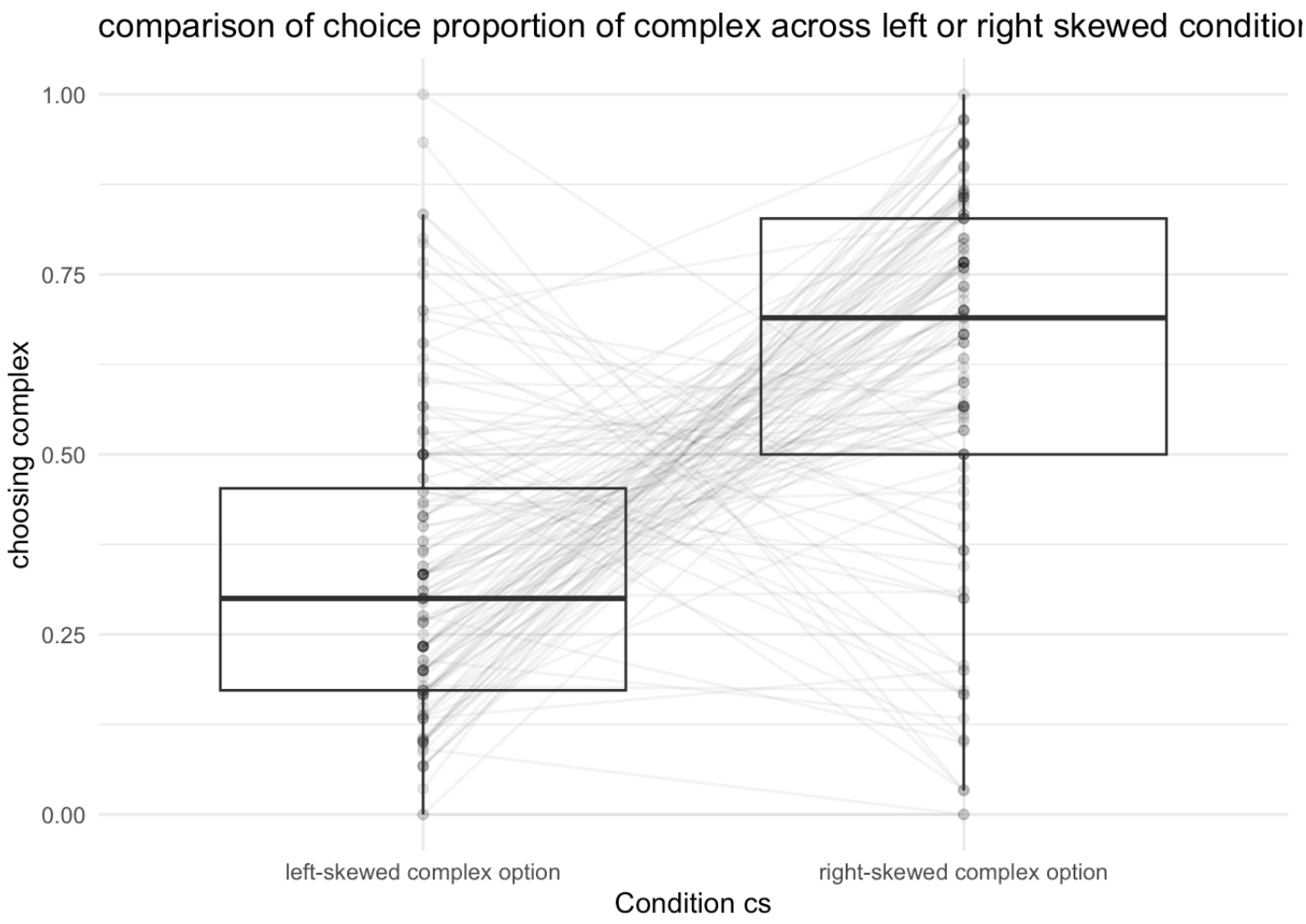
Condition	right_mean	left_mean	t_value	df	p_value	conf_interval_lower	conf_interval_upper

t	complex choice proportion when complex is right or left skewed	0.6259546	0.3356098	8.408476	131	0	0.2220362	0.3586534

people seems to prefer right-skewed complex option but hate left-skewed complex option.

right-skewed means the probability of lower outcome is > .80

The plot of choice proportion:



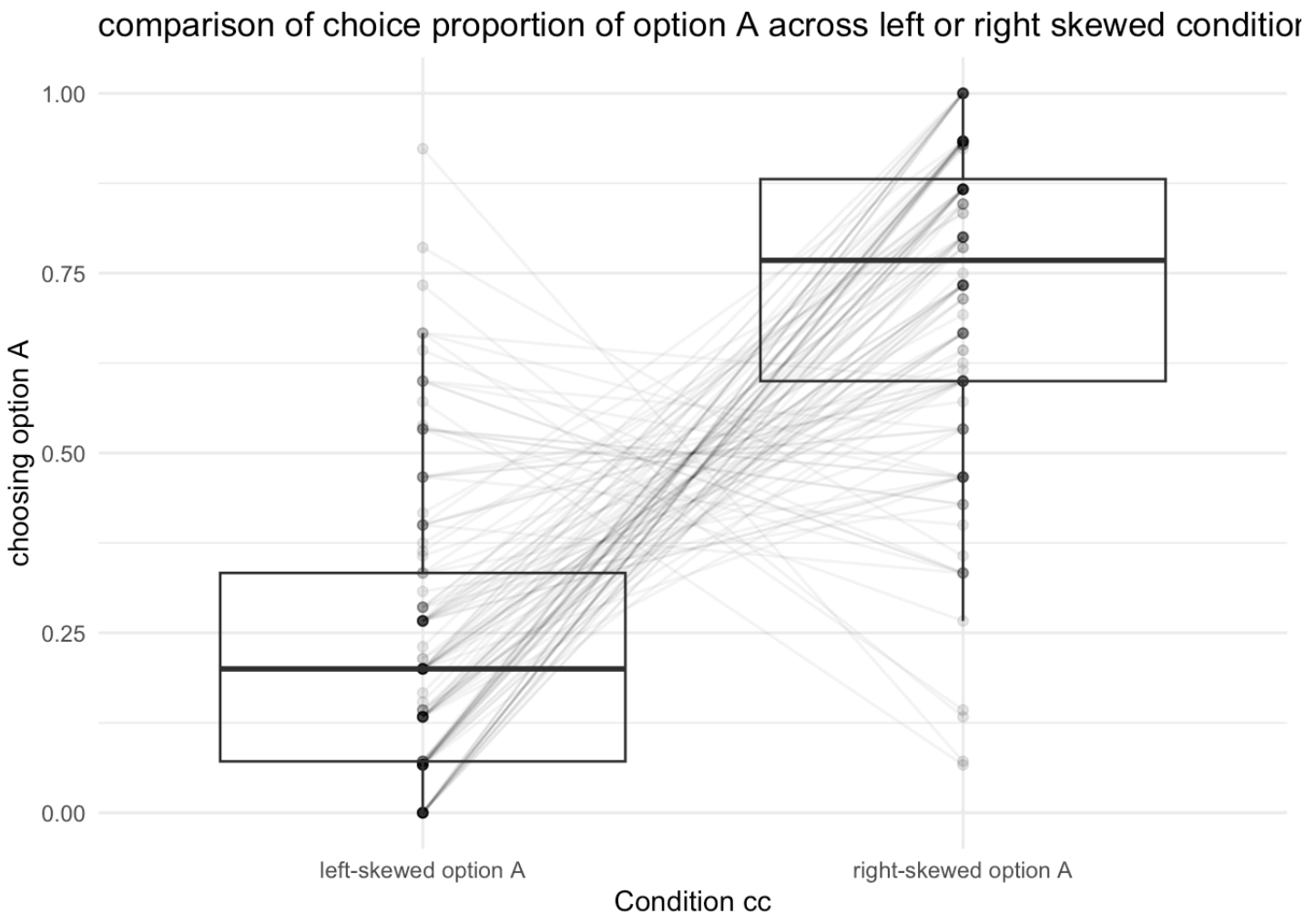
Also in the cc condition people seems to prefer right-skewed option A but hate left-skewed option A.

	Condition	right_mean	left_mean	t_value	df	p_value	conf_interval_lower	conf_interval_upper
t	choice proportion when option A is right or left skewed in cc condition	0.7205621	0.2385975	13.93239	131	0	0.4135312	0.550398

evd_bins	sdd_bins	prop_A	count
-19 to -21	4 to 6	0.1209677	124
-19 to -21	9 to 11	0.1250000	128
-19 to -21	14 to 16	0.1250000	128
-9 to -11	4 to 6	0.1484375	128
-9 to -11	9 to 11	0.0859375	128
-9 to -11	14 to 16	0.1153846	130
1 to -1	4 to 6	0.1472868	129
1 to -1	9 to 11	0.2230769	130
1 to -1	14 to 16	0.1904762	126
11 to 9	4 to 6	0.3228346	127
11 to 9	9 to 11	0.1680000	125

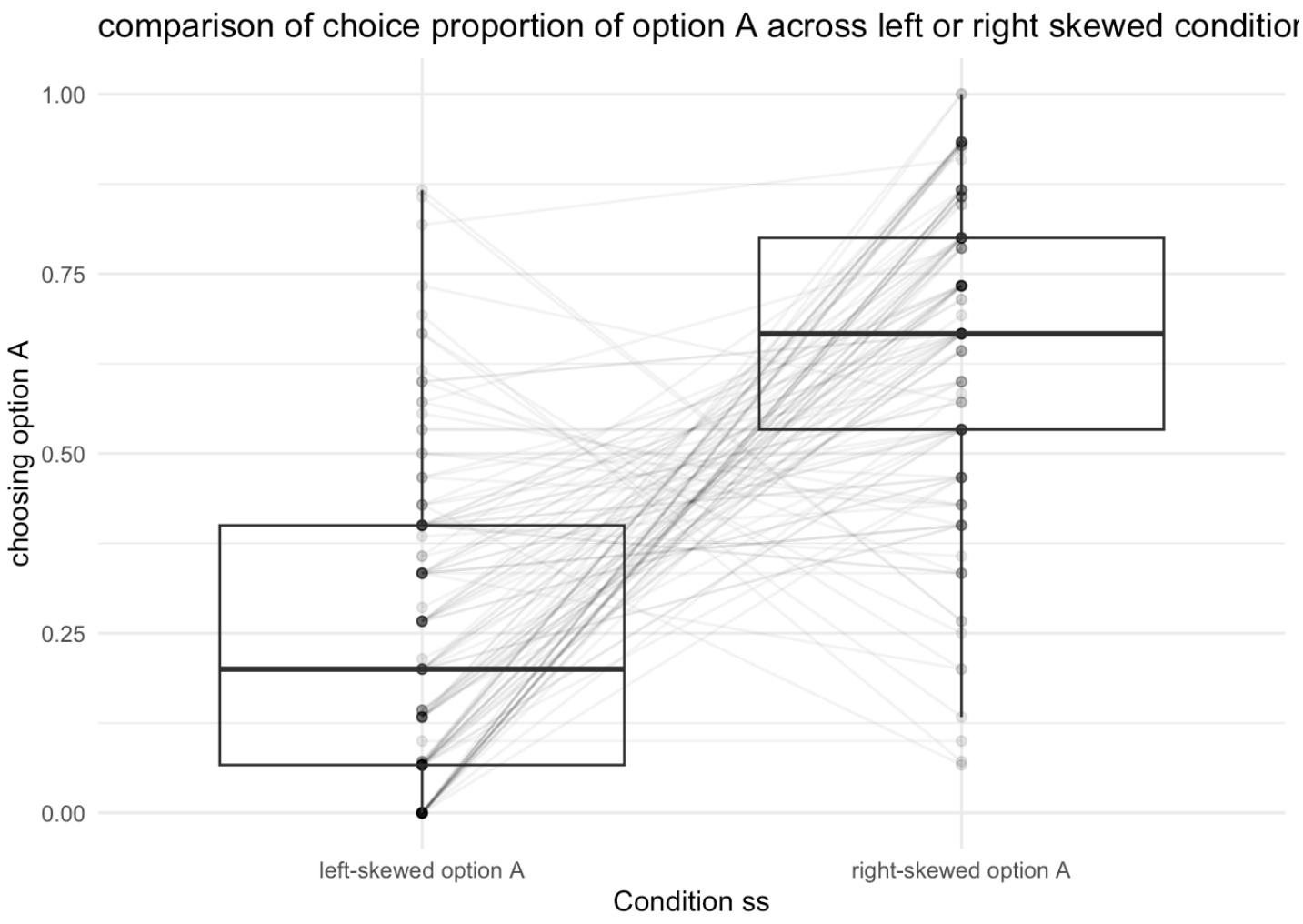
11 to 9	14 to 16	0.3076923	130
19 to 21	4 to 6	0.5793651	126
19 to 21	9 to 11	0.3629032	124
19 to 21	14 to 16	0.5503876	129

evd_bins	sdd_bins	prop_A	count
-19 to -21	4 to 6	0.6230769	130
-19 to -21	9 to 11	0.4961240	129
-19 to -21	14 to 16	0.6147541	122
-9 to -11	4 to 6	0.3203125	128
-9 to -11	9 to 11	0.5736434	129
-9 to -11	14 to 16	0.6976744	129
1 to -1	4 to 6	0.7795276	127
1 to -1	9 to 11	0.7301587	126
1 to -1	14 to 16	0.7209302	129
11 to 9	4 to 6	0.8984375	128
11 to 9	9 to 11	0.8373984	123
11 to 9	14 to 16	0.8692308	130
19 to 21	4 to 6	0.9047619	126
19 to 21	9 to 11	0.8730159	126
19 to 21	14 to 16	0.8888889	126



Also in ss condition there is a similar trend.

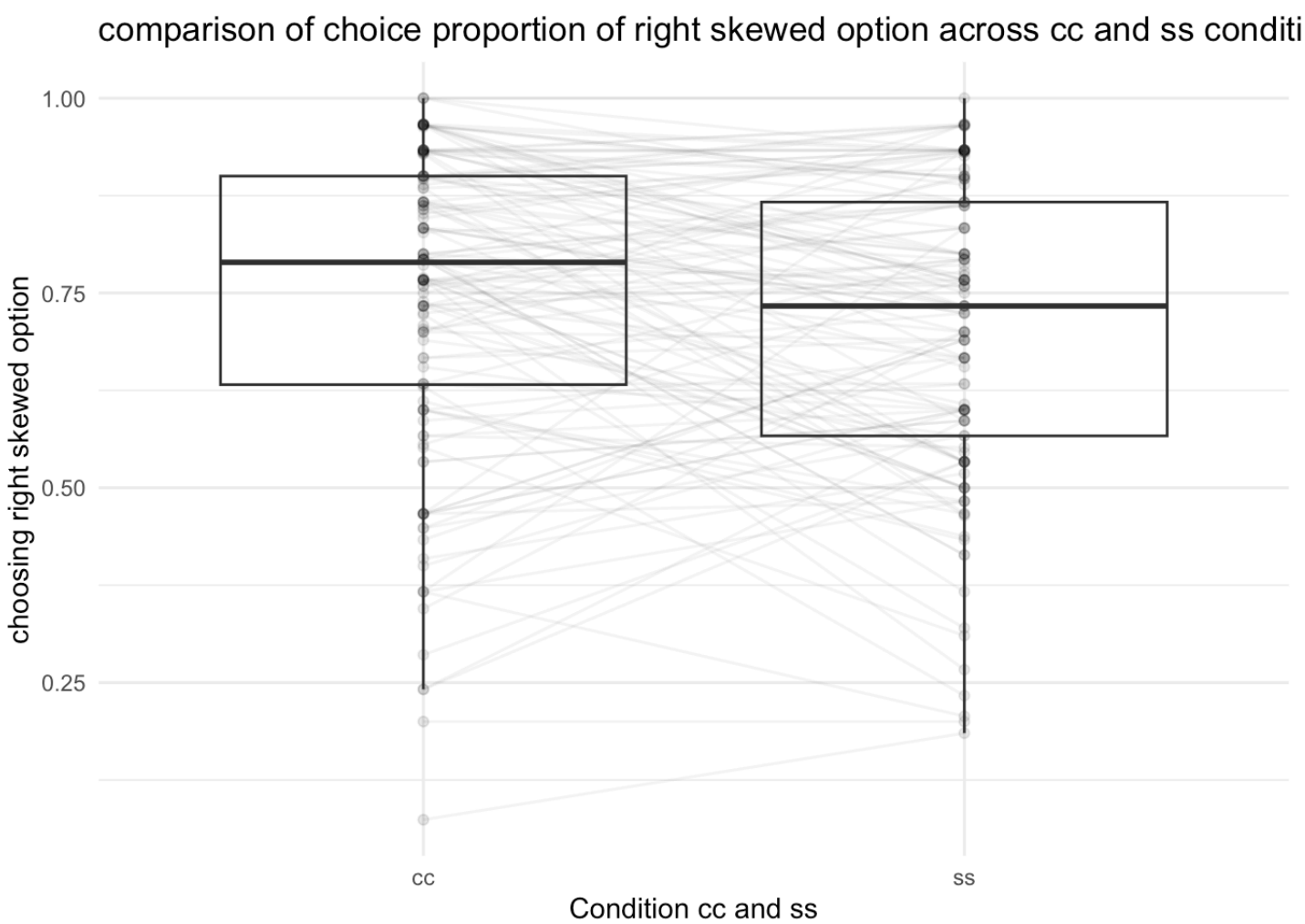
	Condition	right_mean	left_mean	t_value	df	p_value	conf_interval_lower	conf_interval_upper
t	choice proportion when option A is right or left skewed in ss condition	0.6530492	0.2476865	12.09164	131	0	0.3390438	0.4716816



evd_bins	sdd_bins	prop_A	count
-19 to -21	4 to 6	0.0944882	127
-19 to -21	9 to 11	0.1692308	130
-19 to -21	14 to 16	0.1484375	128
-9 to -11	4 to 6	0.0866142	127
-9 to -11	9 to 11	0.1162791	129
-9 to -11	14 to 16	0.1550388	129
1 to -1	4 to 6	0.1889764	127
1 to -1	9 to 11	0.1923077	130
1 to -1	14 to 16	0.1732283	127
11 to 9	4 to 6	0.5156250	128
11 to 9	9 to 11	0.3750000	128
11 to 9	14 to 16	0.3548387	124
19 to 21	4 to 6	0.3730159	126
19 to 21	9 to 11	0.3461538	130
19 to 21	14 to 16	0.4076923	130

evd_bins	sdd_bins	prop_A	count
-19 to -21	4 to 6	0.1484375	128
-19 to -21	9 to 11	0.4645669	127

-19 to -21	14 to 16	0.4761905	126
-9 to -11	4 to 6	0.3840000	125
-9 to -11	9 to 11	0.5781250	128
-9 to -11	14 to 16	0.6171875	128
1 to -1	4 to 6	0.7286822	129
1 to -1	9 to 11	0.5905512	127
1 to -1	14 to 16	0.6976744	129
11 to 9	4 to 6	0.8412698	126
11 to 9	9 to 11	0.8425197	127
11 to 9	14 to 16	0.8702290	131
19 to 21	4 to 6	0.9236641	131
19 to 21	9 to 11	0.7812500	128
19 to 21	14 to 16	0.8449612	129



	Condition	cc_mean	ss_mean	t_value	df	p_value	conf_interval_lower	conf_interval_upper
t	choices for right-skewed in cc and ss	0.7411756	0.7023041	2.377527	131	0.0188749	0.0065282	0.0712148