

# Results

## ANCOVA

ANCOVA – ssq\_modelled

Cases	Sum of Squares	df	Mean Square	F	p
choice	0.491	1	0.491	0.032	0.858
sm	202.760	2	101.380	6.680	0.004
gender_number	4.186	1	4.186	0.276	0.603
choice * sm	10.152	2	5.076	0.334	0.718
Residuals	455.333	30	15.178		

Note. Type III Sum of Squares

## Contrast Tables

### Simple Contrast – choice

Comparison	Estimate	SE	df	t	p
NO_CHOICE – CHOICE	0.234	1.300	30	0.180	0.858

### Helmert Contrast – sm

Comparison	Estimate	SE	df	t	p
NO_SM – SM_C, SM_I	-2.760	1.333	30	-2.070	0.047
SM_C – SM_I	-4.668	1.641	30	-2.845	0.008

### Custom Contrast – choice \* sm

Comparison	Estimate	SE	df	t	p
1	2.132	2.654	30	0.803	0.428
2	-0.289	3.284	30	-0.088	0.930

### Custom Contrast Coefficients – choice \* sm

choice	sm	Comparison 1	Comparison 2
CHOICE	NO_SM	1.000	0.000
NO_CHOICE		-1.000	0.000
CHOICE	SM_C	-0.500	-1.000
NO_CHOICE		0.500	1.000
CHOICE	SM_I	-0.500	1.000
NO_CHOICE		0.500	-1.000

# ANCOVA– Contrast Coded

ANCOVA – ssq\_modelled

Cases	Sum of Squares	df	Mean Square	F	p
choice	0.491	1	0.491	0.032	0.858
gender_number	4.186	1	4.186	0.276	0.603
cont1	65.026	1	65.026	4.284	0.047
contrast2	122.808	1	122.808	8.091	0.008
choicexcont1	9.796	1	9.796	0.645	0.428
choicexcont2	0.118	1	0.118	0.008	0.930
Residuals	455.333	30	15.178		

Note. Type III Sum of Squares

# Bayesian ANCOVA

## Model Comparison

Models	P(M)	P(M data)	BF <sub>M</sub>	BF <sub>10</sub>	error %
Null model (incl. gender_number)	0.200	0.037	0.153	1.000	
sm	0.200	0.664	7.891	18.003	0.979
choice + sm	0.200	0.215	1.098	5.841	1.888
choice + sm + choice * sm	0.200	0.073	0.314	1.973	4.078
choice	0.200	0.011	0.046	0.310	1.478

*Note.* All models include gender\_number

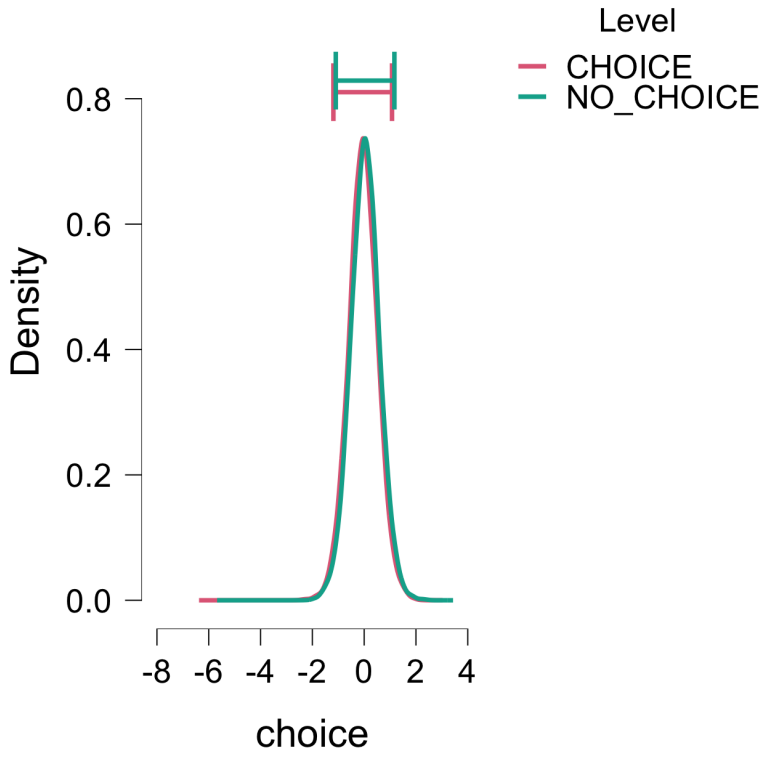
## Analysis of Effects

Effects	P(incl)	P(excl)	P(incl data)	P(excl data)	BF <sub>incl</sub>
.	.	.	.	.	.

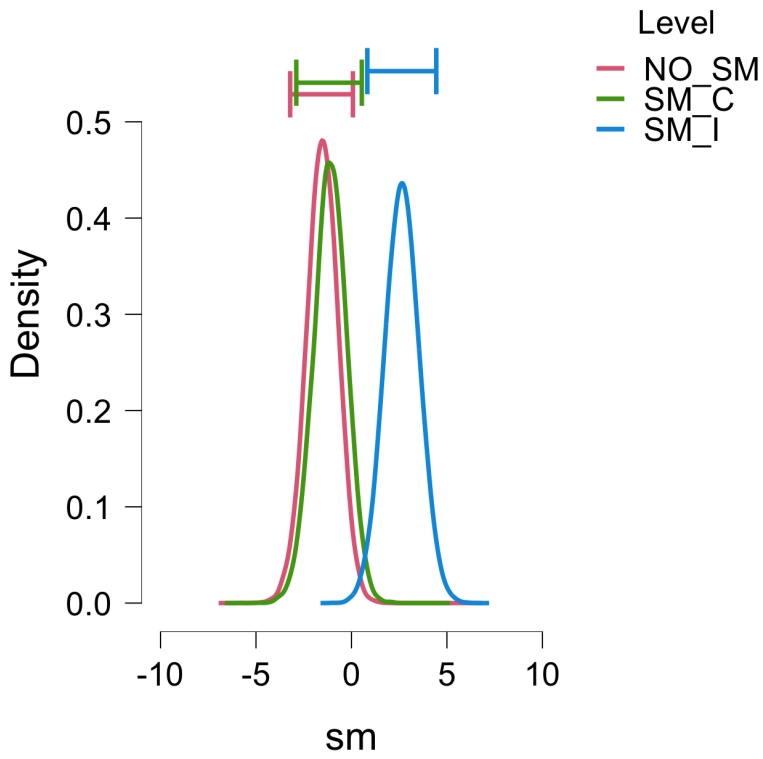
*Note.* Compares models that contain the effect to equivalent models stripped of the effect. Higher-order interactions are excluded. Analysis suggested by Sebastiaan Mathôt.

# Model Averaged Posterior Distributions

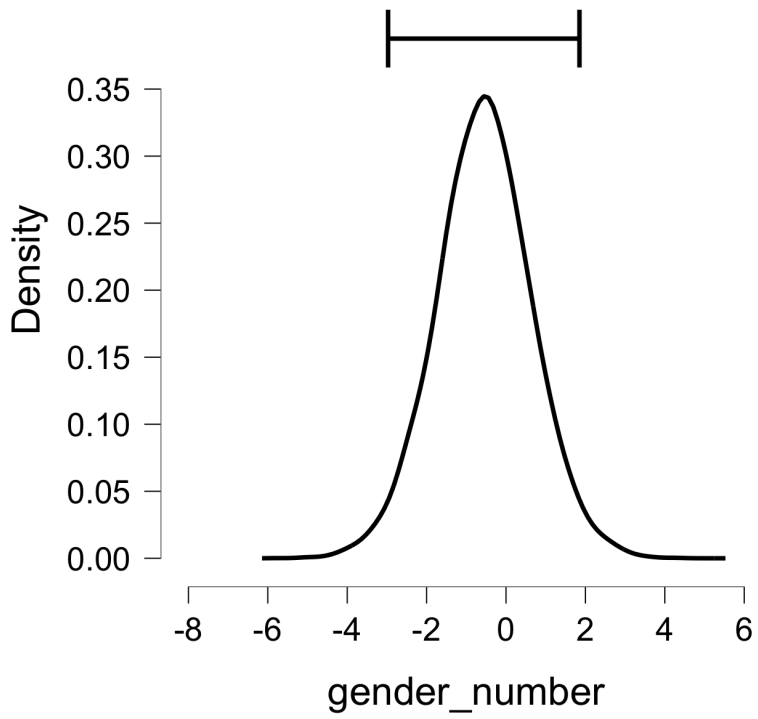
choice



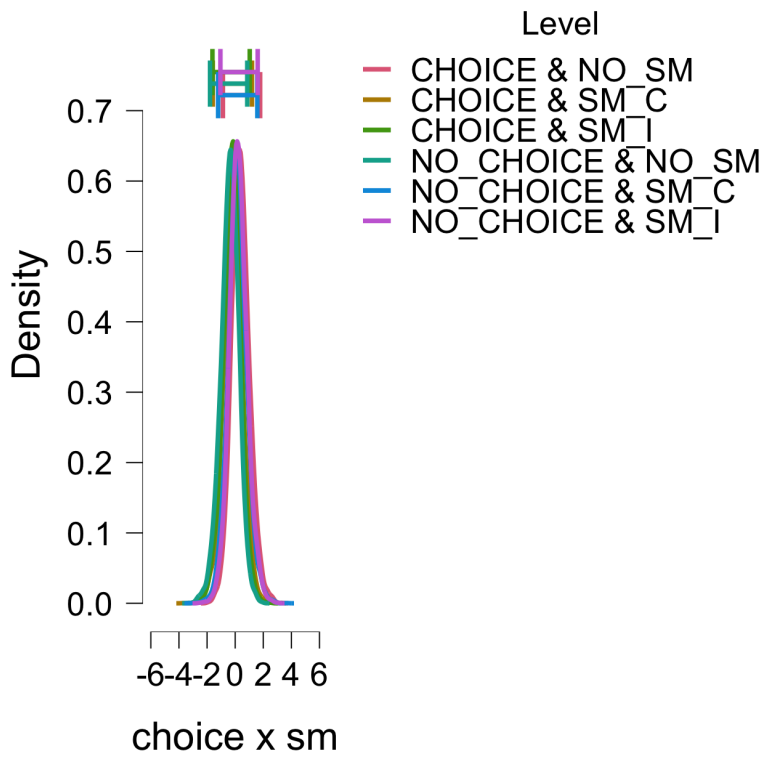
sm



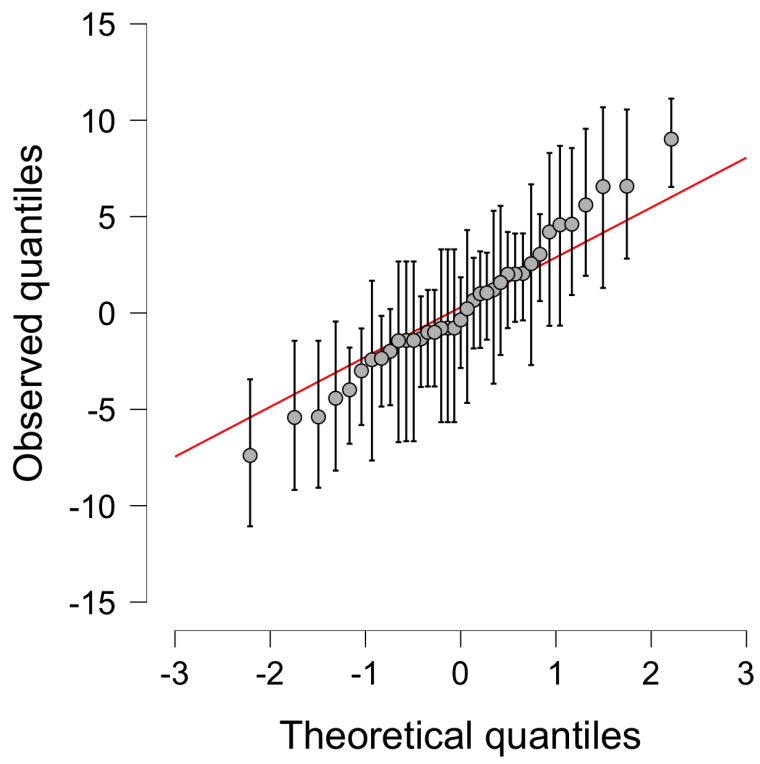
gender\_number



choice\*sm



Model Averaged Q-Q Plot



# Bayesian ANCOVA – Contrast Coded

## Model Comparison

Models	P(M)	P(M data)	BF <sub>M</sub>	BF <sub>10</sub>	error %
Null model (incl. gender_number)	0.031	0.009	0.287	1.000	
cont1 + contrast2	0.031	0.192	7.353	20.889	0.002
cont1 + contrast2 + choicexcont1	0.031	0.106	3.686	11.578	0.002
contrast2	0.031	0.084	2.860	9.203	0.008
cont1 + contrast2 + choicexcont2	0.031	0.083	2.789	8.995	0.002
cont1 + contrast2 + choice_contrast	0.031	0.082	2.773	8.947	0.002
cont1 + contrast2 + choicexcont1 + choice_contrast	0.031	0.050	1.638	5.467	0.002
cont1 + contrast2 + choicexcont1 + choicexcont2	0.031	0.050	1.621	5.414	0.002
contrast2 + choicexcont1	0.031	0.044	1.439	4.835	0.002
cont1 + contrast2 + choicexcont2 + choice_contrast	0.031	0.039	1.265	4.271	0.002
contrast2 + choicexcont2	0.031	0.035	1.140	3.864	0.002
contrast2 + choice_contrast	0.031	0.035	1.136	3.853	0.002
cont1 + contrast2 + choicexcont1 + choicexcont2 + choice_contrast	0.031	0.025	0.808	2.768	0.003
cont1	0.031	0.021	0.675	2.321	0.002
contrast2 + choicexcont1 + choice_contrast	0.031	0.021	0.663	2.282	0.002
contrast2 + choicexcont1 + choicexcont2	0.031	0.021	0.660	2.270	0.002
contrast2 + choicexcont2 + choice_contrast	0.031	0.017	0.533	1.841	0.002
cont1 + choicexcont1	0.031	0.012	0.369	1.281	0.003
contrast2 + choicexcont1 + choicexcont2 + choice_contrast	0.031	0.011	0.338	1.175	0.003
cont1 + choicexcont2	0.031	0.010	0.308	1.073	0.003
cont1 + choice_contrast	0.031	0.010	0.308	1.072	0.003
cont1 + choicexcont1 + choice_contrast	0.031	0.006	0.188	0.658	0.003
cont1 + choicexcont1 + choicexcont2	0.031	0.006	0.188	0.656	0.003
cont1 + choicexcont2 + choice_contrast	0.031	0.005	0.159	0.556	0.003
choicexcont1	0.031	0.005	0.148	0.519	0.010
choice_contrast	0.031	0.004	0.127	0.446	0.011
choicexcont2	0.031	0.004	0.127	0.446	0.011
cont1 + choicexcont1 + choicexcont2 + choice_contrast	0.031	0.003	0.104	0.365	0.007
choicexcont1 + choicexcont2	0.031	0.002	0.076	0.267	0.005
choicexcont1 + choice_contrast	0.031	0.002	0.076	0.267	0.005
choicexcont2 + choice_contrast	0.031	0.002	0.066	0.232	0.006
choicexcont1 + choicexcont2 + choice_contrast	0.031	0.001	0.043	0.151	0.003

Note. All models include gender\_number



# Bayesian Linear Regression

## Model Comparison – ssq\_modelled

Models	P(M)	P(M data)	BF <sub>M</sub>	BF <sub>10</sub>	R <sup>2</sup>
Null model (incl. gender_number)	0.167	0.058	0.308	1.000	0.002
cont1 + cont2 + choice_number + choicexcont1 + choicexcont2	0.167	0.160	0.956	2.768	0.318
cont1 + cont2	0.017	0.121	8.129	20.889	0.302
cont2	0.033	0.107	3.464	9.203	0.206
cont1 + cont2 + choicexcont1	0.017	0.067	4.245	11.578	0.317
cont1 + cont2 + choice_number + choicexcont1	0.033	0.063	1.963	5.467	0.317
cont1 + cont2 + choicexcont1 + choicexcont2	0.033	0.063	1.943	5.414	0.317
cont1 + cont2 + choicexcont2	0.017	0.052	3.246	8.995	0.303
cont1 + cont2 + choice_number	0.017	0.052	3.228	8.947	0.302
cont1 + cont2 + choice_number + choicexcont2	0.033	0.050	1.511	4.271	0.303
cont2 + choicexcont1	0.017	0.028	1.701	4.835	0.220
cont1	0.033	0.027	0.802	2.321	0.121
cont2 + choicexcont2	0.017	0.022	1.352	3.864	0.206
cont2 + choice_number	0.017	0.022	1.348	3.853	0.206
cont2 + choice_number + choicexcont1 + choicexcont2	0.033	0.014	0.401	1.175	0.220

*Note.* All models include gender\_number. Table displays only a subset of models; to see all models, select "No" under "Limit No. Models Shown".

