

Analyse data

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Model selection 1

```
## Start:  AIC=-361.22
## D_score ~ 1
##
##           Df Sum of Sq    RSS    AIC
## + trial_type  3    4.4189 22.813 -388.51
## + block_order 1     0.3494 26.883 -361.65
## <none>                        27.232 -361.22
## + rule         1     0.1941 27.038 -360.57
##
## Step:  AIC=-388.51
## D_score ~ trial_type
##
##           Df Sum of Sq    RSS    AIC
## + block_order 1    0.34935 22.464 -389.41
## <none>                        22.813 -388.51
## + rule         1    0.19415 22.619 -388.12
##
## Step:  AIC=-389.41
## D_score ~ trial_type + block_order
##
##           Df Sum of Sq    RSS    AIC
## <none>                        22.464 -389.41
## + rule         1    0.20187 22.262 -389.11
## + trial_type:block_order 3    0.20760 22.256 -385.16
##
## Call:
##   aov(formula = D_score ~ trial_type + block_order, data = data)
##
## Terms:
##           trial_type block_order Residuals
## Sum of Squares    4.418936    0.349350 22.464037
## Deg. of Freedom      3          1      183
```

```
##
## Residual standard error: 0.3503631
## Estimated effects may be unbalanced
```

Model selection 2

Step 1

	df	AICc
fit_0\$participant:trial_type	1	114.33398
fit_tt\$participant:trial_type	4	81.65159
fit_rule\$participant:trial_type	1	114.33398
fit_bo\$participant:trial_type	1	114.33398

Trial type selected as first variable.

Step 2

	df	AICc
fit_tt\$participant:trial_type	4	81.65159
fit_tt_rule\$participant:trial_type	7	81.97400
fit_tt_bo\$participant:trial_type	7	86.07620

	df	AICc
fit_tt\$participant	1	57.19630
fit_tt_rule\$participant	2	58.37261
fit_tt_bo\$participant	2	57.54743

Trial type only model selected.

Selected model interpretation

term	df	sumsq	meansq	statistic	p.value
trial_type	3	4.419	1.473	14.635	0
Residuals	138	13.890	0.101	NA	NA

Full model interpretation

	df	AIC
fit_full\$participant	4	56.41848

	df	AIC
fit_full\$participant:trial_type	13	78.12051

term	df	sumsq	meansq	statistic	p.value	stratum
rule	1	0.202	0.202	1.125	0.295	participant
block_order:rule	1	0.656	0.656	3.656	0.063	participant
Residuals	43	7.716	0.179	NA	NA	participant
trial_type:block_order	3	0.208	0.069	0.747	0.526	participant:trial_type
trial_type:rule	3	0.607	0.202	2.185	0.093	participant:trial_type
trial_type:block_order:rule	3	1.127	0.376	4.058	0.009	participant:trial_type
Residuals	129	11.948	0.093	NA	NA	participant:trial_type

Full model interpretation 2

Effect	Text
(Intercept)	$F(1,43) = 87.01, p < .001, \eta^2 = .67$
block_order	$F(1,43) = 1.45, p = .236, \eta^2 = .03$
rule	$F(1,43) = 1.38, p = .247, \eta^2 = .03$
trial_type	$F(3,129) = 15.97, p < .001, \eta^2 = .27$
block_order:rule	$F(1,43) = 3.66, p = .063, \eta^2 = .08$
block_order:trial_type	$F(3,129) = 0.46, p = .710, \eta^2 = .01$
rule:trial_type	$F(3,129) = 2.34, p = .076, \eta^2 = .05$
block_order:rule:trial_type	$F(3,129) = 4.06, p = .009, \eta^2 = .09$