Summary of linear mixed models

In this supplemantary file, we report all the models and parameters refered to in the article.

1. Model of MGA differences by feature:

$$MGA = \beta_0 + \beta_{feature} + \beta_{hemisphere} + \beta_{feature:hemisphere} + \sigma_{subject} + \sigma_{residual}$$

parameter	estimate	2.5 %	97.5 %
Intercept	5.80	2.79	8.81
feature: slide	-0.40	-3.96	3.17
feature: intensity	-4.68	-8.24	-1.11
feature: timbre	-7.18	-10.75	-3.62
hemisphere: left	-4.55	-8.12	-0.99
feat*hem: slide/left	2.71	-2.34	7.75
feat*hem: intensity/left	6.26	1.22	11.31
feat*hem: timbre/left	7.13	2.08	12.17
SD (subject)	4.03	2.76	5.88
SD (residual)	6.27	5.65	7.00

2. Model of differences in slide between conditions

$$MGA_{slide} = \beta_0 + \beta_{latency} + \beta_{hemisphere} + \beta_{latency:hemisphere} + \sigma_{subject} + \sigma$$

parameter	estimate	2.5 %	97.5 %
Intercept	5.40	2.24	8.57
latency: 250-350	-4.58	-8.58	-0.58
hemisphere: left	-1.85	-5.85	2.15
lat*hem: 250-350/left	1.08	-4.58	6.74
SD (subject)	3.60	1.11	5.83
SD (residual)	7.13	5.98	8.30

3. Models of d'-scores

$$d_0 = \beta_0 + \sigma_{subject} + \sigma$$

parameter	estimate	2.5 %	97.5 %
Intercept	1.08	0.73	1.43
SD (subject)	0.72	0.50	1.05
SD (residual)	0.71	0.61	0.83

$$d_1 = \beta_0 + \beta_{entropy} + \sigma_{subject} + \sigma$$

parameter	estimate	2.5 %	97.5 %
Intercept	1.71	1.30	2.12
entropy: IE1	-0.55	-0.89	-0.20
entropy: IE2	-0.54	-0.88	-0.20
entropy: IE3	-1.04	-1.38	-0.69
entropy: HE	-1.04	-1.39	-0.70
SD (subject)	0.74	0.54	1.07
SD (residual)	0.56	0.48	0.66

$$d_2 = \beta_0 + \beta * entropy + \sigma_{subject} + \sigma$$

parameter	estimate	2.5 %	97.5 %
Intercept	1.85	1.43	2.27
entropy	-0.26	-0.34	-0.18
SD (subject)	0.74	0.54	1.07
SD (residual)	0.58	0.50	0.68

4. Models of criterion scores:

$$cr_0 = \beta_0 + \sigma_{subject} + \sigma$$

parameter	estimate	2.5 %	97.5 %
Intercept	0.27	0.03	0.51
SD (subject)	0.48	0.32	0.71
SD (residual)	0.55	0.48	0.65

$$cr_1 = \beta_0 + \beta_{entropy} + \sigma_{subject} + \sigma$$

parameter	estimate	2.5 %	97.5 %
Intercept	0.38	0.07	0.69
entropy: IE1	0.14	-0.18	0.45
entropy: IE2	-0.12	-0.44	0.19
entropy: IE3	-0.40	-0.71	-0.08
entropy: HE	-0.15	-0.46	0.17
SD (subject)	0.48	0.33	0.71
SD (residual)	0.51	0.45	0.60

5. Cumulative link models (ordinal regression)

$$c_0 : \log \frac{p(confidence)}{1 - p(confidence)} = \theta_{confidence} - \sigma_{subject} - \sigma$$

parameter	odds	2.5 %	97.5 %
1|2	0.02	0.01	0.04
2|3	0.09	0.05	0.16
3|4	0.30	0.17	0.52
4|5	0.74	0.42	1.31
5|6	2.23	1.27	3.90
6|7	8.76	4.95	15.49
SD (subject)	3.67	NA	NA

$$c_1 : \log \frac{p(confidence)}{1 - p(confidence)}_0 = \theta_{confidence} - \beta * entropy - \sigma_{subject} - \sigma$$

parameter	odds	2.5 %	97.5 %
1|2	0.01	0.00	0.01
2|3	0.02	0.01	0.05
3|4	0.08	0.04	0.16
4|5	0.22	0.12	0.41
5|6	0.73	0.39	1.35
6|7	3.19	1.72	5.99
IE1	0.35	0.27	0.44
IE2	0.23	0.18	0.30
IE3	0.16	0.12	0.20
HE	0.25	0.19	0.32
SD (subject)	3.97	NA	NA

$$c_2 : \log \frac{p(confidence)}{1 - p(confidence)} = \theta_{confidence} - \beta * entropy - \sigma_{subject} - \sigma$$

parameter	odds	2.5 %	97.5 %
1|2	0.01	0.00	0.01
2|3	0.03	0.02	0.05
3|4	0.10	0.05	0.18
4|5	0.26	0.14	0.47
5|6	0.80	0.44	1.48
6|7	3.42	1.86	6.23
entropy	0.71	0.67	0.75
SD (subject)	3.82	NA	NA

$$c_{1s} : \log \frac{p(confidence)}{1 - p(confidence)} = \theta_{confidence} - \beta_{entropy} - \sigma_{subject} - \sigma_{entropy*subject} - \sigma$$

parameter	odds	2.5 %	97.5 %
1|2	0.00	0.00	0.01
2|3	0.02	0.01	0.04
3|4	0.06	0.03	0.14
4|5	0.18	0.09	0.39
5|6	0.66	0.31	1.40
6|7	3.35	1.58	7.17
IE1	0.33	0.23	0.47
IE2	0.19	0.10	0.36
IE3	0.12	0.05	0.27
HE	0.20	0.12	0.35
SD (subject)	5.47	NA	NA
SD (IE1)	1.86	NA	NA
SD (IE2)	3.97	NA	NA
SD (IE3)	5.93	NA	NA
SD (HE)	3.16	NA	NA

$$c_{2s} : \log \frac{p(confidence)}{1 - p(confidence)} = \theta_{confidence} - \beta * entropy - \sigma_{subject} - \sigma_{entropy*subject} - \sigma$$

parameter	odds	2.5 %	97.5 %
1|2	0.00	0.00	0.01
2|3	0.02	0.01	0.05
3|4	0.08	0.04	0.18
4|5	0.22	0.10	0.49
5|6	0.73	0.33	1.60
6|7	3.25	1.48	7.24
entropy	0.68	0.57	0.81
SD (subject)	6.05	NA	NA
SD (entropy)	1.48	NA	NA