

Supplemental Material - Video study

Figure S1 – Possible orders of presentations of the stimuli

ORDER OF PRESENTATION	1st stimulus	2nd stimulus	3rd stimulus	4th stimulus
1	Dog1Threatening (D1T)	Dog1Neutral (D1N)	Dog2Threatening (D2T)	Dog2Neutral (D2N)
2	Dog1Neutral (D1N)	Dog1Threatening (D1T)	Dog2Neutral (D2N)	Dog2Threatening (D2T)
3	Dog2Threatening (D2T)	Dog2Neutral (D2N)	Dog1Neutral (D1N)	Dog1Threatening (D1T)
4	Dog2Neutral (D2N)	Dog2Threatening (D2T)	Dog1Neutral (D1N)	Dog1Threatening (D1T)

Table S1 – List of the subjects who participated in the study, sex, age and order of exposure of the stimuli (N= audio natural, A= audio artificial).

subject	age	breed	sex	neutered	order
Sunny	1	Viszla	F	no	3N-3A-2A-2N
Pan	7	Cocker spaniel	F	yes	4A-4N-1N-1A
Kobe	1.5	Flat coated retriever	M	no	1N-1A-4A-4N
Amelia	5	Weimaraner	F	no	2N-2A-3A-3N
Aki	5	Pit bull mix	M	yes	1A-1N-4N-4A
Aron	3	Rhodesian ridgeback	M	no	3N-3A-2A-2N
Sibilla	1	Weimaraner	F	no	4N-4A-1A-1N
Benny	3	English Pointer	M	yes	3A-3N-2N-2A
Lucky	1	Mix breed	M	no	2A-2N-3N-3A
Stella	2	Weimaraner	F	yes	4A-4N-1N-1A
Bella	6	Kurzhaar	F	yes	1N-1A-4A-4N
Ali	3	Kurzhaar	M	yes	2N-2A-3A-3N
Kappa	1	Mix breed	F	yes	1A-1N-4N-4A
Kaspjian	1.5	Doberman	M	no	4N-4A-1A-1N
Pepo	4	Mix breed	M	no	3A-3N-2N-2A
Dylan	12	Labrador retriever	M	no	2A-2N-3N-3A
Uma	4	Rhodesian ridgeback	F	yes	4A-4N-1N-1A
Lea1	11	Mix breed	F	yes	1N-1A-4A-4N
Junior	4	Labrador retriever	M	yes	2N-2A-3A-3N
Eve	9	Labrador retriever	F	yes	1A-1N-4N-4A
Sole	3	Weimaraner	F	yes	4N-4A-1A-1N
Buddy	11	Mix breed	M	yes	3A-3N-2N-2A
Luna	11	Mix breed	F	yes	2A-2N-3N-3A
Cheube	3	Lagotto Romagnolo	M	no	3N-3A-2A-2N
Belen	6	German Shepherd	F	yes	4A-4N-1N-1A

Chico	7.5	German Shepherd	M	no	1N-1A-4A-4N
Gus	1	Mix Breed	M	yes	2N-2A-3A-3N
Indi	10	Border Collie	F	yes	1A-1N-4N-4A
Nera	2	Mix breed	F	no	4N-4A-1A-1N
Olmo	3	Maremmano	M	no	3A-3N-2N-2A
Oliver	3	Weimaraner	M	no	2A-2N-3N-3A
Nervo	8	Belgian Malinois	M	yes	3N-3A-2A-2N
Berta	7	Dobermann	F	no	3N-3A-2A-2N
Ska	9	Mix breed	F	yes	4A-4N-1N-1A
Lou	5.5	Cocker spaniel	F	yes	1N-1A-4A-4N
Lilly	2	Pit bull terrier	F	yes	2N-2A-3A-3N
Lea	3	Mix brreed	F	yes	1A-1N-4N-4A
Lana	10	Lupina del Gigante	F	yes	4N-4A-1A-1N
Sky	2	Border Collie	F	yes	3A-3N-2N-2A
Leo	5	Lupino del Gigante	M	no	2A-2N-3N-3A
Ziggy	7	mix Schnauzer	F	yes	3N-3A-2A-2N
Tabù	1	working cocker spaniel	M	no	3N-3A-2A-2N
Olympia	5	Rhodesian ridgeback	F	yes	4A-4N-1N-1A
Nino	7	Mix breed	M	no	1N-1A-4A-4N
Marta	10	Mix breed	F	yes	2N-2A-3A-3N
Tilde	5	Pastore del Lagorai	F	yes	1A-1N-4N-4A
Ugo	10	Flat Coated Retriever	M	no	4N-4A-1A-1N
Attila		Australian Sheperd	M	no	3A-3N-2N-2A
Quickly	3	Border collie	M	no	2A-2N-3N-3A
Fiamma	3	Vizsla	F	yes	3N-3A-1A-1N
Biagio	2	Weimaraner	M	no	3N-3A-2A-2N
Mabelle	1	Rhodesian Ridgeback	F	no	4A-4N-1N-1A
Penny	4	German Shepherd	F	yes	1N-1A-4A-4N
Milo	4	German Shepherd	M	no	2N-2A-3A-3N
Marek	5.5	German Shepherd	M	no	1A-1N-4N-4A
Sally	7	German Shepherd	F	yes	3N-3A-2A-2N

Table S2 – DogFACS ethogram for the coding of facial related movements.

Category (mutually excludesve behaviours)	Code	Definition	Description	Type of measure
ACTION UNITS (AU)	AU145 (R-L)	Blink	Upper and lower eyelids move towards together until they completely touch each other when the eyes close completely. In the AU145 eyes open again within half a second . The left and right eye can be closed independently (lateralized movement) (AU145-R, AU145-L) or together (AU145).	Event
	AD126	Panting	Tongue's shown, the lower jaw is dropped and there is no sign of tension. The dog breathes quickly and noisily through its mouth, while its chest moves rapidly.	Duration
ACTION DESCRIPTORS (AD)	AD137	Nose lick	The jaw is lowered and the tongue licks the nose. It can be followed by a AD37 but they should be coded separately.	Event
	AD126	Panting	Tongue's shown, the lower jaw is dropped and there is no sign of tension. The dog breathes quickly and noisily through its mouth, while its chest moves rapidly.	Duration

	AD37 (L or R)	Lip wipe (Lips licking) (lateralized movement)	The tongue wipes the lips from the mouth midpoint till the mouth corner. This movement is usually lateralized (AD37-R or AD37-L). If the tongue is licking the lips just at the midpoint code as AD37 .	Event
EAR ACTION DESCRIPTORS (EADs)	EAD101	Ears Forward	The ears are turned or pushed forward (rostrally). In dogs with pricked ears the pinna becomes rigid and tense. In dogs with floppy ears the base of the pinna is raised and pulled forward. Wrinkles may be formed along the midline frontal region.	Duration
	EAD102	Ears Adductor	The ears are adducted, the base of the pinnae become closer together, by being pulled towards the head midline. The distance between the ears decreases. A vertical wrinkle may appear on the frontal region.	Duration
	EAD103	Ears Flatteners	Ears are pulled caudally, being flattened against the head. The pinna is pulled caudally, in the direction of the back of the head. In a frontal profile, the ears may disappear from the view.	Duration
	EAD104 (R-L)	Ears Rotator (lateralized movement)	The ears are rotated laterally and externally. Dog can rotate both ears (EAD104) or just one of them (EAD104 L or R). The internal part of the pinna is twisted out and outward-looking.	Duration

	EAD105	Ears Downward	The ears are pulled ventrally, laterally. The base of the pinna in both ears moves away from each other. The distance between the ears increases. The frontal region skin is stretched and the head takes a rounder shape.	Duration
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Table S3 – General behaviours ethogram for the coding of other general movements.

General Category	Behavior	Description	Type of measure
Position	Stand	The dog stand with all four paws on the ground and does not move.	Duration
	Sit	Stationary position, with only the backside in contact with the ground.	Duration
	Lay	Dog's belly touches the ground as it lays completely down on the floor.	Duration
Looking	Video	The dog keeps its head oriented towards the video screen.	Duration
	Owner	The head of the dog is directed towards the owner.	Duration
	Room	The head of the dog is directed somewhere in the room that is not the owner or the video projector (es. Door, floor)	Duration
Displacement behaviours	Autogrooming	The dog starts licking and wiping its own body in order to clean it.	Duration
	Drinking	Whenever the dog starts drinking water from the bowl.	Duration
	Head_turn	The dog is looking at the stimuli window or at the experimenter (in FH) and averts its gaze moving the head towards the right or the left.	Event
	Paw lifting	The dog lifts one of the front paws, even slightly.	Duration
	Scratching	The dog scratches repeatedly its neck or face with the hind legs.	Duration
	Shaking	Dog's whole body and head starts moving rapidly, from side to side.	Event
	Sniffing Environment	Dog's muzzle gets closer to the floor, the exit room, or other items inside the experimental room, while its nose snuffles it and nostrils moves quickly.	Duration
	Stretching	The whole body is stretched in various ways: forelegs may be leant down while the dog's back is arched; hind legs may be straightened while the head is held up high.	Event

Vocalizations	Whine	The dog starts vocalizing, making persistently whines.	duration
	Growl	Snarling sound directed at something or as a reaction to something in the living environment. Mouth may be open; nose can be wrinckled.	duration
	Bark	Loud and short typical vocalization, which may be repetitive.	duration

Table S4 – Results for the model of the behavioral variable looking at the video.
Reference level for the factor condition (neutral), reference level for the factor audio (control).

Model with the three-way interaction condition*audio*stimulus_id

```
> full.lookvideo=lmer(duration ~ condition * audio * stimulus_id + age + sex + session + (1|subject),
data=lookingvideo_data)
```

```
> null.lookvideo=lmer(duration ~ condition * audio + stimulus_id + age + sex + session + (1|subject),
data=lookingvideo_data)
```

	df	AIC	BIC	logLik	deviance	Chisq	Df	Pr(>Chisq)
null.lookvideo	10	3919.821	3967.677	-1949.911	3899.821	NA	NA	NA
full.lookvideo	13	3922.462	3984.674	-1948.231	3896.462	3.359	3	0.339

	df	AIC	LRT	Pr(Chi)
<none>	NA	3922.462	NA	NA
age	1	3921.347	0.885	0.347
sex	1	3922.942	2.480	0.115
session	1	3973.997	53.535	0.000
condition:audio:stimulus_id	1	3920.962	0.500	0.479

```
> #model
```

```
> full.lookvideo=lmer(duration ~ condition * audio + stimulus_id + age + sex + session + (1|subject),
data=lookingvideo_data)
```

```
> null.lookvideo=lmer(duration ~ condition + audio + stimulus_id + age + sex + session + (1|subject),
data=lookingvideo_data)
```

```
> summary(full.lookvideo)
```

	df	AIC	BIC	logLik	deviance	Chisq	Df	Pr(>Chisq)
null.lookvideo	9	3920.842	3963.912	-1951.421	3902.842	NA	NA	NA
full.lookvideo	10	3919.821	3967.677	-1949.911	3899.821	3.021	1.000	0.082

	df	AIC	LRT	Pr(Chi)
<none>	NA	3919.821	NA	NA
stimulus_id	1	3917.971	0.150	0.699
age	1	3918.706	0.885	0.347
sex	1	3920.286	2.465	0.116
session	1	3971.155	53.334	0.000
condition:audio	1	3920.842	3.021	0.082

```
> #model
```

```
> full.lookvideo=lmer(duration ~ condition * stimulus_id +audio + age + sex + sessione + (1|subject),
data=lookingvideo_data)
```

```
> null.lookvideo=lmer(duration ~ condition + audio + stimulus_id + age + sex + sessione + (1|subject),
data=lookingvideo_data)
```

```
> summary(full.lookvideo)
```

	npar	AIC	BIC	logLik	deviance	Chisq	Df	Pr(>Chisq)
null.lookvideo	9	3920.842	3963.912	-1951.421	3902.842	NA	NA	NA
full.lookvideo	10	3921.784	3969.640	-1950.892	3901.784	1.058	1.000	0.304

	npar	AIC	LRT	Pr(Chi)
<none>	NA	3921.784	NA	NA
audio	1	3925.641	5.857	0.016

age	1	3920.668	0.883	0.347
sex	1	3922.267	2.482	0.115
session	1	3973.015	53.230	0.000
condition:stimulus_id	1	3920.842	1.058	0.304

	npar	AIC	LRT	Pr(Chi)
<none>	NA	3920.842	NA	NA
condition	1	4057.709	138.867	0.000
stimulus_id	1	3918.994	0.151	0.697
audio	1	3924.684	5.842	0.016
age	1	3919.725	0.883	0.347
sex	1	3921.316	2.474	0.116
session	1	3972.022	53.180	0.000

	Estimate	Std. Error	t-value	Lower CI	Upper CI	min	max
(Intercept)	3.501	0.401	8.734	2.718	4.272	3.318	3.648
Condition threatening	1.716	0.140	12.271	1.416	1.986	1.685	1.775
stimulus_id D1	0.054	0.140	0.387	-0.220	0.322	0.018	0.090
Audio Natural	0.338	0.140	2.414	0.067	0.616	0.274	0.383
age	-0.053	0.057	-0.919	-0.166	0.059	-0.083	-0.015
Sex male	-0.546	0.353	-1.547	-1.231	0.190	-0.679	-0.436
Session session2	-1.034	0.140	-7.391	-1.305	-0.759	-1.099	-0.975

Conditional R2: 0.373
Marginal R2: 0.163

Table S5 - Results for the model of the behavioral EAD101 – Ears Forward.

	df	AIC	LRT	Pr(Chi)
<none>	NA	3858.513	NA	NA
condition	1	3882.521	26.008	0.000
audio	1	3858.137	1.623	0.203
age	1	3858.704	2.191	0.139
sex	1	3857.841	1.328	0.249
Session	1	3952.544	96.031	0.000
stimulus_id	1	3857.327	0.814	0.367

	Estimate	Std. Error	value	Lower CI	Upper CI	min	max
(Intercept)	2.40532	0.576	4.178	1.251	3.582	2.158	2.568
Stimulus threatening	0.670	0.131	5.128	0.388	0.929	0.633	0.708
Audio Normal	0.167	0.131	1.272	-0.084	0.414	0.114	0.214
age	0.125	0.086	1.454	-0.057	0.303	0.097	0.175
sexm	-0.592	0.525	-1.127	-1.613	0.454	-0.737	-0.434
Session session 2	-1.317	0.131	10.059	-1.544	-1.066	-1.408	-1.222
stimulus_id D1	-0.118	0.131	-0.901	-0.377	0.129	-0.151	-0.088

Conditional R2: 0.538

Marginal R2: 0.099

Table S6 - Results for the model of the behavioral EAD102 – Ears Adductor.

	df	AIC	LRT	Pr(Chi)
<none>	NA	3933.218	NA	NA
stimulus	1	3931.717	0.499	0.480

audio	1	3931.225	0.007	0.932
age	1	3933.344	2.126	0.145
sex	1	3933.452	2.234	0.135
session	1	3937.547	6.330	0.012
stimulus_id	1	3931.710	0.493	0.482

	Estimate	Std. Error	t-value	Lower CI	Upper CI	min	max
(Intercept)	1.82606	0.483	3.785	0.822	2.775	1.543	1.993
stimulus threatening	-0.098	0.138	-0.706	-0.353	0.187	-0.145	-0.046
Audio Normal	0.012	0.139	0.084	-0.256	0.306	-0.062	0.052
age	-0.101	0.071	-1.432	-0.242	0.033	-0.138	-0.074
sexm	0.636	0.433	1.468	-0.208	1.479	0.521	0.814
Session Session 2	0.348	0.139	2.512	0.074	0.614	0.269	0.433
stimulus_id D1	0.097	0.138	0.701	-0.159	0.377	0.067	0.143

Conditional R2: 0.379

Marginal R2: 0.037

Table S7 - Results for the model of the behavioral EAD103 – Ears Flattener.

	df	AIC	LRT	Pr(Chi)
<none>	NA	2745.138	NA	NA
condition	1	2745.982	2.844	0.092
audio	1	2750.822	7.683	0.006
age	1	2745.691	2.553	0.110
sex	1	2749.440	6.302	0.012
Session	1	2751.392	8.254	0.004

stimulus_id	1	2743.146	0.008	0.930
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	Estimate	Std. Error	value	Lower CI	Upper CI	min	max
(Intercept)	0.395	0.197	2.009	0.011	0.757	0.299	0.424
Condition threatening	-0.121	0.072	-1.684	-0.248	0.018	-0.142	-0.079
Audio Natural	-0.200	0.072	-2.772	-0.341	-0.057	-0.225	-0.150
age	-0.044	0.028	-1.572	-0.095	0.012	-0.051	-0.026
sexm	0.432	0.172	2.513	0.090	0.776	0.321	0.460
Session Session 2	0.207	0.072	2.873	0.070	0.352	0.147	0.236
stimulus_id D1	0.006	0.072	0.087	-0.136	0.149	-0.020	0.044

Conditional R2: 0.272

Marginal R2: 0.060

Table S8 – Results for the model EAD104 – Ears Rotator.

	df	AIC	LRT	Pr(Chi)
<none>	NA	4018.283	NA	NA
condition	1	4025.500	9.218	0.002
audio	1	4016.784	0.502	0.479
age	1	4016.850	0.567	0.451
sex	1	4017.470	1.187	0.276
Session	1	4033.560	17.277	0.000
stimulus_id	1	4017.028	0.746	0.388

	Estimate	Std. Error	t-value	Lower CI	Upper CI	min	max
(Intercept)	1.66918	0.377	4.430	0.923	2.391	1.447	1.779

Condition threatening	-0.399	0.131	-3.038	-0.645	-0.154	-0.444	-0.358
Audio Natural	-0.093	0.132	-0.706	-0.341	0.179	-0.125	-0.040
age	0.040	0.054	0.735	-0.061	0.149	0.029	0.064
sexm	-0.353	0.332	-1.064	-0.970	0.269	-0.487	-0.211
Session Session 2	0.549	0.132	4.170	0.291	0.810	0.478	0.619
stimulus_id D1	0.114	0.132	0.864	-0.131	0.360	0.071	0.148

Conditional R2: 0.266

Marginal R2: 0.031

Table S9 – Results for the model EAD105 – Ears Downward.

	df	AIC	LRT	Pr(Chi)
<none>	NA	2500.305	NA	NA
condition	1	2502.138	3.833	0.050
audio	1	2498.331	0.026	0.872
age	1	2498.429	0.124	0.725
sex	1	2498.573	0.269	0.604
Session	1	2499.927	1.623	0.203
stimulus_id	1	2498.373	0.069	0.793

	Estimate	Std. Error	value	Lower CI	Upper CI	min	max
(Intercept)	0.394	0.149	2.653	0.116	0.700	0.325	0.497
condition threatening	-0.124	0.063	-1.955	-0.242	0.003	-0.143	-0.100
Audio Natural	-0.010	0.064	-0.161	-0.132	0.114	-0.033	0.014
age	-0.007	0.021	-0.344	-0.048	0.032	-0.020	-0.002

sexm	-0.064	0.126	-0.505	-0.323	0.184	-0.114	-0.013
Session Session 2	0.081	0.064	1.271	-0.040	0.207	0.045	0.106
stimulus_id D1	-0.017	0.063	-0.261	-0.139	0.107	-0.047	0.029

Conditional R2: 0.161

Marginal R2: 0.007

Table S10 – Results for the model AU145 – Blink

	df	AIC	LRT	Pr(Chi)
<none>	NA	1363.231	NA	NA
age	1	1361.551	0.321	0.571
sex	1	1362.090	0.859	0.354
Session	1	1377.200	15.970	0.000
stimulus_id	1	1361.237	0.007	0.934
Condition : audio	1	1366.439	5.208	0.022

	Estimate	Std. Error	t-value	Pr(> z)	Lower CI	Upper CI	min	max
(Intercept)	-1.322	0.298	-4.432	0.000	-1.922	-0.768	-1.448	-1.237
Condition threatening	-0.099	0.139	-0.718	0.473	-0.386	0.165	-0.133	-0.051
Audio Natural	-0.047	0.137	-0.342	0.732	-0.313	0.218	-0.099	-0.018
age	0.024	0.042	0.571	0.568	-0.055	0.105	0.012	0.041
sexm	-0.239	0.256	-0.934	0.350	-0.784	0.264	-0.310	-0.166
Session Session 2	0.429	0.106	4.039	0.000	0.216	0.644	0.398	0.458
stimulus_id D1	0.009	0.104	0.084	0.933	-0.219	0.224	-0.026	0.045
Condition threatening : audio natural	-0.497	0.214	-2.320	0.020	-0.907	-0.085	-0.580	-0.433

Conditional R2: 0.352

Marginal R2: 0.058

Table S11 – Results for the model Sniffing the environment.

	df	AIC	LRT	Pr(Chi)
<none>	NA	2698.608	NA	NA
condition	1	2706.682	10.074	0.002
audio	1	2698.023	1.415	0.234
age	1	2699.469	2.861	0.091
sex	1	2700.127	3.519	0.061
Session	1	2699.967	3.359	0.067
stimulus_id	1	2696.615	0.007	0.932

	Estimate	Std. Error	value	Lower CI	Upper CI	min	max
(Intercept)	0.475	0.154	3.077	0.177	0.773	0.391	0.524
condition threatening	-0.227	0.072	-3.176	-0.370	-0.085	-0.239	-0.200
Audio Natural	-0.085	0.072	-1.187	-0.218	0.058	-0.125	-0.041
age	-0.035	0.021	-1.667	-0.075	0.006	-0.039	-0.023
sexm	0.239	0.129	1.854	-0.008	0.493	0.176	0.276
Session Session 2	0.131	0.072	1.830	-0.004	0.269	0.078	0.165
stimulus_id D1	-0.006	0.072	-0.085	-0.140	0.133	-0.037	0.036

Conditional R2: 0.152

Marginal R2: 0.035

Table S12 – Results for the model Head Turn.

	Df	AIC	LRT	Pr(>Chi)
<none>	NA	1605.479	NA	NA
Condition	1	1606.845	3.366	0.067
audio	1	1604.655	1.175	0.278
age	1	1605.757	2.278	0.131
sex	1	1605.354	1.875	0.171
Session	1	1612.800	9.321	0.002
stimulus_id	1	1603.877	0.398	0.528

	Estimate	Std. Error	value	Pr(> z)	Lower CI	Upper CI	min	max
(Intercept)	-0.233	0.154	-1.516	0.130	-0.528	0.064	-0.280	-0.165
Condition threatening	-0.170	0.093	-1.831	0.067	-0.348	0.022	-0.204	-0.135
Audio Natural	-0.101	0.093	-1.083	0.279	-0.285	0.076	-0.117	-0.081
age	-0.030	0.020	-1.523	0.128	-0.071	0.008	-0.037	-0.025
sexm	-0.164	0.120	-1.373	0.170	-0.404	0.084	-0.200	-0.116
Session Session 2	-0.285	0.094	-3.038	0.002	-0.461	-0.103	-0.308	-0.262
stimulus_id D1	0.059	0.093	0.631	0.528	-0.127	0.244	0.029	0.081

Conditional R2: 0.096

Marginal R2: 0.037

Table S13 – Results for the model AD137 – Nose Lick

	Df	AIC	LRT	Pr(>Chi)
<none>	NA	325.063	NA	NA
condition	1	331.758	8.695	0.003

audio	1	323.274	0.211	0.646
age	1	323.533	0.470	0.493
sex	1	324.216	1.153	0.283
Session	1	323.642	0.579	0.447
stimulus_id	1	328.425	5.362	0.021

	Estimate	Std. Error	value	Pr(> z)	Lower CI	Upper CI
(Intercept)	-4.200	0.673	-6.237	0.000	-5.733	-3.031
condition threatening	-0.949	0.340	-2.792	0.005	-1.796	-0.306
Audio Natural	0.140	0.306	0.459	0.646	-0.503	0.762
age	0.055	0.080	0.689	0.491	-0.110	0.209
sexm	0.517	0.477	1.085	0.278	-0.476	1.478
Session Session 2	-0.233	0.307	-0.758	0.448	-0.888	0.380
stimulus_id D1	0.730	0.326	2.241	0.025	0.099	1.449

Conditional R2: 0.312

Marginal R2: 0.086

Table S14 – Results for the model AD37 – Lip wipe

	Df	AIC	LRT	Pr(>Chi)
<none>	NA	323.508	NA	NA
condition	1	330.347	8.839	0.003
audio	1	321.983	0.475	0.491
age	1	323.165	1.657	0.198
sex	1	322.304	0.796	0.372
Session	1	323.280	1.773	0.183
stimulus_id	1	326.783	5.276	0.022

	Estimate	Std. Error	z-value	Pr(> z)	Lower CI	Upper CI	min	max
(Intercept)	-3.191	0.710	-4.497	0.000	-4.833	-2.076	-3.585	-3.080
condition threatening	-0.987	0.353	-2.800	0.005	-1.907	-0.324	-1.187	-0.844
audio Natural	-0.216	0.315	-0.687	0.492	-0.831	0.354	-0.397	0.005
age	0.110	0.086	1.272	0.204	-0.073	0.284	0.097	0.135
sexm	-0.470	0.538	-0.874	0.382	-1.681	0.514	-0.711	-0.337
Session Session 2	-0.422	0.320	-1.316	0.188	-1.157	0.202	-0.707	-0.334
stimulus_id D1	-0.745	0.336	-2.217	0.027	-1.450	-0.078	-0.911	-0.626

Conditional R2: 0.360

Marginal R2: 0.105

Table S15 – Results for the model AU27 – Yawning.

	Df	AIC	LRT	Pr(>Chi)
<none>	NA	123.017	NA	NA
condition	1	129.572	8.555	0.003
audio	1	123.388	2.370	0.124
age	1	121.080	0.063	0.802
sex	1	121.328	0.311	0.577
session	1	121.106	0.089	0.766
stimulus_id	1	121.115	0.098	0.755

	Estimate	Std. Error	value	Pr(> z)	Lower CI	Upper CI	min	max
(Intercept)	-3.479	0.816	-4.265	2E-05	2.814	4.324	3.318	3.648
Conditon threatening	-2.303	1.049	-2.196	0.0281	1.451	1.989	1.685	1.775

Audio Natural	-0.983	0.677	-1.452	0.1464	0.067	0.601	0.274	0.383
age	-0.025	0.101	-0.249	0.8034	-0.165	0.048	-0.083	-0.015
sexm	0.338	0.608	0.556	0.5780	-1.247	0.107	-0.679	-0.436
Session Session 2	-0.180	0.606	-0.297	0.7664	-1.317	-0.760	-1.099	-0.975
stimulus_id D1	0.189	0.606	0.312	0.755	-0.196	0.332	0.018	0.090

Marginal R2: 0.270

Table S16 – Results for the model Whine.

	df	AIC	LRT	Pr(Chi)
<none>	NA	2148.072	NA	NA
condition	1	2150.284	4.212	0.040
audio	1	2151.237	5.165	0.023
age	1	2150.522	4.450	0.035
sex	1	2148.626	2.555	0.110
sesssion	1	2146.284	0.212	0.645

	Estimate	Std. Error	t-value	Lower CI	Upper CI	min	max
(Intercept)	-0.222	0.189	-1.181	-0.605	0.131	-0.288	0.058
Condition threatening	-0.103	0.050	-2.050	-0.199	-0.011	-0.110	-0.081
Audio Normal	0.115	0.050	2.271	0.023	0.212	0.049	0.141
age	0.058	0.028	2.094	0.005	0.112	0.014	0.073
sexm	0.268	0.171	1.573	-0.082	0.597	0.106	0.309
Session Session 2	-0.023	0.050	-0.459	-0.126	0.074	-0.056	-0.006
stimulus_id D1	0.057	0.050	1.137	-0.044	0.154	0.014	0.068

Conditional R2: 0.428

Marginal R2: 0.054

Table S17 – Results for the model AD126 - Panting

	df	AIC	LRT	Pr(Chi)
<none>	NA	-853.836	NA	NA
condition	1	-852.209	3.627	0.057
audio	1	-855.618	0.218	0.641
age	1	-855.810	0.026	0.873
sex	1	-854.500	1.336	0.248
session	1	-853.765	2.071	0.150
stimulus_id	1	-853.828	2.007	0.156

	Estimate	Std. Error	t-value	Lower CI	Upper CI	min	max
(Intercept)	0.023	0.023	0.996	-0.020	0.066	0.010	0.032
condition threatening	-0.018	0.010	-1.902	-0.036	0.002	-0.021	-0.014
Audio Normal	-0.004	0.010	-0.466	-0.022	0.014	-0.009	-0.002
age	0.001	0.003	0.155	-0.006	0.006	-0.001	0.001
sexm	0.023	0.020	1.131	-0.017	0.059	0.009	0.027
Session Session2	0.014	0.010	1.436	-0.005	0.032	0.000	0.019
stimulus_id D1	-0.013	0.010	-1.414	-0.034	0.005	-0.016	-0.007

Conditional R2: 0.183

Marginal R2: 0.012