**SUPPLEMENTARY MATERIAL**

# YAWN CONTAGION GOES WILD: FIRST EVIDENCE IN A FREE-RANGING MONKEY SPECIES

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**Video S1 - Legend**

Yawn contagion between gelada males from two different OMUs on the Kundi pleateau Ethiopia

**Raw data:** attached csv file

**Supplementary Table S1 -** Results of the GLMMs performed considering 1min ($GLMM_1$) and 2min ($GLMM_2$) time window from the triggering yawn. Fixed factors: Perception (Yes/No), Group membership (Same/Different), Distance (Proximity/Non-proximity), Time slot (09:01-12:00/12:01-15:00), Sex Trigger (Male/Female), Sex Responder (Male/Female), Yawn duration, Yawn type (Covered Teeth/Uncovered Teeth/Uncovered Gums), Yawn vocalization (Presence/Absence). Random factors: group identity of the dyad. $GLMM_1$: The full model is not significantly different from the null model, therefore no yawn contagion could be detected within 1min from the triggering stimulus. $GLMM_2$: the full model is significantly different from the null model. Perception, Group membership and responder sex had a significant effect as it occurs in the 3-min time window (Table 1 in the main text of the article).

**Table S1**

**$GLMM_1$ performed on 1min time window.**

Dependent variable=yawning performed by a subject within one minute from others' yawns (binomial: present=1; absent=0). Full-model not significantly different from null-model: $\chi2=16.776$, df = 10, p=0.080.

**$GLMM_2$ performed on 2min time window.**

Dependent variable=yawning performed by a subject within two minutes from others' yawns (binomial: present=1; absent=0). Full- versus null-model: $\chi2=29.895$, df = 10, p<0.001.

| **Fixed Effects** | **Estimate** | **SE** | ***z value*** | ***p value*** |
|---|---|---|---|---|
| Intercept | -0.894 | 2.185 | -0.409 | a |
| Perception (Yes)[b,c] | 2.505 | 0.974 | 2.572 | **0.010** |
| Group membership (Same)[b,c] | -2.937 | 1.304 | -2.253 | **0.024** |
| Distance (Non-proximity)[b,c] | -1.044 | 1.190 | -0.877 | 0.381 |
| Time slot (12:01-15:00)[b,c] | 1.233 | 0.935 | 1.319 | 0.187 |
| Sex Trigger (Female)[b,c] | 0.210 | 0.916 | 0.230 | 0.818 |
| Sex Responder (Female)[b,c] | -1.384 | 0.648 | -2.136 | **0.033** |
| Yawn duration | 0.418 | 0.847 | 0.494 | 0.622 |
| Yawn type (Uncovered gums)[b,c] | -0.292 | 0.790 | -0.370 | 0.711 |
| Yawn type (Uncovered teeth)[b,c] | -1.639 | 1.230 | -1.333 | 0.182 |
| Yawn vocalization (Presence)[b,c] | -1.550 | 1.082 | -1.433 | 0.152 |

[a] *Not shown as not having a meaningful interpretation.*

[b] *Estimate ± SE refers to the difference of the response between the reported level of this categorical predictor and the reference category of the same predictor.*

[c]*These predictors were dummy coded, with the "Perception (NO)", "Group membership (Different)", "Distance (Proximity)", "Time slot (09:01-12:00)", "Sex Trigger (Male)", Sex Responder (Male)", "Yawn vocalization (Absent)", "Yawn type (Covered teeth)", being the reference categories.*