Correction to ‘Can female guppies learn to like male colours? A test of the role of associative learning in originating sexual preferences’

M. Herdegen-Radwan

Proc. R. Soc. B 289, 20220212. (Published online; 6 April 2022). (doi:10.1098/rspb.2022.0212)

Block effect in models presented in tables 1−3 was entered incorrectly. Corrected tables are presented below. The results and conclusions of the paper were not affected by these changes.

With this, the correct values of the respective t and z statistics and p-value for the treatment effects are also replacing those reported in the text of the paper.

Acknowledgements. I thank Lechosław Kuczyński for spotting this error.

Table 1. LMM testing female preferences for SC simulated males. The response variable was the proportion of time spent by the female in the orange male's preference zone. The significant term is in italics.

| term                   | estimate | s.e. | d.f. | t     | p-value |
|------------------------|----------|------|------|-------|---------|
| fixed effects          |          |      |      |       |         |
| intercept              | 0.04     | 0.81 | 114.7| 0.05  | 0.962   |
| female treatment (orange) | 1.08    | 0.37 | 116.6| 2.94  | 0.004   |
| female size (small)    | 0.65     | 0.37 | 116.8| 1.78  | 0.077   |
| block 2                | −1.20    | 0.45 | 116.9| −2.66 | 0.009   |
| block 3                | −0.46    | 0.45 | 115.7| −1.03 | 0.303   |
| repeat                 | −0.32    | 0.37 | 115.2| −0.86 | 0.390   |
| male side              | 0.22     | 0.37 | 118.1| 0.58  | 0.564   |
| preference before      | 0.14     | 0.58 | 119.4| 0.24  | 0.811   |
| random effects         |          |      |      |       |         |
| female ID: (Intercept) | 0.0000   |      |      |       |         |
| aquarium: block (intercept) | 0.0000 |      |      |       |         |
| male model: (intercept) | 0.0939  | 0.3066|      |       |         |
| residual               | 4.0266   | 2.0067|      |       |         |

© 2022 The Authors. Published by the Royal Society under the terms of the Creative Commons Attribution License http://creativecommons.org/licenses/by/4.0/, which permits unrestricted use, provided the original author and source are credited.
**Table 2.** LMM testing female preferences for MC simulated males. The response variable was the proportion of time spent by the female in the orange-dominant male’s preference zone. The significant term is in italics.

| term                  | estimate | s.e.  | d.f. | t    | p-value |
|-----------------------|----------|-------|------|------|---------|
| fixed effects         |          |       |      |      |         |
| intercept             | 0.29     | 0.12  | 111.6| 2.53 | 0.013   |
| female treatment (orange) | 0.11   | 0.60  | 113.4| 1.91 | 0.058   |
| female size (small)   | −0.01    | 0.60  | 113.3| −0.11| 0.909   |
| block 5               | 0.12     | 0.07  | 113.0| 1.60 | 0.112   |
| block 6               | −0.11    | 0.14  | 112.5| −0.81| 0.420   |
| repeat                | 0.07     | 0.06  | 112.2| 1.19 | 0.238   |
| male side             | 0.00     | 0.06  | 114.1| 0.00 | 0.996   |
| random effects        |          |       |      |      |         |
| variance              |          |       |      |      |         |
| female id: (intercept)| 0.0000   | 0.0000|      |      |         |
| aquarium: block (intercept) | 0.0000 | 0.0000|      |      |         |
| male model: (intercept)| 0.0012 | 0.0347|      |      |         |
| residual              | 0.1061   | 0.3257|      |      |         |

**Table 3.** GLMM testing the reproductive success of experimental males with experimental females, with female size as covariate. The response variable was the proportion of offspring in a brood that were sired by the orange-dominant male. The significant term is in italics.

| term                  | estimate | s.e.  | z     | p-value |
|-----------------------|----------|-------|-------|---------|
| fixed effects         |          |       |       |         |
| intercept             | 8.21     | 10.76 | 0.76  | 0.445   |
| female treatment (orange) | −18.66 | 7.39  | −2.52 | 0.012   |
| female size           | −0.75    | 0.94  | −0.80 | 0.424   |
| block 5               | 0.98     | 10.48 | 0.09  | 0.925   |
| block 6               | −1.18    | 10.82 | −0.11 | 0.913   |
| random effects        |          |       |       |         |
| variance              |          |       |       |         |
| aquarium: block (intercept) | 201.5  | 14.2  |       |         |