

Table S2:

A) Model selection outcome using Akaike information criterion (AIC) comparing the time course of vigilance across different situations in Gouldian Finches with respect to age class, sex, head colour morph and partner head colour morph

Model	AIC	Diff ¹
<i>Basic model² + age class x period x situation + sex x period x situation + head colour x period x situation + partner head colour x period x situation</i>	1799.446	
Basic model + age class x period x situation + sex x period x situation + head colour x period x situation	1869.772	70.326
Basic model + age class x period x situation + sex x period x situation + partner head colour x period x situation	1871.472	72.026
Basic model + age class x period x situation + head colour x period x situation + partner head colour x period x situation	1879.267	79.821
Basic model + age class x period x situation + sex x period x situation	1940.180	140.734
Basic model + age class x period x situation + head colour x period x situation	1948.834	149.388
Basic model + sex x period x situation + head colour x period x situation + partner head colour x period x situation	1950.987	151.541
Basic model + age class x period x situation+ partner head colour x period x situation	1951.279	151.833
Basic model + age class x period x situation	2019.624	220.178
Basic model + sex x period x situation + head colour x period x situation	2020.544	221.098
Basic model + head colour x period x situation + partner head colour x period x situation	2029.552	230.106
Basic model + sex x period x situation+ partner head colour x period x situation	2030.461	231.015
Basic model + sex x period x situation	2095.810	296.364
Basic model + head colour x period x situation	2099.294	299.848
Basic model + partner head colour x period x situation	2106.325	306.879
Basic model	2172.970	373.524

¹Diff: Difference in AIC to best model (italics)

²Basic model: Period + period x situation + partner colour morph (C)

C: variable entered as covariate

B) Model selection outcome using Akaike information criterion (AIC) comparing the time course of vigilance in the exploration trial in Gouldian Finches between birds that touched the object and those that did not considering age class, sex, head colour morph and partner head colour morph

Model ¹	AIC	Diff ²
<i>Basic model + age class x period</i>	-51.562*	
Basic model + age class x period + partner head colour x period	-42.409*	9.153
Basic model + age class x period + sex x period + head colour x period + partner head colour x period	-28.216*	23.346
Basic model	-27.472	24.090
Basic model + sex x period	-27.426	24.136
Basic model + age class x period + head colour x period	-22.752*	28.810
Basic model + partner head colour x period	-17.116	34.446
Basic model + sex x period + partner head colour x period	-16.922	34.640
Basic model + head colour x period	-14.669	46.893
Basic model + sex x period + head colour x period	-13.423	38.139
Basic model + age class x period + sex x period	-6.528*	45.034
Basic model + head colour x period + partner head colour x period	-4.890	46.672
Basic model + sex x period + head colour x period + partner head colour x period	-3.756	47.806
Basic model + age class x period + sex x period + partner head colour x period	1.100*	52.662
Basic model + age class x period + sex x period + head colour x period	4.790*	56.352
Basic model + age class x period + head colour x period + partner head colour x period	8.323*	49.885

¹All models were run with 1,000 iterations

²Diff: Difference in AIC to best model (italics)

³Basic model: Period + approach + period x approach + partner colour morph (C)

C: variable entered as covariate

*The Hessian matrix was not positive definite although all convergence criteria were satisfied.

- C) Model selection outcome using Akaike information criterion (AIC) comparing the time course of vigilance in the neophobia trial in Gouldian Finches between birds that approached the feeder in reach or landed on it and those that did not considering age class, sex, head colour morph and partner head colour morph

Model ¹	AIC	Diff ²
<i>Basic model</i> ³	-96.295	
<i>Basic model + sex x period</i>	-96.061	0.234
Basic model + head colour x period	-83.932	12.363
Basic model + partner head colour x period	-81.898	14.397
Basic model + sex x period + partner head colour x period	-81.802	14.493
Basic model + sex x period + head colour x period	-80.557	15.738
Basic model + head colour x period + partner head colour x period	-69.690	26.605
Basic model + age class x period	-66.963	29.332
Basic model + sex x period + head colour x period + partner head colour x period	-65.865	30.430
Basic model + age class x period + sex x period	-64.080	32.215
Basic model + age class x period + head colour x period	-59.250	37.045
Basic model + age class x period + partner head colour x period	-54.258	42.037
Basic model + age class x period + sex x period + head colour x period	-52.510	43.785
Basic model + age class x period + sex x period + partner head colour x period	-50.875	45.420
Basic model + age class x period + head colour x period + partner head colour x period	-45.494	50.801
Basic model + age class x period + sex x period + head colour x period + partner head colour x period	-37.736	58.559

¹All models were run with 1,000 iterations

²Diff: Difference in AIC to best model (italics)

³Basic model: Period + approach + period x approach + partner colour morph (C)
C: variable entered as covariate