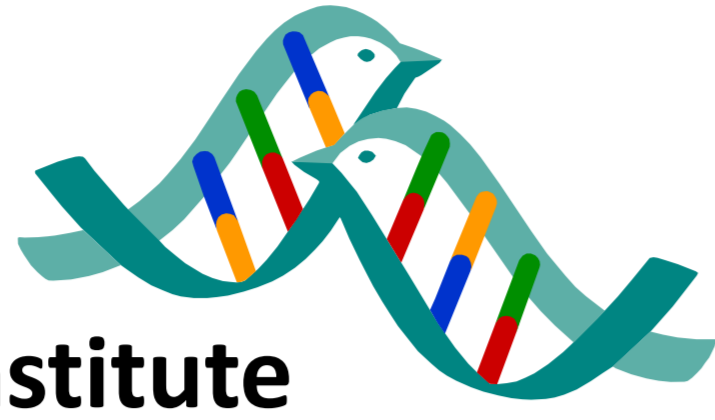


Are love marriages doing better than arranged ones ?



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Aim

Quantify the benefits of mate choice arising from compatibility

- in a wild-derived population of zebra finches -

- Indirect benefits = genetic compatibility
- Direct benefits = behavioral compatibility

Background – previous results

Fate of individually cross-fostered eggs analyzed by mixed effect models

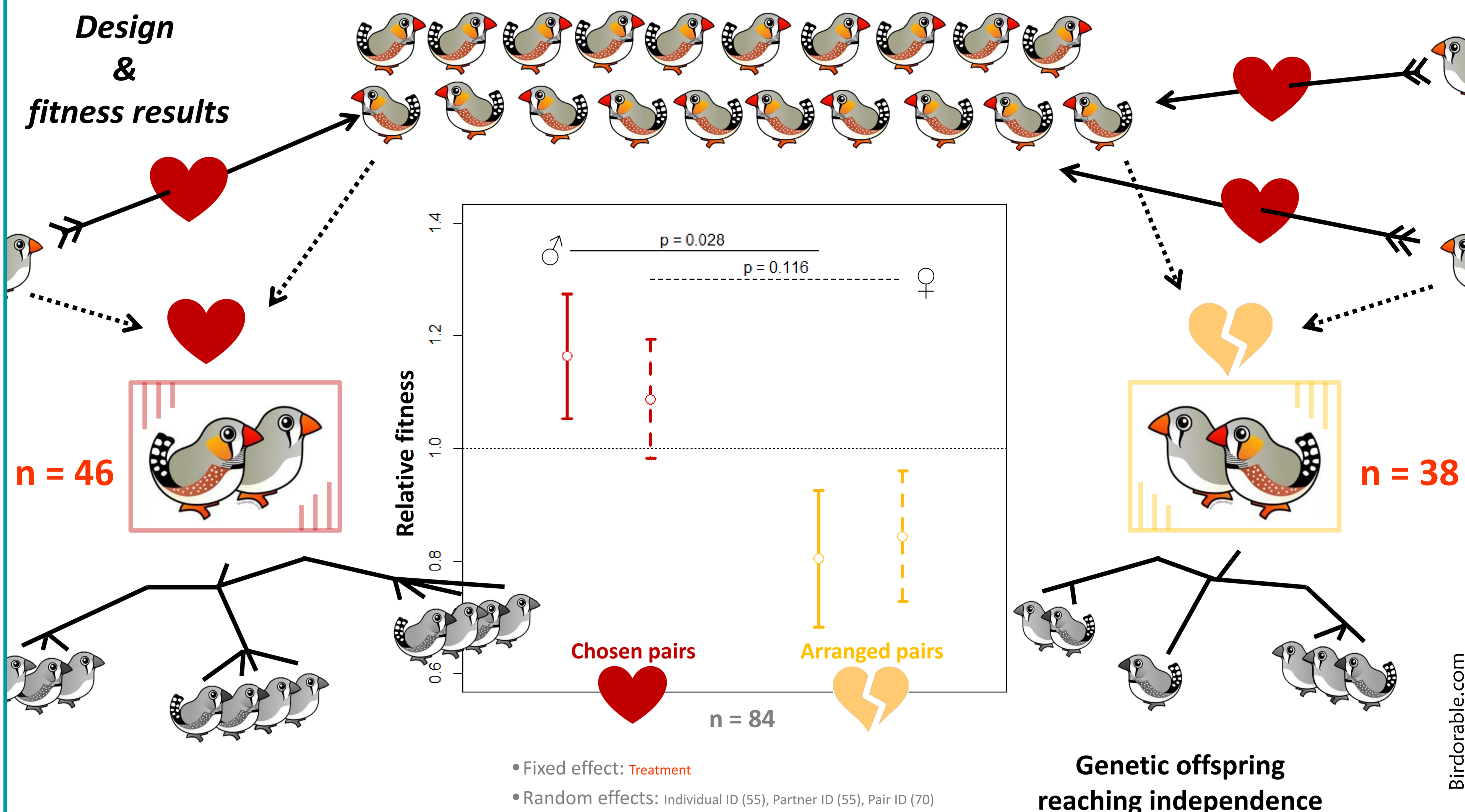
random factor explaining most of the variance

- Embryo mortality ~ Genetic pair ID ← genetic incompatibility (1519 fertilized eggs, 256 genetic pair IDs, 260 foster pair IDs)
- Chick mortality ~ Foster pair ID ← behavioral incompatibility (1107 chicks, 231 genetic pair IDs, 252 foster pair IDs)

Design timeline

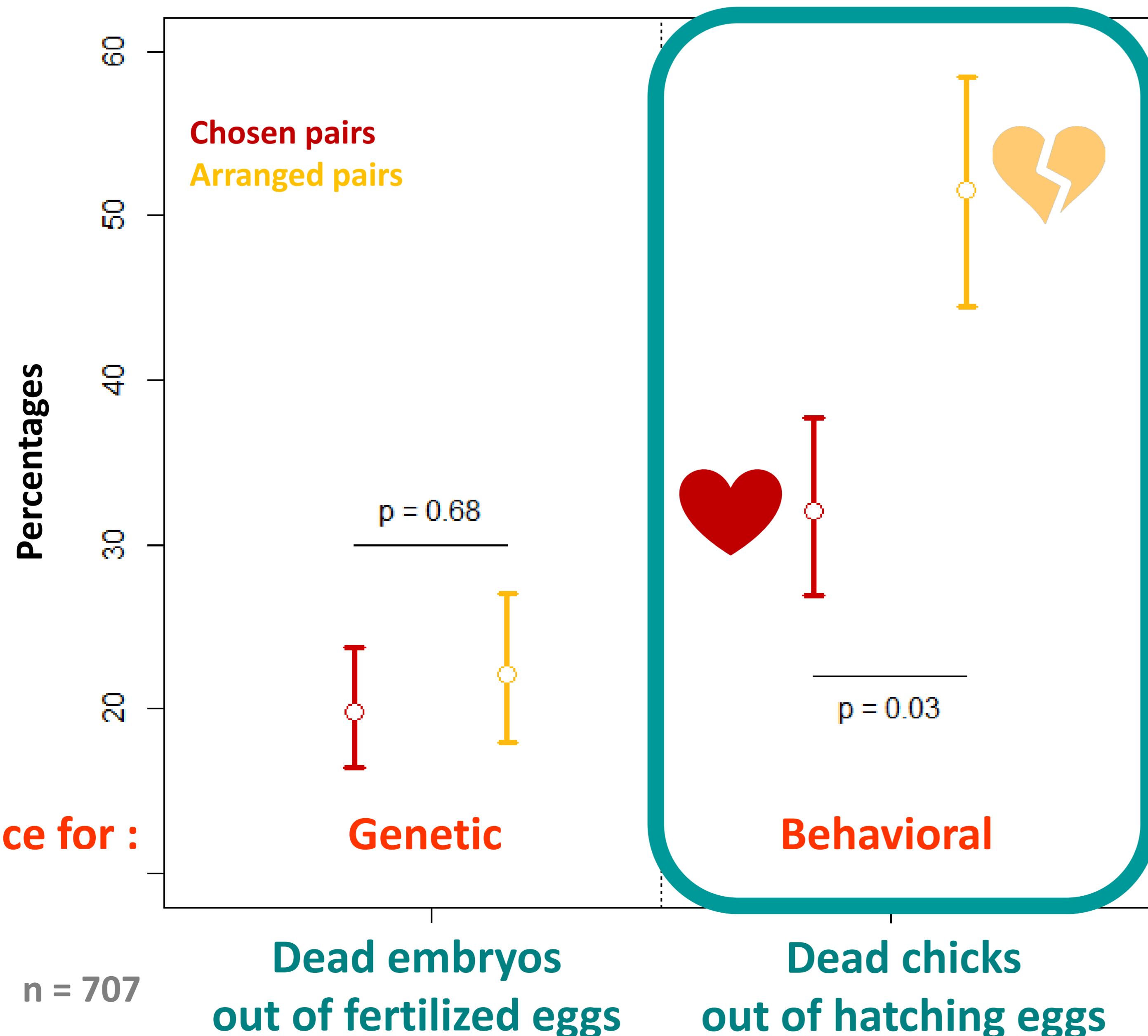


Design & fitness results



Chosen pairs have higher fitness due to behavioral compatibility but not due to genetic compatibility

Results of hypothesis testing: genetic vs behavioral compatibility



- Fixed effects:
 - Treatment
 - Year
 - Egg #
- Random effects:
 - Genetic Level
 - Clutch ID (205)
 - Male ID (53)
 - Female ID (52)
 - Pair ID (64)

- Fixed effects:
 - Treatment
 - Year
 - Chick #²
- Random effects:
 - Social Level
 - Clutch ID (181)
 - Male ID (54)
 - Female ID (53)
 - Pair ID (65)

Results of exploratory analyses

- Lack of commitment**
 - less willing to copulate with their partner (p = 0.01, n = 2503 courtships)
 - more promiscuous (p = 0.04, n = 245 clutches with paternity)
- Lack of coordination**
 - lower nest attendance during hatching (p = 0.03, n = 563 days of hatching)
 - No clear pattern emerging (n = 8457 focal pair watches)