

ReadMe file for data files: 1) Training_data.csv and 2) Test_data.csv

Naïve and experienced honeybee foragers learn normally-configured flowers more easily than non-configured or highly-contrasted flowers

Scarlett R Howard^{1*}, Adrian G Dyer^{2,3*}, Jair E Garcia^{2†}, Martin Giurfa^{4†}, David H Reser^{3,5†}, Marcello G P Rosa^{3†}, and Aurore Avarguès-Weber⁴

¹ Centre for Integrative Ecology, School of Life and Environmental Sciences, Deakin University, Burwood, VIC, Australia

² Bio-inspired Digital Sensing (BIDS) Lab, School of Media and Communication, RMIT University, Melbourne, VIC 3000, Australia

³ Department of Physiology and Neuroscience Program, Biomedicine Discovery Institute, Monash University, Clayton, VIC 3800, Australia

⁴ Centre de Recherches sur la Cognition Animale (CRCA), Centre de Biologie Intégrative (CBI), Université de Toulouse, CNRS, UPS, Toulouse 31000, France

⁵ Monash Rural Health-Churchill, Churchill, VIC 3842, Australia

* Authors for correspondence:

Scarlett R Howard

s.howard@deakin.edu.au

Adrian G Dyer

adrian.dyer@rmit.edu.au

† Authors listed alphabetically

This ReadMe file describes the data files accompanying the above publication. For any further queries please contact s.howard@deakin.edu.au or adrian.dyer@rmit.edu.au

The following files are included:

1) "Training_data.csv"

This file contains the raw data for each trial block (6 choices per trial block – 30 choices overall) during the conditioning phase of the experiment. The columns are as follows:

Bee_ID: ID of individual bee

Bee_type: A score of '1' is an experienced bee forager and a score of '2' is a naïve bee forager.

Group: A score of '1' is a bee trained on normally configured flowers, a score of '2' is a bee trained on scrambled flowers, a score of '3' is a bee trained on high-contrast flowers, and a score of '4' is a bee trained on asymmetrically scrambled flowers.

Trial block: Trial blocks 1-5.

Correct: The sum of correct choices per trial block.

Incorrect: The sum of incorrect choices per trial block.

2) "Test_data.csv"

This file contains the raw data for each test (20 choices each) during the conditioning phase of the experiment. The columns are as follows:

Bee_ID: ID of individual bee

Bee_type: A score of '1' is an experienced bee forager and a score of '2' is a naïve bee forager.

Group: A score of '1' is a bee trained on normally configured flowers, a score of '2' is a bee trained on scrambled flowers, a score of '3' is a bee trained on high-contrast flowers, and a score of '4' is a bee trained on asymmetrically scrambled flowers.

Score*100: The percentage of correct choices per bee.

Correct: The sum of correct choices.

Incorrect: The sum of incorrect choices.