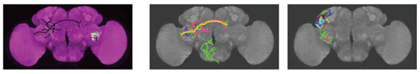
This Week in The Journal

Shared Circuits for Aggression in Male and Female *Drosophila*

Liangyu Tao, Deven Ayambem, Victor Barranca, and Vikas Bhandawat

(see article e0142242024)

In many ways, aggression is considered a sexually dimorphic social behavior. Neuroscientists have uncovered sexually dimorphic aggression-related circuits supporting this idea. But herein, Tao and colleagues provide evidence in *Drosophila* for circuits driving aggression in both sexes that may be activated in parallel to the sexually dimorphic circuits. They looked at a group of neurons previously implicated in male aggression called CL062 and found that these neurons support aggression in both male and female *Drosophila*. The authors used connectomics analyses to reveal that CL062 neurons do not express a gene required for sexual dimorphism in flies and that they connect to populations of descending neurons different from other known dimorphic aggression-related neurons. This study points to the need for investigating how monomorphic versus dimorphic mechanisms are organized to drive aggression, thus shaping future research for the field.



Left, Template brain (purple) with a sample multicolor flip brain, which allows neurons to be traced (green), registered onto it. Neuron "skeletons" traced in black. Middle and right, "Skeletonized" right hemisphere neurons from different brain regions traced in different colors. See Tao et al. for more information.

Clarifying How Information from Visual Memories Is Stored

Henry Jones, William Thyer, Darius Suplica, and Edward Awh

(see article e0448242024)

How is information in working memory stored in the brain? Jones and colleagues addressed this question in two human EEG studies of young adults. In one study, participants performed a memory task in which they were presented with objects of different colors or orientations. The authors found that the way color and orientation memories were stored was nearly identical, though it was still possible to decode which features were stored. In the other study, participants performed a different memory task in which they attended to color- or movement-related content. Although these properties are distinctly represented in the cortex, the authors discovered that the way color and motion visual memories were stored was still generalizable. These studies suggest that, while the specific content impacts how information is stored in the brain, a common neural mechanism must also underlie how these items are held in working memory. This work used a range of data sources and analyses to parcel out differences in memory load that will be informative to the neuroscience community, especially those studying working memory, attention, or visual cognition.

This Week in The Journal was written by Paige McKeon
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