nature machine intelligence

SUPPLEMENTARY INFORMATION

https://doi.org/10.1038/s42256-019-0132-2

In the format provided by the authors and unedited.

Learning as the unsupervised alignment of conceptual systems

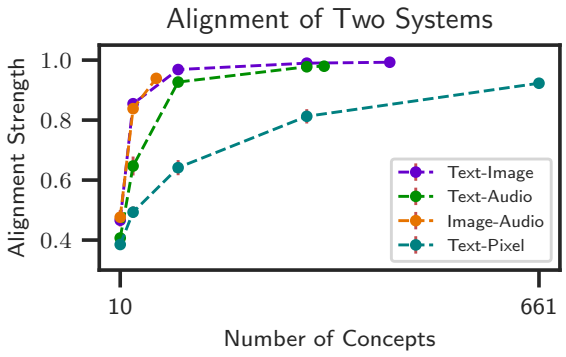
Brett D. Roads[1]* and Bradley C. Love[1,2]

[1]Department of Experimental Psychology, University College London, London, UK. [2]The Alan Turing Institute, London, UK. *e-mail: b.roads@ucl.ac.uk

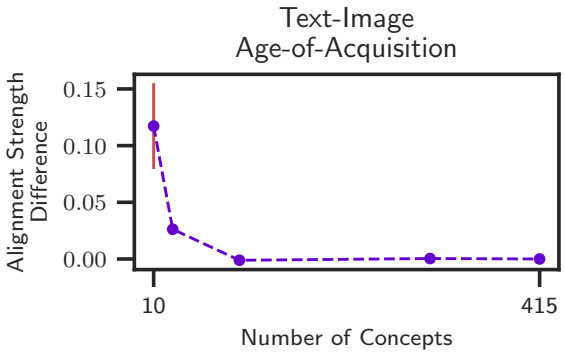
Supplementary Materials for Learning as the Unsupervised Alignment of Conceptual Systems

Brett D. Roads & Bradley C. Love

Supplementary Figures



Supplementary Figure 1: The alignment strength of two-system alignment scenarios. The size of the subset is denoted by the horizontal axis and the average alignment strength is denoted by the vertical axis. Each data point represents the mean alignment strength of 50 independent runs. Each run uses a random subset of the specified number of concepts. Error-bars indicate standard error of the mean across the 50 runs. In the Text-Pixel scenarios, each data point represents the mean alignment strength of 25 different versions, each composed of 50 independent runs. In the Text-Pixel scenarios, error-bars indicate standard error of the mean across the 25 different versions. The dashed lines between data points provide guides to the eye.



Supplementary Figure 2: Alignment strength using age-of-acquisition data. The difference between alignment strength for age-of-acquisition subsets and random subsets as a function of number of concepts used during alignment. Each data point represents the mean alignment strength difference of 50 randomly sampled subsets. Red error-bars indicate the standard error of the mean for the 50 subsets. The dashed lines between data points provide guides to the eye. When age-of-acquisition data is taken into account, subsets are created by selecting concepts that have the lowest age-of-acquisition for the a particular subset size.