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August 11, 2021

To the editors of *Nature Communications*:

We have enclosed an updated manuscript that incorporates your requested changes to *High-level cognition during story listening is reflected in high-order dynamic correlations in neural activity patterns* (manuscript NCOMMS-19-32008C).

Your requests are *italicized* and our responses are in **bold**.

Sincerely,

Jeremy R. Manning

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Dartmouth.edu

1) The main figures must be cited in order. For example, figure 10 is cited before figures 4-9.

We have removed the early reference to Figure 10.

2) Please remove the crossed out sections in the article file.

We have provided two versions of the article file. One version highlights tracked changes to facilitate your review, and the second version provides a clean copy of our revised text.

*3) Figure 3 must be provided on one page, not two.* 

#### Done.

4) The word 'financial' needs to be removed from the competing interests section.

### Done.

5) Please acknowledge in the data availability statement that you have provided the source data with the manuscript. For example you can add a sentence such as "The source data underlying Figs 1a, 2a–d, 6d, h and 7c and Supplementary Figs 1a and 5d are provided as a Source Data file."

### Done.

6) We have made some changes to the two sentence summary. Please confirm that you agree with them.

Coordinated patterns of brain activity reflect cognitive processes. Here the authors use a mathematical framework for describing dynamic patterns in brain networks to show they organize in a fractal-like hierarchy during story listening.

## We agree to these changes.

7) Please provide any Twitter handles you would like associated with your work and if there is a particular Figure you would like to promote.

We have attached a figure to promote. Our twitter handles are @jeremyRmanning and @LucyLongOwen.

8) Please add a statement to the Data Availability section indicating 'Source Data are provided with the manuscript.'

# Done.

9) Consider title change to "Levels of cognition during story listening are reflected in orders of dynamic network patterns'

We would prefer to keep our original title.