

Question for article Dehaene et al., *The Neural Representation of Sequences: From Transition Probabilities to Algebraic Patterns and Linguistic Trees*, 2017.

Can we collapse ordinal knowledge and chunking level to transition and timing knowledge and algebraic patterns respectively? For the ordinal knowledge, having the knowledge of which item comes when might be deduced from how many intervals have passed since the first item (irrespective of the length of an interval). Therefore 2 intervals after the 1st item coincides with 3rd item or 3 intervals after 2nd item corresponds to 5th item. At the same time, chunking process sounds like running algebraic patterns algorithm recursively and holding each sub pattern of syllables in working memory until a bigger pattern is captured. For example, creating a pattern of du du ba can be mapped as A A B and if these three syllables repeat enough time to appear as a bigger pattern such as du du ba du du ba du du ba... then this can be encoded as A A B A A B A A B and finally turned into C C C (or anything that of same identity).