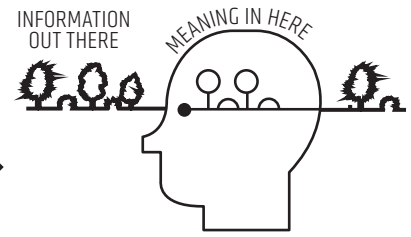


Alan Baddeley wanted to assimilate, in his model, Ebbinghaus' work on the mechanics of memory with Bartlett's work on schema and understanding.



To start, we need to remind ourselves of our biological constraints in learning with regard to our working memory, limited to around 4 'slots'.



We make sense of the world by interpreting what we see and hear, building personal meaning by selecting and combining what seems familiar.

START  
END



Daniel Willingham urges teachers to always keep depth of knowledge firmly in mind, even if shallow learning precede it —echoing the link from Ebbinghaus to Bartlett.

## MEMORY AND MEANING

ResearchED Rugby 2018  
A SUMMARY OF MY SLIDES

*Understanding is  
memory in disguise.*



ELEMENT | CHUNK | SCHEMA | MENTAL MODEL



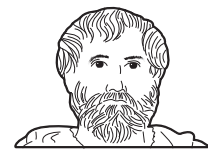
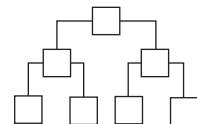
In conversation with two eminent psychologists, I asked for what was the convention regarding the terminology for the build-up to a schema.

Where the information being learned has a framework or structure that can be used to organise both the learning and the retrieval then memory is often considerably improved.



The editor of the Blackwell Dictionary of Cognitive Psychology is clear about the power of explicit structures in aiding both learning and retrieval.

*My presentation is  
an enquiry into  
this quote from  
Daniel Willingham.*



Aristotle formalised and developed existing folk taxonomies into formal set theory from which we construct our categories. Or so we think.

### ROMANTIC LANGUAGES



EXAMPLES

French  
Italian  
Spanish



NON-EXAMPLES

German  
Swedish  
Dutch

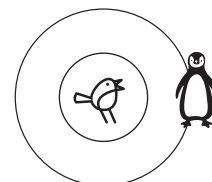


The creator of Direct Instruction argues that non-examples should sit alongside examples as the best way to teach concepts (ie categories).

Poorly organised knowledge cannot be remembered or used. But students don't know how to organise their knowledge effectively.



The author of Applying Cognitive Science to Education thinks teachers should teach how to organise knowledge explicitly.



Rosch's theory reveals that we organise categories around prototypes that we consider to have more essence of the grouping — eg as in 'birdness'