Task complexity shapes internal representations and robustness in neural networks

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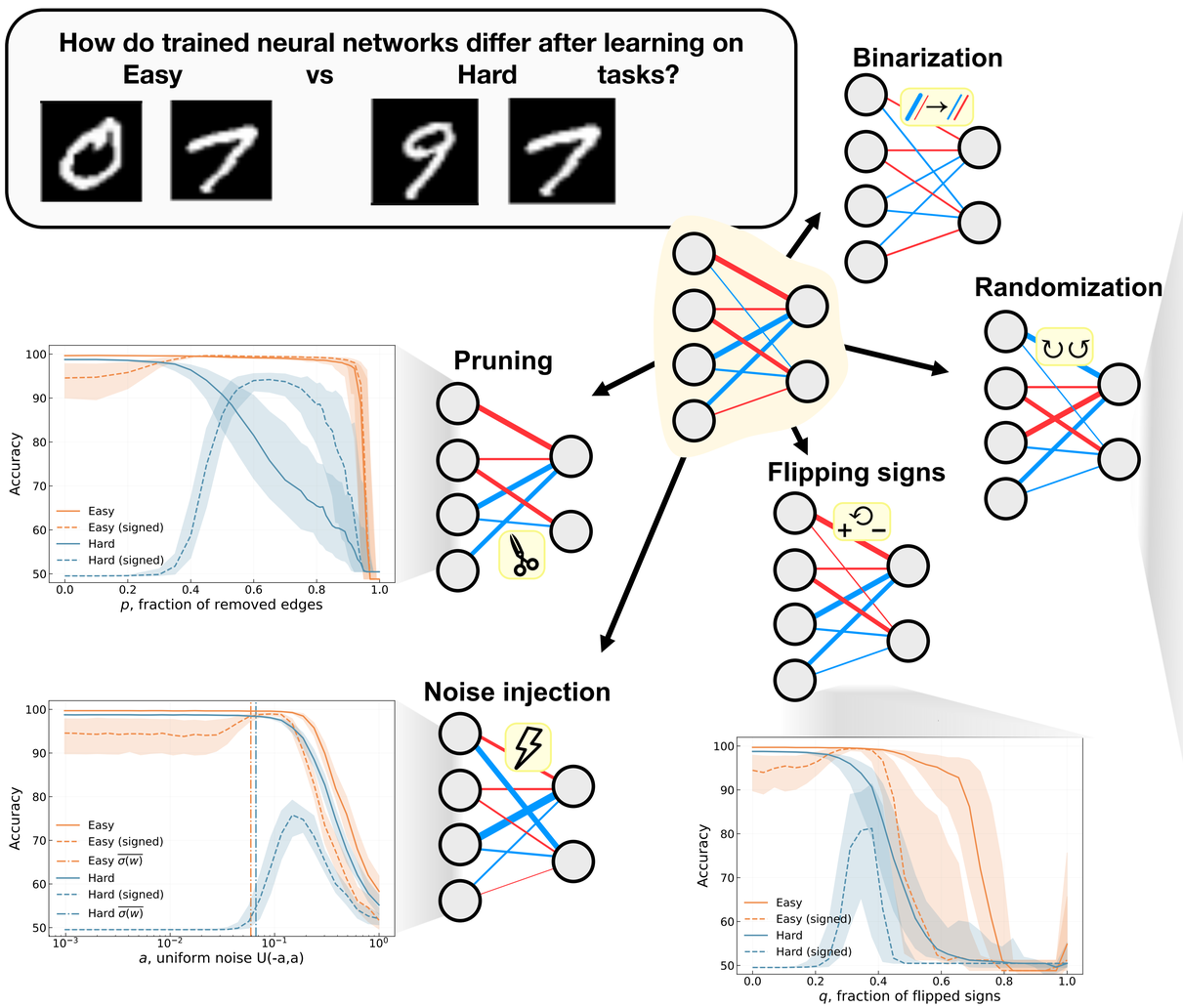
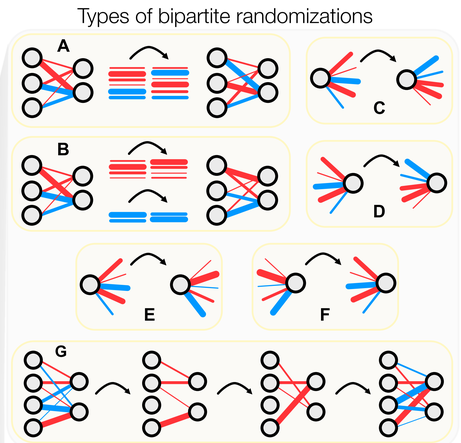
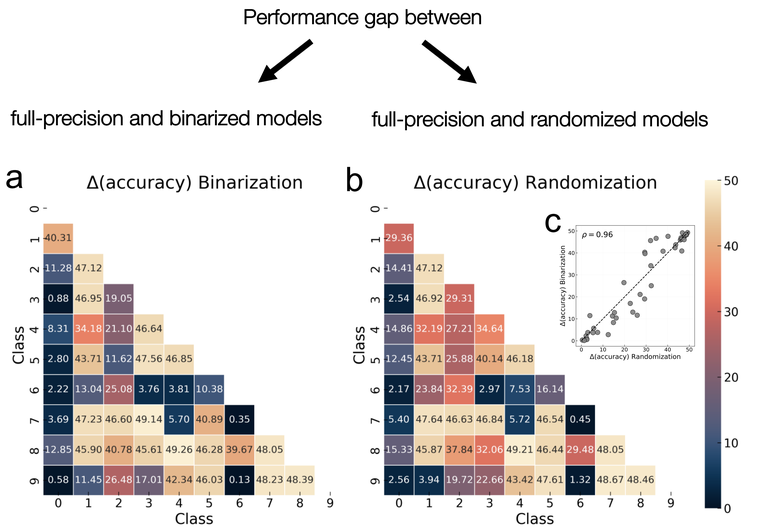
Easy and hard tasks differ in how their learned weights respond to structural perturbations

Data-agnostic probes of learned weight structure



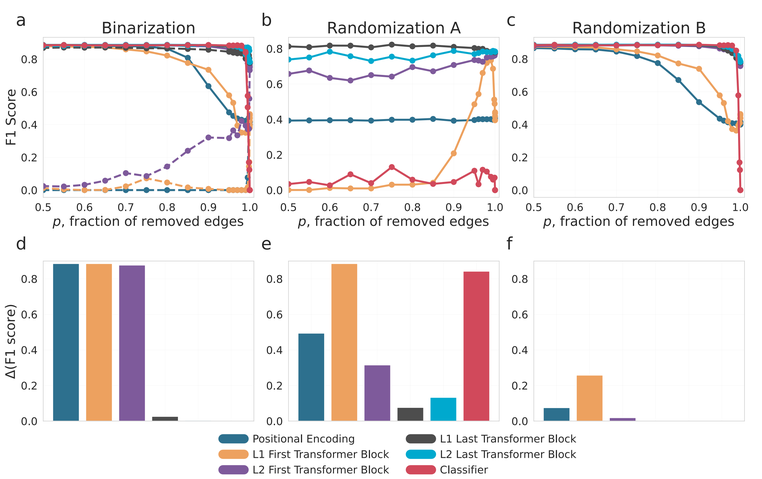


Defining task complexity



Probing transformer robustness on NER

- Robustness increases with layer depth
- Randomization A partially preserves F1 score



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