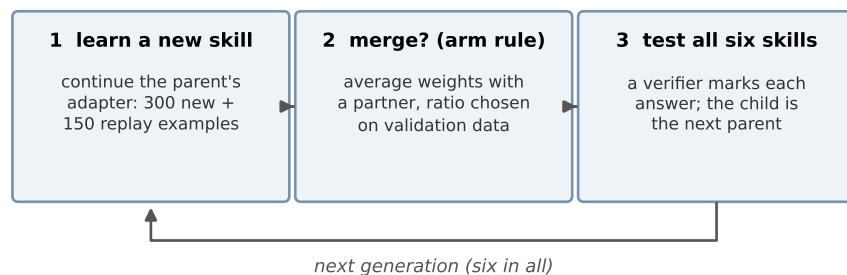


How the six-generation language-model population works

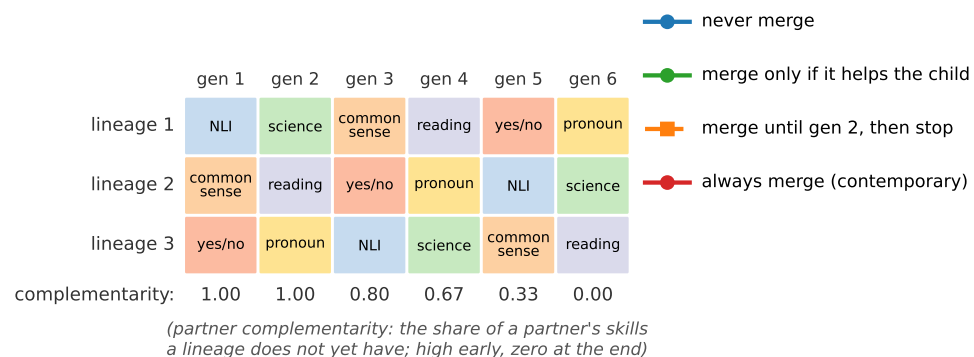
A 3 lineages · 6 generations · 3 training seeds; Qwen2.5-1.5B base (1.5 billion parameters)

each generation, every lineage:



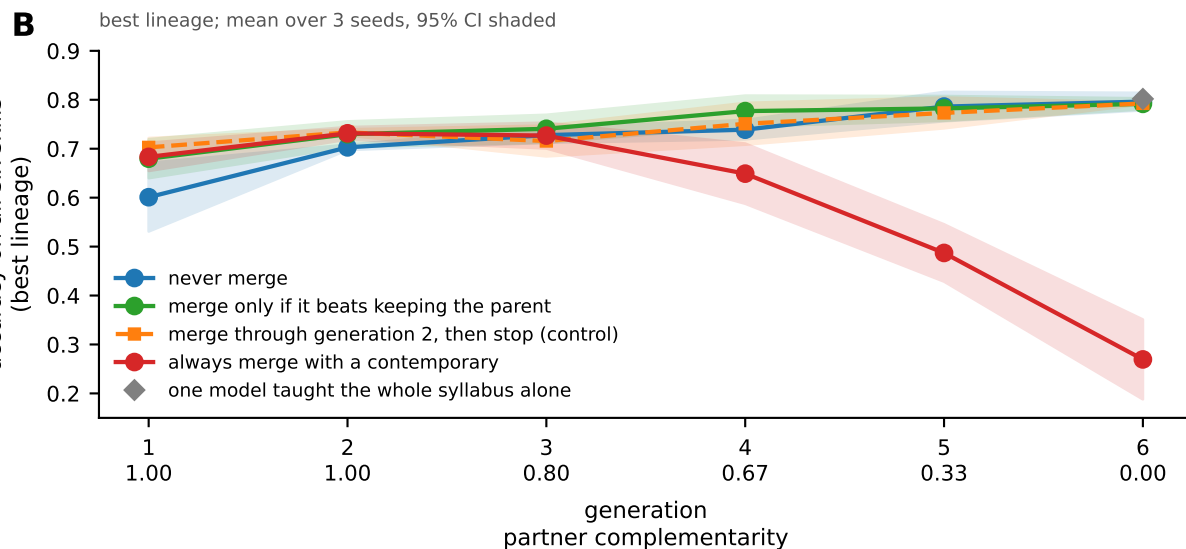
the syllabus (six skills, rotated)

the arms



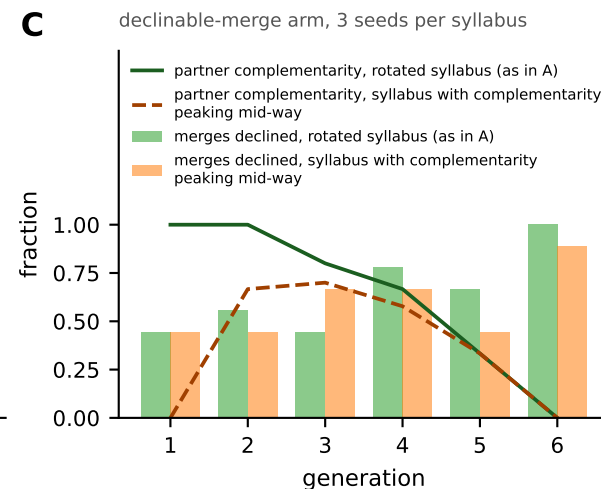
Forced merging collapses once partners stop knowing different things; optional merging stays level with never merging

best lineage; mean over 3 seeds, 95% CI shaded



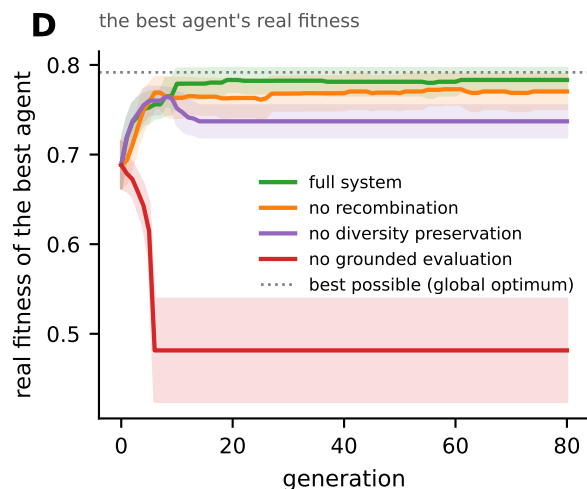
Lineages decline merges more often as generations pass, whatever the partner offers

declinable-merge arm, 3 seeds per syllabus

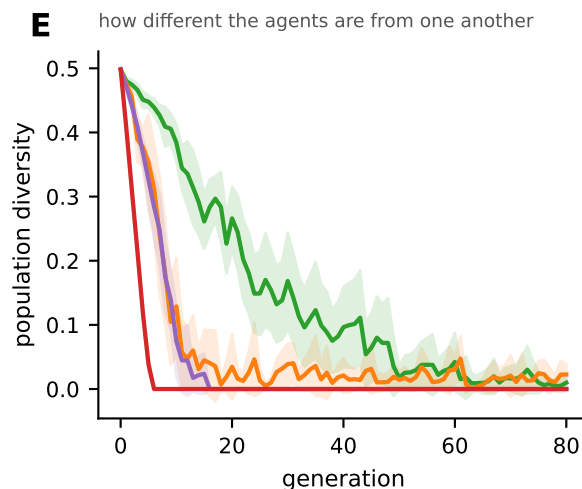


Simulated society: remove one mechanism and it fails in its own way

the best agent's real fitness



how different the agents are from one another



how far the crowd's consensus sits from the truth

