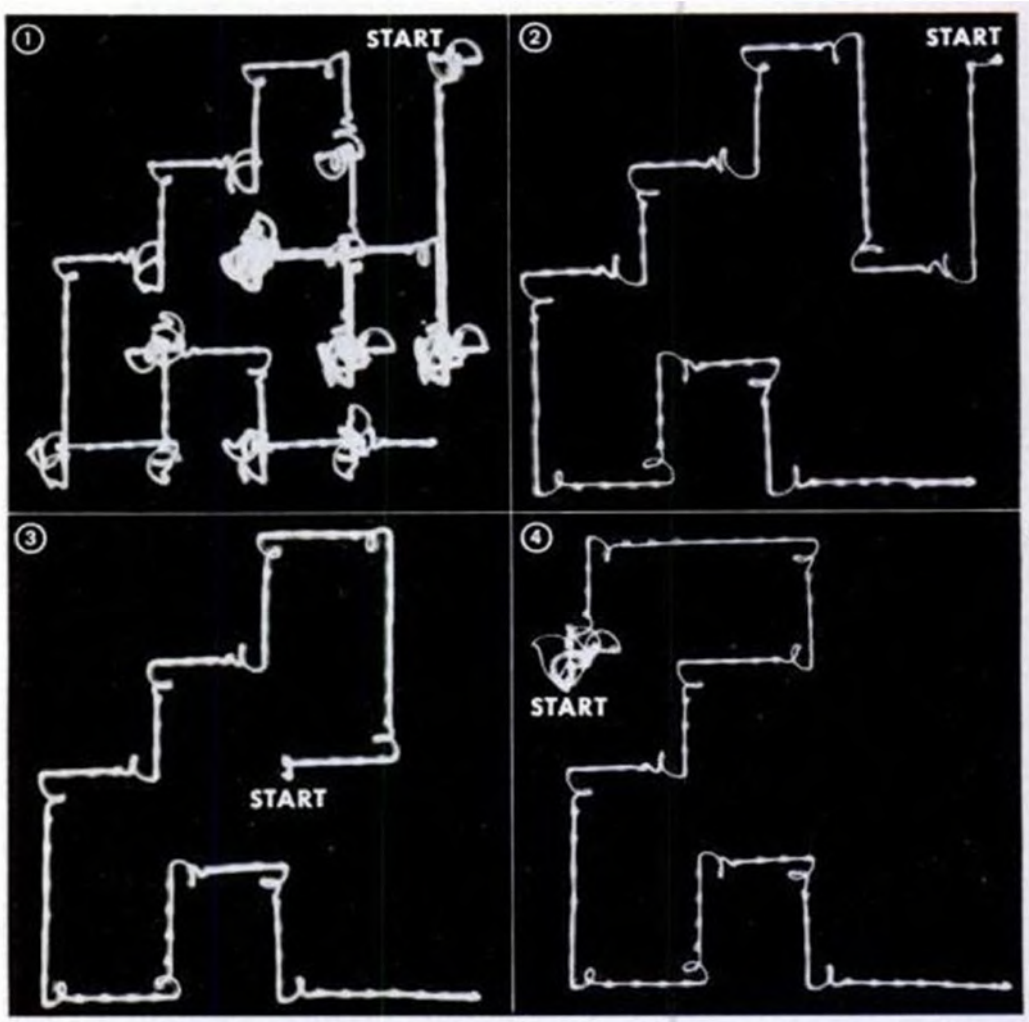
Theseus: Shannon's Mouse-in-Maze



MEMORY TESTS show how Theseus learns. In first trial the mouse makes wrong turns, leaves complicated trail. Second time he starts from the same place, goes straight to the goal. In third trial he is started from different spot but is on the original trail, so has no trouble. The fourth time he is put in an unfamiliar square, blunders around until he gets on the course he has learned.

- Theseus learns by experience and trial-and-error
- Memory of its route such that, when placed in a new spot that was on the previous route, Theseus can ignore blind alleys (i.e., previous errors made) and navigate correctly to end point.
- When maze topology changes, Theseus *forgets outdated knowledge, relearns and incorporates new knowledge* to existing ones in memory
- This Shannon's maze opens door to new results in many fields such as graph theory (breadth-first-search) and AI applications (e.g., our Internet!).