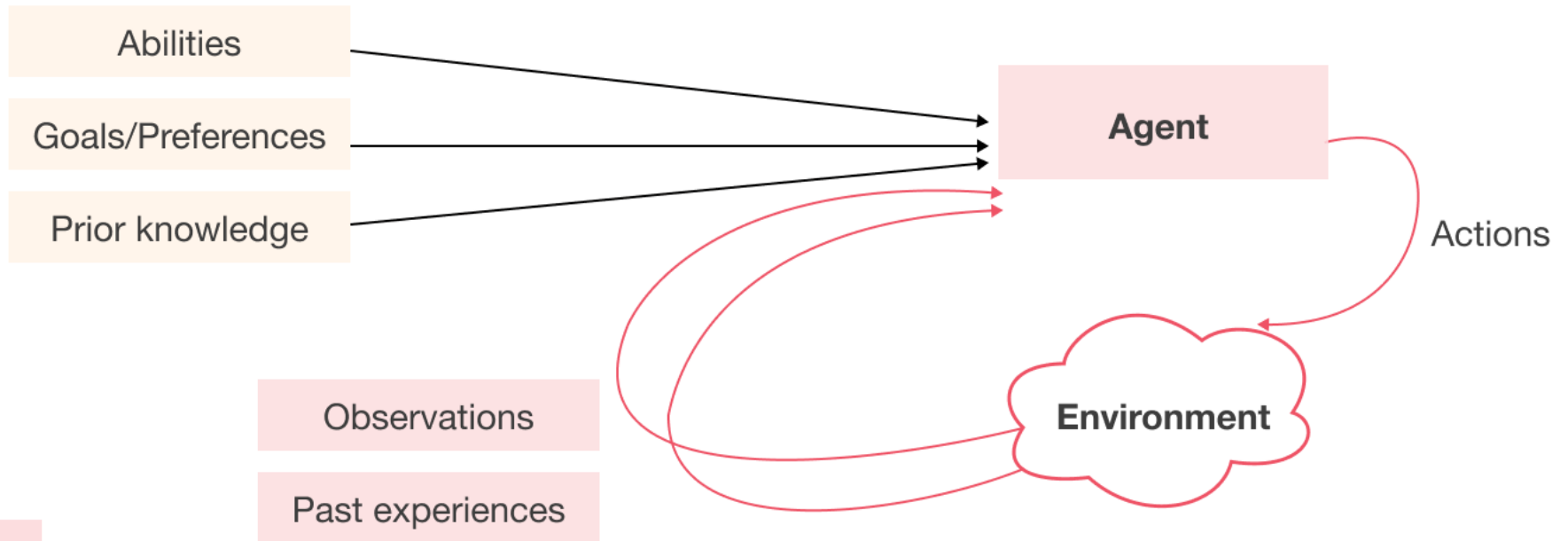# Agent Based Model

construct a simple simulation of sound change in a population of agents with different personalities (stubborn or flexible learners).

We will try to answer questions like:
- Has one of the variants spread to the entire community?
- Does this depend on the community's size and initial structure?
- How many stubborn people must be present to prevent (or facilitate?) convergence? etc.

1. **Make Agent** - creating an agent that has a vowel and a personality
2. **Make Population** - creating a population of agents using the function
3. **Count** - counting the proportion of agents with the same vowel in the population
4. **Choose Pair** - choosing two agents out of the population
5. **Interact** - implementing the interaction between the two agents

What is an AI agent?

Abilities

Goals/Preferences

Prior knowledge

Agent

Actions

Observations

Past experiences

Environment

World
OS
Internet
API server
hardware
physical world
...

AI Agent

Tool(s)
website APIs
applications
shell
database
...

API Doc/
feedback

LLM

RAG

Memory
In-RAM data
SQL
VectorDB
...

generate

execute

Action

update

Clients

Clients

Staff

Agent

Web

Hire more Agents

Agent

Build Agent service

Agent

Staff

Ready for Agent

API

Legacy System

客戶

服務介面　企業　服務支援