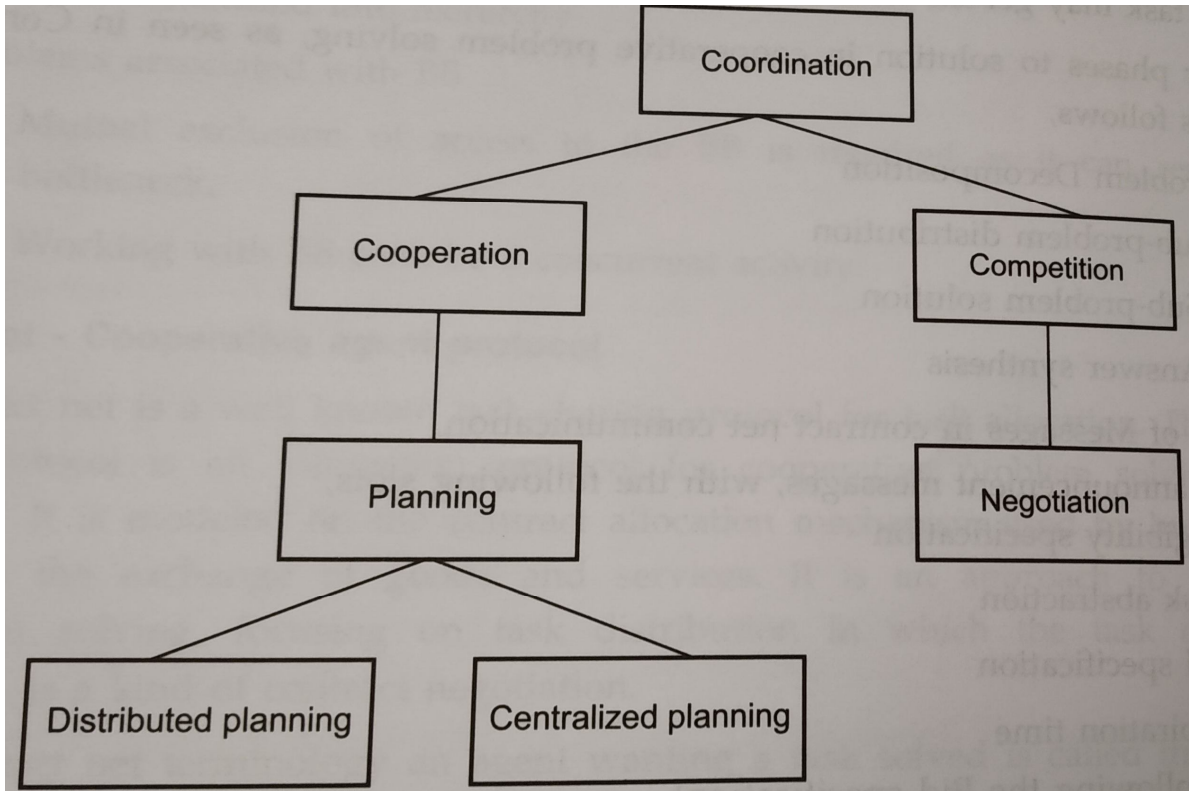


CS8691-ARTIFICIAL INTELLIGENCE

COORDINATION

- Agents communicate in order to achieve better the goals of themselves or of their system.
- Sometimes it may happen that the goals might or might not be known to agents explicitly, depending on whether or not the agents are goal-based agents
- Communication enables the agents to coordinate their actions and behavior , resulting in systems that are more coherent and that all the agents strive to achieve single common goal.
- Coordination is a property of a multi-agent system that performs some activity in a shared environment. The degree of coordination is the extent to which they avoid extra activity by reducing resource contention, avoiding bottlenecks, and maintaining applicable safety conditions.
- Cooperation is coordination among non-antagonistic (acting for same goal; favoring each other, working together) agents, while negotiation is coordination among competitive or simply self-interested agents.
- To cooperate successfully, each agent must maintain a model of the other agents, and also develop a model of future interactions. This is termed as being social.



- Coherence is how well a system behaves as a unit. A problem for a multiagent system is how it can maintain global coherence without explicit global control. For this, the agents must be able to determine their goals they share with other agents, determine common tasks, avoid unnecessary conflicts, and maintain knowledge and evidence.
- Social commitments can be a means to achieving coherence.
- Essentially, coherence and are intimately related