



ensia The National School of
Artificial Intelligence
المدرسة الوطنية العليا للذكاء الاصطناعي

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الجمهورية الجزائرية الديمقراطية الشعبية
وزارة التعليم العالي والبحث العلمي

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المدرسة الوطنية العليا للذكاء الاصطناعي

National High School of Artificial Intelligence

(ENSIA)

Academic Year
2023-2024
[Y2-S1]

YOUR MANAGEMENT COURSE

Introduction to
BUSINESS

Introduction to Business / NNSAI (ENSIA) 2023-2024 / Instructor: Prof. Oukil



PART 3: PLANNING AND CONTROL

Chapter 8: **FUNDAMENTALS TO DECISION MAKING**

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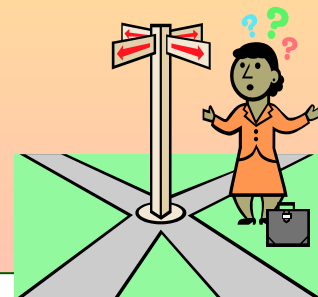


4 Learning Goals:

1. Explain **certainty**, **risk**, and **uncertainty** and how they affect decision making;
2. Describe the characteristics of routine, adaptive, and innovative decisions;
3. Discuss the rational and bounded rationality models of managerial decision making, and
4. Explain the features of political managerial decision making.



Elements of decision making:



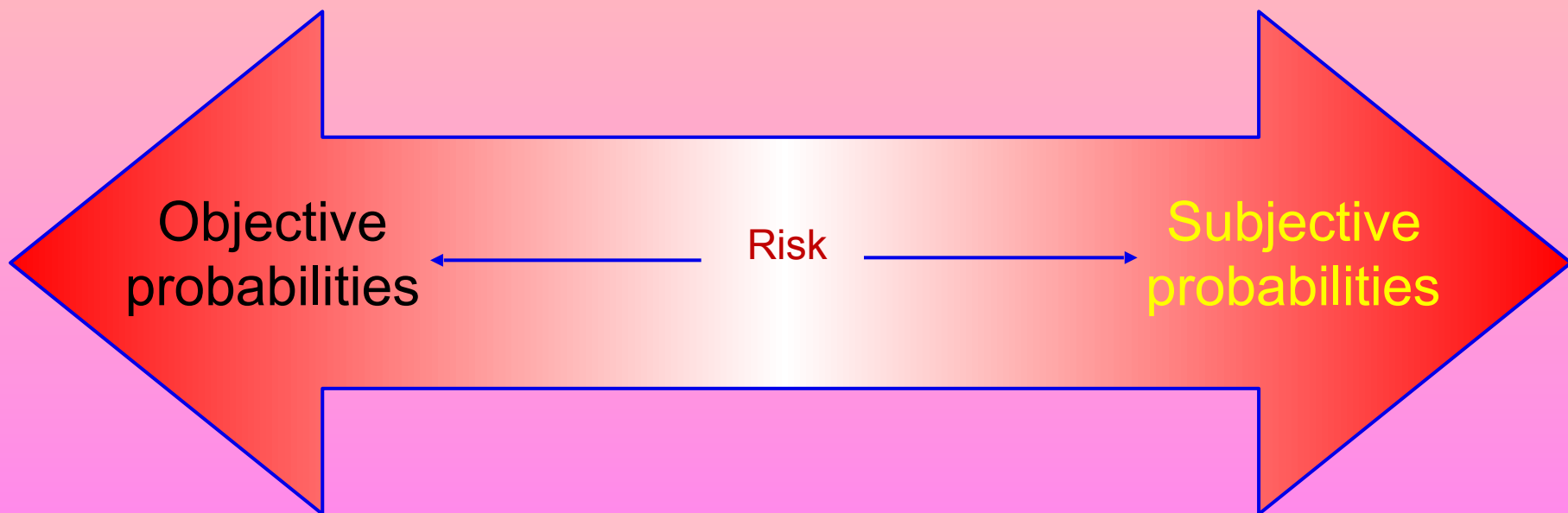
1. Define the problem (s);
3. Gather information;
5. Generate alternatives, and
7. Choose a course of action.

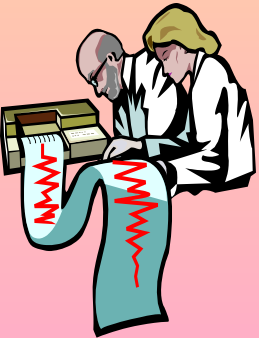


Conditions under which Decisions are made

Certainty

Uncertainty





- **Objective probability:** the likelihood that a specific result will occur, based on hard facts, data and numbers.



- **Subjective probability:** the likelihood that a specific result will occur, based on *personal judgment*.



What is then Uncertainty?



- ✓ Condition under which individuals **DO NOT** have the necessary information to assign probabilities to the outcomes of alternative solutions;
- ✓ The person may not even be able to define the problem, much less identify alternative solutions and possible outcomes.



Examples of possible crises as sources of **uncertainty** and **high risk**



Economic Crises

Recessions
Stock market crashes
Hostile takeovers

Physical Crises

Industrial accidents
Supply breakdowns
Product failures



Other
crises

Natural Disasters

Fires
Floods
Earthquakes



Information Crises

**Theft of proprietary
information
Cyberattacks**





Basic Types of Decisions: Types of Problems



➤ Relatively common and well defined (routine decisions).

➤ Unusual and ambiguous (Adaptive decisions).



➤ **Firefighting (innovative decisions).**



Examples of Routine Decisions

Reservations:

Phone service will be highly efficient, including: answered before the fourth ring; no hold longer than 15 seconds; or, in case of longer holds, call-backs offered, then provided in less than three minutes



Hotel Arrival:

The doorman (or first-contact employee) will actively greet guests, smile, make eye contact, and speak clearly in a friendly manner



Examples of decision rules at Four Seasons hotels and resorts

Messages and Paging:

Phone service will be highly efficient, including: answered before the fourth ring; no longer than 15 seconds



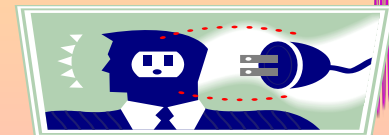
Hotel Departure:




No guest will wait longer than five minutes for baggage assistance, once the bellman is called (eight minutes in resorts)





Adaptive Decisions



- Choices made in response to a combination of moderately unusual problems and alternative solutions; 
- **Convergence**—a business shift in which two connections with the customer that were previously viewed as competing or separate (e.g., brick-and-mortar bookstores and Internet bookstores) come to be seen as complementary; 
- **Continuous improvement**—a management philosophy that approaches the challenge of product and process enhancements as an ongoing effort to increase the levels of quality and excellence. 



Innovative Decisions



- ❑ Choices based on the discovery, identification, and diagnosis of unusual and ambiguous problems and/or the development of unique or creative alternative solutions.
- ❑ 3 forms of innovation for economic progress:

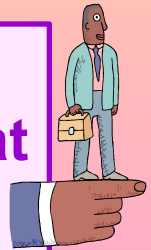
1. Institutional innovation: includes the legal and institutional framework for business, such as deregulation;
2. Technological innovation: creates the possibility of new products, services, and production methods;
3. Management innovation: major changes in the way organisations are structured and how managers perform their functions.



Process of Rational Decision Making: Rational Model



- ❑ Prescribes a set of phases that individuals or teams should follow to increase the likelihood that their decisions will be logical and optimal.



- ❑ **Rational decision:** results in the maximum achievement of a goal in a situation.

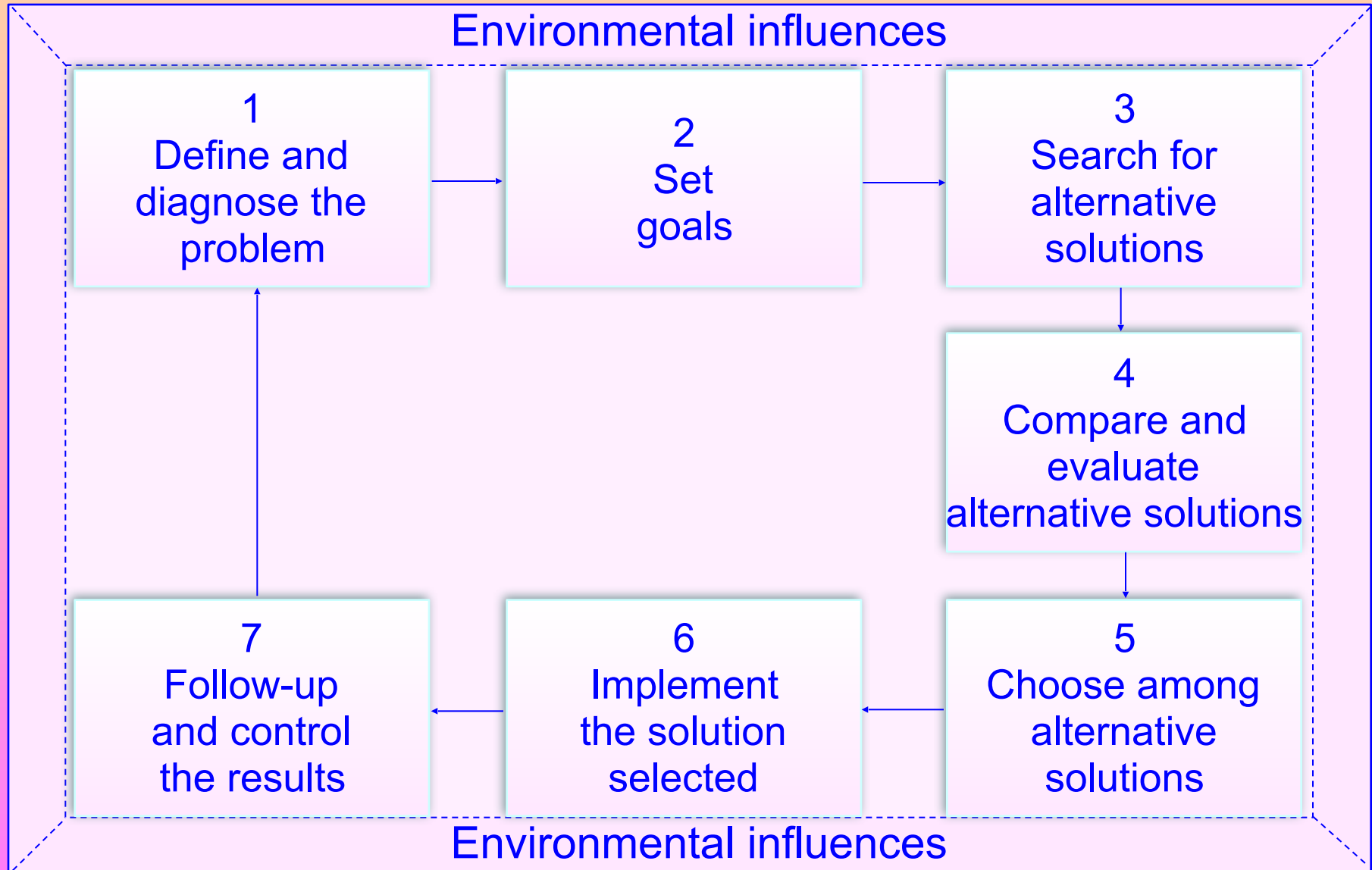


- ❑ Usually focuses on means—how best to achieve one or more goals.



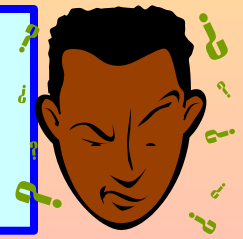


Rational Model





Rational Model: Define and Diagnose the Problem



- ☐ Noticing skill: identifying and monitoring numerous external and internal environmental factors and deciding which ones are contributing to the problem(s);
- ☐ Interpreting skill: assessing the factors noticed and determining which are causes, not merely symptoms, of the real problem(s);
- ☐ Incorporating skill: relating those interpretations to the current or desired goals;
- ☐ Need to ask probing questions.



Rational Model: Set Goals



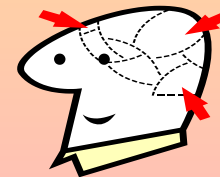
- **Goals**: results to be attained and indicate the direction toward which decisions and actions should be aimed:
 - **General goals**: provide broad direction for decision making in qualitative terms;
 - **Operational goals**: state what is to be achieved in quantitative terms, for whom, and within what time period;
 - **Hierarchy of goals**: represents the formal linking of goals between organizational levels.





Bounded Rationality Model

- Contends that the capacity of the human mind for formulating and solving complex problems is small compared with what is needed for objectively rational behavior.



A) Decision Biases

B) Inadequate Problem Description

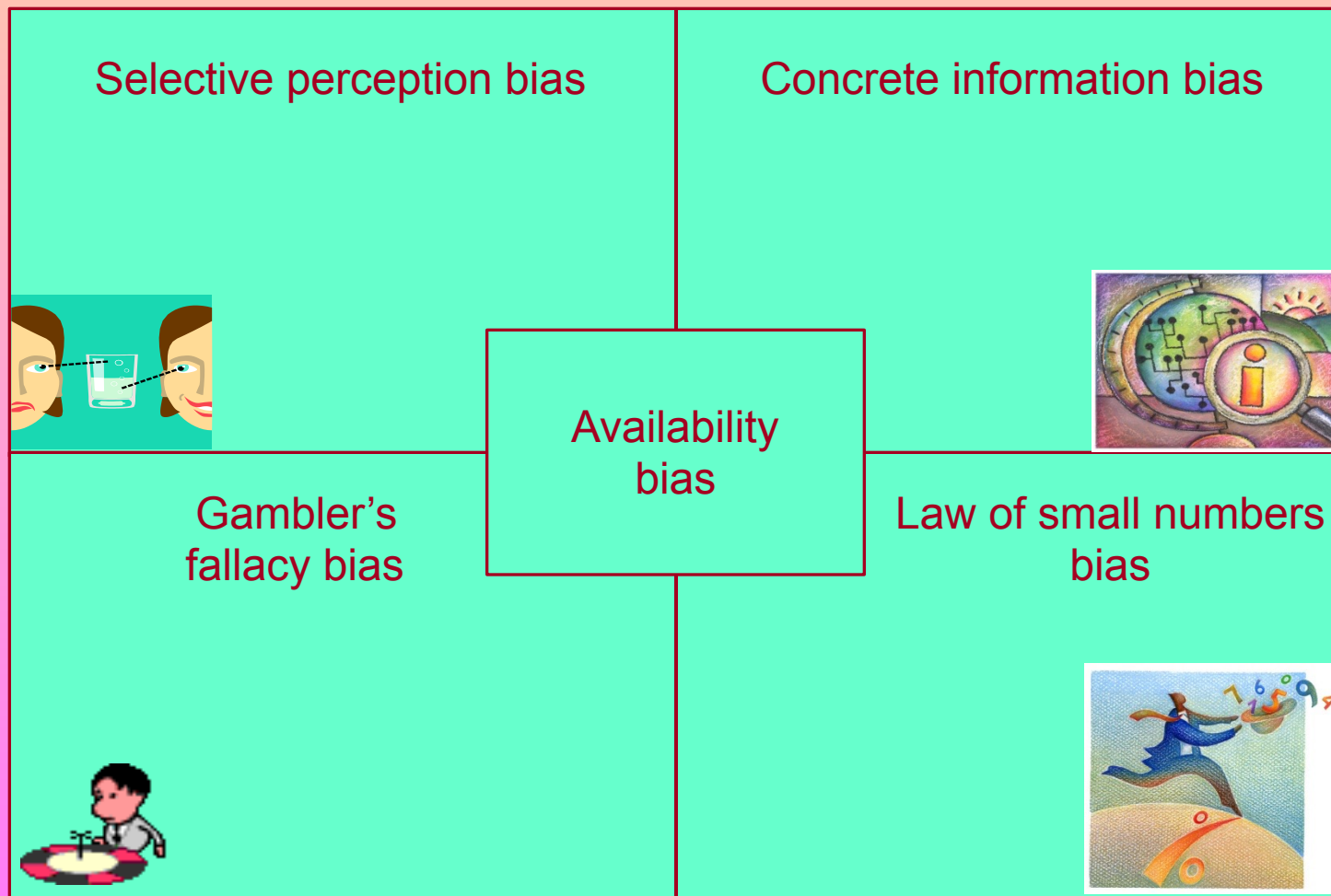
C) Limited Search for Alternatives

D) Limited Information

E) Satisficing



A) Decision Biases





B) Inadequate Problem Description

- ✓ New problems often are viewed as being like old problems;
- ✓ Too much focus on symptoms as problems;
- ✓ Laziness.

C) Limited search for alternatives:

- ✓ Options considered until one that seems adequate.

D) Limited information:

- ✓ **Ignorance**: the lack of relevant information or the incorrect interpretation of the information that is available.



E) Satisfying



➤ Satisfying can be raised by:

1. Personal determination;
2. Setting higher individual or organisation standards (goals);
3. Use of management science and computer-based decision-making and problem-solving techniques;
4. Following the seven steps in the rational model.



Process of Political Managerial Decision Making

Multiple stakeholders with power such as:

Customers

Investors

Employees

Divergence in problem definition

Divergence in goals

Divergence in solutions

Political decision
making

Unions

Competitors

Suppliers

Regulatory Agencies

Legislative Bodies



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