Chapter 1

Thinking Like A Researcher

Learning Objectives

- The need for sound reasoning to enhance business research results
- The terminology used by professional researchers employing scientific thinking
- What you need to formulate a solid research hypothesis

The Scientific Method

- Direct observation
- Clearly defined variables
- Clearly defined methods
- Empirically testable
- Elimination of alternatives
- Statistical justification
- Self-correcting process

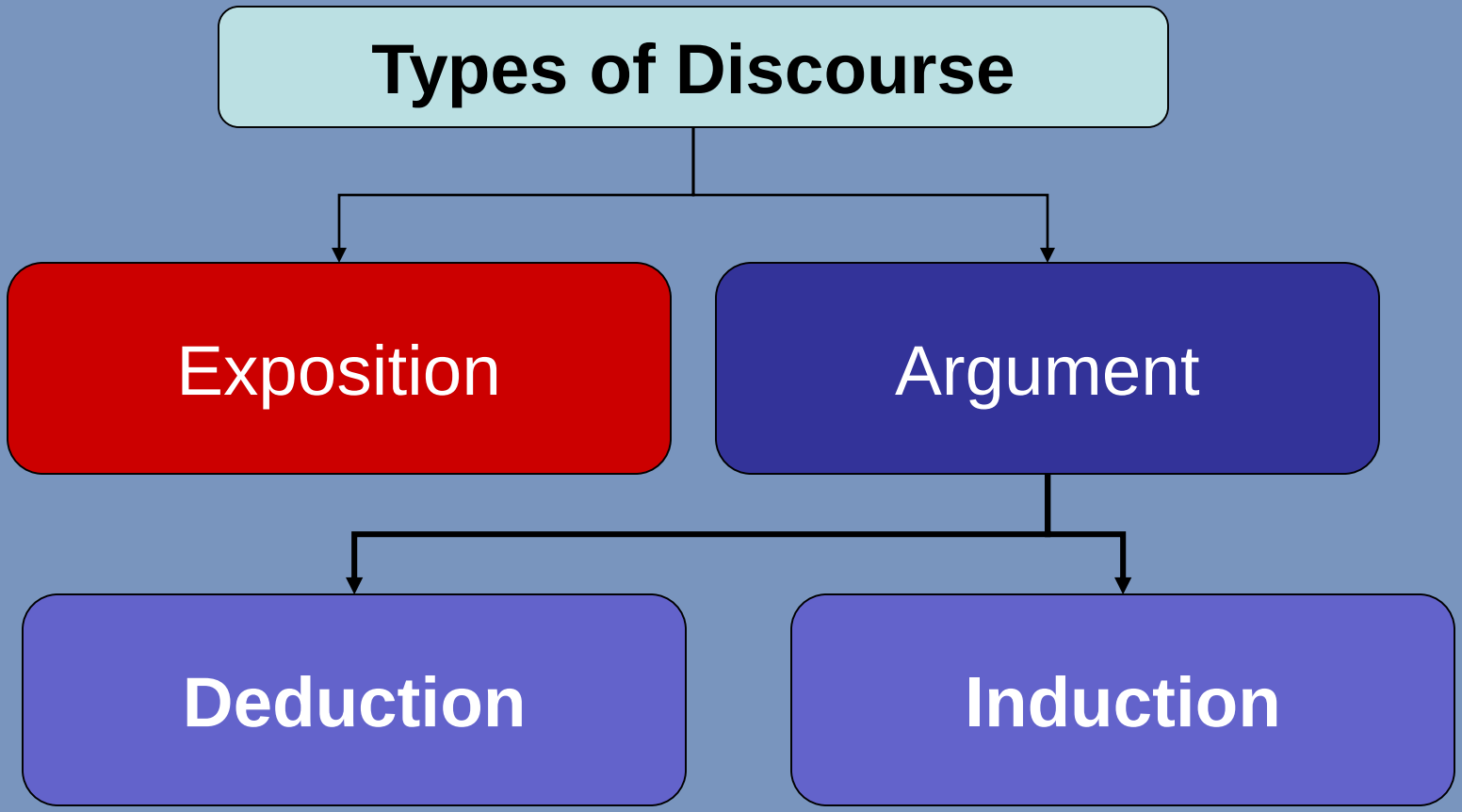
Researchers

- Encounter problems
- State problems
- Propose hypotheses
- Deduce outcomes
- Formulate rival hypotheses
- Devise and conduct empirical tests
- Draw conclusions

Synovate

- Curiosity is necessary to be a good business researcher

Sound Reasoning



Deductive Reasoning

Inner-city household interviewing is especially difficult and expensive

This survey involves substantial inner-city household interviewing

The interviewing in this survey will be especially difficult and expensive

Inductive Reasoning

- Why didn’t sales increase during our promotional event?
  - Regional retailers did not have sufficient stock to fill customer requests during the promotional period
  - A strike by employees prevented stock from arriving in time for promotion to be effective
  - A hurricane closed retail outlets in the region for 10 days during the promotion

Exhibit 2-1 Why Didn't Sales Increase?

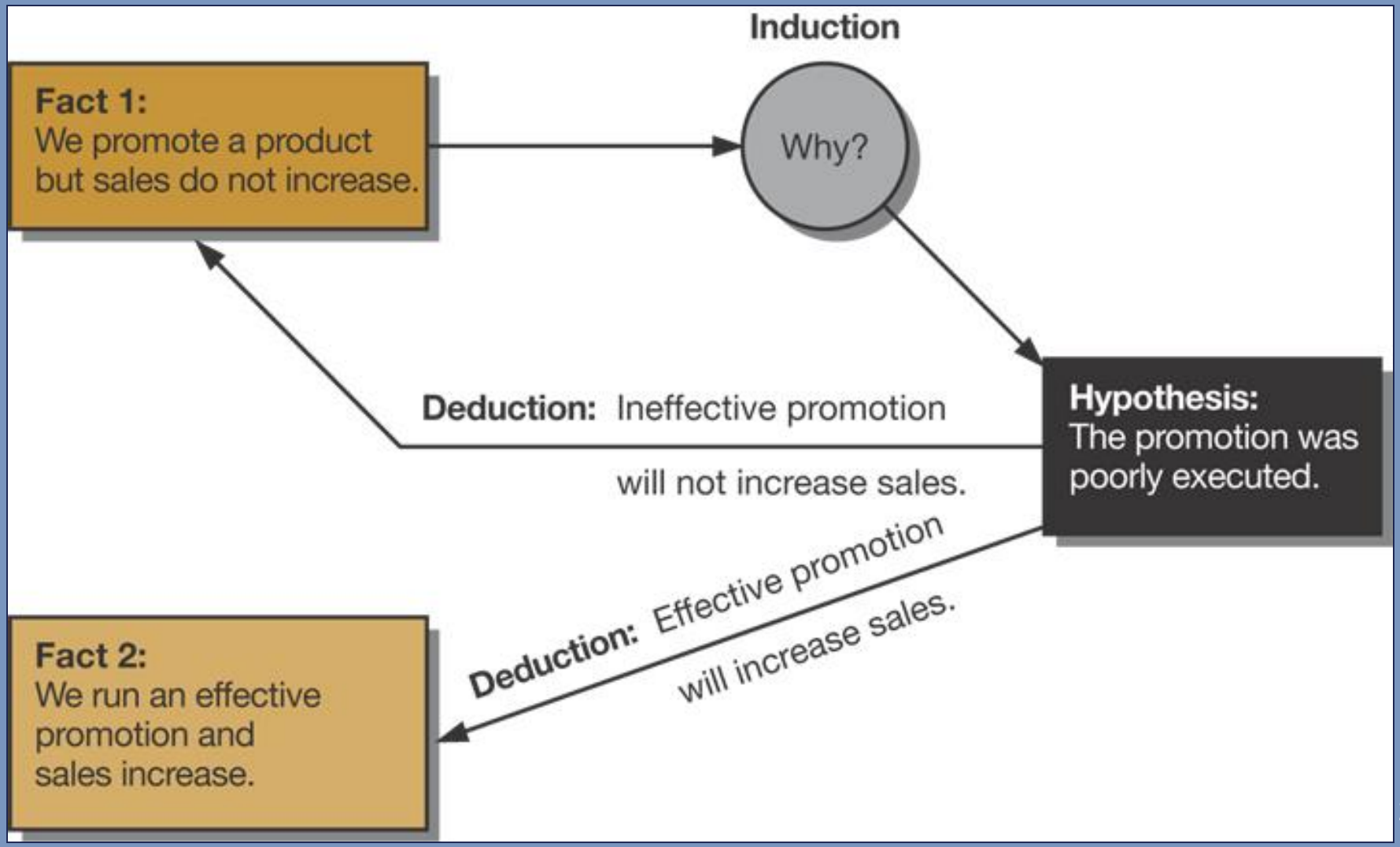
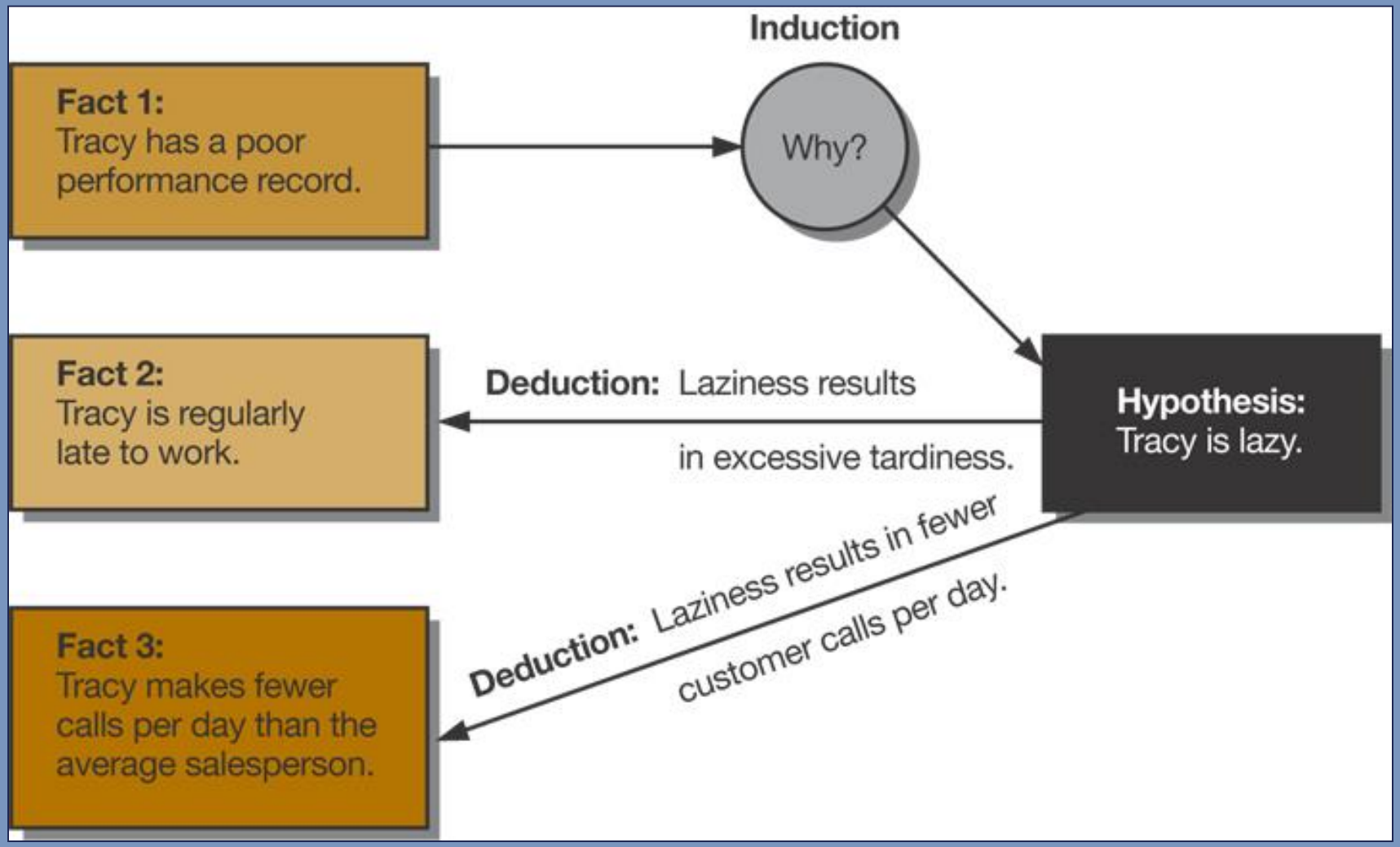
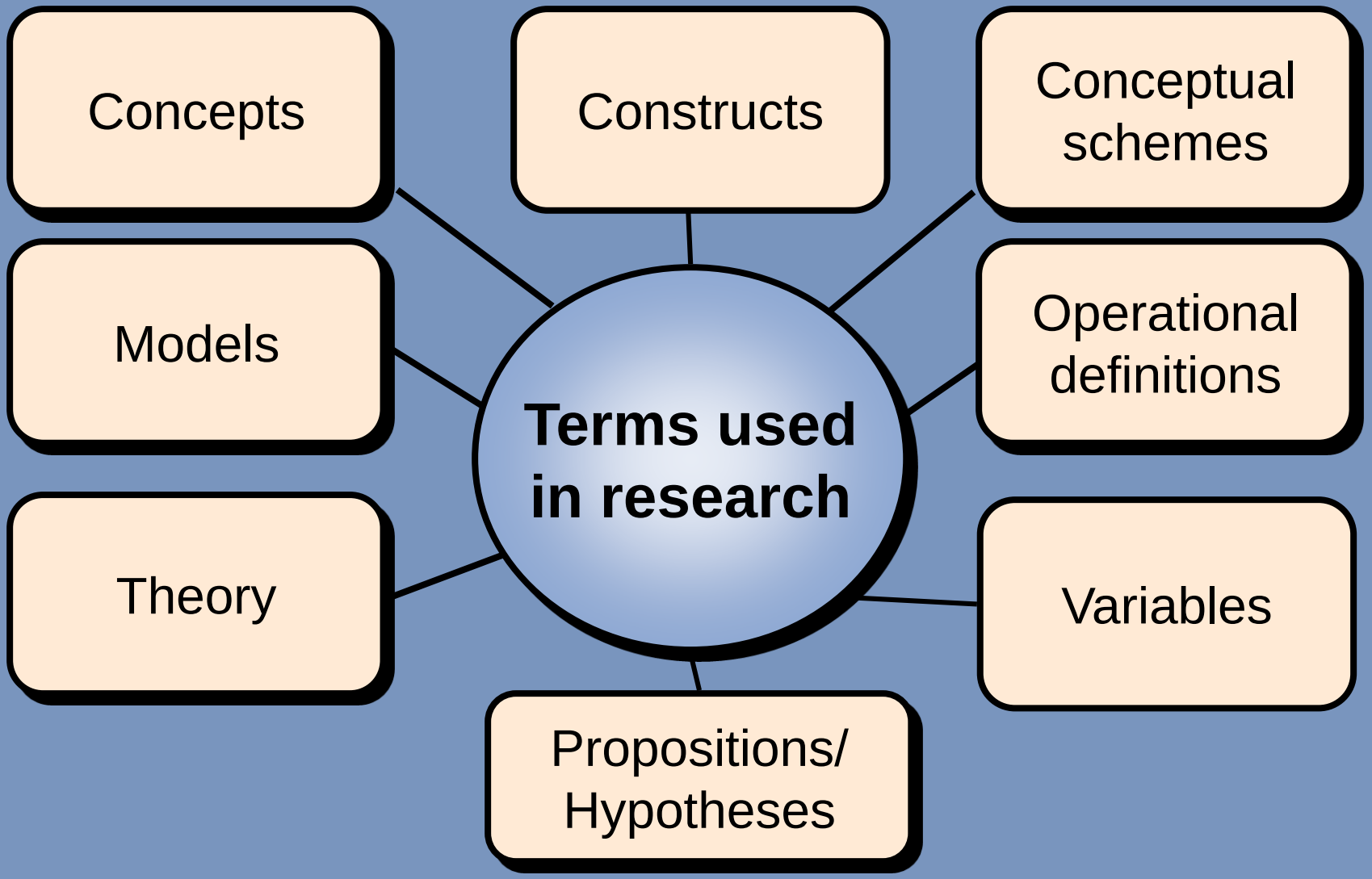


Exhibit 2-2 Tracy's Performance



Language of Research



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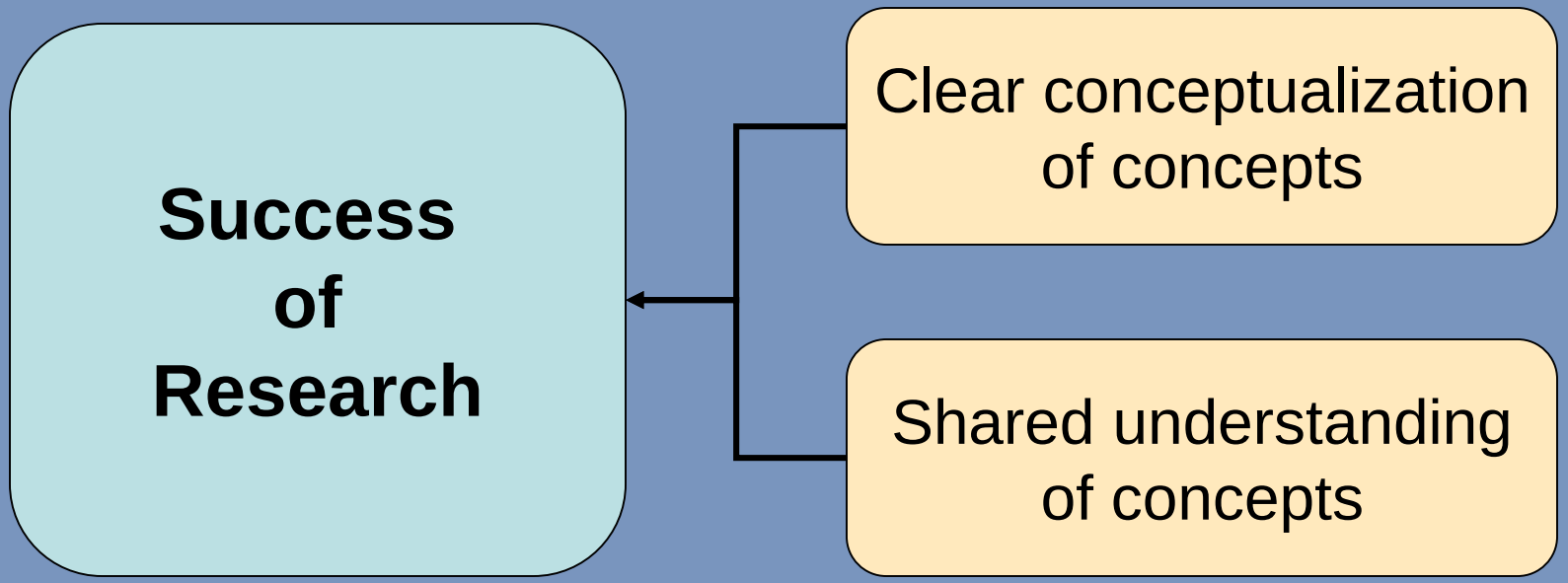
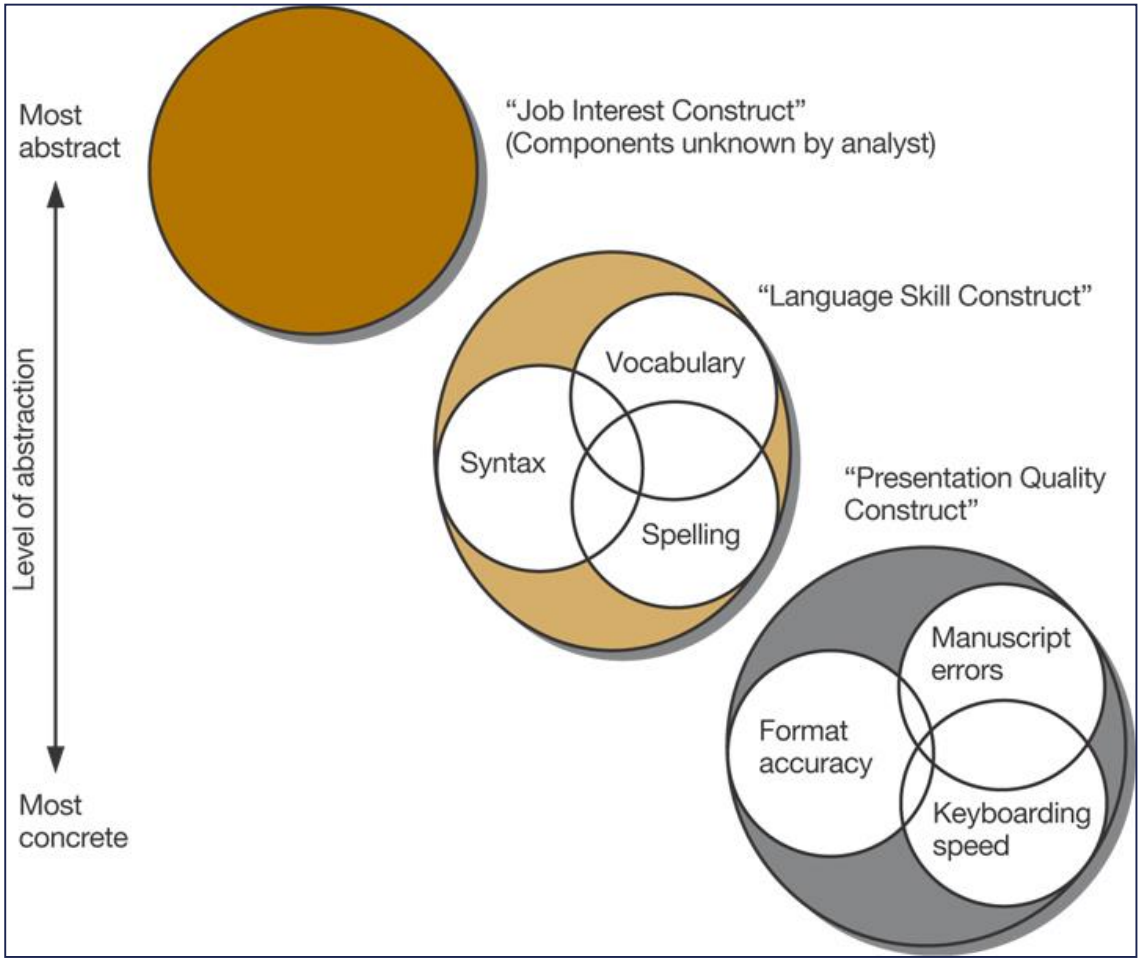


Exhibit 2-3 Job Redesign Constructs and Concepts



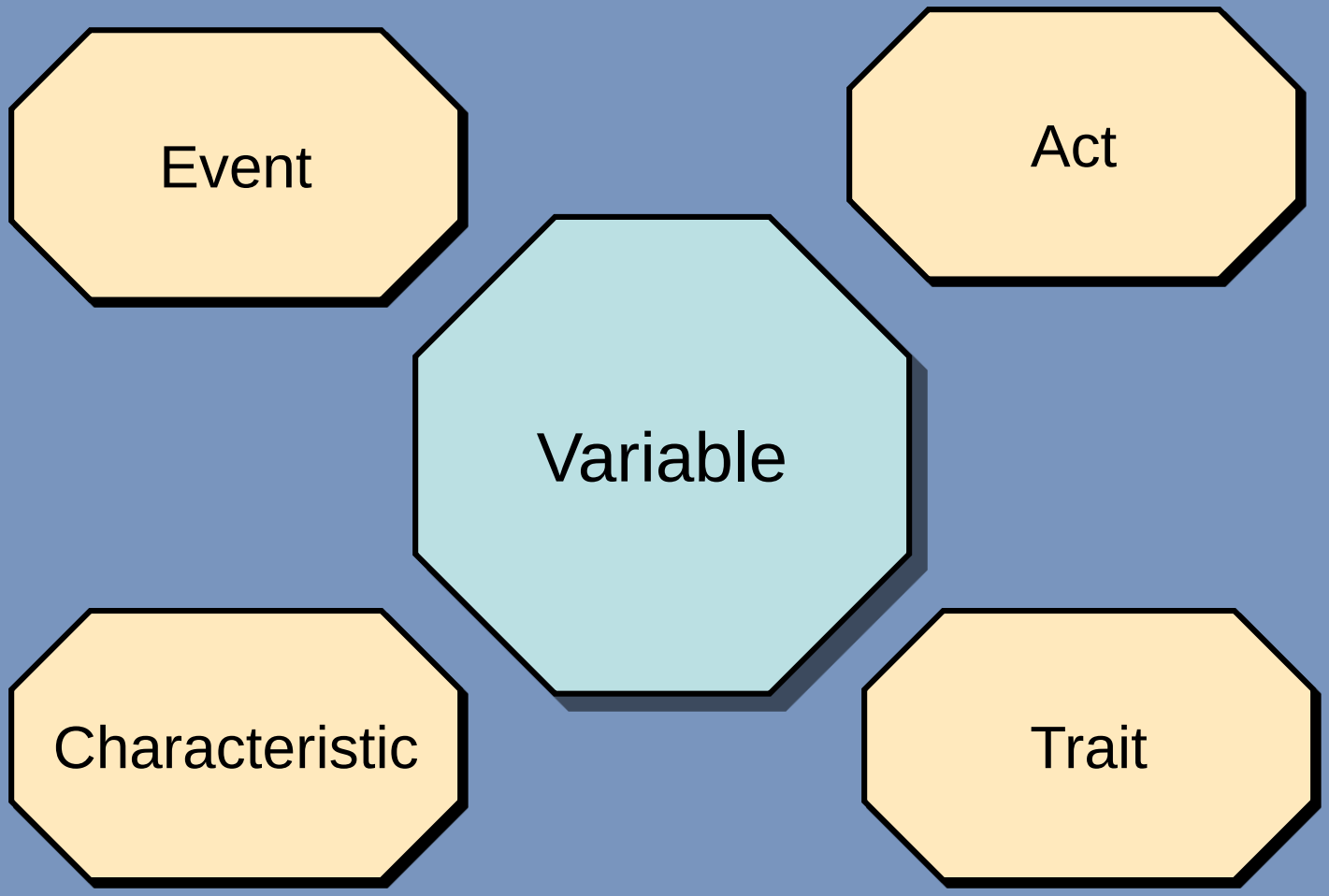
Operational Definitions

How can we define the variable “class level of students”?

- Freshman
- Sophomore
- Junior
- Senior

- < 30 credit hours
- 30-50 credit hours
- 60-89 credit hours
- > 90 credit hours

What Is A Variable?



Types of Variables

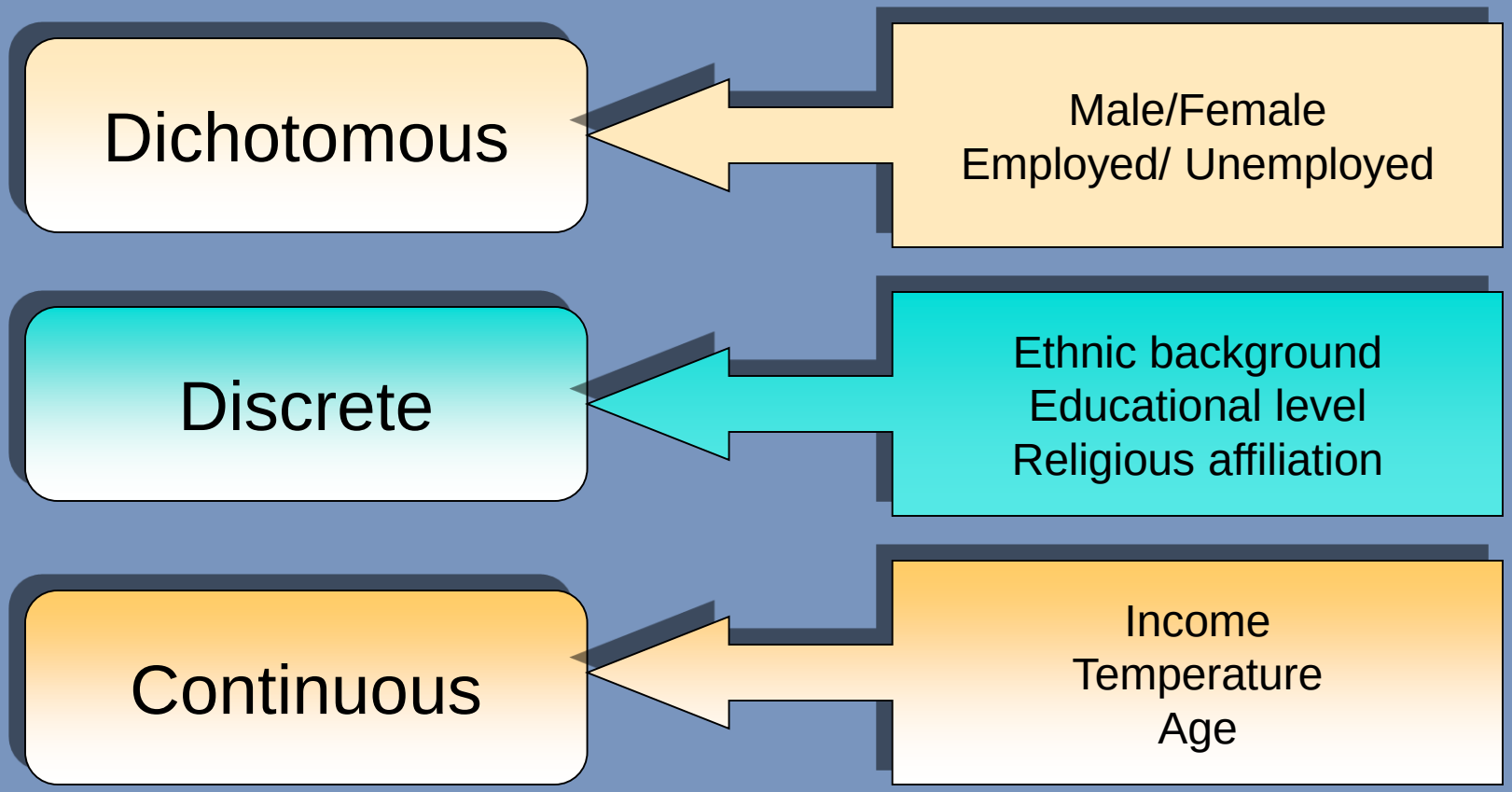


Exhibit 2-4 Independent and Dependent Variables

Independent Variable (IV)

- Predictor
- Presumed cause
- Stimulus
- Predicted from…
- Antecedent
- Manipulated

Dependent Variable (DV)

- Criterion
- Presumed effect
- Response
- Predicted to….
- Consequence
- Measured outcome

Moderating Variables (MV)

- The switch to commission from a salary compensation system (IV) will lead to increased sales productivity (DV) per worker, especially among younger workers (MV).
- The loss of mining jobs (IV) leads to acceptance of higher-risk behaviors to earn a family-supporting income (DV) – particularly among those with a limited education (MV).

Extraneous Variables (EV)

- With new customers (EV-control), a switch to commission from a salary compensation system (IV) will lead to increased sales productivity (DV) per worker, especially among younger workers (MV).
- Among residents with less than a high school education (EV-control), the loss of jobs (IV) leads to high-risk behaviors (DV), especially due to the proximity of the firing range (MV).

Intervening Variables (IVV)

- The switch to a commission compensation system (IV) will lead to higher sales productivity (DV) by increasing overall compensation (IVV).
- A promotion campaign (IV) will increase savings activity (DV), especially when free prizes are offered (MV), but chiefly among smaller savers (EV-control). The results come from enhancing the motivation to save (IVV).

Propositions and Hypotheses

- Brand Manager Jones (case) has a higher-than-average achievement motivation (variable).

Generalization

- Brand managers in Company Z (cases) have a higher-than-average achievement motivation (variable).

Hypothesis Formats

Descriptive

- In Detroit, our potato chip market share stands at 13.7%.
- American cities are experiencing budget difficulties.

Research Question

- What is the market share for our potato chips in Detroit?
- Are American cities experiencing budget difficulties?

Relational Hypotheses

Correlational

- Young women (under 35) purchase fewer units of our product than women who are older than 35.
- The number of suits sold varies directly with the level of the business cycle.

Causal

- An increase in family income leads to an increase in the percentage of income saved.
- Loyalty to a grocery store increases the probability of purchasing that store's private brand products.

The Role of Hypotheses

- Guide the direction of the study
- Identify relevant facts
- Suggest most appropriate research design
- Provide framework for organizing resulting conclusions

Characteristics of Strong Hypotheses

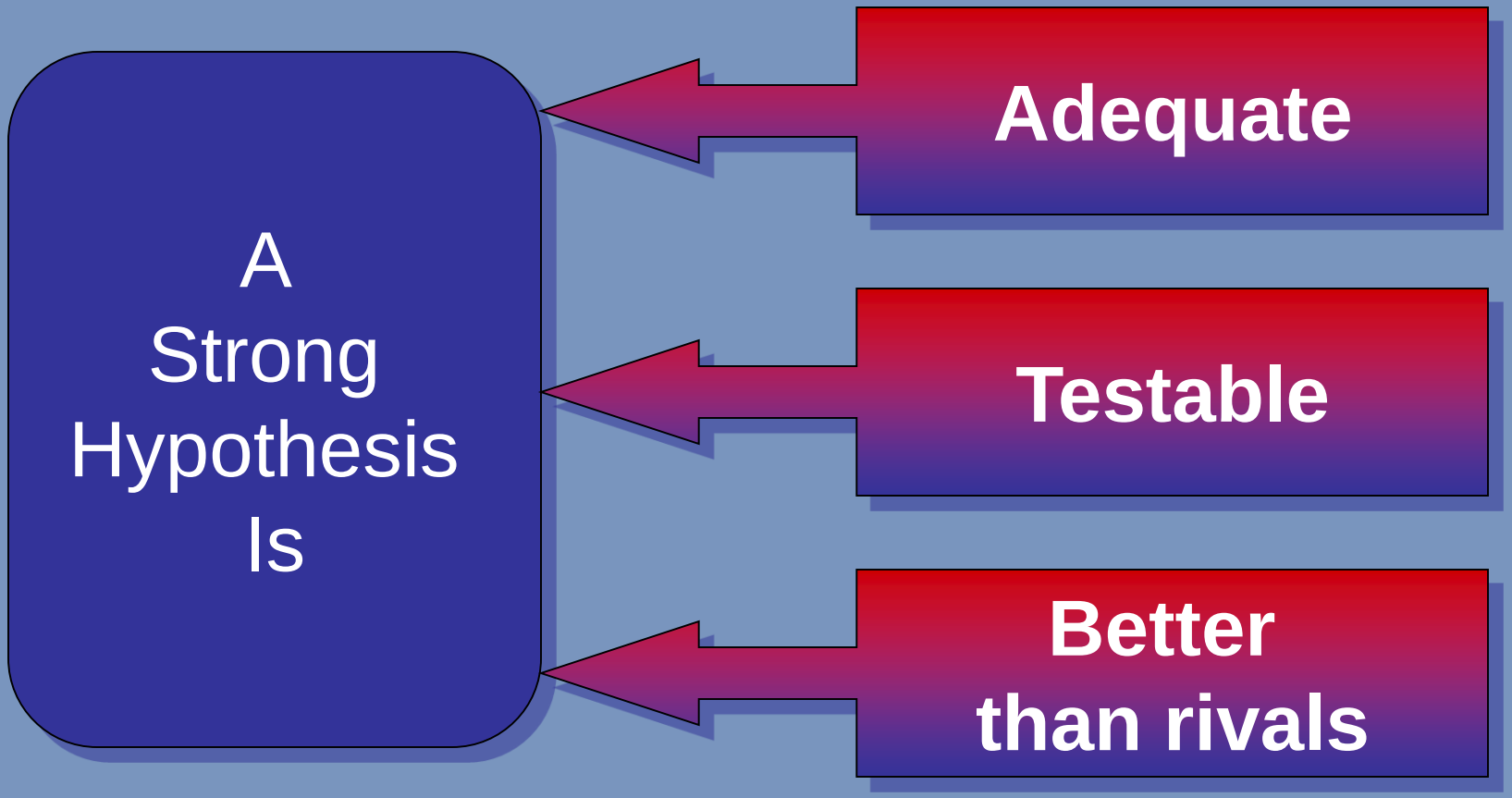


Exhibit 2-6 Theory of the Product Life Cycle

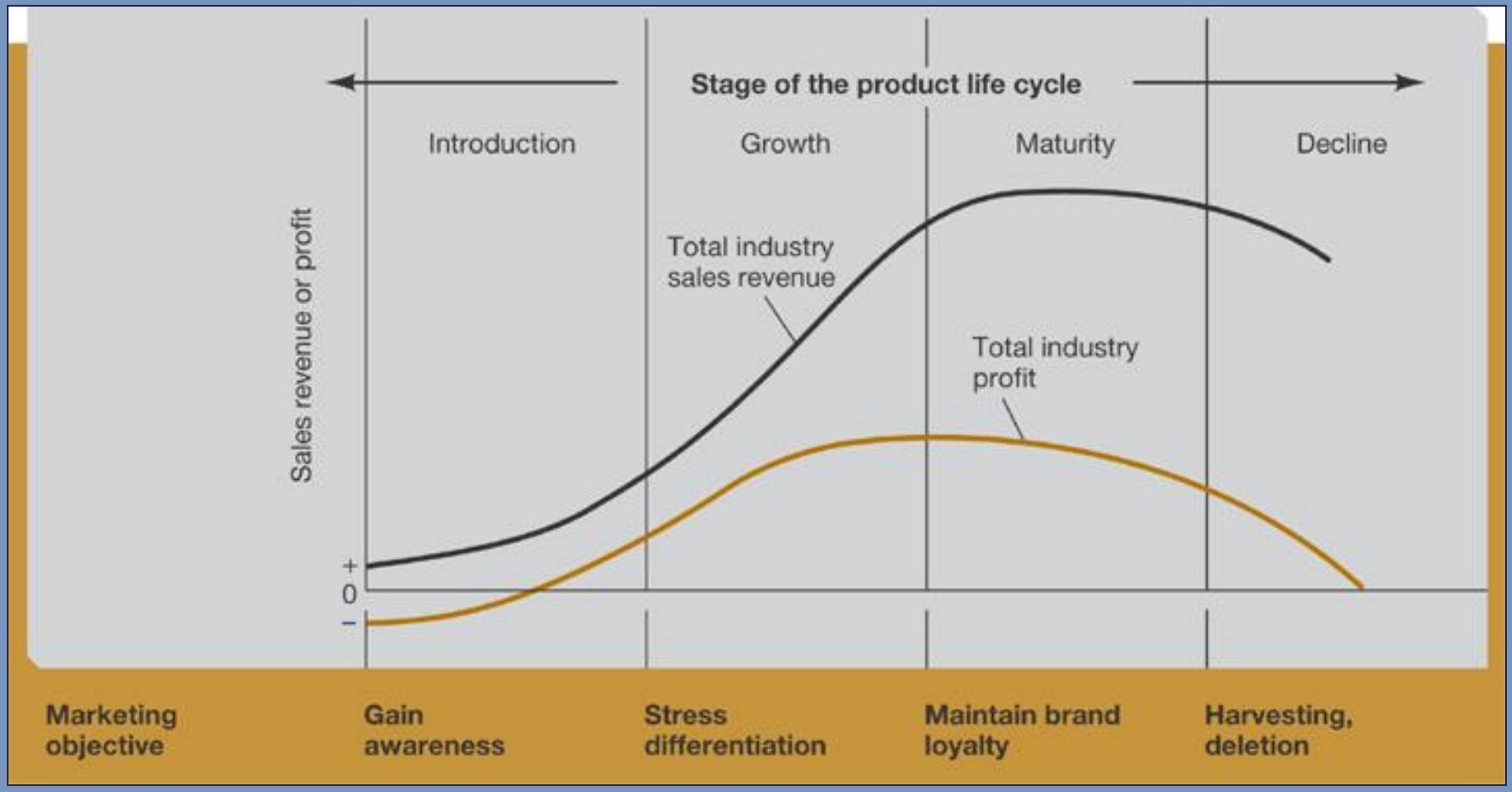


Exhibit 2-7 A Distribution Network Model

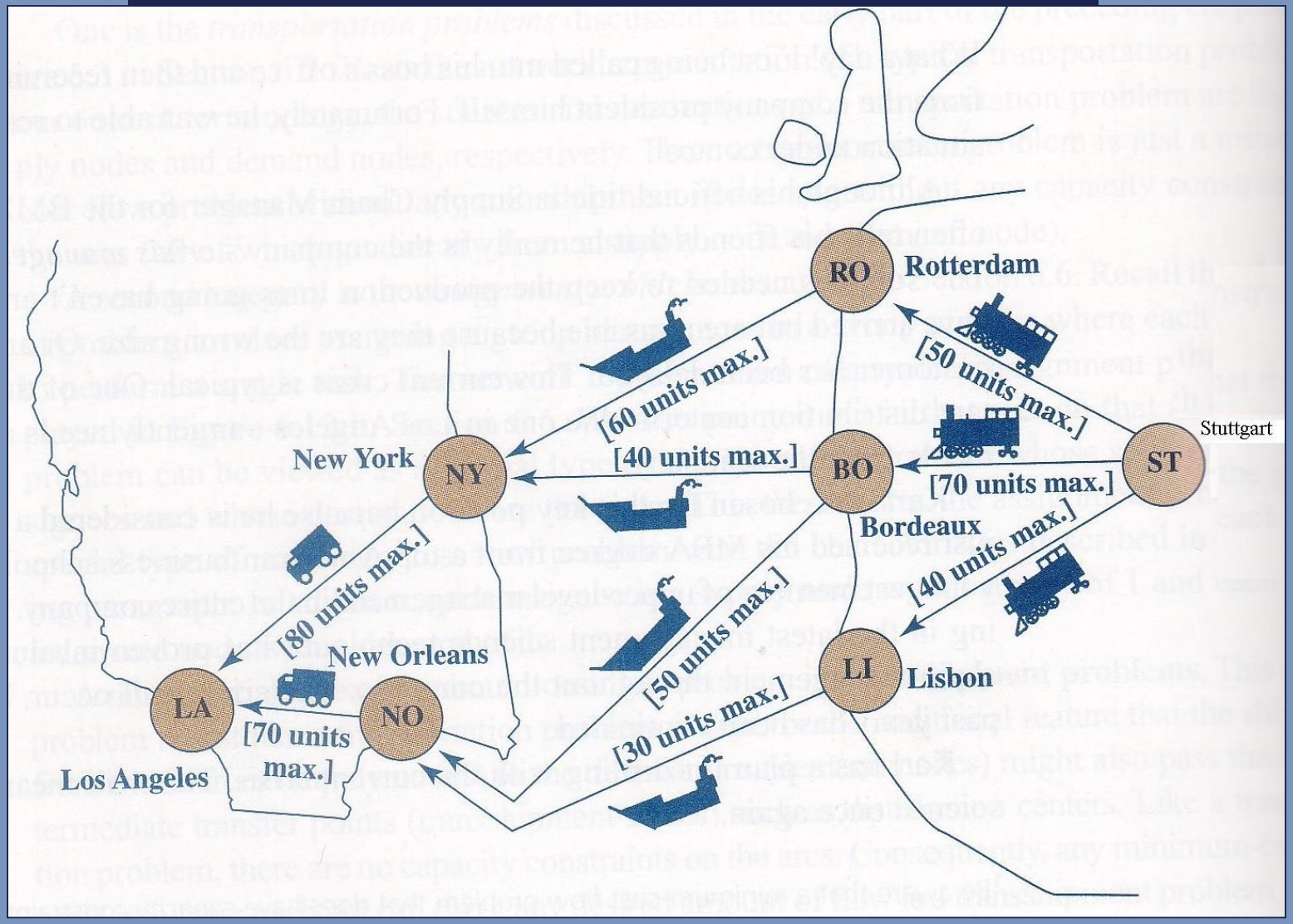


Exhibit 2-8
The Role of Reasoning