


Building Process Theories

Part I

Marshall Scott Poole
University of Illinois at Urbana-Champaign




What is a Process?

Some Definitions

- A process is a coordinated group of changes in the complexion of reality, an organized family of occurrences that are systematically linked to one another, either causally or functionally.


Nicholas Rescher (1996)
- A pattern that is seen in reference to time is called a process.

Monge, Farace, Eisenberg, Miller, & White (1984)



Characteristics of Processes

- They involve change
- They unfold over time
- They maintain self-identity through internal complexity that persists over time



Characteristics of Processes

- They may be *owned* by some agent or *unowned*
- Their generative mechanisms may evolve over time

How Has Process Been Treated in Organizational Research?

- As a narrative underlying relationships among variables
- As a special type of variable or concept
- As a pattern in changes over time

Two Ways to View Process

- Ontologically: As part of the fabric of (social) reality
- Epistemologically: As one lens to apply in the study of (social) reality

Process Ontology: Four Positions

1. **Process is primary**
All things are processes
2. **Process has priority over substance**
Processes engender, determine, and characterize things, but there are real things out there
3. **Substance has priority over process**
The only sort of processes there are are those involved in the doings and comportments of things
4. **Substance is primary**
Substance is all there is. Processes and changes are simply a matter of how things appear to certain (mind-equipped) substances

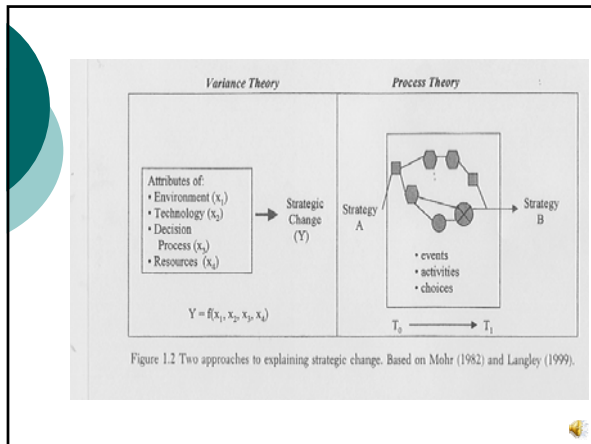
Source: Rescher (1996)

Ontology:
What are organizations made of?

- Organizations are made of things
(Positions 3 and 4)
- Organizations are made of processes
(Positions 1 and 2)

Process Epistemology

- Two Different Modes of Explanation & Inquiry for Processes
 - Variance Approach
 - Process Approach



Epistemology: The Variance Approach

- Key Assumptions
 - Focus on fixed entities with variable attributes (variabilization of phenomena)
 - Satisfactory explanations are based on necessary and sufficient causality
 - Satisfactory explanation is based on efficient causality

Epistemology: The Variance Approach

- Key Assumptions (continued)
 - The generality of an explanation depends on its ability to apply uniformly across a broad range of cases & contexts
 - Monotonic, "well-behaved" causal flow through hierarchical levels

**Epistemology:
The Variance Approach**

Van de Ven study of implementation of local welfare programs

- Hypothesis: Planning process is critical to program effectiveness

Planning Process:

1. Planning prerequisites
2. Problem exploration
3. Knowledge exploration
4. Program design
5. Program implementation, evaluation, operation

**Epistemology:
The Variance Approach**

Van de Ven Study of implementation of local welfare programs

- Surrogate variables:
 - Participation
 - Planning Policy Board
 - Technical/Expert Assistance
 - Planning Team
 - Conformance to Program Planning Sequence

**Epistemology:
The Variance Approach**

Van de Ven study of implementation of local welfare programs

Research Case

```

graph LR
    subgraph Research_Case [Research Case]
        BA[Board Activity]
        PTA[Planning Team Activity]
        P[Participation]
        TA[Technical Assistance]
    end
    P --> RE[Redesign]
    BA --> PE[Program Effectiveness]
    PTA --> PE
    P --> PE
    RE --> PE
  
```

Epistemology: The Variance Approach

Incorporating Surrogate Process Variables

```

    graph LR
      BA[Board Activity] --> EI[Effective Implementation]
      CSI[Conformance To Ideal Sequence] --> EI
      TA[Technical Assistance] --> EI
      EI --> PE[Program Effectiveness]
  
```

Epistemology: The Variance Approach

- Uses in the Study of Processes:
 - Identify variables in process and incorporate into variance models
 - Explore mechanisms that drive process
 - Works for processes that run very fast

Epistemology: The Process Approach

- Diverges from variance approach
 - In terms of explanatory model
 - In how data is conceived and gathered
 - In analysis
- Akin to historical and biological reasoning
- May diverge from historical tradition:
 - It often seeks to generalize
 - It often seeks to test or apply hypothesized theories

**Epistemology:
The Process Approach**

- Key Assumptions
 - The world is composed of entities which participate in events and which may change as a result.
 - Satisfactory explanations are based on necessary causality
 - Satisfactory explanations are based on final and/or formal causality combined with efficient causality

**Epistemology:
The Process Approach**

- Key Assumptions (continued)
 - Generality of explanations depends on their versatility.
 - Temporal ordering is critical to the outcome.
 - Explanations include layers of causation operating at different levels and temporal scales
 - Causes are often not "well-behaved".

**Epistemology:
The Process Approach**

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