Overview of theories on organization and management

Lars Groth
The fundamental cause behind any organization – and its main challenge

- Tasks too big for one person must be divided into smaller tasks suitable for one individual
- Since a number of people now need to cooperate, we need coordination to make the work of each one fit into the larger picture
- Here you will find the root of most organizational challenges!
Organization – a permanent feature in human life:

- My notion is, I said, that a state comes into existence because no individual is self-sufficing; we all have many needs. But perhaps you can suggest some different origin for the foundation of a community?
- No, I agree with you.
- So, having all these needs, we call in one another's help to satisfy our various requirements; and when we have collected a number of helpers and associates to live together in one place, we call that settlement a state.
- Yes.
- So if one man gives another what he has in exchange for what he can get, it is because each finds that to do so is for his own advantage.
- Certainly.
- Very well, said I. Now let us build up our imaginary state from the beginning. Apparently, it will owe its existence to our needs, the first and greatest need being the provision of food to keep us alive. Next we shall want a house; and thirdly, such things as clothing.
- True.
- How will our state be able to supply all these demands? We shall need at least one man to be a farmer, another a builder, and a third a weaver. Will that do, or shall we add a shoemaker, and one or two more to provide for our personal wants?
- By all means.
- The minimum state, then, will consist of four to five men.
- Apparently.

From Plato’s “The Republic”
The Bible *has even given us a receipe*:

The next day Moses took his seat to serve as judge for the people, and they stood around him from morning till evening. When his father-in-law saw all that Moses was doing for the people, he said, “What is this you are doing for the people? Why do you alone sit as judge, while all these people stand around you from morning till evening?”

Moses answered him, “Because the people come to me to seek God’s will. Whenever they have a dispute, it is brought to me, and I decide between the parties and inform them of God’s decrees and instructions.”

Moses’ father-in-law replied, “What you are doing is not good. You and these people who come to you will only wear yourselves out. The work is too heavy for you; you cannot handle it alone. Listen now to me and I will give you some advice, and may God be with you. You must be the people’s representative before God and bring their disputes to him. Teach them his decrees and instructions, and show them the way they are to live and how they are to behave.

But select capable men from all the people—men who fear God, trustworthy men who hate dishonest gain—and *appoint them as officials over thousands, hundreds, fifties and tens*. Have them serve as judges for the people at all times, but *have them bring every difficult case to you; the simple cases they can decide themselves*. That will make your load lighter, because they will share it with you. If you do this and God so commands, you will be able to stand the strain, and all these people will go home satisfied.”

*Exodus (2. Mosebok), 18:13-23*
A revolution:  
**Specialization and division of labor**  

Adam Smith  
*"The Wealth of Nations"*

The first chapter in *An Inquiry into the Nature and Causes of the Wealth of Nations* – better known as *The Wealth of Nations*, published in 1776 – is titled "Of the Division of Labour", and opens with this sentence:

"The greatest improvements in the productive powers of labour, and the greater part of the skill, dexterity, and judgment, with which it is anywhere directed, or applied, seem to have been the effects of the division of labour."

Adam Smith  
"The Wealth of Nations"
"To take an example, therefore, from a very trifling manufacture; but one in which the division of labour has been very often taken notice of, the trade of the pin-maker; a workman not educated to this business (which the division of labour has rendered a distinct trade), nor acquainted with the use of the machinery employed in it (to the invention of which the same division of labour has probably given occasion), could scarce, perhaps, with his utmost industry, make one pin in a day, and certainly could not make twenty. But in the way in which this business is now carried on, not only the whole work is a peculiar trade, but it is divided into a number of branches, of which the greater part are likewise peculiar trades.

One man draws out the wire, another straights it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations; to put it on, is a peculiar business, to whiten the pins is another; it is even a trade by itself to put them into the paper; and the important business of making a pin is, in this manner, divided into about eighteen distinct operations, which, in some manufactories, are all performed by distinct hands, though in others the same man will sometimes perform two or three of them."
Organization theory – a timeline

Classical theory

Max Weber
Theory of Bureaucracy

Frederick Taylor
Scientific Management

Henri Fayol
Administrative theory

Kay H. Hill
Organizational Theory

Neoclassical and institutional theory

Luther Guick
and Lyndall Urwick
“Papers on the Science of Administration”

Leland B. Wilkey
“Organizational Theory”

Systems theory

Ludwig von Bertalanffy
General systems theory

Herbert A. Simon
Bounded Rationality

Contingency theory

Erving Goffman
Symbolic interactionism

Postmodern approaches

David Silverman
Action perspective

Other theories

Oliver E. Williamson
Transaction cost

W. Ross Ashby
Systems theory: Self-regulation and law of requisite variety

Herbert A. Simon
og James March
“Organizations”

Charles D. Perrow
“A Framework for Comparative Analysis of Organizations”

Paul J. DiMaggio
and Walter W. Powell
Institutional isomorphism

Harry Braverman
Marxist organization theory

James D. Thompson
“Organizations in Action”

Karl E. Weick
Organization culture

William G. Ouchi
Culture and team
(Theory Z)

Jean-Baudrillard
Post-structuralism, epistemological postmodernism

Jean-François Lyotard
Epistemological postmodernism

Stewart R. Clegg
Ontological postmodernism

Jeffrey Pfeffer
and Gerald D. Salancik
Resource-based theory

Michael T. Hannan
and John H. Freeman
Population ecology

Oliver E. Williamson
Transaction cost

Henry Mintzberg
“The Structuring of Organizations”

John W. Meyer
and Brian Rowan
“Formal Structure as Myth and Ceremony”

Jaques Derrida
Epistemological postmodernism

William G. Ouchi
Culture and team
(Theory Z)

Lars Groth
Overview of theories on organizations and management

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Organization theory – a timeline

Classical theory

Neoclassical and institutional theory

Systems theory

Contingency theory

Interactionism

Postmodern approaches

Other theories
Max Weber (1864-1920)
- German sociologist, lawyer and economist
- Perhaps the most important founding father of modern social science
- Extensive writings on the sociology of religion, economy, power and politics, research methods and a number of other subjects

"Die Protestantische Ethik und der Geist des Kapitalismus" (1904/5)
- The conception of bureaucracy and what Talcott Parsons translated as "the Iron Cage" – the original, by the way, says "stahlhartes Gehäuse", which actually means something like „steel-hard casing“ or „shell as hard as steel"

Principles for the bureaucracy:
1. A clear definition of distinct and separate areas of competence, laid down in laws and regulations
2. A clearly defined hierarchy of office: Every position or office is accountable to and supervised by an higher office
3. All decisions are made on the basis of written documents and according to written rules
4. The relations within the organization and all decisions are purposely impersonal and devoid of personal interests
5. The officials have received extensive education in their areas of competence
6. They are employed on the basis of their expertise, their appointment is full-time and excludes other occupations
7. They have set salaries paid in money
The one best way

Classical organisation theory

- Frederick Winslow Taylor (1865-1915)
  - American engineer who wanted to improve the efficiency in industrial production

- Published "The Principles of Scientific Management" in 1911
  1. "Science, not rule of thumb"
  2. "Harmony, not discord"
  3. "Cooperation, not individualism"
  4. "Maximum output, in place of restricted output"
  5. "The development of each man to his greatest efficiency and prosperity"

- A little more detail. The duties of managements are now:
  - "They develop a science for each element of a man's work, which replaces the old rule-of-thumb method."
  - They scientifically select and then train, teach, and develop the workman, whereas in the past he chose his own work and trained himself as best he could.
  - They heartily cooperate with the men so as to insure all of the work being done in accordance with the principles of the science which has been developed.
  - There is an almost equal division of the work and the responsibility between the management and the workmen. The management take over all work for which they are better fitted than the workmen, while in the past almost all of the work and the greater part of the responsibility were thrown upon the men."

V. I. Lenin:
"We must organise in Russia the study and teaching of the Taylor system and systematically try it out and adapt it to our ends."

Other classics:

- **Henri Fayol** (1841-1925): French mining engineer and director of mines. Developed a general theory of administration and management. The functions of management are to:
  - Forecast and plan
  - Organize
  - Command or direct
  - Coordinate
  - Control

- **Luther Gulick** (1892-1993) and **Lyndall Urwick** (1891-1983), “Papers on the Science of Administration” (1937), founders of *Administrative Science Quarterly*
  - Strongly influenced by Fayol
  - **POSDCORB**: What is a manager doing?
    - Planning, organizing, directing, staffing, co-ordinating, reporting, budgeting

- **Chester Barnard** (1886-1961); “The Functions of the Executive”, The theories of authority and of incentives. On authority:
  - The channels of communication should be definite;
  - Everyone should know of the channels of communication;
  - Everyone should have access to the formal channels of communication;
  - Lines of communication should be as short and as direct as possible;
  - Competence of persons serving as communication centers should be adequate;
  - The line of communication should not be interrupted when the organization is functioning;
  - Every communication should be authenticated.

**Fourteen principles of Management:**
1. Division of work
2. Authority
3. Discipline
4. Unity of command
5. Unity of direction
6. Subordination of individual interests to the general interest
7. Remuneration
8. Centralisation
9. Scalar chain
10. Order
11. Equity
12. Stability of tenure of
13. Initiative
14. Esprit de corps

**Special incentives:**
1. Money and other material inducements
2. Personal non-material opportunities for distinction
3. Desirable physical conditions of work
4. Ideal benefactions, such as pride of workmanship etc.

**General incentives:**
1. Associated attractiveness
2. Adaptation of working conditions to habitual methods and attitudes
3. The opportunity for the feeling of enlarged participation in the course of events
4. The condition of communing with others
The adequate way

Herbert A. Simon (1916-2001) – ”Administrative Behavior” (1947)

- Simon’s main interest is in decisions and decision-making
- His basic conception is idea of man’s bounded rationality
- Since the amount information available is always wast and inexhaustable, and we have limited wits, we can never find the best possible solution
- The objective ”Best way” is therefore not a practical possibility, even if true in theory
- Managers will therefore make do with the first solution they find that is deemed good enough
- The organization’s dependence on the environment is first drawn into the discussion in his cooperation with James March in ”Organizations” (1958)

“Administrative theory is peculiarly the theory of intended and bounded rationality – of the behavior of human beings who satisfice because they have not the wits to maximize.”
Systems theory

- Foundations:
  - Karl Ludwig von Bertalanffy, Austrian biologist (1901-1972)
  - W. Ross Ashby, English psychiatrist (1903-1972)
  - Kenneth Boulding, English/American economist (1910-1993)
  - Anatol Rapaport, Russian/American mathematical psychologist (1911-2007)

- A system:
  - is composed of parts which must be related (directly or indirectly), else there are really two or more distinct systems
  - is encapsulated (has a boundary)
  - can be nested inside another system and overlap with other systems
  - is bounded in time and space
  - exchanges information and/or material with its environment
  - consists of processes that transform inputs into outputs
  - is dynamic, it evolves
  - it is self-regulating, i.e. it is self-correcting through feedback
  - is often composed of entities seeking equilibrium but can exhibit oscillating, chaotic or exponential behavior
  - can exhibit both multifinality and equifinality
Contingency theory

- **Joan Woodward (1916-1971)**
  - Studied a large number of firms (100) in the South Essex area of England in the 1950s
  - Found that organizational form varied, and correlated with production technology
  - Concluded that there was not "one best way" to organize – the nature of the production process would determine which form that would be most suitable

- **Tom Burns (1913-2001) and G. M. Stalker**
  - "The Management of Innovation" (1961)
  - Studied the introduction of electronics in Scottish industry
  - Described two ideal types of organization on each side of a continuum – the *mechanistic* and the *organismic* (organic) organization
  - The organization as a result of the simultaneous working of (at least) three different social systems:
    - Formal authority: aims, technology, relations with the environment
    - Cooperative systems of people with different aspirations
    - The political system – the competition and cooperation for power

<table>
<thead>
<tr>
<th>Structural Characteristic</th>
<th>Unit and small batch</th>
<th>Large batch and mass production</th>
<th>Process production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of management levels</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Supervisory span of control</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Ratio of managers to total workforce</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Skill level of workers</td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>Overall structure</td>
<td>Organic</td>
<td>Mechanistic</td>
<td>Organic</td>
</tr>
</tbody>
</table>
Contingency theory

- **Paul R. Lawrence** (1922-2011) and **Jay W. Lorsch** (1932-)
  - “Organization and Environment: Managing Differentiation and Integration” (1967)
  - **Question:** Why do people seek to build organizations? **Answer:** In order to find better solutions to the environmental problems facing them.
  - **Therefore:**
    - It is **people** who have purposes, not organizations
    - **People** come together to coordinate their different activities into an organization structure
    - The organization’s effectiveness is judged from the extent to which the **members’** needs are satisfied through the planned transactions with the environment
  - In order to cope with the environment, organizations develop units and formal structures suited to the particular environment(s) they operate in

- **James D. Thompson** (1920-1973)
  - "Organizations in Action" (1967)
  - Views organizations as rational, open systems
  - Classifies organizations according to their production technologies and environments
    - Pooled interdependence (the university)
    - Sequential interdependence (the factory)
    - Reciprocal interdependence (the airline)
Contingency theory

- **Henry Mintzberg** – “The Structuring of Organizations” (1979)
  - Synthesized large parts of the organizational research up to ca. 1975
  - Proposed five basic organizational configurations (forms), each based on one main coordinating mechanism and one key part of the organization:
    - The Simple Structure (Entrepreneurial Form) – based on Direct supervision, Strategic Apex key
    - The Machine Bureaucracy – based on Standardization of work, Technostructure key
    - Professional Bureaucracy – based on Standardization of skills, Operating core key
    - The Adhocracy (Innovative Organization) – based on Mutual adjustment, Support staff (R&D) key
    - The Divisionalized Form (Diversified Organization) – based on Standardization of output, Middle line key
  - Has later suggested two new configurations:
    - The Missionary Organization – based on Standardization of norms, Ideology key
    - The Political Organization – no prime coordinating mechanism, no key part
Interactionism

- Historically, organizational analysis has had a consistent bias toward questions posed by managers
- Formal organizations have three main characteristics:
  - They are started at a certain point in time, easy to observe as artefacts
  - As artefacts, they will be characterized by a patterning of relationships (which is not random)
  - It follows from this that there will be much “attention paid to the discussion and execution of planned changes in social relations, and the ‘rules of the game’ on which they are based”.

- Enactment: Organizations are enacted, they are created by being talked about
- Sensemaking: Organizations are primarily “sensemaking systems”, incessantly create and recreate conceptions about themselves
- Loose coupling: The lack of firmness in the coupling among some of the parts of the organization – changes can take place locally with little consequence elsewhere

Weick’s “ten pieces of advice” for managers:
1. Don’t panic in the face of disorder
2. You never do one thing all at once
3. Chaotic action is preferable to orderly inaction
4. The most important decisions are often the least apparent
5. There is no solution
6. Stamp out utility
7. The map is the territory
8. Rechart the organization chart
9. Visualize organizations as evolutionary systems
10. Complicate yourself!
Institutional theory

- Paul J. DiMaggio and Walter W. Powell
  - Institutional isomorphism
    - The question is not why organizations differ, but why there is such an overwhelming degree of homogeneity – why bureaucracy has become the common organizational form
    - Organizations within the same business may have displayed considerable diversity when first set up, but converge over time toward bureaucracy
    - They do so not because bureaucracy is the most efficient, but because it furnishes legitimacy in the eyes of outside stakeholders
  - Three kinds of isomorphism:
    - Coercive isomorphism – by political influence
    - Mimetic isomorphism – a response to uncertainty
    - Normative isomorphism – a result of professional managers

- John W. Meyer and Brian Rowan
  - Organization is more about conforming to institutionalized rules than about coordinating and controlling activities
  - The myth of organizational rationality is necessary to obtain legitimacy in a society with rationality as the central norm
  - However, the formal structure – comprised of authority structures, plans and rules – is only loosely coupled to what is actually done in the organization
  - Thus, you have two organizational structures – one formal, which can be shaped according to the normative expectations in the environment, and one informal that is actually used for getting things done
  - The advantages conferred by the myths are stability, legitimacy and resources – exactly what is needed to survive
Postmodern approaches

There are two branches of postmodern theory:

- **Epistemological theory** (episteme = reason, knowledge): No unequivocal relations between forms of representation (symbols, like words and images) and an objective, external world is possible – we cannot get behind the words

- **Ontological theory** (ontos = being, existence): The society is moving into a new era, which differ from the previous “modern” age in significant ways – which can be understood, but not with the old theories
  - The core of **modernity** is *differentiation* – in organizations, especially the rational, increasingly fine-grained and rigid division of labor
  - The core of **postmodernity** is *de-differentiation* – the gradual integration of jobs, the blurring of areas of responsibility, the increasing overlap of functions, the increasing flexibility, the team attitudes

Stewart Clegg, “Modern Organizations” (1990)

- Rationality is subjective, and relative to context
- “Agents” (persons, organizations or parts of organizations) all act under a subjective rationality: they attempt to accomplish projects “which make sense in terms of the calculation which agents have available to them”
- Subjective rationalities can differ widely, as any agent will be heavily influenced by the cultural and institutional values of their national frameworks
- Therefore, organizational forms and practices cannot be universal
- “Organizations are human fabrications. They are made out of whatever materials come to hand and can be modified or adopted. Organizations are concocted out of whatever recipe-knowledge is locally available.”
Organization theory – a timeline

Classical theory
- Max Weber: Theory of Bureaucracy
- Frederick Taylor: Scientific Management
- Henri Fayol: Administrative theory

Neoclassical and institutional theory
- Luther Gulick and Lyndall Urwick: “Papers on the Science of Administration”
- Philip Selznick: “The Organization as Social Arena”
- Chester Barnard: “The Functions of the Executive”
- Elton Mayo: Human Relations

Systems theory
- Ludwig von Bertalanffy: General systems theory
- Hans Reichenbach: Quantum mechanics
- Ludwig Boltzmann: Statistical mechanics

Contingency theory
- W. Ross Ashby: Systems theory: Self-regulation and law of requisite variety
- Paul Lawrence and Jay W. Lorsch: “Organization and Environment”
- Harry Braverman: Marxist organization theory

Interactionism
- Erving Goffman: Symbolic interactionism
- James D. Thompson: “Organizations in Action”
- David Silverman: Action perspective

Postmodern approaches
- Jaques Derrida: Epistemological postmodernism
- Jean Baudrillard: Post-structuralism, epistemological postmodernism
- Jean-François Lyotard: Epistemological postmodernism

Other theories
- W. Ross Ashby: Systems theory: Self-regulation and law of requisite variety
- Paul Lawrence and Jay W. Lorsch: “Organization and Environment”
- Harry Braverman: Marxist organization theory

Types of theories
- Classical theory
- Neoclassical and institutional theory
- Systems theory
- Contingency theory
- Interactionism
- Postmodern approaches
- Other theories

Institutt for informatikk
Det matematisk-naturvitenskapelige fakultet

INF5890 Overview of theories on organizations and management
Lars Groth
What is organization?
But never ever forget:

“Every organized human activity - from the making of pots to the placing of a man on the moon - gives rise to two fundamental and opposing requirements: the division of labor into various tasks to be performed and the coordination of these tasks to accomplish the activity. The structure of an organization can be defined simply as the sum total of the ways in which it divides its labor into distinct tasks and then achieves coordination among them.”

Henry Mintzberg i "The Structuring of Organizations"
What is an organization?

“Organization is what distinguishes Rosenborg’s first team from 11 unaquainted young men on Elgeseter bridge.”

Jay R. Galbraith i "Organization Design" (adapted to a Norwegian context)
Organisation and systems are intertwined – indeed, they are one and the same!
Overview of theories on organizations and management

Lars Groth
Taxonomy of Coordinating Mechanisms: Level 1

Coordination of Work

Coordination by feedback
- Mutual Adjustment
- Direct Supervision

Coordination by program
- Standardization of Work
- Standardization of Skills
  - Tacit Skills
  - Explicit Skills

(Standardization of output)
Coordination of Work

Coordination by feedback
- Mutual Adjustment
  - Implicit Coordination
  - Technology Dependence

Coordination by program
- Direct Supervision
  - Explicit Routines
  - Automation
- Standardization of Work
  - Standardization of Skills
  - Tacit Skills
  - Explicit Skills

Taxonomy of Coordinating Mechanisms: Level 2
Coordination of Work

Coordination by feedback
- Mutual Adjustment
  - Implicit Coordination
    - Technology Dependence
    - Computer Dependence
      - Implicit Coordination (by Database)
  - Direct Supervision

Coordination by program
- Standardization of Work
  - Explicit Routines
  - Programmed Routines
  - Hyper-Automation
- Standardization of Skills
  - Tacit Skills
  - Explicit Skills

Taxonomy of Coordinating Mechanisms: Level 3

Overview of theories on organizations and management

Lars Groth
Overview of theories on organizations and management

Coordination of Work

Coordination by feedback

- Mutual Adjustment
  - Implicit Coordination
    - Technology Dependence
    - Computer Dependence
      - Implicit Coordination (by Database)

Coordination by program

- Direct Supervision
  - System-Supported Supervision
  - Programmed Routines
  - Hyper-Automation

- Standardization of Work
  - Explicit Routines
  - Automation

- Standardization of Skills
  - Tacit Skills
  - Explicit Skills

Mediating Model

Regulating Model

- Linked
- Atomistic

Assisting Model

System-Supported Skills