INF5890

Overview of theories on organization and management

Lars Groth

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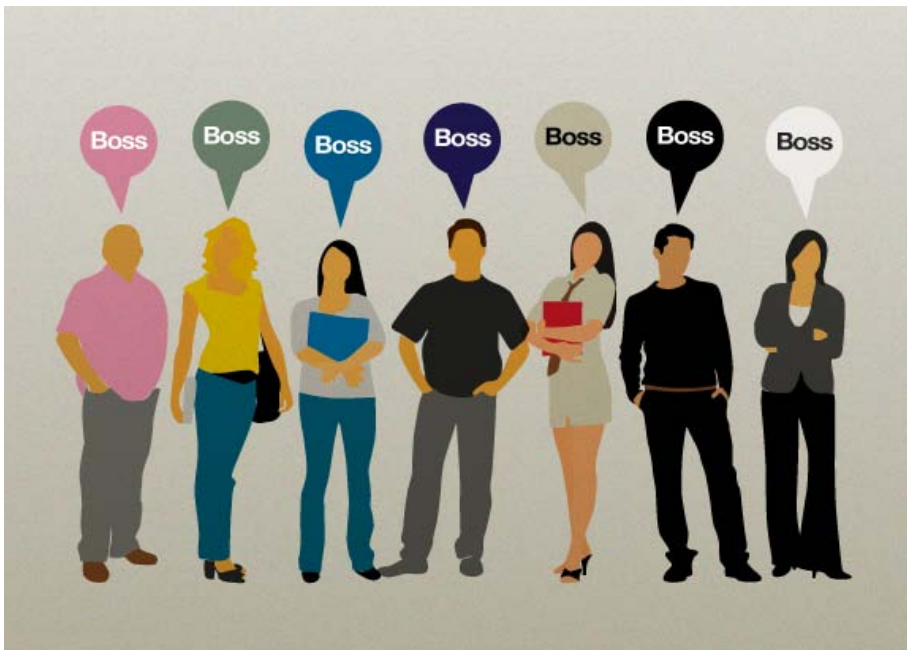INF5890   Overview of theories on organizations and management   *Lars Groth*   1

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!

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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***."*
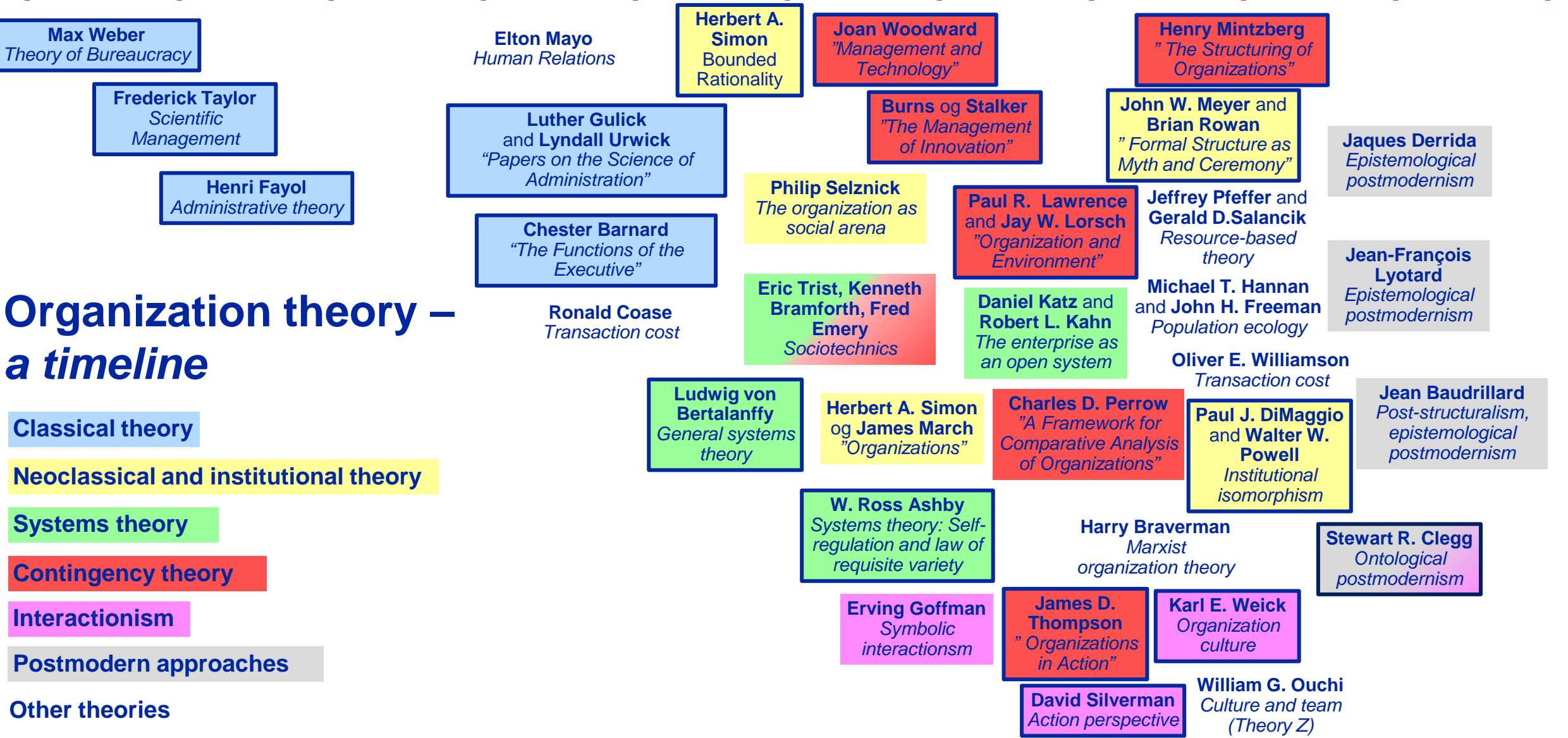
From "Wealth of Nations", page 2:

"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*

Timeline: 1900 · 1910 · 1920 · 1930 · 1940 · 1950 · 1960 · 1970 · 1980 · 1990 · 2000

Legend
- **Classical theory**
- **Neoclassical and institutional theory**
- **Systems theory**
- **Contingency theory**
- **Interactionism**
- **Postmodern approaches**
- **Other theories**

Entries

Max Weber
Theory of Bureaucracy

Frederick Taylor
Scientific Management

Henri Fayol
Administrative theory

Elton Mayo
Human Relations

Luther Gulick and **Lyndall Urwick**
"Papers on the Science of Administration"

Chester Barnard
"The Functions of the Executive"

Ronald Coase
Transaction cost

Herbert A. Simon
Bounded Rationality

Philip Selznick
The organization as social arena

Eric Trist, Kenneth Bramforth, Fred Emery
Sociotechnics

Ludwig von Bertalanffy
General systems theory

Herbert A. Simon og **James March**
"Organizations"

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

Erving Goffman
Symbolic interactionsm

Joan Woodward
"Management and Technology"

Burns og **Stalker**
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Charles D. Perrow
"A Framework for Comparative Analysis of Organizations"

James D. Thompson
"Organizations in Action"

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Population ecology

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Paul J. DiMaggio and **Walter W. Powell**
Institutional isomorphism

Harry Braverman
Marxist organization theory

Karl E. Weick
Organization culture

William G. Ouchi
Culture and team (Theory Z)

Jaques Derrida
Epistemological postmodernism

Jean-François Lyotard
Epistemological postmodernism

Jean Baudrillard
Post-structuralism, epistemological postmodernism

Stewart R. Clegg
Ontological postmodernism

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

Classical theory (blue):

Max Weber — *Theory of Bureaucracy*

Frederick Taylor — *Scientific Management*

Henri Fayol — *Administrative theory*

Luther Gulick and **Lyndall Urwick** — *"Papers on the Science of Administration"*

Chester Barnard — *"The Functions of the Executive"*

Neoclassical and institutional theory (yellow):

Herbert A. Simon — *Bounded Rationality*

Philip Selznick — *The organization as social arena*

Herbert A. Simon og **James March** — *"Organizations"*

John W. Meyer and **Brian Rowan** — *"Formal Structure as Myth and Ceremony"*

Paul J. DiMaggio and **Walter W. Powell** — *Institutional isomorphism*

Contingency theory (red):

Joan Woodward — *"Management and Technology"*

Burns og **Stalker** — *"The Management of Innovation"*

Paul R. Lawrence and **Jay W. Lorsch** — *"Organization and Environment"*

Henry Mintzberg — *"The Structuring of Organizations"*

Charles D. Perrow — *"A Framework for Comparative Analysis of Organizations"*

James D. Thompson — *"Organizations in Action"*

Systems theory (green):

Eric Trist, Kenneth Bramforth, Fred Emery — *Sociotechnics*

Daniel Katz and **Robert L. Kahn** — *The enterprise as an open system*

Ludwig von Bertalanffy — *General systems theory*

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

Interactionism (pink/magenta):

Erving Goffman — *Symbolic interactionsm*

Karl E. Weick — *Organization culture*

David Silverman — *Action perspective*

Postmodern approaches (grey):

Jaques Derrida — *Epistemological postmodernism*

Jean-François Lyotard — *Epistemological postmodernism*

Jean Baudrillard — *Post-structuralism, epistemological postmodernism*

Stewart R. Clegg — *Ontological postmodernism*

Other theories:

Elton Mayo — *Human Relations*

Ronald Coase — *Transaction cost*

Jeffrey Pfeffer and **Gerald D. Salancik** — *Resource-based theory*

Michael T. Hannan and **John H. Freeman** — *Population ecology*

Oliver E. Williamson — *Transaction cost*

Harry Braverman — *Marxist organization theory*

William G. Ouchi — *Culture and team (Theory Z)*

The one best way
Classical organisation theory

- **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 Managemement" 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."*

The one best way
Classical organisation theory

Other classics:

- **Henri Fayol** (1841-1925)**:** French mining engineer and director of mines. Developed a general theory of administion 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

"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."

- **Herbert A. Simon** 1916-2001) – "Adminstrative 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)

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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
  - "Management and Technology", 1958, "Industrial Organization", 1965
  - 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

Structural Characteristic	Unit and small batch	Large batch and mass production	Process production
Number of management levels	Low	Medium	High
Supervisory span of control	Low	High	Low
Ratio of managers to total workforce	Low	Medium	High
Skill level of workers	High	Low	High
Overall structure	Organic	Mechanistic	Organic

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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)

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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

Simple Structure
Direct supervision
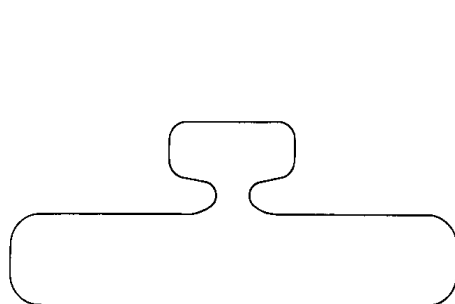
Figure 17-1. The Simple Structure

Machine Bureaucracy
Standardization of work
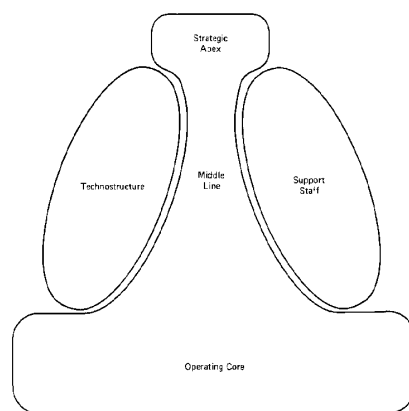
Figure 2-1. The Five Basic Parts of Organizations

Professional Bureaucracy
Standardization of skills
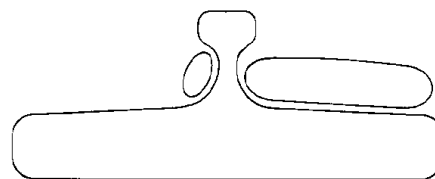
Figure 19-1. The Professional Bureaucracy

Adhocracy
Mutual coordination
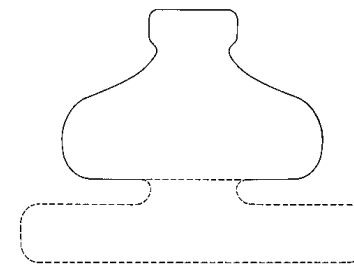
Figure 21-3. The Adhocracy

Divisionalized Form
Standardization of output
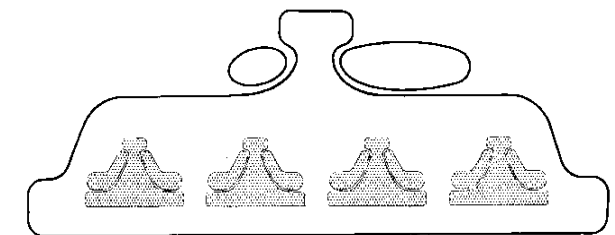
Figure 20-2. The Divisionalized Form

Interactionism

- **David Silverman** – "The Theory of Organizations" (1970)
  - 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 form 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".

- **Karl E. Weick** – "The Social Psychology of Organizing" (1969)
  - **Enactment**: Organizations are enacted, they are created by being talked about
  - **Sensemaking**: Organizations are primarely "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 elswhere

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 isomorfism
    - 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 isomorfism:
    - Coercive isomorfism – by political influence
    - Mimetic isomorfism – a response to uncertainty
    - Normative isomorfism – 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, legitimity and resources – exactly what is needed to survive
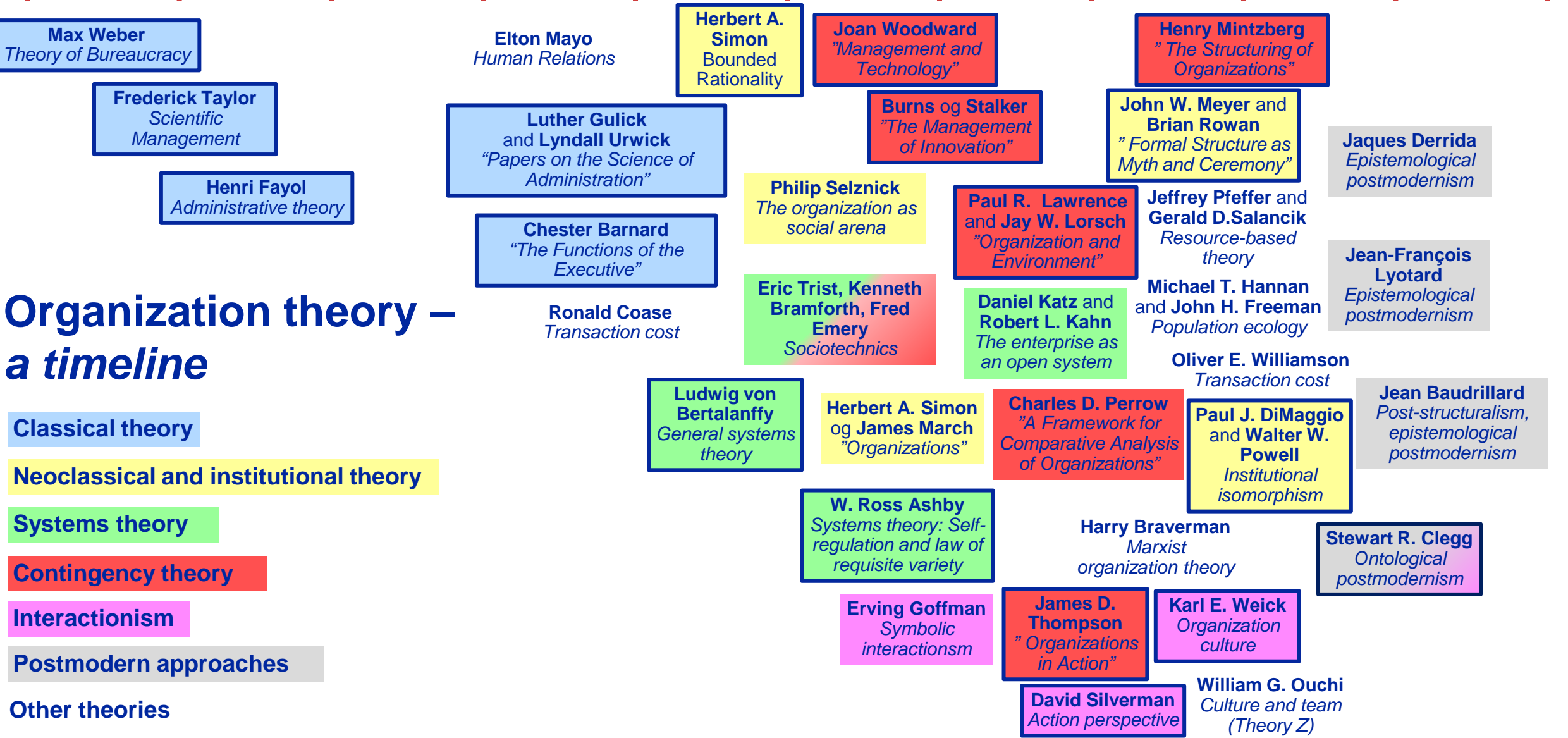
Postmodern approaches

- 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."*
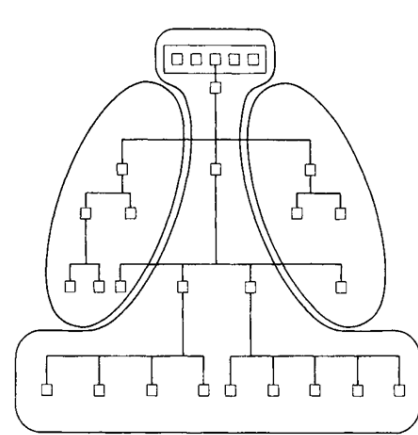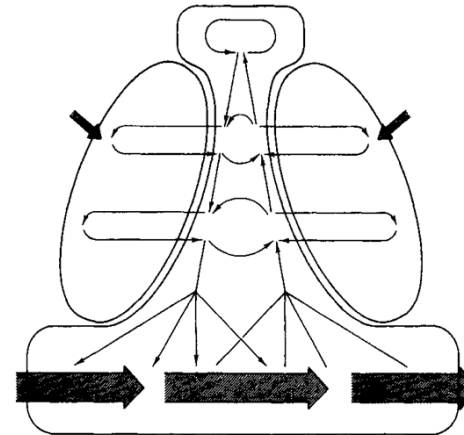
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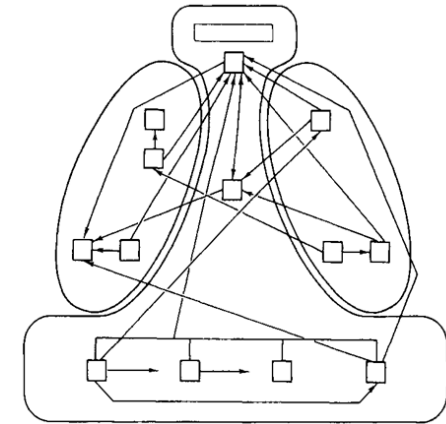*Culture and team (Theory Z)*

What is organization?

(a): the flow of formal authority

(b): the flow of regulated activity

(c): the flow of informal communication
(adapted from Pfeffner and Sherwood, 1960: 291)

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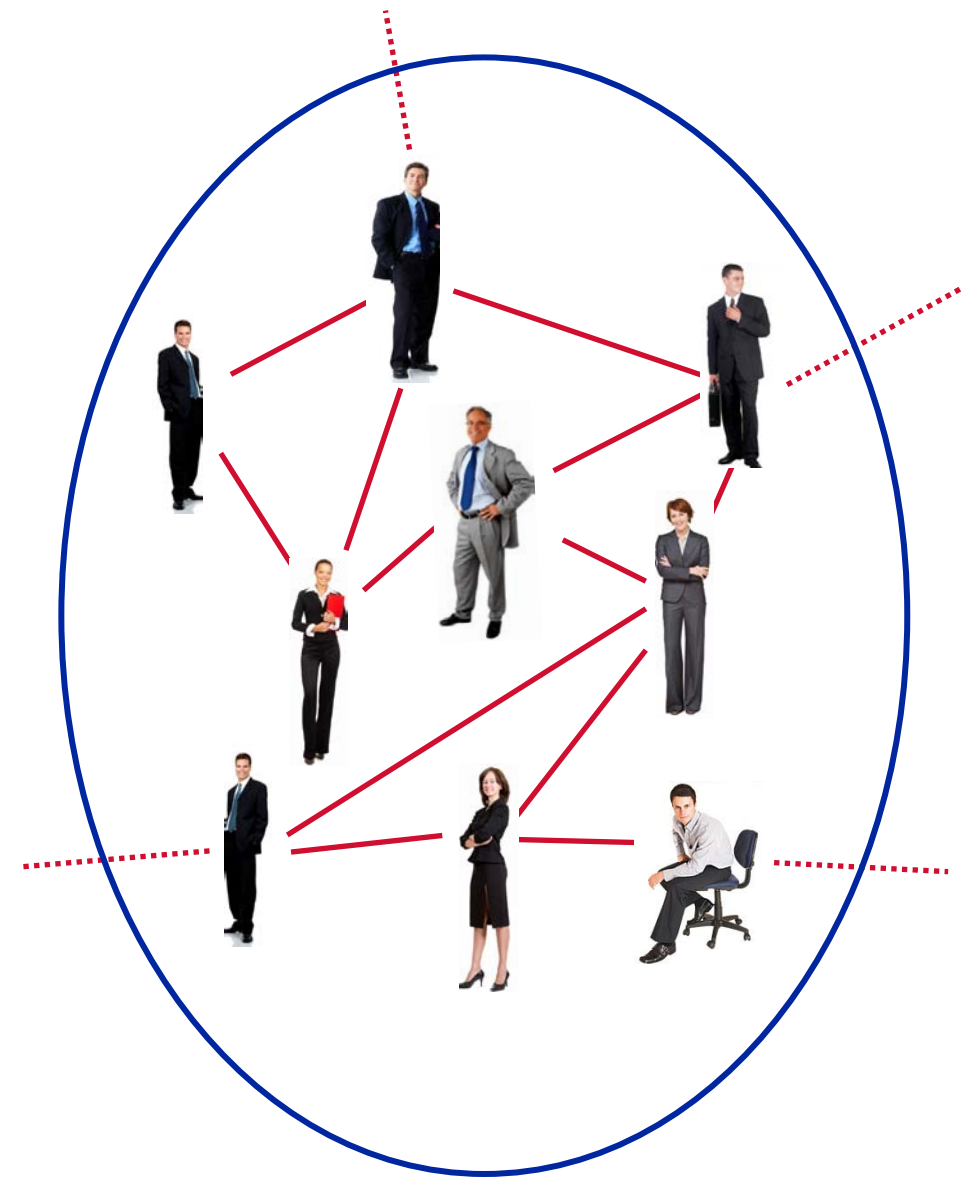
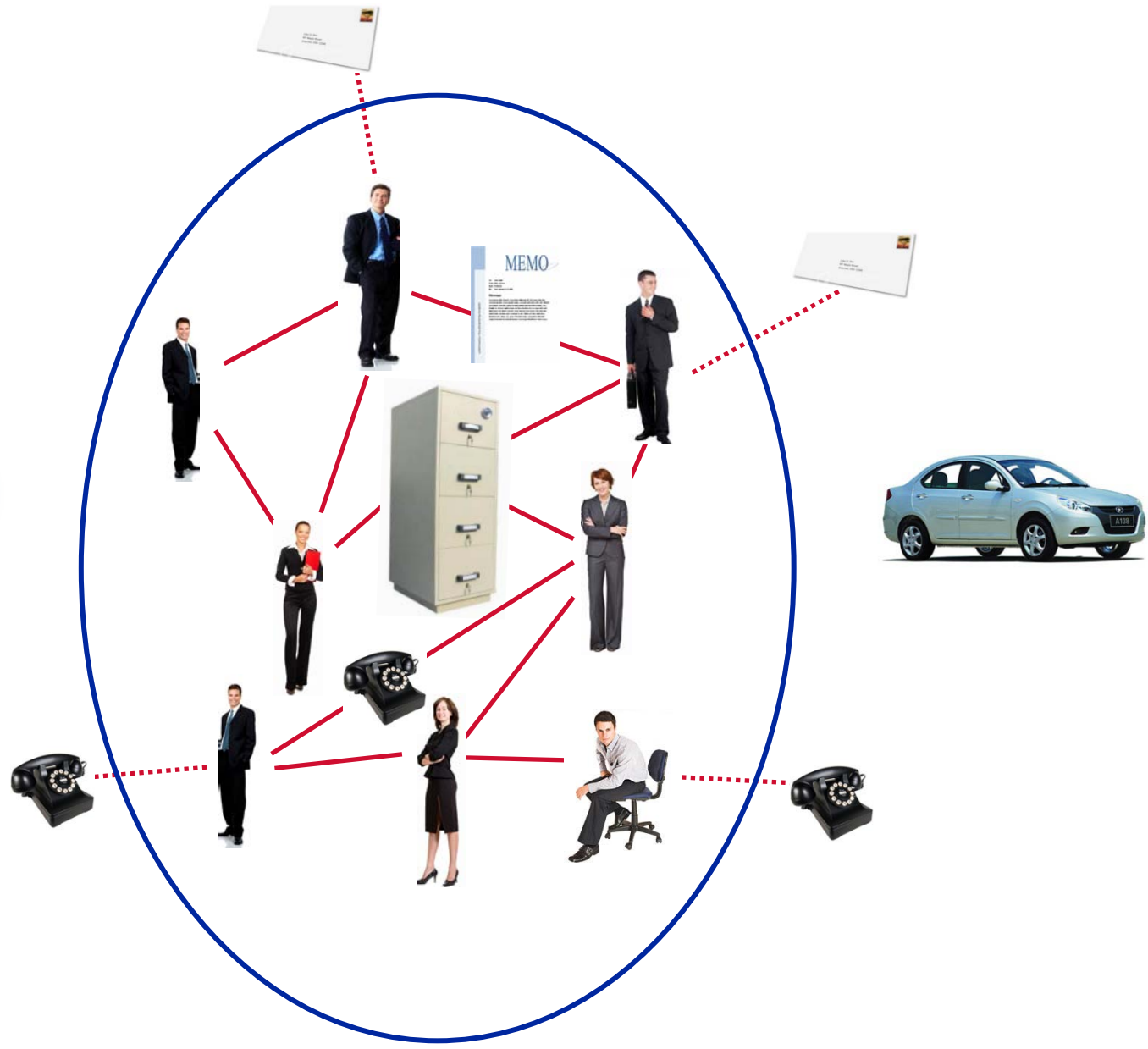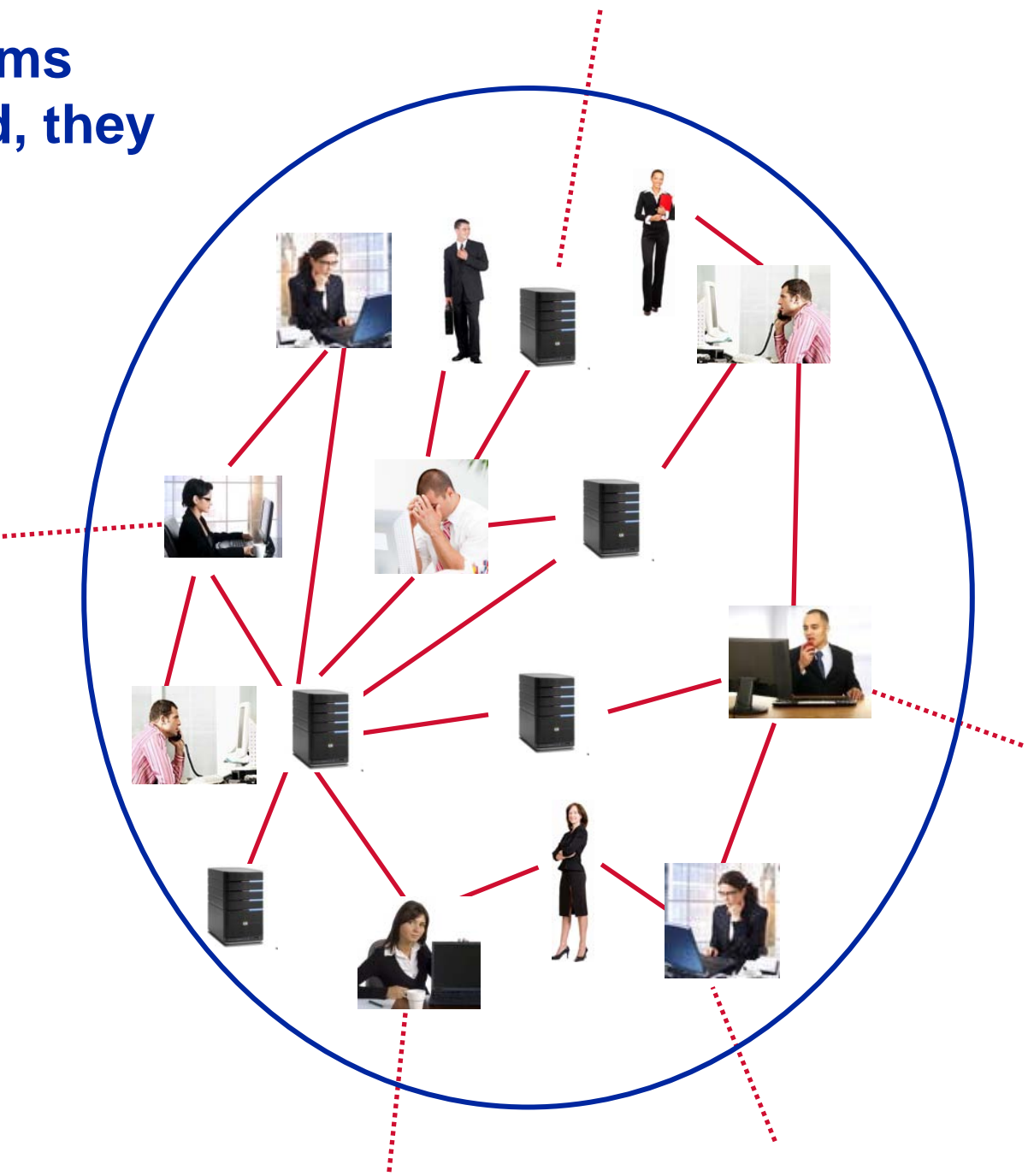*Henry Mintzberg i "The Structuring of Organizations"*
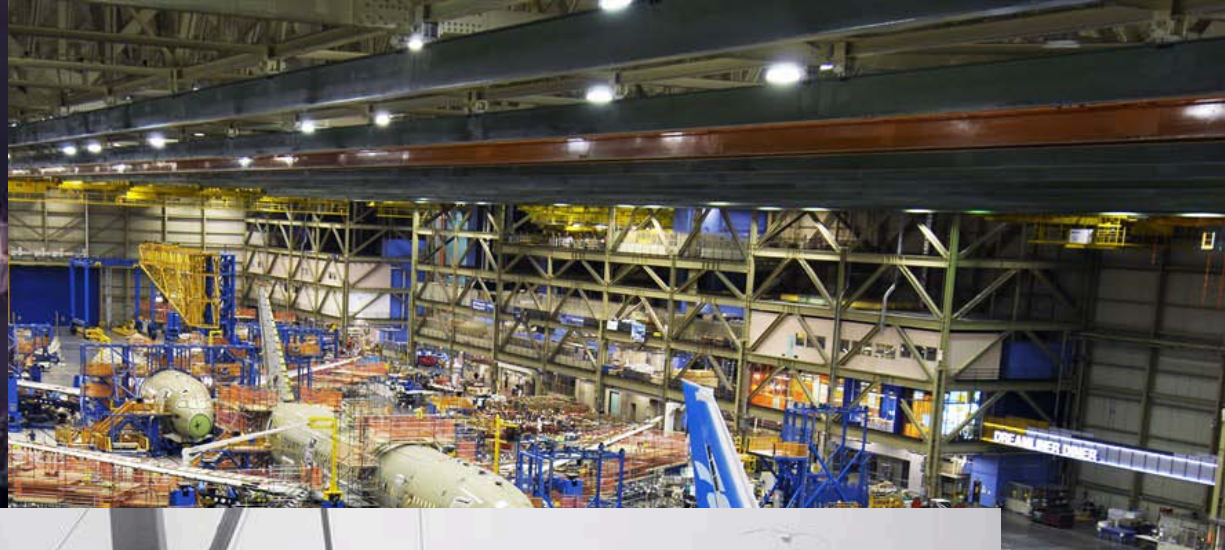
What is an organization?

"Organization is what distiguishes 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 intervowen – indeed, they are one and the same!

Coordination of Work

Coordination
by feedback

Coordination
by program

Mutual
Adjustment

Direct
Supervision

Standardization
of Work

Standardization
of Skills

Tacit
Skills

Explicit
Skills

(Standardization of
output)

Coordination of Work

Coordination
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Mutual
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Supervision

Standardization
of Work

Standardization
of Skills

Tacit
Skills

Explicit
Skills

Technology Dependence

Implicit
Coordination

Explicit
Routines

Automation

Coordination of Work

Coordination by feedback

Coordination by program

Mutual Adjustment

Direct Supervision

Standardization of Work

Standardization of Skills

Tacit Skills

Explicit Skills

- - - - - - - - - - Technology Dependence - - - - - - - - - -

Implicit Coordination

Explicit Routines

Automation

- - - - - - - - - - Computer Dependence - - - - - - - - - -

Implicit Coordination (by Database)

System-Supported Supervision

Programmed Routines

Hyper-Automation

System-Supported Skills

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Coordination of Work

Coordination by feedback

Coordination by program

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Mediating Model

Regulating Model

Assisting Model

Linked   Atomistic