

# Similarity and complementarity in inter-organizational networks

APROS 2001  
Organization Theory in Transition

Lucio Biggiero & Alessia Sammarra

University of L'Aquila

[biggiero@ec.univaq.it](mailto:biggiero@ec.univaq.it), [sammarra@ec.univaq.it](mailto:sammarra@ec.univaq.it)

Knownetlab Research Center [www.knownetlab.it](http://www.knownetlab.it)

# THE NEW VERSION OF THE PAPER

- RATIONAL CRITERIA FOR ION DESIGN
- ARGUMENTS FOR ASSERTING THE EXISTENCE OF ION IDENTITY
- RELATIONSHIPS BETWEEN ION'S STRUCTURE AND ION'S IDENTITY
- CONSEQUENCES (FEEDBACKS) OF ION'S IDENTITY

# RATIONAL CRITERIA FOR DESIGNING ION

- LRV (LAW OF REQUISITE VARIETY)
- REDUNDANCY PRINCIPLE
- **SIMILARITY/COMPLEMENTARITY**
- TRADE-OFF EFFICIENCY/EFFECTIVENESS

# ADVANTAGES OF BUILDING ION BY FIRMS' SIMILARITY

- COST ADVANTAGES (SCALE ECONOMIES, POSITIVE EXTERNALITIES)
- LOBBYING AND MARKET POWER
- REDUCTION OF UNCERTAINTY (ABOUT STRATEGIC BEHAVIOUR, INNOVATION, STRATEGIC GROUP BOUNDARIES, ETC.)

# ADVANTAGES OF BUILDING ION BY COMPLEMENTARITY

- AVOIDING SHIFTING COSTS
- COMPLEMENTARY NEEDS
- FITNESS ADVANTAGES (SCOPE ECONOMIES)
- LOBBYING AND MARKET POWER
- REDUCTION OF UNCERTAINTY (ABOUT STRATEGIC BEHAVIOUR, INNOVATION, STRATEGIC GROUP BOUNDARIES, ETC.)

# SIMILARITY VS. COMPLEMENTARITY

		COMPLEMENTARITY	
		high	low
SIMILARITY	high	PARALLEL, STRUCTURAL & SEQUENTIAL COUPLING	PARALLEL COUPLING
	low	STRUCTURAL & SEQUENTIAL COUPLING	WEAK COUPLING

# ARGUMENTS FOR ASSERTING THE CREATION OF ION'S IDENTITY BASED ON MEMBERS' SIMILARITY

- FACILITATING THE RECOGNITION OF DIRECT COMPETITORS
- FACILITATING TRUST FORMATION AND MAINTENANCE
- FACILITATING THE EMERGENCE OF CITIZENSHIP BEHAVIOURS (SOLIDARITY MECHANISMS)

continue...

- FACILITATING THE FORMULATION OF COMMON STRATEGIES
- FACILITATING THE COORDINATION OF ACTIONS
- FACILITATING LABOUR MOBILITY

ARGUMENTS FOR ASSERTING THE CREATION OF  
ION'S IDENTITY  
BASED ON MEMBERS' COMPLEMENTARITY

- FACILITATING RECURSIVE INTERACTIONS (AND SO LIKELY TECHNOLOGICAL INNOVATIONS AND MUTUAL ADAPTATIONS)
- FACILITATING TRUST FORMATION AND MAINTENANCE

continue...

- FACILITATING THE EMERGENCE OF CITIZENSHIP BEHAVIOURS (SOLIDARITY MECHANISMS)
- FACILITATING THE EMERGENCE OF FIRM COMMITMENT
- FACILITATING THE FORMULATION OF COMMON STRATEGIES
- FACILITATING THE COORDINATION OF ACTIONS

# RELATIONSHIPS BETWEEN ION'S STRUCTURE AND ION'S IDENTITY

**SIMILARITY**



**SET IDENTITY**

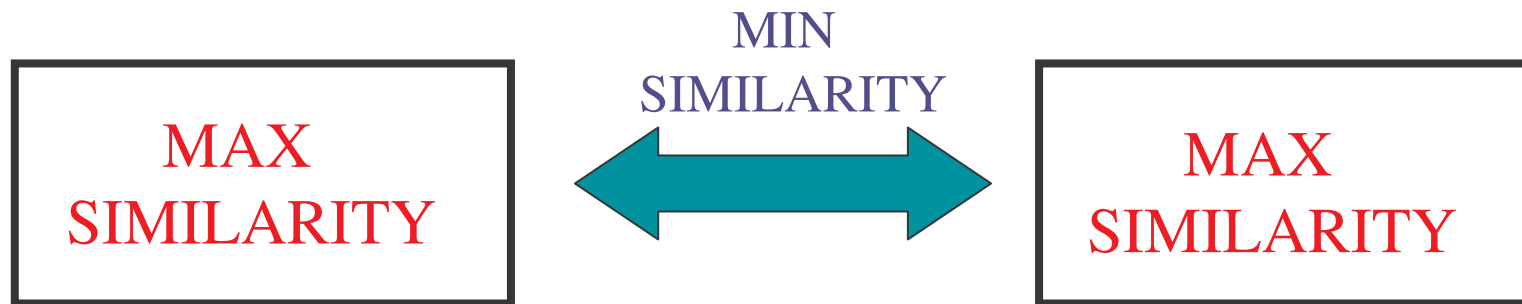
**COMPLEMENTARITY**



**SYSTEM IDENTITY**

# GROUP CONSTRUCTION BY SIMILARITY

## PRINCIPLE OF META-CONTRAST



# GROUP CONSTRUCTION BY COMPLEMENTARITY PRINCIPLE OF FITNESS



# CONSEQUENCES

- REINFORCING (POSITIVE FEEDBACK) PROCESSES BETWEEN ION'S STRUCTURE AND IDENTITY
- **RISK: THE HIGHER ION'S IDENTITY, THE HIGHER ION'S CLOSURE**