

# THE ROLE OF THEORIES AND METHODS FOR TRANSDISCIPLINARY INTEGRATION PROCESSES

Session: Tools for Integration I

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# Transdisciplinarity

## *Our understanding*

- collaborative research activity (flat hierarchies, however different roles and tasks)
- integrates actors from both academic institutions and non-academic fields
- and involves contributions from different paradigms, knowledge bases, values, and objectives

# Problem

## Transdisciplinary research is under-theorized

- Need for academics to be critically reflexive of our ontology (how we understand “reality”) and our epistemology (how we know what we know)
- Need to look at how different theories contribute to thinking about the integration of non-academics and academics in transdisciplinary research
- Need to identify and explicate the implications of our theoretical perspectives

# Objective

- To identify and discuss the ontological, epistemological, methodological and potential implications of four selected theoretical perspectives for addressing the issue of integration in transdisciplinary research

# Approach

- Four theoretical perspectives:

- Social capital
- Systems
- Environmental psychology
- Conventions



- Why these four?

- Each addresses social relationships between researchers as well as researchers and actors
- Contributes to the integration of knowledge from different perspectives

# Analytic framework

## *Theoretical Perspectives & Transdisciplinary*

### *Research Concerns*



#### THEORETICAL FRAMEWORK

	SOCIAL CAPITAL	SYSTEMS	ENVIRONMENTAL PSYCHOLOGY	CONVENTIONS
<b>RESEARCH CONCERNS</b>	<b>ONTOLOGICAL POSITION</b>			
Awareness of researcher's position				
Principles for the relationship between Academic & Non-Academic Actors				
	<b>EPISTEMOLOGICAL POSITION</b>			
Researcher experience / understanding of non-academic's world				
Mutual Learning Process				
	<b>RESEARCH RESULTS</b>			
Added Knowledge				

# Preliminary insights

## THEORETICAL FRAMEWORK

SOCIAL CAPITAL

SYSTEMS

ENVIRONMENTAL  
PSYCHOLOGY

CONVENTIONS

### RESEARCH CONCERNS

Awareness  
of researcher's position

Principles  
for the Relationship between  
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Researcher experience / understanding  
of non-academic's world

Mutual Learning Process

Added Knowledge

### ONTOLOGICAL POSITION

Recognize the need for a social investment in the relationship

Trust and reciprocity in shaping the relationship

### EPISTEMOLOGICAL POSITION

Access to multiple resource and information networks (academic, non-academic)

Learning is a function of the social investment

### RESEARCH RESULTS

Added knowledge is a result of the social investment and collective action

# Preliminary insights

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Added Knowledge

### ONTOLOGICAL POSITION

A holistic perspective creates awareness of multiple systems

Reciprocal or two-way flows among different systems

### EPISTEMOLOGICAL POSITION

Actors are part of different & inter-related systems

Learning is emergent because of the interrelationship among systems

### RESEARCH RESULTS

Interfaces and interaction between systems generates added knowledge

# Preliminary insights

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Added Knowledge

### ONTOLOGICAL POSITION

Awareness of different values, attitudes and behavior

Respect for different values, attitudes and behavior

### EPISTEMOLOGICAL POSITION

Personal attributes of actors are related to environmental conditions, and their embeddedness in value systems

Opening of both academic and non-academic identities

### RESEARCH RESULTS

Different value systems and their relevance for different actors creates new knowledge

# Preliminary insights

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### ONTOLOGICAL POSITION

Know differently, not more

Do not "step aside" in the relationship, but accept different worlds of practice

### EPISTEMOLOGICAL POSITION

Accept separate embeddedness; familiarity with non-academic world

Learning process as a result of shared coordination of different ways of knowing

### RESEARCH RESULTS

Knowledge is both joint and separable

# Discussion

*Integrating theories addressing the social relationship is a challenge for each researcher no matter if originally a natural or social scientist*

- Theoretical background is a precondition for transdisciplinary research
- Relations between the theories – overlapping, similarities
- Ero-epic<sup>1</sup> interview type: how to deal with researcher identity – to give insights into researcher identity and to reduce hierarchy between them

1 following Roland Girtlers: Greek definition "erotari" = ask; "eipon" (epos) – tell something (narration, story), based on a conversational approach where both researcher and actor are asking and answering

# Concluding observations

- Paper presents a first reflection of theories and of criteria
- Findings are to deepen, differentiate and clarify through further discussions
- Further analysis of the contribution of other theories:
  - actor-network theory,
  - organizational theories,
  - action-research and others.

# Selected References

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