



Degrees of Interdisciplinarity and the Difference
they make: TDRS in the FP7 Funded CONVERGE
project

Dr Jenneth Parker, Director
Research, Schumacher Institute UK

Interdisciplinarity and Transdisciplinarity

Warleigh-Lack and Cini (2009)

'Interdisciplinary work would involve a much more sustained process of dialogue, together with joint problem-definition, and methodology, most probably devised by a team of scholars from the salient disciplines or areas..... By contrast, transdisciplinary work would go one step further, adding an overarching common meta-theoretical perspective to the common definition of the problem and methods.'

Why think about it?

- Demonstrate structural relationships of different disciplines
- Demonstrate importance of different domains of knowledge
- Help teams to plot and plan their interdisciplinary activities
- Helps to situate different research outputs in relation to each other and reveal gaps and emphases on specific areas
- Help to condition and critically enquire into demands from research funders for 'integration' across non-reducible areas of knowledge
- Help to embed the understanding of sustainability as concerned both with our human dependence upon life support systems of the biosphere and ethical concerns of justice

Mapping TD in CONVERGE

A: Cultural systems of representation and interpretation of significance: arts; ethics; faiths

CONVERGE ethical inquiry into the significance of new understandings of human dependence on biosphere and global interdependence – can CONVERGE contribute to new narratives of prosperity?

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B: Human social systems: legal; political; economic; familial;

CONVERGE to work with different communities to review attempts at sustainability/convergence. Action research to discuss CONVERGE as a frame for action and change. Mandated to produce policy recommendations for EU (and for social movements/NGOs?)

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C: Human material systems: consumption; production; transport; settlement; care

CONVERGE using systems modelling of human ecology and material flows; estimations of sustainable levels of population at differential levels of material well-being (not looking at care and support as yet – gender aspects). Looking at human ecology of different communities

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D: Life support systems/material resources

CONVERGE using existing best science about state of biophysical life-support systems – using attempts to integrate science from different adjacent fields to gain overall assessment.
CONVERGE review of state of resource base and trajectories of use: eg ‘peak oil etc’

TD review methodology

- To consider the ways in which different **Interdisciplinary (ID) groups or clusters** contribute to the **more Transdisciplinary (TD) outputs** to which the CONVERGE project aspires and how this approach might inform more focussed kinds of peer review.
- This is a move away from a simplistic differentiation between ‘disciplinary **inputs**’ and ‘interdisciplinary **outputs**’ concept of ID research and a refocusing on **elements in research and the research process**. This analysis is undertaken here not for the purposes of creating interesting typologies (different accounts already exist eg Griffin et al etc) but as a means to clarify (at least) 2 key project issues: peer review and outputs strategy.

Typology for TDRS

adapting Van den Besselaar and Heimericks (2001: 2)

- **Multi-disciplinarity** – many disciplines in occasional conversation – each providing some element – not necessarily combined
- **Inter-disciplinarity** – working across disciplines – but often in still limited interdisciplinary ‘clusters’ across cognate disciplines sharing many basic similarities of method and conceptual language
- **Trans-disciplinarity** – working across disciplines in a ‘deep’ way - physical science; social science and the humanities (including ethics) ‘synthetic’ outputs of wide human significance also often involving stakeholder knowledge.

Challenging Disciplines

- Some Transdisciplinary Outputs will be thematic, where a certain focus (such as Food in the case of CONVERGE) brings together evidence from different areas into an overall picture.
- These outputs can be very illuminating and raise new theoretical questions about the relations between disciplines.
- TD problems and research can challenge adequacy of current disciplines – eg Economics

Problems in assessing TD outputs

There are (at least) two key problems that can arise with regard to outputs:

- One problem that can arise with TD projects is that it is imagined that all the major outputs will be TD in nature and therefore that all team members from each ID cluster should be involved in them.
- Another problem has to do with the crucial issue of transparency of data that contributes to TD synthesis and the transparency of the judgement calls and priorities that contribute to synthetic work.

TD or ID: why does it matter?

If an undifferentiated approach to ID is taken that does not take account of the degrees of ID and TD in a project then the standards and process of review of deliverables and outputs can be very unclear, leading to the views of the most experienced and or senior team members prevailing with no clear rationale provided. This may sometimes 'work' but it also will sometimes not work – and most importantly will always remain opaque – that is others cannot learn from it.

Implications for Outputs

If as proposed above we clarify the nature of the ID cluster work and the outputs for the purposes of peer review and criteria of review then we also have a framework that **recognises and values ID cluster outputs** along the way as highly valuable in their own right – and generally easier to place for publication purposes owing to the existence of ID clusters that are more well recognised. Further there is no strong reason for involvement of other team members in write up and IP – apart from project team recognition overall.

Quality in TDRS

- **transparency of the TD processes** in which arguably much of the **quality** of TD research (or not) must reside, it is necessary for this that these ID cluster outputs above should be clearly available.
- Need to clarify the basis on which researchers are carrying out synthesis and identifying any clear cases of judgements and rationales for those judgements at that time.
- Research ideal of replicability and/or the information needed to change vital parameters and see what different results might ensue etc. The publication and IP issues here have to be supported by agreed protocols to do with collaborative team efforts and may often need designated synthesis workshops to develop.

‘Just getting the right people in the room’????

- Need to develop tools and approaches for teams eg Toolbox and mapping framework
- Developing skills of teams/managers and even specialist facilitators
- Develop different issues of quality in TD research
- Get away from all concentration on subjective aspects and more on methodology

Some recommendations...

- More work should be supported on the issues and problems of TDRS
- Implications and recommendations from Prague event should be followed up by EU DG Research
- TDRS team members need alerting early on to the fact that discussion and negotiation of methodology is often a key part of TDRS practice – and not a slight on expertise
- Periodic re-negotiation of project goals, aims and key research questions advisable in conjunction with TD reflection on products and processes
- Intersection of TD issues and cross-cultural issues in teams needs more inquiry

Thanks for your attention...

*Disciplinary expertise is not
enough any
more.....Transdisciplinarity
– it's what the other 70% of
your brain is for.....!!!*