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td-net
Network for Transdisciplinary Research

A Tour d'Horizon of Literature Related to Transdisciplinarity Published in 2009

Each year the td-net invites experts of transdisciplinary research to inform us about important recent publications in the area of transdisciplinarity (see list of contributors). This document is a bibliography of new literature published in 2009. For the first time, the list includes short annotations by the experts on why they recommend these books or essays to the scientific community.

We would like to thank the contributors for their inputs and are looking forward to another productive year for transdisciplinary research.

You may indicate to us new literature throughout the year. Suggestions to include new journals or publications in the *Bibliography Transdisciplinarity* are very welcome and may be sent to:

Dr. Eva Schumacher at bibliography@transdisciplinarity.ch

You may find more information about the bibliography and many more articles at <http://www.transdisciplinarity.ch/e/Bibliography/index.php>

State-of-the-art: overview & synthesis documents

Hoffmann V, Thomas A, Gerber A (eds). 2009. *Transdisziplinäre Umweltforschung: Methodenhandbuch*. Reihe Kulturlandschaft, Band 2. München: oekom verlag.

Reflections on the need for and concept of transdisciplinarity

Bechmann G, Gorokhov V, Stehr N (eds). 2009. *The Social Integration of Science. Institutional and Epistemological Aspects of the Transformation of Knowledge in Modern Society*. Berlin: edition sigma.

Bogner A, Kastenhofer K, Torgersen H 2009. *Inter- und Transdisziplinarität. Eine anhaltend aktuelle Debatte*. GAIA - Ecological Perspectives for Science and Society, V18, pp 166-168.

Grinnell F 2009. *Everyday Practice of Science: Where Intuition and Passion Meet Objectivity and Logic*. New York: Oxford University Press.

"The book challenges a number of popular beliefs about scientific research. It presents research as a process of critical engagement with thought styles, of one's own and of the others, within the overarching ethic of humility. As such, it indicates a model for reflective practice that may be compared with the ideals of transdisciplinarity." (dd)

Ingram M 2009. *You don't have to be a scientist to do science*. *Ecological Restoration*, V27, N1, pp 1-2.

"Short, refreshing claim for more transdisciplinarity." (mg)

Nickelsen N C 2009. *Rethinking interventionist research: Navigating oppositional networks in a Danish hospital*. *Journal of Research Practice*, V5, N2: M4. [online] URL:

<http://jrp.icaap.org/index.php/jrp/article/view/2180/2179>.

"This article focuses on the dynamics of a researcher's engagement within an organisational situation, where different sections of the staff may persuade the researcher to support their own respective interests. The article calls for fresh thinking on how a researcher may be engaged usefully in such a situation." (dd)

Integration

McDonald D, Bammer G, Deane P 2009. *Research Integration Using Dialogue Methods* Canberra: ANU E Press. Open Access:

http://epress.anu.edu.au/dialogue_methods_citation.html

"The book is the first attempt I know to provide a toolbox of methods for research integration."(cp)

Uncertainty

Wibeck V 2009. *Communicating uncertainty: Models of communication and the role of science in assessing progress towards environmental objectives*. *Journal of Environmental Policy & Planning*, V11, N2, pp 87 - 102.

Participation

Reed M S, Graves A, Dandy N, Posthumus H, Hubacek K, Morris J, Prell C, Quinn C H, Stringer L C 2009. *Who's in and why? A typology of stakeholder analysis methods for natural resource management*. *Journal of Environmental Management*, V90, N5, pp 1933-1949.

"The paper gives a comprehensive overview of methods for identifying stakeholders, categorizing stakeholders, and investigating relationships between them." (cp)

Knowledge exchange / mutual learning

Schneider F, Fry P, Ledermann T, Rist S 2009. *Social learning processes in Swiss soil protection – The 'From Farmer - To Farmer' project*. *Human Ecology*, V37, N4, pp 475-489.

"The publication reports on a long-term social learning project, 'From Farmer - To Farmer' (www.vonbauernfuerbauern.ch) through which an understanding of soil quality and best-practice soil protection has been developed from the perspective of and by farmers. The farmers' perspective has then been communicated by farmers to farmers, eg. through videos. The project has also invested much in co-producing social networks through the project. An excellent example of an integrative understanding of knowledge exchange and learning." (ck)

Zingerli C, Michel C, Salmi A 2009. *On producing and sharing knowledge across boundaries: Experiences from the interfaces of an international development research network*. Knowledge Management for Development Journal, V5, N2, pp 185-196.

"The authors present a concept for better understanding processes related to knowledge production and access to knowledge in large-scale inter- and transdisciplinary research networks. The promising concept of interface inspires critical reflection on strategies and instruments applied." (hh)

Science–policy interface

Adger W N, Lorenzoni I, O'Brien K L (eds). 2009. *Adapting to Climate Change. Thresholds, Values, Governance*. Cambridge: Cambridge University Press.

Beck S 2009. *Das Klimaexperiment und der IPCC. Schnittstellen zwischen Wissenschaft und Politik in den internationalen Beziehungen*. Marburg: Metropolis Verlag

Bryant T 2009. *An Introduction to Health Policy*. Toronto: Canadian Scholars' Press Inc.

"The book makes a significant contribution to the current debates on health policy because it contains important comparative analyses in an international policy context." (rj)

Goldstein B E 2009. *Resilience to surprises through communicative planning*. Ecology and Society, V14, N2: 33. [online] URL: <http://www.ecologyandsociety.org/vol14/iss32/art33/>.

Hess D J 2009. *The potentials and limitations of civil society research: Getting undone science done*. Sociological Inquiry, V79, N3, pp 306-327.

Collaboration between social and natural sciences

Chakrabarty D 2009. *The climate of history: Four theses*. Critical Inquiry, V35, N2, pp 197-222.

"This publication is inspiring for TD researchers because it reviews centuries of research in history making paradigms and standpoints explicit. More specifically it makes explicit the gaps between natural history and human history as they have been conceptualised by theoreticians for years. Then the author urges for bridging these gaps as human scope of action has become comparable to geological forces. It is both an encouragement for TD research and a valuable resource to understand disciplinary boundaries." (gb)

Drenthen M, Keulartz J, Proctor J (eds). 2009. *New Visions of Nature. Complexity and Authenticity*. Dordrecht, Heidelberg, London, New York: Springer.

Lowe P, Whitman G, Phillipson J 2009. *Ecology and the social sciences*. Journal of Applied Ecology, V46, N2, pp 297-305.

"The paper discussed the different roles and functions that the ecologists see for the social sciences in applied ecology. It lies the ground for a collaboration on an equal footing." (cp)

Collaboration between artists and scientists

Dombois F, Oforu Y, Schmidt S (eds). 2009. *«genau. leicht. konsequent». Ein dreifaches Rendezvous der Künste und Wissenschaften*. Basel: Schwabe.

„Beautifully designed, this collection of articulations from various disciplines and practices on the qualities of „exact.light.cosistent“ is a enactment of art as research at its best.“ (mr)

Institutions for transdisciplinary research

Augsburg T, Henry S (eds). 2009. *The Politics of Interdisciplinary Studies: Essays on Transformations in American Undergraduate Programs*. Jefferson NC: McFarland.

"This book has about a dozen case studies of the administration of interdisciplinary teaching programs, and draws conclusions regarding what works institutionally and what does not." (rs)

Sherren K, Klovdahl A S, Robin L, Butler L, Dovers S 2009. *Collaborative research on sustainability: Myths and conundrums of interdisciplinary departments*. Journal of Research Practice, V5, N1: M1. [online] URL: <http://jrp.icaap.org/index.php/jrp/article/view/2163/2167>.

"This article questions the assumptions behind establishing interdisciplinary academic departments. By focusing closely on two interdisciplinary university departments, the article highlights the difficulties of setting an appropriate organisational climate within them. It also casts doubts on the sustainability of such collaborations." (dd)

Stauffacher M, Fry P, Kläy A, Roux M, Valsangiacomo A 2009. *Umweltforschung an den Schnittstellen von Mensch und Umwelt sowie Wissenschaft und Gesellschaft – Environmental research at the interfaces of human-environment and science–society*. GAIA - Ecological Perspectives for Science and Society, V18, pp 340-342.

Education for transdisciplinary research

Fisher E, Lightner M 2009. *Entering the social experiment: A case for the informed consent of graduate engineering students*. Social Epistemology: A Journal of Knowledge, Culture and Policy, V23, N3, pp 283 - 300.

Joubert R W E, Hargreaves A T 2009. Reflective journals in service learning: a window into assessing learning and change in students' attitudes. Department of Occupational Therapy, University of KwaZulu-Natal, Durban.

"This publication is from the University of KwaZulu-Natal where an interesting discursive field of research in occupational therapy is under way. Methodologically it is evident that they are looking at the hermeneutics of narrative discourse in order to get an understanding of how the students can be assisted by communicating on the type of work they do." (jt)

Misra S, Harvey R H, Stokols D, Pine K H, Fuqua J, Shokair S M, Whiteley J M 2009. *Evaluating an interdisciplinary undergraduate training program in health promotion research*. American Journal of Preventive Medicine, V36, N4, pp 358-365.

"The research reported in this article evaluated the influence of the University of California at Irvine Interdisciplinary Summer Undergraduate Research Experience (ID-SURE) on students' competences in interdisciplinarity. The statistical analyses combined students' self-reported interdisciplinary activities with a third party evaluation of their work" (ds)

Orefice P 2009. *Pedagogia Scientifica. Un approccio complesso alla ricerca e alla professionalità*. Roma: Editori Riuniti University Press.

"One of the most internationally known specialists in pedagogy, Professor Paulo Orefice is leading the UNESCO Transdisciplinary Chair "Human Development and Culture of Peace" at the University of Florence in Italy. The author explores pedagogy from the point of view of complexity and transdisciplinarity." (bn)

Biographies of TD researchers

Krainer L, Ukowitz M 2009. *Anliegen, Theorien und Praxis von Forschungskonzeptionen. Eine Spurensuche*. Klagenfurter Beiträge zur Interventionsforschung, Band 8. Klagenfurt: Alpen-Adria-Universität Klagenfurt.

"Die Spurensuche ist die Dokumentation eines Forschungsprojektes, in dem Martina Ukowitz und ich Kolleginnen und Kollegen, die mit transdisziplinären Methoden arbeiten, nach ihren Wegen in diese Form der Wissenschaft gefragt haben. Dabei hat sich gezeigt, dass niemand einen direkten Weg dort hin genommen hat und dass verschiedene Schlüsselerlebnisse mit traditionellen Wissenschaftsformen dazu geführt haben, sich neu zu orientieren." (lk)

Transdisciplinarity in the making: Case examples of TD research

Fuqua J, Stokols D, Harvey R, Bagheri A, Jamner L 2009. «Transdisciplinary action research on teen smoking prevention». In Freudenberg N, Klitzman S, Saegert S (eds). *Urban Health and Society: Interdisciplinary Approaches to Research and Practice*, pp 185-216. San Francisco: Jossey-Bass.

“The research reported in this article evaluated a two-year collaboration among university researchers and community decision makers to produce an evidence based "Research and Policy Brief on Preventing Youth Smoking".” (ds)

Ginster M, Gouws C, Gouws C, MäKi H, Mathipa R, Motloutung S, Nyandoro M, Tempelhoff J 2009. The problem of irrigation from Lesotho Highlands water in the Axle and Liebenbergsvlei river catchment, Eastern Free State. North-West University, Vaal Campus, Vanderbijlpark, South Africa.

“This is a report on the Liebenbergsvlei in the Eastern Free State of South Africa where our research work have been instrumental in bringing South Africa's Department of Water Affairs in closer contact (and understanding) with farmers who unlawfully abstract water from a source that is intended to secure the water supplies of the Gauteng Province.” (jt)

Krainer L 2009. *Wenn Forschung in die Praxis interveniert. Begleitforschung Flughafen Wien-Schwechat*. Perspektive Mediation, N1, pp 28-33.

“Die Publikation befasst sich mit der Frage, welche Leistungen Interventionsforschung, im Sinne transdisziplinärer Forschung, im Kontext bzw. zur Unterstützung von öffentlichen Mediationsverfahren (bzw. partizipativen Verfahren) leisten kann und geht insofern auch der Frage der Verschränkung verschiedener Methoden (Forschung und Konfliktregelung) nach.” (lk)

Szostak R 2009. *The Causes of Economic Growth. Interdisciplinary Perspectives*. Berlin: Springer.

“The book applies a twelve-step process of transdisciplinary analysis to the question of why some countries grow faster than others. It may be the first book-length application of a particular transdisciplinary research process.” (rs)

Van Riet G, Tempelhoff J W N 2009. *Slow-onset disaster and sustainable livelihoods: The Vaal River in the vicinity of Parys*. The Journal for Transdisciplinary Research in Southern Africa, V5, N1, pp 29-49.

“This article deals with the environmental health of the Vaal River in South Africa and the impact it has on a small urban community residents on the banks of the river. It forms part of the second generation of transdisciplinary research with which we are currently busy in CuDyWat (the Research Niche for the Cultural Dynamics of Water) at North-West University's Vaal campus in Gauteng.” (jt)

Long-term transdisciplinary processes

Aeberhard A, Rist S 2009. *Transdisciplinary co-production of knowledge in the development of organic agriculture in Switzerland*. Ecological Economics, V68, N4, pp 1171-1181.

“This paper analyses how different knowledge systems in Swiss organic farming have evolved from its beginnings in 1920 to the present. The article clearly shows that, particularly with regard to institutionalised knowledge production, (short-term) processes and results are not a sufficient basis for understanding transdisciplinary research. Understanding historical developments is key to capturing and explaining actors' actions” (hh)

Beier C M, Lovcraft A L, Chapin T 2009. *Growth and collapse of a resource system: An adaptive cycle of change in public lands governance and forest management in Alaska*. Ecology and Society, V14, N2: 5. [online] URL:

<http://www.ecologyandsociety.org/vol14/iss12/art15/>.

Voß J-P, Smith A, Grin J (eds) 2009. *Designing long-term policy. Special Issue*. Policy Sciences, V42, N4.

“A special issue on science-policy interaction. The contributions critically review the practical implementation of the “transition management for sustainable development” approach.” (jpv)

Integrative concepts – Functional fit in ecosystem management

Ekstrom J A, Young O R 2009. *Evaluating functional fit between a set of institutions and an ecosystem*. *Ecology and Society*, V14, N2: 16. [online] URL:

<http://www.ecologyandsociety.org/vol14/iss12/art16/>.

“It was just selected for the Ralf Yorque Memorial Prize of 500 Euro (<http://www.ecologyandsociety.org/news/announcements/ry2008.php>) as the most novel paper published in 2009 in *Ecology and Society* that integrates different streams of science to assess fundamental questions in the ecological, political, and social foundations for sustainable social-ecological systems” (lg)

“Our Editors recently awarded a prize to the authors of following article, which they felt best integrated different streams of science to assess fundamental questions in the ecological, political, and social foundations for sustainable social-ecological systems.” (ml)

Integrative concepts – Safe operating space for humanity

Rockstrom J, Steffen W, Noone K, Persson A, Chapin F S et al. 2009. *A safe operating space for humanity*. *Nature*, V461, N7263, pp 472-475.

Integrative concepts – Starke Nachhaltigkeit

Egan-Krieger T V, Schultz J, Thapa P P, Voget L 2009. *Die Greifswalder Theorie starker Nachhaltigkeit. Ausbau, Anwendung und Kritik*. Marburg: metropolis.

Integrative concepts – Managing transitions towards a sustainable society

Beddoe R, Costanza R, Farley J, Garza E, Kent J et al. 2009. *Overcoming systemic roadblocks to sustainability: The evolutionary redesign of worldviews, institutions, and technologies*. *Proceedings of the National Academy of Sciences*, V106, N8, pp 2483-2489.

Costanza R 2009. *A new development model for a full world*. *Development*, V52, pp 369-376.

Groß H P, Strohmeier G, Ukowitz M (eds). 2009. *Zukunftsgestaltung als Prozess. Kulturell nachhaltige Regionalentwicklung am Beispiel des Kärntner Lavanttales*. München: oekom verlag.

“Die kulturelle Dimension bringt eine bisher kaum beachtete Perspektive in die Nachhaltigkeitdebatte. Im Interesse einer nachhaltigen Zukunftsgestaltung geht es darum einen 'Kulturwandel' - unsere Art zu leben und wirtschaften - zu ändern. Das Buch/Projekt gibt hier entscheidende Impulse.” (mr)

Integrative concepts – Design thinking

Brown T 2009. *Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation*. New York: HarperCollins.

“This book introduces "design thinking" as a transdisciplinary approach to respond to challenges in business and society. It involves acknowledging practical constraints (such as time, cost, material, energy source, etc.) and defining innovative solutions that meet the criteria of desirability, feasibility, and viability.” (dd)

Integrative concepts – Intersektionalität

Winker G, Degele N 2009. *Intersektionalität. Zur Analyse sozialer Ungleichheiten*. Bielefeld: transcript.

“Der Begriff der "Intersektionalität" gewinnt in der Forschung und Lehre in verschiedenen geistes- und sozialwissenschaftlichen Bereichen zunehmend an Bedeutung, insbesondere für die multidimensionale Analyse von sozialen Ungleichheiten. Der Band bietet nicht nur eine gute Einführung und Übersicht sondern gibt auch theoretische und methodische Forschungsanleitungen.” (mr)

Integrative concepts – Actor Network Theory

Harman G 2009. *Prince of Networks: Bruno Latour and Metaphysics*. Melbourne: re.press. Open Access:

http://www.re-press.org/book-files/OA_Version_780980544060_Prince_of_Networks.pdf

“The book does not explicitly refer to transdisciplinarity. The term ‘transdisciplinarity’ doesn’t even occur in the index of the book. However, Latour’s ‘Actor Network Theory’ (ANT for short) has, in my view, considerable relevance for transdisciplinary researchers working on complex socio-ecological system problems. Harman does a particularly useful job interpreting the metaphysical underpinnings of Latour’s work as well as offering critical commentary on it from a philosophical perspective. Besides, the book is extremely well written and thus a pleasure to read.” (jv)

Integrative concepts – Reality by Stéphane Lupasco

Nicolescu B 2009. *Qu'est-ce que la réalité? Réflexions autour de l'œuvre de Stéphane Lupasco*. Montréal: Editions Liber.

“Book published simultaneously in Canada and in Romania. Defines reality, crossing a variety of fields, from quantum physics to art, conforming to the transdisciplinary methodology.” (bn)

Environmental impact assessment

Stampe J W 2009. *Lessons learned from environmental impact assessments: A look at two widely different approaches – The USA and Thailand*. The Journal of Transdisciplinary Environmental Studies, V8, N1, article 3.

“Environmental Impact Assessment is widely spread in the world and the system differs from country to country. Now environmental impact assessment has been working for some years and a comparison among countries might be prosperous. The article shows how a comparison can be done.” (hs)

Environmental psychology and sociology

Shwom R 2009. *Strengthening sociological perspectives on organizations and the environment organization environment*. Organization & Environment, V22, N3, pp 271-292.

“The article addresses a so far neglected but nevertheless basic topic for transdisciplinary work: the interdisciplinary understanding of formal organizations and how they are embedded in social and natural environments. Current answers to environmental problems, such as climate change, are not comprehensive enough when just asking to THE society to act. Therefore actor-centered approaches are gaining currency. Also formal organizations are increasingly seen as a significant part of the problem as well as of the solution. Thus, successful transdisciplinary interventions require a profound knowledge of the functioning of organizations and their interaction with their environment. That is the core of transformation knowledge to which the article substantially contributes.” (wh)

Stokols D, Misra S, Runnerstrom M G, Hipp J A 2009. *Psychology in an age of ecological crisis: From personal angst to collective action*. *American Psychologist*, V64, N3, pp 181-193. "This article examines the rapid changes that are occurring in the structure of human environments at both local and global levels, and the implications of these changes for personal and public health. Practical strategies are discussed that may enable individuals, organizations, and communities to better manage multiple sources of environmental change and to collaborate effectively toward reducing their negative impacts on population health and societal cohesion." (ds)

Peace research

Chaitin J 2009. *Methodological quandaries in joint Israeli-Palestinian peace research*. *Journal of Research Practice*, V5, N1: M2. [online] URL: <http://jrp.icaap.org/index.php/jrp/article/view/2172/2173>. "Set within the Palestinian-Israeli context, the article explores methodological issues central to the undertaking of collaborative peace research. It brings to light the need to reconsider some of the generally accepted standards of research quality, in recognition of the special challenges involved in such situations." (dd)

Contributors

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