Interdisciplinarity and the Challenge of Diversity - integration and the lack of pluralism in academia

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Joint action and joint cognition: recognizing and building upon differences

Bratman on joint action:
- shared goal
- separate purposes/aims
- meshed plans
- acknowledging differences re actions and goals/norms
- some stability is necessary

Pluralism is required!

Interdisciplinarity - Integration as defining characteristic

“Interdisciplinary research is a mode of research in which an individual scientist or a team of scientists integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines or bodies of specialized knowledge, with the objective to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice.”

(Nat. Academies of Science, 2005; in Menken & Keestra, eds., Introduction to Interdisciplinary Research, 2016)
Unification as longstanding implicit epistemological goal - now replaced by pluralism

“Still, all interdisciplinary activities are rooted in the ideas of unity and synthesis, evoking a common epistemology of convergence.”

Now: pluralism of (explanatory) perspectives, in search for robustness

Robust property = stable under variable conditions

Robust knowledge = valid from independent (explanatory) perspectives

(Fig. Kitano 2004; Menken & Keestra 2016)
Transdisciplinary research: increasing robustness by including extra-academic stakeholder perspectives

Transdisciplinary science involves:
• Experiential knowledge
• Values, norms, and interests
• Implementation concerns
during phases of
• problem framing
• research
• integration & implementation of results

(Hirsch-Hadorn e.a. 2008: Handbook of Transdisciplinary Research; fig. Jahn 2008;)

Fig. 3: Transdisciplinary research process—integrative approach (ISOE model)
Source: Jahn (2008): 31
Positionality of scientists matters - as disciplinarians and as individuals

Ethnic minorities in Europe:
- complete tertiary education depending on parental degrees:
  - 17% tertiary degrees when parents have only lower-secondary education, against
  - 63 % when parents have tertiary education.
  (Crul e.a. 2010, Comparative integration context theory; Triventi 2013)
- prefer, more than majority:
  - medicine
  - law
  - IT
  - business
  - professional, rather than academic
  (Pasztor, Ethnic & Racial Studies, 2012; Marginson 2016; Crul e.a. 2017)
‘Troubling paradox of widening access’ that affects participation in academia

Social and cultural capital are more important in higher education expansion that is at the same time:

- individualist
- meritocratic

with meritocracy assuming implicit social norms

(Morrison 2017, responding to Higher education, social class and social mobility: the degree generation, by Bathmaker, e.a. 2016)
Institutional barriers – how do they play out in interdisciplinary programs?

Non-traditional learners have greater challenges regarding interdisciplinary programs because:
- access is more difficult (less visibility, transparency)
- transfer out of ID credits is more difficult
- alternative modes of study difficult
- complicated study trajectories
- less clear job prospects

(cf. table from Schuetze & Slowey, 2002, ‘Participation and exclusion: A comparative analysis of non-traditional students and lifelong learners in higher education’)
Stepping up the game: integrating pluralism while addressing academic ‘epistemicide’

Epistemicide entails the “destruction of the knowledge and cultures of these populations, of their memories and ancestral links and their manner of relating to others and to nature.”

(Boaventura de Sousa Santos, 2016, ‘Epistemologies of the South and the future’, p. 17)

Cf. “the university in Africa was truly a ‘transmission belt’, to use Mazrui’s expression, (Mazrui 1978: p. 101) of the epistemological paradigm of the colonial conqueror”

(Ramose, 2015, ‘On the contested meaning of ‘philosophy’”)
Aiming for actionable knowledge requires fundamental adjustments in academia

Action research continues where inter- & trans-disciplinarity stop, i.a. by additionally:

1. being guided by practitioners’ concerns for practicality,
2. using participatory, democratic methods of collective problem solving,
3. helping to build capacity for ongoing change efforts.
4. aiming for ‘flourishing of people, their communities and the broader ecology’

(Bradbury-Huang 2010; Fals Borda 2013)
Developing methods for inclusion of plurality of persons, positions, perspectives

Instead of only prioritizing scientific ‘solutions’, inter-/transdisciplinary teams must integrate science while:

- developing alternative representations of potential futures,
- providing participants with embodied & affective experiences
- enabling participants to sense, understand, and share them,
- facilitating deliberation about action options.

Building trust across boundaries: personal dialogue instead of topical debate

Dialogue is effective as it entails:
- Voluntary inter-group contact
- Perspective taking
- Decreased intersubjective anxiety
- Building trust
- Empathy

Example of dialogue question in academic context

- Have you ever experienced a feeling of loneliness, or being excluded, within the context of the university/academia?
- Can you share the emotional impact of that experience?
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