

The Integration of Social Science and the Humanities into Research in the Marine and Coastal Environment

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Expansion of knowledge fields

- The term 'social science' is used here to include a number of disciplines which study various dimensions of the social world which fall outside of natural sciences
- Social science, such as Sociology, Anthropology, Human Geography, Development Studies, Planning
- Economics
- Law, such as Maritime law
- Humanities, such as History

History

- Sea and Coast 1 and Sea and Coast II Programmes included socio-economic themes - but in an ad hoc manner, e.g. tourism
- Society and Ecosystem Change (SEACChange) provided a separate theme for Social Science research – Society and Ecosystems (mandated by NRF)
- To date this theme has not attracted a great deal of research.
- To rectify this – a further call was put out specifically to social scientists & others where appropriate themes were workshopped. Again this did not attract a lot of interest

Recognition of the need for social science research

- It has been recognised by the investors and the marine science community that the *knowledge fields have to be expanded in order to provide an integrated understanding of the complex processes operating in the marine and coastal environment*
- Expansion of knowledge fields requires an understanding and acceptance by all members of the marine & coastal research community
- It therefore has to be recognised that there are *variety of knowledge production processes that would be necessary to gain this understanding*

Knowledge Paradigms

- It is widely accepted/debated across the social sciences that there are 5 paradigms within which knowledge is produced:
 - 1. Positivist
 - 2. Post-Positivist
 - 3. Interpretive/Constructivist
 - 4. Critical paradigm
 - 5. Participatory

Marine Science – positivist paradigm

- Marine scientists are experts in specific fields that relate to components of the *biophysical environment* of the marine and coastal zone.
- Natural scientists are trained to produce knowledge through the application of the *philosophy of positivism* and use established methodologies and techniques developed in this framework.
- Natural scientists seldom make this conceptual framework explicit. This paradigm consists of a number of assumptions about how knowledge is produced

Large scale social science survey: positivist approach

- Some social scientist all also frame their work within the positivist paradigm
- Quantitative surveys
- Produce generalisations about social phenomena
- These social scientists may shift to being post-positivists
- Aim for 'the gold standard' but recognise that there are other ways of knowing the world

Dominant social science paradigms

- *Interpretive paradigm* – assumes that qualitative understandings are co-produced with respondents and that there are many ‘knowledges’
- *Critical researchers* are critical of societal processes and undertake research to uncover the inequalities and inequities embedded in social processes
- *Participatory researchers* work with communities and group in a participatory manner to effect change in society through

Commensurability of these paradigms?

- Historically, the natural sciences have dominated research in the marine and coastal environment
- It is very difficult to work across paradigms because of the incommensurability of the often contradictory underlying assumptions.
- This is revealed in the literature where scholars lambasted and critiqued opposing paradigms
- However, the literature shows that in the social sciences there is a *convergence* across the three paradigms

A way forward for research in the marine and coastal environment?

- How do these ideas help us plot a way forward in the design of a research programme to follow SEACChange?
- I propose the establishment of a *'community of innovation'* as part of the next programme
- A platform for all researchers in the marine & coast environment to engage and learn from each other

Third space?

- Here there the following would be nurtured:
 - Mutual respect for research in all paradigms
 - Integration across paradigms
 - Incubation of interdisciplinarity/ interdisciplinary research
 - Creation of a broader set of competencies among this research community so that it can create a “different awareness of the problems and situations that mobilise us”(Whatmore and Landstrom, 2011)
- A ‘third space’ of research in the marine and coastal environment
- Belong in our disciplines but move into this space to build competency and innovate
- Special mechanism to facilitate this?