

# The Mental Demands of Marine Ecosystem-Based Management: A Constructive Developmental Lens

Verna G. DeLauer (2009). Proquest, Doctoral dissertation, University of New Hampshire, UMI Dissertation Publishing.

**Reviewed by Thomas Jordan<sup>1</sup>**

Our societies face a number of challenging issues that are both important, because of their impact on the wellbeing of people and nature, and complex, because many causal and conditioning factors and diverse stakeholders are involved. We find such issues in many areas, such as climate change, biodiversity, environmental pollution, intractable conflicts, crime, unhealthy lifestyles, drug abuse, mobbing, etc. Arguably, building capacities to skillfully manage complex societal issues should be a central concern for many of us. I believe most readers of this journal share a belief that the field of adult development sits on a treasure of insight that could contribute very significantly to our understanding of how we could build such capacities. However, the number of solid empirical studies using a developmental perspective on meaning-making among people with crucial roles in organizations and initiatives working on issues of great societal significance is still small. I was therefore very satisfied, not to say thrilled, when I stumbled upon Verna DeLauer's doctoral dissertation *The Mental Demands of Marine Ecosystem-Based Management: A Constructive Developmental Lens*. DeLauer has, in my view, written a doctoral dissertation that is a very important contribution to our understanding of the preconditions for developing our societies' capacities for managing complex issues.

The dissertation is the result of a case study of an initiative to develop an integrative strategy for "ecosystem-based management" of marine resources in the state of Massachusetts, USA. DeLauer's theoretical lens is Robert Kegan's constructive-developmental framework describing stages of ego development among adults.

In 2008, legislation was passed in Massachusetts with the aim of pursuing "ecosystem management of offshore waters through federal, regional, and state coordination and cooperation." The Massachusetts Ocean Partnership (later renamed SeaPlan) was created by inviting 41 representatives of stakeholders with interests in coastal development to work together to develop a strategy for ecosystem-based management in Massachusetts. Stakeholders represented such interests and roles as fishing, businesses, NGOs, federal, state and municipal authorities, research institutions, and consultants.

I will cite here the first part of DeLauer's problem statement, which gives a clear introduction to the challenge involved.

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Marine ecosystems are complex mosaics of ecological, chemical, biological, geophysical, and human interactions. They are valued for the services they provide for humans such as recreation, food, pharmaceuticals, shoreline protection, climate regulation, and tourism. Human disturbance specifically threatens these interactions and services through destruction of habitat, pollution, and displacement of native fauna and flora. These impacts result from decisions made by private citizens, businesses, and municipal, state and federal governments. Ecosystems may only be sustained through protection of ecological structure, functioning, and key processes [...]. The current single-sector, single resource approach to management attends to human activities such as coastal development, fisheries and transportation, each in isolation from the others. This single sector approach fails to address, much less maintain, the integrity of the interactions between the sectors, leading to a loss of valued ecosystem goods and services, and ultimately to a diminishment in potential human well-being. (p. 1)

As the first part of the title of the dissertation, "The mental demands ...", suggests, DeLauer is interested in developing a deeper insight into the capacities needed when taking on these types of challenges, and understanding to what extent people who participate in such initiatives actually have these capacities. Early in the dissertation, DeLauer lists a number of capacities she believes are needed in the process.

- Capacity to conceptually understand complex, multiple variables
- Capacity to acknowledge personal responsibility and ownership
- Capacity for empathy for competing sectors and the individuals that comprise them
- Capacity to attend to multiple perspectives at once
- Comfort with ambiguity
- Capacity to reflect on and differentiate among management implications

It is not clear how DeLauer arrived at this list, but it points out the general direction of the further investigation.

DeLauer collected three sets of data for her study. She invited all 41 representatives to participate in the study, of which 22 agreed. She conducted two different types of interviews with these 22 individuals. The first one was a subject-object interview according to the format developed by Robert Kegan and his colleagues as a method for assessing the stage of ego development of a person (Lahey et al., 1988). The second interview was semi-structured and focused the respondents' views on ecosystem-based management and on the MOP process they participated in. These interviews were transcribed and analyzed. The third set of data was participating observations and recordings of 11 MOP meetings over a period of about two years.

Kegan's framework (Kegan, 1994; Lahey et al., 1988) defines three adult "orders of consciousness" (and two stages before adult age). Most adults, however, show signs of being in transition between two of the orders, and the coding manual for the subject-object interview offers instructions for identifying four transitional steps between each full stage. The analysis of subject-object interviews of DeLauer's 22 respondents yielded the following distribution: 5 participants were coded as predominantly at the 3rd stage, the socialized mind; 5 were in transition between the socialized and the self-transforming mind; 8 were coded as predominantly

at the self-authoring stage; and 4 were mainly at the self-authoring stage, but with some elements of the self-transforming stage.

The analysis of the ecosystem-based management interviews was made with a preunderstanding rooted in Kegan's framework, but DeLauer also looked for themes that emerged in the conversations. Eventually, she identified eight "analytical distinctions," i.e., themes where significant differences could be seen regarding how persons embedded in different stages of ego development made meaning and acted in their roles as participants in the MOP process.

1. Connection to affiliation
2. Reactive or self-authoring
3. Capacity for self-reflection
4. Perception of other
5. Responsibility and change
6. Change in decision-making
7. Understanding the process
8. Individual roles

DeLauer organized her empirical analysis theme by theme, for each theme describing the characteristic patterns found among the individuals coded in the four levels of ego development described above. It is not possible in the context of this review to try to do justice to the detailed analysis of developmental differences offered in the main chapters of the dissertation, I will just hint at some of the most central observations. DeLauer found that people coded at the socialized mind saw themselves as advocates of the interests of the stakeholder group they represented and were primarily concerned with protecting those interests against possible changes coming from the outside. They were primarily reactive rather than proactive and while sometimes offering ideas, they not did generally contribute suggestions on how to build a system that could coordinate and integrate the diverse interests involved. They had difficulties in dealing cognitively with the exposure to several different perspectives, feeling that recognizing the legitimacy of certain aspects of other stakeholders' perspectives might imply disloyalty to their own affiliation. They also tended to assume that the power to really change things resided elsewhere, with legislators and other high-ranking decision-makers.

The participants belonging to the self-authoring group had a far more independent attitude to the process. They had no difficulty differentiating between their roles as representatives of a certain interest on the one hand, and their own personal, self-authored, perspectives on the other hand. They took for granted that different stakeholders have different interests for which they advocate, and that the task of the initiative was to develop a strategy that could accommodate different interests. These participants wanted to understand the nature of differences and felt that the success of the process was dependent upon a recognition, understanding, and consideration of different stakeholder interests. A most important aspect of this group was a strong sense of agency: they gave themselves and the group the mandate to develop and lobby for proposals that grew out of the new understanding that emerged in the deliberative process.

Only four participants belonged to the group self-authoring with elements of self-transforming. Significant for them was a strong process orientation, with less emphasis on developing a certain product and more on developing new types of processes. They felt comfortable with uncertainty and ambivalence and regarded the transformation of perspectives through inquiry into the complexity of the issues as a central task of the initiative.

In the dissertation, DeLauer offers far more detailed observations of patterns of meaning-making and action, and she discusses the implications for the design and facilitation of similar processes. I think DeLauer made a wise choice in staying with one particular analytical framework, Kegan's subject-object theory. This allowed for a coherent research strategy with penetrating observations. However, after reading and rereading the dissertation, I sometimes wished that more effort had been made to analyze the cognitive complexity in the respondents' constructions of the issues and of the group process. It would certainly have been meaningful to use either the dialectical thinking framework (of Michael Basseches and Otto Laske), or one of the models of hierarchical complexity (Michael Commons, Theo Dawson or even Elliott Jaques) to look into the differences in complexity awareness and the consequences of such differences for the ways participants took on their roles in the process.

The dissertation is well organized and well written, with only a few blemishes. The latter include a number of missing and erroneous references. I also find it unfortunate that DeLauer is inconsistent in the naming of Kegan's stages, using two stage names from Kegan's first book (interpersonal and interindividual) and one from his second book (self-authoring), rather than keeping to one set of stage names (as I chose to do above).

I recommend this dissertation not only to researchers interested in developmental aspects of meaning-making in societal contexts, but also to facilitators, project leaders, change agents, managers, activists and other people who are seriously concerned with contributing to more skillful management of complex issues. DeLauer's observations and conclusions regarding fundamental differences in meaning-making and action logics is knowledge that ought to be very useful in designing methods and in real-time facilitation. In particular, group members with significant elements of the "socialized mind" in their meaning-making may need careful scaffolding in order to be able to contribute fully in groups working on complex issues.

Well done, Verna! My congratulations to a very meaningful contribution to knowledge and understanding of a field that I feel is sorely underresearched so far. I do hope that your dissertation will be read by people who are in a position to work as change agents in public issues. I found the reading profoundly inspiring and I certainly can see how your analytical framework can enrich research strategies in future empirical studies.

## References

DeLauer, V. G. (2009). *The mental demands of marine ecosystem-based management: A constructive developmental lens*. Proquest. Doctoral dissertation. University of New Hampshire, UMI Dissertation Publishing.

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Kegan, R. (1994). *In over our heads. The mental demands of modern life*. Cambridge, MA: Harvard University Press.

Lahey, L., Souvaine, E., Kegan, R., Goodman, R., & Felix, S. (1988). *A guide to the subject-object interview: Its administration and interpretation*. Cambridge, MA: Subject-Object Research Group.