

Feminist contributions to water scholarship.

In this paper, I set out to argue that conventional forms of water knowledge are ill-suited for solving today's water problems and suggest that feminist scholarship offers important ingredients for new and better ways of knowing and understanding water.

Today's water problems importantly differ in from those of yesterday. First, today's water problems no longer are about development and the construction of new projects - which primarily required engineering types of knowledge - but instead are about how to save and conserve water and allocate it among competing uses and users. At the same time, and partly triggered by climate-change, vulnerability to flood risks is increasing, raising new questions about protection and security. What these changes mean is that today's water problems importantly link questions of sustainability – solving which requires knowledge about human-nature interactions so as to predict (future) water flows - with questions of justice and solidarity – solving which requires informed political choices about how to best distribute the benefits, costs and risks of water-related interventions or modifications of water flows. Two insights that feminist scholars have importantly helped articulating and theorizing are particularly useful for helping understand and deal with these linkages between sustainability and justice. The first is that the division between nature and society is always a human construction, not just because of the intrinsically discursive character of all knowledge, but also because nature and society co-constitute each other and continuously co-evolve. The second is that knowledge and politics are intertwined in complex ways, and insight I will come back to later.

Second, water resources development and management no longer are the exclusive realm of state agencies, but involve a multitude of public, private and civil society actors, with water problems increasingly crossing administrative and national boundaries. Water problems are *complex*, or some would say *wicked* problems. Wicked problems are clusters of interrelated problems, characterized by high levels of uncertainty and a diversity of competing values and decision stakes and a multitude of stakeholders or interest groups who may have different world views and different frames for understanding the problem. The solution to wicked problems depends on how the problem is framed and vice-versa (i.e. the problem definition depends on the solution). Solving wicked problems is an open-ended process full of surprises and unknowns. 'Normal' scientific water knowledge, which proceeds as if causes and effects are known or knowable, is of little use for solving wicked problems. These require different types of knowledge, that put greater emphasis on the ability to adapt to uncertainties and on the necessity to combine different sources and types of knowledge. This means that water problems increasingly also become problems about the organization of consent; problems of legitimacy and of organizing democracy and accountability. For dealing with such problems, feminist insights about the nature of democracy and in particular the importance of recognizing differences between people in their abilities to express their voice and the importance of embodiment for (gaining) authority and legitimacy are useful.

Acknowledging the complexity or wickedness of water problems also implies replacing the old idea of water science as distinguishable or even in opposition to power or politics with a new one that explicitly recognizes how knowledge and power are intrinsically mixed. As feminist scholars have been among the first and most prominent to acknowledge that the production and uses of scientific knowledge are deeply intertwined and embedded in dense relationships with markets and politics, their insights are particularly useful for formulating a new epistemology for water knowledge. Together with other critical scholars, feminists have shown that realities and truths are never 'discovered', but always 'constructed'. They have shown that this happens in specific places and by specific people. 'Facts' and 'truths', therefore, are always located rather than universal or place-less. To make such facts, including those related to water, travel and thus grant them with authority, requires hard work by involved actors. Much of this work is performative and cultural and has to do with packaging 'facts into words, languages and shapes that are recognized and appreciated.

Recognition of this, as Haraway has so eloquently argued, calls for a thorough revision of the norms of objectivity that guide knowledge production. The old norm of objectivity – also in water - which called for knowledge producers to separate their identity and specific location from the knowledge they generate, in fact served to maintain a specific power-knowledge hierarchy

which used to be dominated by white men. Feminist and other critical scholars have therefore argued that there is merit in trying to be much more explicit about how facts are fabricated and by whom, showing the production process and the identity and perspectives of producers. Or: rather than speaking from a non-identifiable position and admitting to desires of detachedness and universality, knowledge becomes more credible when admitting and accounting for differences between knowers. This maybe most difficult for those who normally embody scientific authority, those who have never had to explain themselves because they represented normalcy – white men.