

# **Our understandings of water and how they translate into our decision making**

**Dr Jessica Weir**

Research Fellow

Australian Institute of Aboriginal and  
Torres Strait Islander Studies

Paper prepared for the ACT Government Workshop *Planning for our Future – Securing Canberra’s Water*, The Australian National University, 10 March 2009<sup>1</sup>

I have been invited to discuss some of the intellectual frameworks behind the decision making around water. As the Planning and Land Authority wrote in the discussion paper that accompanies this workshop, such conceptual thinking is often ‘glossed over’ with the majority of our time and attention focused on the ‘nuts and bolts of technical discourse’. This can make ‘it difficult for many people to question business as usual’. Yet, it is my argument, that questioning business-as-usual is precisely what we should be doing.

To achieve sustainability we need to go beyond the rhetoric of triple bottom line thinking, to examine where we get our ideas, and how these ideas may set the terms for our decision making. This was also noted in a key interdisciplinary publication about sustainability (Fischer et al. 2007). In this paper, scholars from diverse disciplines identified ‘long term and foundational issues’ such as our values, beliefs, and motivations, as central to our commitment to sustainability, and our capacity to put long-term sustainability targets into short-term policy

In this talk I will examine some influential conceptual legacies, and how being able to clearly identify these legacies will help us in our water planning. My research experience comes from engaging with Murray River issues, and I draw out themes of relevance to considerations of sustainable water supply for Canberra.

## **Measuring Water as a Water Resource**

The term ‘water resources’ is often presumed to be culturally neutral, a statement of fact rather than as a phrase that reveals an approach to be interrogated. ‘Water

---

<sup>1</sup> I would like to acknowledge the traditional owners from along the Murray River, for taking the time to teach me their water philosophies. This paper is part of a larger body of work on understandings of water (see Weir forthcoming), that was funded by Land and Water Australia, with in kind support from the Australian Institute of Aboriginal and Torres Strait Islander Studies.

resources' has been repeated so often that it may seem the term is just naming reality. That is, the water resources have always existed, prior to their representation as such (see also Mitchell 2000, p.19).

However, the concept of 'water resources' rests on a series of conceptual steps. First, it rests on the idea of a 'universal nature' – that all nature everywhere could be understood to follow the same rules. The development of Euro-American science was instrumental in this approach (Latour 2001 [1993], pp.105, 17-18, 24; Smith 2007, pp.78-9). Second, is the employment of a conceptual framework that separates nature and society, with nature as subordinate and indifferent (Plumwood 2002, Mathews 1994). By combining these two ideas, 'nature' can be constructed 'natural resources', including water: a legible, abstract, separate to us phenomenon that can be measured and calculated on vast scales (Scott 1998, pp.11,22). With the word 'resources' – nature is deliberately situated within an economic context (Robin 2007, p.186). With humans positioned as the actors, we have natural resource management, including water management – a human activity that is centrally managed by nation states, focused on economic potential.

These conceptual foundations make it possible for proponents to mobilise the earth's resources without accounting for the 'delicate web of relations between [all manner of] things and people' (Latour 2001 [1993], pp.32, 39). Unfortunately, we think we are dominating a subordinate natural world, and are in denial of our very dependency on nature for survival (Plumwood 2002, p.194). The result is a highly flawed perspective that both increases human power to transform nature, and limits human capacity to respond to ecological devastation.

On the other hand, our lived experience tells us something quite different. Far from being external, water travels through our bodies, and we cannot survive without it. Humans lose water constantly – we are not water tight and we need to replenish ourselves or die (Warshall 2002, pp.42-3). This is true not just for us, but all living things. Destroy water and a key life force is also destroyed. Narrow philosophies that understand water only as a resource in terms of human consumption are profoundly destructive because water is such a powerful connecting life force. There is currently a focus on drought and climate change as the key threat facing this generation, but what I am drawing attention to is the threat of current ways of thinking.

If one grew up in Canberra in the 1960s and the 1970s, it would be possible to remember swimming in a Murrumbidgee River that ran clear. Without the sandy and silty water that is currently making it difficult for macro invertebrates to survive, and likewise challenging all the other river creatures that feed on these macro-invertebrates; one would have been able to see fish, yabbies and the other river creatures, as well as one's own footsteps in the river bed. In my work with traditional owners from along the Murray River, they similarly speak about this enjoyment of living closely next to healthy rivers, and the food supply of freshwater fish, Murray Crayfish, and water birds. Many Elders spoke to me about how they used to drink water straight from the river (Weir 2008, p.156). Water sustains webs of life.

Appreciations of water as a powerful life force are available from across Australia. In the Lake Eyre Basin in Central Australia, Dr Leah Gibbs talked to the pastoralists about when the flood waters come through. Station owner Sharon Oldfield said, 'You

go out and you can see it and it just lifts your heart' (Gibbs 2006, pp.77, 81). Sharon also spoke to Leah about her frustration in communicating the value of river water to government (Gibbs 2006, p.78):

Government policy can't cope with things that aren't tangible. I mean how do you write government policy about something somebody feels? How do you do that? And then take it to Cabinet and want funding for it.

Angus Emmott, owner and manager of Noonbah Station, also in the Lake Eyre Basin, spoke to Leah about valuing the ephemeral wetlands (Gibbs 2006, p.78):

The intrinsic values are very hard, because you can't actually put a dollar figure on them, but they're so crucial. ... We know they're valuable, but it's very hard to put dollar figures on them.

River water, rain water, ground water, flood-waters, cold mountain stream water, brackish lagoon water, water slowly seeping into a wetland, or rushing down a waterfall – it is all the same when measured as gegalitres (Gibbs 2006).

## **Dualistic debates that undermine sustainability thinking**

Now I want to turn to another knowledge tradition that also undermines our capacity to commit to sustainability – 'dualism'. In dualism two fundamental concepts exist in opposition to each other, forming binary pairs. For example, mind/body, male/female, rational/emotional, nature/culture, human/nonhuman, economy/ecology, tradition/change, and subject/object. As already discussed, in a dualistic approach, nature is objectified, positioned as external to and used by the human subject.

The problem with these dualistic categories is not that the distinctions are identified, but that they are organised into binary pairs that are hyper-extended into oppositional relationships. If humans are rational, then nature is mindless; if humans are active, then nature is passive.<sup>2</sup> The distinction is transformed into an insurmountable tension that cannot be resolved (Latour 2001 [1993], p.58).

What I want to focus on is the ecology/economy dualism. According to the knowledge tradition of dualism, ecology and economy are hyper-extended into oppositional relationships. Thus, ecology must necessarily be sacrificed for economy; otherwise economy must be sacrificed for ecology.

The ecology/economy oppositional relationship has been particularly destructive, and remains very influential in how we make decisions about water today. The economy/ecology dualism informs our understandings of how ecological devastation happened along the Murray: river health was sacrificed for the agricultural industry. This binary also informs responses to ecological destruction: 'environmental flows' will be at the cost of the livelihoods of water entitlement holders. Thus, returning

---

<sup>2</sup> Rose 2007. Connecting Nature and Culture: The Role of the Humanities, presentation as part of the Fenner School of Environment and Society seminar series, The Australian National University, Canberra, 31 May 2007.

water to the rivers for river health is perceived as a loss for the economy. As Daniel Connell describes from his work in the Murray-Darling Basin, in government policy there is a pragmatic acceptance of river decline as the unfortunate but necessary effect of agricultural production. He calls this a 'philosophy of despair' (Connell 2005, pp.206, 285). We need to be able to challenge this influential knowledge tradition, otherwise the frames we have used to understand water that have led us to river destruction, are also informing, and limiting, our responses to ecological devastation.

In recent times the language of water management has changed to recognise the 'environmental needs' of the river – described as environmental water allocations or environmental flows. But this language still assumes we are allocated water to the rivers, rather than acknowledging the rivers as the source of the water.

The language of water management that continues to describe river water in terms of consumptive and non-consumptive uses, continues to prioritise consumptive uses in times of water scarcity. Grafton and O'Connell have described how this prioritisation occurs, despite being counter to the aims of the National Water Initiative which prioritises environmentally sustainable levels of water extraction (2008, pp.74-75). They show how the rhetoric of sustainability is undermined when it comes to the method, which I argue is a result of unsupportive conceptual frameworks. Similarly, Grafton and O'Connell conclude that we need a fundamental change to 'business-as-usual' in the Murray-Darling Basin, otherwise "the environment will continue to 'play second fiddle' to water diversions in times of water stress." (2008, p.75).

## **Philosophy and Fundamental Change**

As the destruction of ecosystems on a global scale becomes increasingly apparent, human survival demands a rethink of some of our intellectual traditions. As part of this intellectual re-think, governments, bureaucrats, scientists, social-scientists, philosophers and others are engaging with the analysis of networks and relationships. Anthropologists are examining the cultural assumptions that form the nature/culture binary, and are building knowledge frameworks that connect people to the environment within which they live (for example, Strathern 1980, Ingold 2000, Ingold 1996, Smith 2005, Rose 2004). Ecologists are examining and theorizing the kinds of connected relationships and webs of life that Indigenous people have long been speaking about (for example, Lindenmayer 2007 and Manning et al. 2004). Eco-philosophers are working to reinvigorate a culture that recognises and engages with earth's life, agency and spirit (for example, Mathews 1994, Leopold 1949, Robin 2007 and Main 2005).

What I hope to have achieved by this discussion on philosophy and our knowledge constructions, is to make clear that there are cultural assumptions behind the languages used in water management and planning. What may simply be seen as a technical decision, may actually be promoting certain values that we may or may not support. By acknowledging these assumptions and the choices they offer us, we have a better range of conceptual tools, to ensure that water decisions occur within a broad decision making framework.

I conclude with four key messages that we need to bring to our decision making around water :

*Water is a key connecting life force and should be prioritised as such.*

If we only discuss water as a resource for our consumption, then we lose from the conversation the many other values that we hold. We must keep water as a key connecting life force central to our decisions, and check ourselves when debates pivot around ‘consumptive uses’ and understandings of water as only an economic resource.

*Water management and planning uses a language that carries cultural assumptions.*

We need to look at the assumptions behind the languages we use. By acknowledging the knowledge traditions that we may be bringing to water debates, we can actively consider their advantages and disadvantages, and be better equipped to overcome perceived limited choices within the current discourse. We can also create more open grounds for dialogue and be better able to engage with diversity around water issues.

*We need to think beyond the ecology/economy binary*

We are not faced with either/or choices when it comes to decision making around ecology and economy. Healthy country supports both our ecologies and our economies. Destroyed country supports neither.

*We need to avoid privileging abstract, technical knowledge*

We need to diversify our decision-making tools to reflect the values held more broadly with water. This includes thinking about our economies in broad terms, rather than limiting our decision making with narrow economic tools that will tell us what is or is not economically possible. Such tools are part of the decision-making process, and should not set the agenda of the decision making.

## **References**

- Connell D. 2005. *The Chariot Wheels of the Commonwealth: The past present and future of inter-jurisdictional water management in the Murray-Darling Basin*. PhD Thesis. The Australian National University
- Connell, D. and R.Q. Grafton. 2008. Planning for Water Security in the Murray-Darling Basin. *Public Policy* 3(1): 67-86.
- Fischer J, Manning AD, Steffen W, Rose DB, Daniell K, Felton A, Garnett S, Gilna B, Heinsohn R, Lindenmayer DB, Macdonald B, Mills F, Newell B, Reid J, Robin L, Sherren K, Wade A. 2007. Mind the sustainability gap, *Trends in Ecology and Evolution* 22(12): 621-4.
- Gibbs L. 2006. Valuing Water: variability and the Lake Eyre Basin, central Australia. *Australian Geographer* 37: 73-83
- Ingold T, ed. 1996. *Key Debates in Anthropology*. London: Routledge

- Ingold T. 2000. *The Perception of the Environment: Essays in livelihood, dwelling and skill*. London: Routledge
- Latour B. 2001. *We have never been modern*. Cambridge: Harvard University Press
- Leopold A. 1949. *A Sand County Almanac*. New York: Oxford University Press
- Lindenmayer DB. 2007. *On Borrowed Time: Australia's Environmental Crisis and what we must do about it*. Camberwell: Penguin Books in association with CSIRO Publishing
- Main G. 2005. *Heartland: The regeneration of rural place*. Sydney: UNSW Press
- Manning AD, Lindenmayer DB, Nix HA. 2004. Continua and Umwelt: novel perspectives on viewing landscapes. *Oikos* 104: 621-28
- Mathews F. 1994. *The Ecological Self*. London: Routledge
- Mitchell T. 2000. The Stage of Modernity. In *Questions of Modernity*, ed. T Mitchell. Minneapolis and London: University of Minnesota Press
- Plumwood V. 2002 [1993]. *Feminism and the Mastery of Nature*. London and New York: Routledge
- Robin L. 2007. *How a Continent created a Nation*. Sydney: UNSW Press
- Rose DB. 2004. *Reports from a Wild Country: ethics for decolonisation*. Sydney: UNSW Press
- Scott J. 1998. *Seeing like a State: How Certain Schemes to Improve the Human Condition Have Failed*. Newhaven and London: Yale University Press
- Smith BR. 2005. 'We got our own management': local knowledge, government and development in Cape York Peninsula. *Australian Aboriginal Studies* 2: 4-15
- Smith BR. 2007. 'Indigenous' and 'Scientific' Knowledge in Central Cape York Peninsula. In *Local Science Vs. Global Science: Approaches to Indigenous Knowledge in International Development*, ed. P Sillitoe. New York: Berghahn Books
- Strathern M. 1980. No nature, no culture: the Hagan case. In *Nature, culture and gender*, ed. CP MacCormack, M Strathern. Cambridge: Cambridge University Press
- Warshall P. 2002. Watershed Governance. In *Writing on water*, ed. D Rothenberg, M Ulvaeus. Massachusetts: The MIT Press
- Weir, J. 2008 'Connectivity', *Australian Humanities Review*, 45, pp.153-164
- Weir, J. forthcoming September 2009. *Murray River Country: An Ecological Dialogue with Traditional Owners*, Aboriginal Studies Press, pp.i-x,1-224.