Life's shared dependence on water: A potential wellspring of ecocentric concern and interspecies kinship

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Abstract. The ecocentric world view holds that non-human life has intrinsic value – a worth that is independent of any benefits that may be derived from such lives by humans. Exemplifying this, a salmon matters for reasons that are immeasurably greater than simply representing a target for anglers or a potential flavour on a human tongue. A fundamental tenet of the ecocentric philosophy is that moral standing permeates beyond the merely human world and into wider nature. Furthermore, this world view foregrounds the unfolding mass extinction of life on Earth as the moral and existential arch-crisis of



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our time. This arch-crisis is being driven, in turn, by an array of interconnected emergencies that include, among others, rapid anthropogenic climate change and diminishing freshwater supplies. In the case of water, shifting rainfall patterns and increasing pressures on abstraction to support a growing human population are causing suffering, and rendering landscapes unliveable, to humans and non-humans alike. For life is united in its dependence on water. This shared elemental need offers a potential touchpoint for citizens, both younger and older, to develop a sense of kinship with non-human others and to become more ecocentric in their value systems. Ultimately, a groundswell of ecocentric concern will help generate policies and foster practices that support broad socio-ecological justice in water usage and in other domains of our interconnected lives as Earth-kin.

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1. Intrinsic value and moral standing in the more-than-human world

I begin this paper by noting that, when it comes to water, the priority that an individual gives to wider nature over narrowly human interests will be influenced by their world view. To provide some data to substantiate this non-controversial introductory assertion, I will briefly describe some of the findings from an internet-based study of 577 residents of the US state of Colorado. Participants were split into economy-centred, environment-centred, and neutral segments based on a set of four dimensions that included ecocentric orientation (Burtz *et al.*, 2020). Respondents were asked to indicate their priority for water allocation during times of shortage across various usages including "natural environment/management, such as fire suppression, fish and wildlife habitat, and forest health" and "households for utilities, such as drinking, cooking, showers, etc." (Burtz *et al.*, 2020, p. 309). For the environment-centred segment, preference for "natural environment/management" was second only to that for "households", while for the other two segments this option came in fourth, behind "households", "irrigated farmland", and "industry".

The world view on which the present paper focuses is ecocentrism, a philosophy which holds that non-human life has intrinsic value – a worth that is independent of any benefits that may be derived from such lives by humans (Curry, 2018). Exemplifying this, a salmon matters for reasons that are immeasurably greater

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than simply representing a target for anglers or a potential flavour on a human tongue. This way of thinking about the world, which has modern roots in Deep Ecology (Næss, 1973) and Aldo Leopold's Land Ethic (Leopold, 1968), lays down a fundamental challenge to the assumption of human supremacy on the planet. This premise, which is the foundation on which modern economic and political thought is built, is one that many scholars have called out in recent decades for its arrogance and recklessness (*e.g.* Ehrenfeld, 1981; Crist, 2017; Curry, 2018). Ecocentrism, as compared with anthropocentrism, offers a pathway into a better future (Washington *et al.*, 2017; Crist, 2019), one in which humans strive to share the Earth with the incredible richness of cohabiting life forms, rather than precipitating the ever-graver consequences that must surely follow from continued depletion of the planet's life-giving qualities.

A fundamental tenet of the ecocentric philosophy is that moral standing permeates beyond the merely human world and into wider nature (Curry, 2018). It follows that ecocentrism demands an ethical analysis of the impact that humans are having on the community of life on Earth and the physical systems on which the members – human and non-human – are dependent. Through such an analysis, ecocentrism foregrounds the unfolding mass extinction of life on Earth (Monastersky, 2014) as not only the existential but the moral arch-crisis of our time (Gray and Crist, 2019).

The arch-crisis of mass extinction is being driven by an array of interconnected emergencies that include, among others, rapid anthropogenic climate change and diminishing freshwater supplies. In the case of freshwater, "this life-sustaining resource," Kallhoff (2017, p. 416) has written, "is endangered by processes of industrialization, population growth, and climate change." Shifting rainfall patterns and increasing pressures on abstraction to support a growing human population are causing suffering and rendering landscapes unliveable (Gosling and Arnell, 2016). Here, the term *unliveable* applies to humans and non-humans, and the latter are even more vulnerable than the former. This is because modern humans have drastically reshaped the flow and stasis of the precious life-giving liquid within most of the watersheds that they inhabit.

The goal of manipulating the movement of water, in broad terms, is to increase the security of the supply and the convenience of abstraction from a human perspective. A devastating corollary is that the availability and the dynamics of this liquid – both as a source of hydration and as a medium for fulfilling vital lifepurposes, such as long-distance movement or egg-laying – decrease and degrade from the perspective of numerous other species within the watershed. "In biopolitical economies," as Strang (2013, p. 161) has noted, "few things express dominance over other species as clearly as damming and redirecting flows of water to give primacy to human needs." An underground reservoir, for instance, is available to few life forms. Exceptions who may benefit from the outputs of humanized water systems are domestic animals like pet dogs and garden visitors such as wild birds.

In the ecocentric world view, to "possess intrinsic value is to be valuable in one's own right, and inherently worthy of moral consideration," as Mathews (2016, p. 143) has written. With this extension of intrinsic value and, thus, moral standing to the non-human members of ecosystems, profound ethical dilemmas arise both from the massive scale of abstraction—much of it for trivial ends—and from the narrow-minded reshaping of flows. Life, after all, is united in its dependence on water. Or as Krause and Strang (2013, p. 95) have expressed it: "For many people water epitomizes the connections and integration of living processes: as the lifegiving element enabling production and reproduction, and as a substance of community and belonging."

2. Dissolving boundaries: Water as a universal life-need

A scene on the television screen: large mammals at a watering hole, with heads dipped to the surface of the liquid. This hole is drying up, the narrator tells us, and rains will not fall for many weeks yet. Immediately, and empathically, we feel the animals' plight. The quality of this story from the perspective of a documentary-maker lies in its instant emotional resonance for humans; and so relatable is the drama on which it centres that no anthropomorphism is required.

The above instance of empathy-generation relates to close relatives of humans in the evolutionary tree. It is my contention, though, that the universality of hydration as a life-need allows powerful emotional responses to emerge, also, through reflecting on the wants of more distantly related *Earth-kin* (a term I use to refer to, and honour the shared ancestry of, all living beings on Earth). By way of illustration, I will present two further examples.

My first case, which comes from the writer Ed Abbey, will expand the sphere of empathy beyond mammals and out past the margin of vertebrate life. In *Cactus Country*, Abbey (1973) describes a hike in the Pinacate region of the US desert south-west. Heading back from a climb of a volcanic peak in the "awful heat of May," Abbey and a companion pass *La Tinaja Alta*, which is the highest natural water tank in this arid region. They are out of water and still have two hours' walking to go, and so they fill a canteen. In doing so, they almost drain what is left in the basin. From this, a quandary emerges:

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La Tinaja Alta is a very small *tinaja* to begin with and this was the dry season. The bees crawled over the damp rim of the basin, bedraggled and puzzled. Now the bird cries seemed forlorn. Out in the rocks and brush somewhere crouched other small animals waiting for us to leave, waiting their turn for a drink. We didn't see them, we didn't hear them, but we felt them [...] All the water we had was in the one canteen. We emptied it back into the little stony basin (Abbey, 1973, p. 165).

My second case is a personal one – one which I have previously described elsewhere (Gray, 2021) – and it will push the sphere of empathy out further, beyond the limits of the animal kingdom. Several summers back, I found myself in the middle of a large clearing in a woodland near my home in east England. The plant-life was wilting and sickly coloured following an unusually long dry spell. At last, though, it seemed that the rains were coming.

The storm announced itself with flashes of lightning and claps of thunder in the distance, and soon it rolled in over the woodland. After a rapid crescendo from the first gentle drops of water, the rain began to pound violently into the dry earth. I stayed out in the open, as if I had suddenly planted roots [...] My clothes got drenched, but I was not particularly conscious of this development. For I can state, without any poetic exaggeration, that I was experiencing the downpour more as a plant than an animal. The full extent of my empathy surprised me when I reflected on it after the storm had passed through: I had truly relished every drop (Gray, 2021, p. 94).

The empathy of the documentary-watcher, the humility exhibited by Ed Abbey, and my long moment of acutely heightened sensitivity to the needs of the broader community of life are all examples in which water's universality as a life-need can engender strong emotional responses to the interests and wellbeing of non-human others. And, together, they illustrate how empathetic understanding can emerge both from direct experience of the lives of these others and through the relaying of their circumstances through narrative. Rock and Gilchrist (2021) observe that, in a rapidly changing world, stories that spotlight more-than-human interests have a vital role to play in empathy-generation. Crucially, the perspective and wisdom thus gained – via direct or vicarious experience – lay a path towards positive environmental actions and ecologically sounder lifeways (Gruen, 2009).

Empathy, it should be noted, is far from being the only emotional response that can motivate positive environmental behaviours. Considering our feelings towards other animals specifically, Kasperbauer (2015, p. 817) goes as far as arguing that empathy is "not psychologically central to producing moral concern" and that "other moral emotions, particularly anger, are more strongly engaged with producing moral concern for animals, and are thus more capable of achieving various normative aims in animal ethics." For my present argument, the precise nature of the emotional response is not important as long as it can be an inspiration and a fuel for positive action.

As a touchpoint between human and other-than-human lives, the shared elemental need has great potential in triggering emotional reactions for people both younger and older. And such reactions offer fertile ground for fostering a sense of kinship with Earth's cohabiters, a reverence for water as a sustainer of life (*e.g.* Hawke, 2012), and a shift in value system towards ecocentrism. These closely interlinked developments in one's outlook will all serve as further drivers towards ecologically sounder behaviours, not least in relation to water usage.

In order to tap the rich potential described above, it is of course necessary for people to gain a familiarity with the circumstances of non-human others in regard to water needs – to enrich their water literacy, in other words. As a minimum, this could be aided by taking in the kind of bare-facts information presented in a newspaper report, but ideally it would also be nurtured through a mixture of story-driven vicarious appreciation and direct experience. For the latter, Hawke and Spannring (2022) have written, the process of active engagement with the life dynamics within a watershed – through deep listening and being in place – offers significant scope for renewing the human connection to the more-thanhuman world. As they note:

Being with, is embodied through conscious contact and connection with more-than-human life and worlds, through practices such as deep listening which is about being still and tuning in to the changing tones, murmurs and sounds of waterscapes and *their* companion species, such as croaking frogs and bird song (Hawke and Spannring, 2022, p. 199).

Colin Fletcher, in his account of a hike through the Grand Canyon in 1963, describes the outcome of such a process, which unfolded during two days spent observing the life sustained by the Colorado River at a spot he named Beaver Sand Bar:

I was no longer a stranger in the deep and ancient world of Beaver Sand Bar [...] I had moved closer to the pulse of life [...] And in it I recognized the common grain that ran through everything I knew existed, including me [...] On Beaver Sand Bar, the sense of union had become explicit, intimate, totally involving. It embraced everything (Fletcher, 1989, p. 177).

A vital aspect of water literacy is the emergence of an understanding of the ways in which non-human circumstances might intersect both with the small decisions that we make as individuals in our everyday lives and with the larger impacts effected, on our behalf, by politicians and business leaders. This is something that applies not just to our home watersheds but to those we influence from afar through our behaviours as consumers. In order to better facilitate the emergence of such an understanding, however, there is a need - one that is both massive in scale and urgent - for improved availability and flow of information. If I purchase a new pair of jeans, for instance, what does this mean for the inhabitants – human and non-human - of the watersheds in which the materials were grown and the garment manufactured? What is the difference for watershed inhabitants if I buy seasonal locally grown seasonal fruit compared with imported out-ofseason produce? And who is harmed if I take a twenty-minute shower every day, jet-hose my driveway, and belong to a golf club where the fairways are watered till the grass is near-luminous? Conversely, what might it mean for wildlife if a far-sighted political candidate who proposes to decommission a dam is elected?

As an individual consumer, I will freely admit that I am nowhere near to being as well informed as I would like when it comes to the water implications of produce and of manufactured items, although I have spent some time trying to learn more. More generally, the large majority of people with whom I have spoken about this issue are aware of an overarching need to save water but know very little of specific impacts. For many individuals, water prudence begins and ends with the opening and closing of taps in their home and workplace; and, even here, there is little knowledge of the impacts of using excessive amounts of water, other than increasing the probability of a hosepipe ban or a similar restriction.

By way of an example, I will briefly discuss the watershed that I have inhabited for the past fifteen years, the Colne catchment. Here, over-abstraction by humans reduces water levels in a chalk stream known as the River Ver (Figure 1), leading to the death of wild fish and turning off a cascade of life. Despite an impetus for action resulting from the global rarity of chalk streams as a habitat, coupled with commendable campaigning efforts by a charity called the Ver Valley Society, few people in the area seem aware of the connection between the water usage of local humans and the health of the river and other dependent organisms (Gray, 2021; Figures 2 and 3).

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Figure 1. A bench depicting the seventeen-mile course of the River Ver, sited near the stream's confluence with the River Colne.



Figure 2. Canada geese on the River Ver.

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Figure 3. A mating pair of banded demoiselles in marginal vegetation along the River Ver.

Without the improved availability and flow of information called for above, a huge opportunity is being missed for people in the Colne catchment, and other watersheds inhabited by modern societies across the world, to enrich their water literacy, to connect with the interests of non-human others via a shared elemental need, to strengthen feelings of interspecies kinship, and to find the motivation to act in ways that are kinder to the Earth's living systems.

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3. Placing ecocentric wisdom at the heart of wise water use

I move now away from discussion of the behaviour of individuals to briefly consider policy-level approaches to water. The ways in which humanity draws from, and reshapes the flow of, freshwater sources can be described as *water ethics*. Kallhoff (2017) sketches a spectrum of possible water ethics, in which the extremities are (a) approaches that focus on the life-maintaining services of water to human beings and (b) those that are ecocentric in their orientation. One proposed approach that sits near the latter end of the spectrum comes from Ziegler *et al.* (2017), who argue against the idea of maximum safe abstraction of freshwater by humans and suggest that we should instead be striving to achieve a sufficient but ecologically just usage level. In other words, they are calling for an "ecological ceiling" that respects the water needs of humans and non-humans rather than being guided by a "safe space" for humanity.

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An obvious but crucial weakness of ecocentric water ethics, notes (Kallhoff, 2017, p. 418), is that "they rely on premises that are not necessarily shared by many people." And therein lies a key challenge to be met if the unfolding mass extinction is to be slowed and then halted and if water is to be shared more fairly with our non-human kin. Returning to the survey presented at the start of this paper (if I can be permitted to generalize its results to the global context), it seems that, in order to feel confident that ecocentric water policy would be supported by a populace, it would be necessary for the environment-centred segment to be valuing the needs of the "natural environment" at least on a par with those of "households" and for that category to encompass the large majority of individuals. In other words, the shoots of ecologically wise water will only grow with vigour in the soil of a culture evolving towards ecocentric wisdom.

4. Concluding thoughts

In this short paper I have suggested how ecocentrism and interspecies kinship might emerge and be strengthened by an improved understanding of the water needs of non-humans. Conversely, I have discussed how ecocentrism and interspecies kinship can inspire water practices that are ecologically sounder. These two relationships are, of course, mutually reinforcing.

Ultimately, a groundswell of ecocentric concern will help foster practices and generate policies that support broad socio-ecological justice in water usage and in other domains of our interconnected lives as Earth-kin. For, as Crist *et al.* (2021, p. 1) have remarked:

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By protecting nature generously, and simultaneously contracting and transforming the human enterprise, we can create the conditions for achieving justice and well-being for both people and other species. If we fail to do so, we instead accept a chaotic and impoverished world that will be dangerous for us all.

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