



More-Than-Human Co-becomings: The Interdependencies of Water, Embodied Subjectivities and Ethics

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INTRODUCTION

In a small drought-prone rural village in Maharashtra, Pravah,¹ India, farmers irrigate their farms using the wastewater of the city of Pune. Water becomes multiple and troubled as it is used, embodied, and experienced in different ways. Water(s) and women farmers co-become through their varied relationships to one another. Similarly, the journey of the Tagus River through Spain and Portugal tells a story of multiple, troubling waters interwoven with landscapes, people, histories and more-than-human co-becomings. The Tagus as an entity is shaped by multiple

¹ All names of people and dwelling places are pseudonymised, names of rivers and infrastructure are not changed.

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human interests—irrigation, human consumption, international relations—but also shapes human communities within and beyond its basin. These stories raise contradictions and ethical concerns that highlight the importance of thinking through more-than-human interdependencies to understand how water- and hydro-scapes emerge.

Whether a village served by a wastewater scheme in Maharashtra, India, or an inter-basin water transfer infrastructure in Spain, hydraulic schemes and infrastructures create webs of relations within and across multiple scales. This inspires us to grapple with more-than-human concerns. The term “more-than-human” situates humans within the sticky webs of relations, making humans interdependent with other beings and materials (Barad, 2007; Haraway, 2003; Isaacs & Otruba 2019). We focus on the relationality of the more-than-human to consider the ethical contradictions that flow of power within these webs engender. These relations can be life-giving or denying (Bawaka Country et al., 2013; Singh, 2013; Zwarteveen & Boelens, 2014), create socionatural difference and inequalities (Ahmed & Zwarteveen, 2012; Harris, 2006; Nightingale, 2006; Sultana, 2009), and permeate the co-constitution of embodied subjectivities (Nightingale, 2006, 2011; Singh, 2013). Particularly, we focus on water and the ways it co-constitutes uneven relations between and within different human beings, other beings and materials across multiple times and scales (Neimanis, 2012). In doing so, we recognise that our attempt to grapple with the more-than-human is always situated, partial and shaped by our positionalities.

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In this chapter, Irene Leonardelli presents the section dedicated to Pravah in the second person, recognising herself as a researcher generating data together with a translator as well as with local researchers-activists and informants in the village. Nick Bourguignon presents the section dedicated to the Tagus River in the first person, recounting his experiences and knowledge of the river. Enid Still engages with these narratives philosophically by thinking through the ethical implications of more-than-human interdependencies. Ingrid Nelson and Andrea Nightingale have been co-thinkers through the entire process, helping to find a narrative thread, navigate the wide literatures on socionatures and reflect on feminist political ecology (FPE) praxis. Together, we aim to think of waters through different lenses and in different geographies, with specific histories and socialities, while remaining aware that our human histories and privileges shape these representations of waters. This movement between different positions of the self in relation to water and the more-than-human is intentional, as we feel it reflects the way water is unbound, percolates through bodies and soils, shapes both alliances and conflicts between different actors, such as the state, community organisations and farmers.

Framing more-than-human interdependencies within FPE means *starting* from an understanding of relationality rather than the experience of distinct individuals (Nightingale, 2011; Rowe, 2005). Exploring this relationality as entangled, multiple and situated has enabled feminist political ecologists to contribute to debates on how subjectivities are co-constituted with the more-than-human (Nightingale, 2006). Andrea Nightingale (2013) demonstrates that Scottish fishermen's emotional and political subjectivities are co-constituted by the sea; it can give or take life, it can create a sense of purpose and bend political will, and it can create or destroy possibilities for fishermen. Secondly, intersectional inquiry into how power operates within these entanglements has enabled nuanced accounts of how gender, caste, class, age, seniority, marital positions and ethnicity are differently implicated in the community management of ecological resources (Elmhirst et al., 2017; Nyantakyi-Frimpong, 2019). Furthermore, FPE questions how socionaturally constituted power dynamics refract upon hierarchical social relations and boundaries, as well as wider systems of power such as colonialism (Nelson, 2017; Nightingale, 2011).

For this chapter, we draw on this work in FPE and related disciplines, focusing on the development of the concept of more-than-human

interdependence in an attempt to trouble essentialising narratives that may be read into such complex and situated relationships (Barad, 2007; Bawaka Country et al., 2013; Haraway, 2003; Nelson, 2017; Nightingale, 2013; Rose, 2012). In doing so, we remain aware that writing about the more-than-human is a socially mediated process, despite the multiple forms of more-than-human agency that go beyond the immediate human experience.

The next section begins with the case of Pravah, where a wastewater reuse scheme allows farmers to farm throughout the year, cultivating different crops both for household consumption and to sell at the market. However, the wastewater that is used for irrigation percolates into the village's shallow aquifer contaminating the existing, scarce, water. Women, who primarily bear responsibility for water, have to navigate different levels of contamination at water sources and adjust their practices accordingly. The concept of "waterscape" flags an ontological definition of water where power is enrolled in co-constitutive representations and materialities of water (Baviskar, 2007). Next, we journey with Nick's account, where the river's ebbs and flows constitute fuel and food that sustains the lives of many beings, as well as embodied memories of co-becoming with the multiple existences of "the Tagus". Bubbling forth in Eastern Spain, the Tagus cuts through canyons and pine forests, meanders past Toledo and across plains and *dehesas*, joining the Atlantic Ocean in Lisbon. Yet the waters also join with the Mediterranean through the Tagus-Segura Interbasin Water Transfer. Wastewater from Madrid's 6.6 million inhabitants joins the Tagus with wafts of ammonia, to bubble through Toledo. The concept of "hydrosocial territory" helps explore the multiple scales of contested socionatural materializations of spatially bound networks of the river (Boelens et al., 2016). Finally, we discuss the situated knowledges and ethical implications that emerge from these ethnographic explorations and the way they illuminate interdependencies in particular ways that can inform processes of co-becoming with water. Each of the following sections discuss how such interdependencies are lived and yet often obscured, and how thinking with the politics of interdependency can enable us to narrate the situated complexities of their emergence as a process of co-becoming.

GENDER-WATER INTRA-ACTION IN A WASTEWATERSCAPE IN MAHARASHTRA, INDIA

The main public well in the village is called Sakarbai [sugar lady] because its water used to be pure, fresh and sweet. (...) Water was very scarce outside the monsoon season, but it was so good that it used to taste like coconut water. She [Sakarbai] used to give us the best water even in summer, when we used to climb down the well to get whatever water we could find. But after we started using wastewater for irrigation, she [Sakarbai] was really badly affected. It's not her fault, but her water became disgusting, so we stopped drinking it.

Interview with Sonali, 28 February 2020

Sonali, a seventy-year-old woman belonging to the Maratha caste -the upper caste in the village of Pravah- and who worked her entire life as a farmer, is talking while sitting on the floor of her house. Sakarbai is the name of the well where she used to fetch water for drinking and other domestic purposes since she moved to Pravah as a just-married child, at the age of six. Around 2009, Sakarbai started changing. It happened as more farmers in Pravah started buying wastewater to irrigate, taking advantage of a wastewater reuse system called the Purandar Lift Irrigation Scheme. This was designed by the Government of Maharashtra in the early 2000s to address water scarcity in 60 rural villages located in the Purandar sub-district, southeast of Pune. Wastewater is pumped up from the Mula-Mutha river, which flows through Pune collecting untreated water from the urban sewer system and industrial effluents, manufacturing industries, construction sites, automotive garages and hospitals (Jagtap & Manivanan, 2019). Farmers can buy wastewater outside the monsoon season, usually from January until June when their wells are empty. Along with traditional rainfed crops such as *bajra* (pearl millet) and *jowar* (sorghum), they use wastewater to irrigate different non-traditional crops, particularly flowers, to sell at markets in nearby towns and in Pune. Wastewater reaches Pravah through a system of pump houses and pipelines; farmers store it in private water ponds (Leonardelli et al., 2022). From these ponds, wastewater percolates into the shallow aquifer of the village, contaminating the existing, albeit scarce, groundwater. This way, all wells (those used for irrigation as well as Pravah's former drinking water well Sakarbai) get recharged with (at least partly) contaminated water.

As the Purandar Lift Irrigation Scheme changes water flows, a wastewaterscape (Karpouzoglou & Zimmer, 2016) emerges. This entails new material-discursive relations between different humans and waters. Wastewater opens up possibilities (e.g., for irrigating and thus farming differently) and closes down others (e.g., drinking pure and sweet groundwater), re-articulating more-than-human relations in troubling ways that raise ethical questions and concerns. Here we unfold some of these re-articulations focusing on the interdependencies between women farmers² and water, thereby troubling boundaries that signify what is considered an ethical encounter. We make this choice because in Pravah, like throughout Maharashtra and other parts of rural India, fetching water, cooking, cleaning, washing and bathing children are tasks performed mostly by women. Women also perform much of the everyday work in the farm, work which is profoundly mediated by water (Krishna & Kulkarni, 2019). The focus on women farmers also stems from our ethico-political commitment to complicate dominant representations, challenging the processes through which women farmers' experiences, knowledges and practices are marginalised and/or silenced, especially those of women farmers of Scheduled Castes,³ landless women, single women and widows (Bhat, 2016). Indeed, the conceptualization of "farmers" in India most often reproduces the imaginary of farmers as male landowners (Agarwal, 2003; Padhi, 2012; Still, 2022).

Feminist scholars studying water in rural, agrarian contexts have shown how gender and water are intimately interwoven (Ahmed & Zwartveen, 2012; Bossenbroek & Zwartveen, 2018; Harris, 2006; Mehta, 2014; Sultana, 2009). Their interdependence is simultaneously material, symbolic and discursive, with "gender" and "water" (and all that emerges in their relation for instance farming) continuously co-constituting and re-defining one another (Bossenbroek & Zwartveen, 2018). Re-allocations of water, for instance, those fostered by neoliberal processes of development, imply changes in gender labour relations, roles

² We use the category of "women farmers" to refer to people who, during our field-work, identified themselves as such, though sticking to a definition of gender as a fluid "performative accomplishment" (Butler, 1990) shaping a myriad of different subjectivities.

³ "Scheduled Caste" is a politically imposed category that encompasses all castes considered to be outside the caste or varna system, and who are therefore systemically oppressed and socio-economically disadvantaged. It is a recognised term in the Constitution of India and is used to enable reservation status for those from scheduled castes, to enable their representation in social and political life (see Gnana, 2018).

and responsibilities, thus also re-defining gendered embodied subjectivities (Harris, 2006). At the same time, experiences such as headaches and backaches from hauling heavy loads of water, as well as the health implications arising from consuming unsafe water, illustrate how embodied gendered subjectivities are spatially produced through everyday dealings with water (Sultana, 2009).

These studies have pointed out how everyday dealings with water significantly shape gendered embodied subjectivities. Yet what we aim to emphasise here is that how water behaves in and through specific landscapes (seeping, percolating, overflowing, evaporating) and what it transports (algae, sediments, organic matters, contaminants) also play a role in co-constituting specific gendered embodied subjectivities.

In order to reflect these fluid sensibilities, we draw inspiration from post-human and Science and Technology Studies (STS) feminist scholars, as they cultivate sensitivity for what more-than-humans, and water particularly, trigger and afford in socionatural relations (Barad, 2007; Neimanis, 2017; Pickering, 2009). Particularly, Barad (2007)'s concept of intra-action helps focus the analysis on how human bodies and more-than-human bodies co-constitute one another simultaneously, discursively and materially, meaning they do not exist as separate, discrete entities. This conceptualization helps us decentre the idea that humans dominate matter to instead pay more attention to the specific behaviours that different humans and more-than-humans, including water, afford as they relate. This becomes useful when unpacking how gendered subjectivities embodied by women farmers of different castes and classes and water co-become in the wastewaterscape of Pravah.

The Multiple Waters of Pravah

Around 2011, soon after the wastewater reuse scheme started functioning, Sonali and all other women farmers across caste and class noticed that the colour of Sakarbai water had become more and more turbid; its taste was more bitter, and unpleasant. At the same time, people fell sick with stomach diseases, which they related to the water they were drinking. These sensorial and embodied experiences laid a foundation for women farmers across castes to re-signify what water is: how and for which purposes it could be used. Though they appreciated the abundance of water in Sakarbai, as they no longer had to depend on government-sponsored water trucks or walk long distances to fetch water during

the driest months of the year, they deemed Sakarbai water as unclean, smelly, “full of chemicals” and “dangerous”. “*It’s not her fault*” said Sonali: recognising how this exogenous water flow damaged the local “sweet” and “pure” water of their aquifer. For a few years, the Gram Panchayat [village council], in consultation with the local doctor, added a “medicine” to Sakarbai water to disinfect it, to heal it, before using it for drinking and cooking.

Then around 2016, the Gram Panchayat decided to instal a water vending machine (commonly known as a water ATM) behind the main square of the village. This technology purifies Sakarbai’s water through a reverse osmosis system to make it safe to drink. Most women farmers now buy this filtered water for drinking; those who can afford it also use it for cooking- mostly women farmers from the Maratha (upper) caste. Other women (mostly those belonging to Scheduled Castes) and the least well-off farmers of the Maratha caste still go to Sakarabi to fetch water for cooking. Only women farmers belonging to a less well-off caste (a Non-Scheduled herding caste) and residing about 2 km away from the main village do not buy filtered water for drinking but disinfect the one they find in their irrigation well. For them, filtered water is too expensive and too long a walk.

For washing clothes, cleaning and bathing, women of all castes use the water they get from the taps installed outside of almost every house of the main village. Tap water is pumped from two public wells located close to several wastewater ponds, transported through a closed pipeline to a water tank, where it is disinfected, and then distributed to the taps. Women farmers told us that this water remains highly contaminated: they would never use it for drinking or cooking, not even after disinfecting it or boiling it themselves. Sometimes it smells badly, especially during the driest months when they buy the greatest quantities of wastewater. Moreover, women farmers of all castes often complain about irritations and rashes on their arms and legs, as well as about hair loss as they use tap water for bathing. Women farmers of the herding caste residing far away from the main village do not have access to tap water as the pipelines connected to the water tank do not reach as far. Since their shelters are located next to the wells they use for irrigating, they pump water directly and use it for domestic uses. They say that well water is pure enough as it percolates from the irrigation ponds where wastewater is initially stored, and in the process is purified by the soil.

In fact, in the narratives of women farmers across castes, the materiality of wastewater changes as it percolates through the soil of Pravah, mixing with groundwater: the longer it percolates, the more it purifies and becomes somehow less exogenous, and therefore also less “bad” and “dangerous” (see Leonardelli & Tozzi, forthcoming). The wastewater stored in the irrigation ponds is deemed the most contaminated. Women farmers know this as they use it across the farm: it smells badly, it contains algae and looks foamy and turbid, especially when it is just delivered. They told us that animals (cows and goats) often get sick if they drink directly from those ponds.

As women farmers navigate and make sense of water quality through the landscape of Pravah, water becomes multiple waters. At different sources, they get water for different purposes; they store them separately and treat them differently. Significantly, while everyone in the village at least partly adjusts their water practices, more well-off farmers (mostly belonging to the upper Maratha caste) have better means to deal with the consequences of this contamination: for instance, buying filtered water for multiple purposes and not just for drinking, accessing medicines and health services if necessary (see also Mehta & Karpouzoglou, 2015).

At the same time, because wastewater percolates in the shallow aquifer, it brings new irrigation and farming opportunities to all farmers of Pravah, not only to those who can afford to buy wastewater for irrigation. Well-off farmers belonging to upper castes can easily access the benefits of the Purandar Lift Irrigation Scheme; they can afford the cost of wastewater as well as the agricultural inputs required to engage in irrigated farming, cultivating diverse crops throughout the year (Leonardelli et al., 2022). Yet less well-off farmers (who are usually of Scheduled Castes and the herding caste) also find more water in their wells: some of them are able to farm on larger plots of land, including commercial crops like flowers. This way, as wastewater percolates through the landscape of Pravah, it benefits farmers across castes, even those that do not have the means to access the irrigation scheme directly.

These new farming opportunities mean both new responsibilities and work burdens for women across castes (Leonardelli et al., 2022). While they play an increasingly important role in deciding what to cultivate and how to organise the work, commercial cash crops such as flowers require a lot of care and effort. Women farmers across castes are increasingly involved in irrigation and in spreading pesticides- tasks that have historically been part of the male domain. Yet, wastewater fosters the growth

of unwanted weeds, and thus long hours of strenuous weeding work. Women farmers need to carefully supervise the irrigation process to clear the drips when they are plugged by sediments and algae and wash them with an acid lotion after every cropping cycle (see also Leonardelli & Tozzi, forthcoming). This sheds light on how what wastewater transports and what it is made of also matters in re-articulating everyday work in the farm, and thus also in shaping embodied subjectivities.

Through their intra-action, (waste)water and women farmers co-become in Pravah, in ways that sometimes reinforce and sometimes go beyond caste differences (Nightingale, 2011; see also Leonardelli et al., 2022). In this regard, the relations that enact the wastewaterscape of Pravah are troubling and ambiguous: as wastewater flows from the city to rural areas, it carries particles that co-constitute human and more-than-human bodies. It allows farmers across castes to cultivate and sell more crops throughout the year, but it also pollutes the aquifer, badly affecting the health and well-being of more-than-human bodies, including people's bodies, water, soil, animals (Leonardelli & Tozzi, forthcoming). While farmers, including women farmers across castes, are generally satisfied with being able to sell crops throughout the year and to diversify their livelihood, they -and we, with them- remain entangled in the different "goods" and "bads" at play from using untreated wastewater for irrigation (Abrahamsson et al., 2015). The ethical slipperiness of these more-than-human entanglements enables reflection on the nature of ethics when conceptualised within processes of more-than-human co-becoming- a conceptualisation we grapple with in the final section.

Water Across Time, Space, Basins and Subjects—The Tagus River

Recognising individual human attachment to place, territory or country infuses the political into debates within and across more-than-human entities that pulse through multi-scalar spaces (Bawaka Country et al., 2013). It is also a way of thinking through the troubles of one's positionality in relation to spaces that are always co-constituted by the intra-action between oneself, other humans and more-than-humans (Barad, 2007). Storytelling of the more-than-human (Multispecies Editing Collective, 2017; Tsing, 2015) has the potential to narrate complex stories about the entanglements of life (Fenske & Norkunas, 2017). I therefore tell my own story of interdependence with a river that has been present in my life and is the subject of my own research—the Tagus River.

Visiting stretches of the river reveals different realities that a dominant discourse may hide. Where a political ecology of water (Baviskar, 2007; Boelens et al., 2016; Swyngedouw; 1999) helps think of large and complex hydrosocial territories, feminist contributions (Harris 2006; Neimanis, 2012; Sultana, 2011) emphasise the situatedness, subjectivities and relations of human bodies vis-a-vis more-than-humans, often articulated through the concept of waterscapes. By articulating this story from my situated feminist perspective, I see the Tagus River as a hydrosocial territory and explore ethical dilemmas within it. Hydrosocial territoriality helps me think of the divergent discourses that (re)produce material relations and subjects within a (dominant) political order, which incorporates multiple territorialities across scales, different actors—particularly irrigation communities⁴—and where dominant modes reconfigure material relations and subjects through particular water truths and knowledge claims (Harris 2006; Boelens et al., 2016). The frictions that emerge when non-dominant territories are pulled into a political order are captured in how inhabitants of the Tagus basin—myself included—narrate, live and experience the river.

The Divergent Flow(s) of the Tagus

The Tagus emerges in a pine grove at 1,600 metres above sea level in Eastern Spain. It leaps westward, gaining speed, until it flows through deep canyons lined with willows and poplars and eagles fly above. This early stretch has human visitors camping and hiking alongside the clear green water, as my family has done, connecting to the riverine landscape produced over geological time. Historically, loggers navigated pine logs along the canyon walls down to the city of Toledo, where they became embedded in buildings and cities.

The river encounters its first human obstacles in the reservoirs of Entrepeñas, Buendía and Bolarque. Since 1979, some Tagus waters flow artificially southeast, across the plains of Castilla la Mancha through 286 kilometres of canals and pipes, into the Mundo River and then into the

⁴ Irrigation communities are historic as well as contemporary water user associations that use historic and existing irrigation schemes. They are regulated by law (2001 Spanish national hydrological plan) and receive public water concessions from river basin authorities (Hernández-Mora et al., 2014).

Segura River, watering the historical and expanding irrigation fields of the Spanish Levant (Morote et al., 2020).

Exiting its original canyons, the river meanders down the plains of Guadalajara, with less flow and energy due to the syphoning off to Spain's levant. It reaches Aranjuez, where irrigation communities have cultivated strawberries for centuries (Moreno, 1980), and a few kilometres further downstream the Jarama River joins it. The Jarama is artificially swollen, receiving water transfers from other tributaries to slake the thirst of Madrid's 6 million inhabitants and industries, bringing with it waste. Urban residents of Madrid are physically embodied in the waste that flows down the Jarama into the Tagus, even if awareness of this finishes at the flush of a toilet. As a child, I played in and fell ill from this water that had strong tangs of ammonia.

The polluted river reaches the Castrejón reservoir, before it is channelled along the Castrejón canal. While the canal waters fields, the river itself pulses agonisingly along, reaching the mediaeval bridge of Montalbán. Standing on this bridge, the stillness in the air is pierced by shrieks from a nearby slaughterhouse, and the polluted river turns from brown to red. Amid the stench, storks retrieve unidentifiable things from the water. Witnessing this stretch, through what is seen and smelt, the river is embodied within myself. I react, rejecting these senses. They inform an ambivalent subjectivity, where I directly experience and feel attachment to the river while simultaneously feeling disconnected to its rural stretches by virtue of my identification as both urban and foreign. This then informs a personal politics that is inspired by how the river *is* in other stretches—clear, flowing, rich. Following Barad's (2007) intra-action, this subjectivity is an example of material and discursive co-constitution with the river, and also a reflection of the entanglement of senses, location and material informing this politics (Neimanis 2012, 2013; Singh 2013).

The river regains its waters from the canal and flows onto Talavera de la Reina. Irrigation communities here sprung up after the Spanish Civil War using water from the Alberche River. Yet even this tributary of the Tagus suffers from low flow due to a transfer of its headwaters to Madrid. The river ran dry here in 2006.

The Tagus river runs its course from the region of Castilla la Mancha and into Extremadura, where hydroelectric power reigns supreme. The river becomes a series of reservoirs, inundating villages while ancient Roman temples sit atop the view. It receives most of its flow from

tributaries. Irrigation associations were created during the Francoist dictatorship, despite low yields since the soil is poor. This was described as a policy of internal colonisation. Even here, the river has its more-than-human witnesses in areas where it flows unimpeded, with hundreds of vultures flying above it in Monfragüe. Yet, the human persists. The river is held in reservoirs throughout this region to ensure that treaty-bound 2,700 hm³ per year of water are given over the border into Portugal (Escudero Gómez & Martín Trigo, 2020).

But what of the Tagus' waters that flow in the other direction, towards the Levant and the Mediterranean? After the transfer, it mixes with that of the Jucar and Segura Rivers and is spread out along irrigation channels from the Murcia region to the provinces of Alicante and Almería. When reaching intensely irrigated fields, it is further mixed with groundwater, desalinated water, and treated wastewater, flooded across fields or dripped through plastic pipes, becoming the subject of conflicts over water and farmland (Greenpeace, 2017), and discourse over regional rights to the Tagus. Some of it seeps across the region and into the Mar Menor salt-water lagoon, increasingly afflicted by processes of eutrophication, before entering the Mediterranean. Some also reach the last stretch of the Segura River where it supplies centenary irrigation institutions, which trace their origins to medieval Muslim Spain. For them, their canals hold live and dead water⁵ depending on its location within the irrigation network. Irrigation farmers on both ends of the transfer embody divergent narratives over how the waters of the Tagus are best used—whether for intensive and modern forms of irrigated agriculture, or to see its waters as live or dead depending on the canal it flows within. The Tagus then becomes entangled with the European polity as it becomes embodied in the fruits and vegetables that are exported throughout Europe.

Conflicting Meanings and Contradictions of Interdependent Waters

The Tagus exemplifies the meeting of multiple discourses, social and material relationships and embodied subjectivities across many hydrosocial territories formed by water transfers. The river and its tributaries

⁵ “Live” water is water that is brought into fields to irrigate them via canals from a source (river, spring, well) while “dead” water is collected from fields after irrigation into canals (Morales Gil et al., 2005). Dead water can be reutilized further downstream (becoming live again) or is brought back into a river.

are a living, historical and contemporary relationship between humans and more-than-humans, the living and the deceased, the material and the discursive. As Puig de la Bellacasa (2017) argues, material practices and ethical dispositions are inseparable, but at the same time they are non-innocent. Multiple conflicting meanings of water, as resource or ecosystem, and the aesthetics and emotions ascribed to it, ranging from pride to sadness to anger, envelop and co-constitute what is a deceptively simple word, *river*. The politics of interdependency with water, illuminated in these often-contradictory meanings and relations with the river, enables us to reconsider the more-than-human as active beings in what is considered ethical practice, rather than as simply subjects of ethics (Plumwood, 2012).

By highlighting my own relationship and partial understanding of the river, I recognise my own affects and emotions in my personal history, giving due respect to other subjects inhabiting and living with the same river. This requires looking at how capturing emotional communication between human and more-than-humans takes place (González-Hidalgo & Zografos, 2019), and similarly, understanding the politics of subjects' own understanding of how they care for the same shared river and believe that their actions are "life affirming" (Singh 2013, p. 190).

In this respect, the Tagus can be conceived as a tortured example of a conflict between different understandings of Singh's life affirmative actions that spills out and creates multiple waters—urban wastewater, ecosystem water, potential energy water—within a river, and in turn spills onto other more-than-humans—soils, cities, energy systems—that cross multiple scales. Activists denounce the water transfer to Spain's levant as ecologically crippling, while irrigation farmers in the levant as well as in the Tagus basin are upset by being cast as abusers of the river, while they provide food to millions. Water connects the human scale to all other scales of life (Neimanis, 2012). Recounting the complexity of the Tagus's multi-scalar nodes helps record what polluting activities and those in positions of power have done to territories, humans and more-than-humans as well as the unequal impacts of these actions. Recording and narrating illuminates these stories and histories into contemporary politics, thereby giving possibilities for different directions of political action in the constant co-becoming with the river.

With my partial understanding of the Tagus, I draw out the struggles for dominance and memories of different versions of the Tagus. My telling casts a new light on how activists, irrigation farmers, politicians and

civil servants fight over articulating different meanings of life-giving and taking on the river, who is the true steward of water and therefore of land and territory, and who is safe-guarding (human and more-than-human) life (Singh, 2013). This problematizes the hydrosocial territory perspective (Boelens et al., 2016); from a partial and situated understanding, I trace part of the webs of relations among identified subjects—myself, my family, farmers, activists—as co-constituting material flows. Yet the webs of relations are never fully knowable.

Similarly, the fight among actors articulating different meanings is also an exclusionary fight over subjective human values that often affords little compromise. Recognising other value systems allows me to judge what and how other human and more-than-human subjects are valued, and requires me to choose with who/what and how I want to belong (Rowe, 2005). It also forces me to identify the consequences of other value systems, their material and discursive articulations, which lead to outcomes that go against my own ethics of more-than-human life. Belonging is invariably nested in divergent and conflicting understandings of territories, the subjects within, and the forces that subjectify. A more-than-human co-becoming sees me/us as interdependent, even if this interdependence is anything but innocent, and the river carries the consequences of this relational web (Neimanis, 2012) as nitrites and ammonia.

I as researcher co-become (Bawaka Country et al., 2013) with the Tagus as I write the interdependent histories and relationships of the multiple human subjects constantly relating *with* the Tagus as more-than-human. That this co-becoming is fraught also shows how “Country” is not innocent; rather, it can support and harm life, reflecting flows of power that are multifaceted and consequential for subjects and ecologies (Nightingale, 2011; Swyngedouw, 1999). My own experience and memory inform my situated politics. Interdependency and co-becoming with the Tagus is relational; it is a political and ethical positioning of the self vis-à-vis the more-than-human river, and against socionatural articulations that subject it and us to exclusionary and oppressive ways of living. The smell of ammonia is a testament to, and result of, the uneven politics that co-constitutes the Tagus, and a call for rethinking the ethical implications of interdependent embodied subjectivities of/with the Tagus.

Ethics of More-Than-Human Interdependencies

These situated narratives of co-becoming with water illustrate the politics of interdependencies and their ethical implications. The ebbs and flows of the Tagus River are implicated in the lives and deaths, the thriving and suffering of people and more-than-humans, all of whom shape the fluid waterscapes of the river both materially and discursively. In Pravah, Sakarbai's water has turned "bad" and the tap water has health implications for human and more-than-human beings who use it. Despite this, there are benefits from the use of wastewater. Flowing with the increased, more reliable water supply are economic and social benefits for many in the farming communities. The multiplicity of different waters in both cases are therefore infused with ethics through their situated more-than-human interdependency. Rather than being considered moral or immoral, these relationships with multiple waters are understood and experienced as part of wider webs of ethical significance in everyday life (Puig de la Bellacasa, 2017). The co-mingling of pasts, presents and potential futures in such waterscapes is therefore also knotted with ethical relations that inform ways of living with the multiplicity of water as it moves, laden with power, through lands, bodies and infrastructures (Rose, 2012). These illustrations of more-than-human interdependencies demonstrate that rather than occurring in an "encounter", interdependencies are always ethical because they emerge through relational assemblages; entangled lives carry responsibility to others, giving both life and death.

When ethics are understood in this way, as enmeshed in multi-species everyday practices, embodied engagement within the world, and more-than-human relational knowledge formation (Richardson-Ngwenya & Nightingale, 2018), this legitimises and makes necessary an acknowledgement of more-than-human interdependencies as crucial to the maintenance of life (Puig de la Bellacasa, 2017). Drawing on the work of Levinas and his student Hatley, feminist philosopher Deborah Bird Rose (2012) exemplifies the workings of more-than-human ethical relations by extending the idea of ecological relationality beyond spatially configured power dynamics and locating ethics in time, a move which helps deepen the ethical and justice dimensions of the two water narratives here. Mobilising the work of ecologists on "flying foxes and their co-evolved myrtaceous mutualists", Rose (2012, p.135) argues that the webs of mutualism that occur between the myrtaceous trees and flowers which

attract flying foxes, who in turn assist in the pollination of various woodland and rainforest species, can be understood as ethical in that they maintain each other, themselves and their future “selves” or generations (see also Zwarteveen & Boelens, 2014 and their conceptualisation of ‘socio-ecological justice’). Ethics becomes the ontological condition of the ebb and flow of life and death; it is a responsibility, or maintenance of life, between different beings.

These insights bring us to questions of care and responsibilities once we have narrated co-becomings such as those above. What Rose (2012, p.136) terms “multispecies knots of ethical time” are the intertwined histories, presents and futures that are embodied in the practices of species as they move through the world. This ethical intertwining of bodies and ecologies over time and space relates to the feminist stance on the ethics of care as “a vital interweaving web of life” (Puig de la Bellacasa, 2017, p. 4). Following Tronto (2015), Puig de la Bellacasa (2017, p. 6), maintains a distinction between ethical dispositions and material practices while calling for them to be considered inseparable. In doing so she articulates more-than-human interdependency as an ethics of care:

[...]‘ethics’ in an ethics of care cannot be about a realm of normative moral obligations but rather about thick, impure, involvement in a world where the question of how to care needs to be posed. That is, it makes ethics a hands-on, ongoing process of recreation of ‘as well as possible’ relations and therefore one that requires speculative opening about what a possible involves [...] unthinkable as something abstracted from its situatedness.

Thinking of ethics as embodied and situated, helps to decentre the human, and therefore moral discourse, in more-than-human interdependencies. As a speculative politics, this ethics of care is “non-innocent”, meaning it is both troubled by its situatedness and co-constituted through complex more-than-human intra-action (Barad, 2007). In Pravah this manifests in the way the wastewaterscape and its social, economic and embodied consequences cause harm as well as material benefits, a contradiction that plays out as women farmers navigate the different scales of the wastewaterscape in everyday life. These ambiguities are further exemplified in the paper by Bawaka Country and colleagues (2013), where they reconceptualise natural resource management through the Aboriginal indigenous ontology of co-becoming. *Wetj*, a practice of reciprocal sharing, care and “intra-action” (Barad, 2007) between all beings,

“...springs from and supports a Yolŋu ontology of co-becoming which sees all beings, including human beings, as coming into existence through relationships” (Bawaka Country et al., 2013, p. 187). Or in other words, beings “only exist, be-come vibrant, powerful and important, through relationships” (ibid., 2013, p. 189). They demonstrate how the perspective and meaning of natural resource management changes when agency and communicative status is given to Country. Rather than assuming humans as the primary care-givers and care-takers of Country, the maintainers of morality, Country is seen as a sentient, multifaceted assemblage of beings that sometimes cares for humans and non-humans, sometimes harms, but is always interdependent, in a mutual, relational co-becoming. As narrated above, the entangled waterscapes of the Tagus demonstrate the ways that water as an ambiguous care-giver and care-taker of multiple more-than-human assemblages, also engender a non-innocent process of co-becoming. These often-contradictory relations of mutuality also emerged clearly in the first section, as we unfolded how waters and gendered subjectivities co-constitute one another—or intra-act—in the wastewaterscape of Pravah in ambiguous, non-innocent ways.

If ethics are embedded in the everyday life of all beings, which unfolds over and through diverse temporalities (Rose, 2012) and socionatural flows of power (Nightingale, 2011), the multiplicity and mobilities of water as it percolates through rocks, soils and bodies, is itself ethically infused. The complexity of ethics within this wider frame of “multispecies knots” cannot therefore be reduced to analysis of a particular encounter between “human” faces, nor as Barbara Davy (2007) argues, the requirement of human recognition or legitimisation of the other that this moment implies. The waters of Pravah and the Tagus, in their multiple forms, both continuously enable and disable life; they both take and give life (Bawaka Country et al., 2013). Therefore, to build on Rose’s (2012) and Davy’s (2007) arguments, ethics, we suggest, are provoked, but not through a particular encounter between knowing ethical selves. Rather ethical relations emerge through dwelling *within* more-than-human interdependencies.⁶ Thinking with the waters of Pravah and the Tagus demonstrates the uneven politics of dwelling within more-than-human interdependencies. Teasing out the ways in which water entangles humans

⁶ For further discussion on the more-than-human politics of dwelling see Tim Ingold (2005).

enables us to think beyond human-centric ethical practices and implications, and to conceive of ethics as embedded within the co-constitution of embodied subjectivities, within processes of more-than-human co-becoming, creating for us new questions about interdependencies, caring and the kinds of narratives we tell about those co-becomings.

CONCLUSIONS

In this chapter we have explored different ways of grappling with the more-than-human, focusing on the politics of interdependencies through situated entanglements with water. We have done so by juxtaposing two cases that are geographically distant and working on different scales of operation. Human-water relations in the village of Pravah, in Maharashtra, and the flow of the Tagus River, in Spain, shape differentiated and ever-changing embodied subjectivities (including those of the researchers): a process of co-becoming that has specific implications for how we understand and engage with more-than-human interdependencies and therefore ethics.

Drawing on FPE and other allied disciplines, we started our journey of grappling with the more-than-human by acknowledging the importance of unpacking nature/society binaries, the symbolic and material boundaries that maintain them and the power dynamics in which they are enrolled. We thus framed more-than-human interdependencies from an understanding of relationality as entangled, multiple and situated (Nightingale, 2011; Rowe, 2005). Understood as interdependent and entangled, the more-than-human forces us to look beyond distinct individuals, supposedly separate from ecologies and other beings. Therefore, it becomes important to attend to the specific and situated characteristics of such relations as the basis for theorising. To unpack these characteristics of more-than-human interdependency, we found it useful to interweave FPE with STS and post-human scholarship: it helped us attend to the specific affordances of water (water percolates, contaminates, transports sediments and algae, etc.), which play a role in shaping differentiated gendered embodied subjectivities and, conversely, how water is signified.

Two main points emerged as we walked through Pravah with women farmers and along the flows of the Tagus River. Firstly, more-than-human relations, and especially human-water relations, are ambiguous, troubling and never innocent. They create differentiated possibilities of well-being and illness, both for human and more-than-human actors.

Secondly, as the authors, we actively co-enact the more-than-human relations we describe and theorise about. And this has ethical and political implications, not least because what we can say about the more-than-human is always partial, mediated by the social, by our (human) ways of making sense of the world. For instance, the focus on the interdependency of women farmers and (waste)water in Pravah is a specific political choice to challenge the processes through which experiences of women farmers from multiple castes, their knowledges and practices in relation to (waste)water, are marginalised and/or silenced; and to interweave feminist struggles with environmental concerns in Maharashtra. The story of the Tagus takes on a different positionality, embodied within the hydrosocial territory it narrates. The process of knowing and becoming with the Tagus invariably collides with other divergent forms of co-becoming that create an emotional and sensorial rejection of processes that make specific territories. Nonetheless this same process also informs a situated politics, one which demands an acknowledgement of how everyone and everything that is part of the more-than-human co-become in ways that defy anthropocentric modes of (dis)ordering the world (Halberstam, 2020).

This chapter therefore illuminates the ways water relations are ethically infused processes of co-becoming. In illustrating the emergent ambiguity of more-than-human interdependency, the chapter contributes to troubling the neat moral boundaries that constrain the multiplicity of more-than-human ethical relations within spheres of privileged human moral reasoning (Richardson-Ngwenya & Nightingale, 2018; Tronto, 1993). Through highlighting the politics of interdependencies that animate the multiple waters along the Tagus and in Pravah, and exploring our own role as researchers in the narration of such, we have also sought to question the nature of ethics as something bounded by human reason. These particular narrations of co-becoming with water highlight the importance of empirically unpacking the complexity of embodied waters and how they shape not only economic and agricultural possibilities, but also every day, embodied senses of well-being, illness and change in contemporary waterscapes. Exploring more-than-human relations therefore involves thinking with the situatedness and embodiment of such relations, thus revealing the ways in which power flows and plays across what often appear as distinct bodies, spheres or scales. In doing so, these intersecting relations and an understanding of our own entanglement in them as researchers, contributes to FPE, STS and philosophies that seek to disorder or blur the boundaries that constrain life and deeper understandings of its more-than-human interdependencies.

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