

From activism, through academia into deep adaptation: an autophenomenography of water

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This is an insight into teaching practice followed by reflections on unfolding multiple crises. On the journey from activism, through academia into deep adaptation, the author dives into the meanings of water to re-calibrate his teaching tools. Using auto-ethnography helps to identify water as a resource, research topic and a refuge. Meanings that were only partially readily available during teaching before the pandemic. As a result, the rediscovered awareness of the mental costs of learning and the need for psychological adaptation to deteriorating living conditions can be redirected back into teaching to lift difficult topics related to climate change again.

Keywords: *deep adaptation, pandemics, climate catastrophe, re-calibration of teaching tools*

Introduction

The purpose of this article is to share the challenges of the practice of preparing prospective teachers for unfolding multiple crises. The practice, in a broader sense, aimed to prepare adults to work with

children in the field of global education. I will discuss how my academic work with adults evolved from my involvement in social movements. And how, over the course of the pandemic, my intellectual focus on the problem of climate catastrophe has waned. While my emotional commitment to thinking about the future has grown, I have pushed aside the idea of the climate catastrophe as a problem that I could solve through my teaching work. My almost spiritual adaptation to the climate catastrophe was triggered by a one-year break from teaching. I will demonstrate how, through auto-phenomenography, I am attempting to collect the various meanings that the water took on for me during this journey in order to bring them back to teaching and activism. The entire process can be viewed as a tool for re-calibrating the teacher's tools to work within the confines of the same course.

Teaching brings distant fruit to society. You can understand the teaching effort because it provides the opportunity of a distant change of the world by introducing better adults into it. However, in the context of accelerating climate change, which may reach a tipping point in many places, this distant perspective is becoming increasingly shortened. Any response-able pedagogies that enable students to answer both each other and global challenges are inevitably transient. There are also concerns about the extent to which risk-conscious education contributes to overburdening individuals with responsibility for the state of the world whereas, 'We do not have the inter/personal competencies necessary for engaging with the intense combination of guilt and fear induced by this existential crisis' (Verlie, 2022). Then the collective climate action which often bridges the gap between teaching and learning has more therapeutic than tangible effects. Beyond the strategic issues of choosing adequate topics and methods for climate education, there is a psychological adjustment issue for teachers to work repetitively within the same course with subsequent groups of adults.

I have conditioned myself, like other adults with children, to be concerned about the future beyond my own life. Following a sudden increase in my knowledge of climate change, I, like many teachers, experienced climate anxiety. I attempted to channel my pessimism into constructive activities for future educators. Meantime, I noticed a similar tension among other academic teachers, and we tried to research how care and educational institutions are doing by submitting a project called Early Fear. Although we have not even started the research, the

desire to analyse and solve climate change problems has waned since the pandemic. Although the world has not improved since then, we went through the disaster adaptation exercise together. I will demonstrate how encouraging adults and children to look at specific aspects of the world has helped me begin thinking in terms of deep adaptation to change (cf. Bendell, 2016).

The direct inspiration for focusing my attention on water was the invariably boring examples of textbook lessons about water, which are reproduced with varying degrees of sensitivity in kindergartens and schools under the theme of ‘elements’. What these studies have always lacked, in my opinion, is an examination of the extent of ignorance about water and a personal attitude toward the subject. It is not necessarily the delight itself in this personal relationship to the subject, which is quite easy when we look at a drop of water. It is more about retaining the respect that arises when in contact with the immensity of the element. Water is universally required for life and is easily scalable for the teacher; for example, observing a puddle provides insight into what to expect at sea (Gooley, 2016).

Activism and anxiety

In 2018, I attended a climate camp. It took place in an area where lakes were vanishing, and rivers were drying up due to brown coal opencast mines. I enjoy activist camps. I have always learned a lot from them and have been inspired by them for years. This was my first time attending a climate camp in about 10 years and I returned as a parent with children. This time, refreshing knowledge and deepening interests together during workshops, lectures and meetings was a depressing experience. And after the camp, further searching for detailed information about climate change and reading about it proved to be a depressing experience. I used to be obsessed with weather anomalies, rising sea levels, and pollinator extinctions. Following the camp and a period of intensive self-study, my attention was focused on the following topics: life-killing acidification of water with carbon dioxide, multiplier effects accelerating climate change, and the methodology of scientific reports that publicly expose only moderately unpleasant scenarios.

Having little faith in the political process’s effectiveness, I had fallen into a state known as ‘climate change anxiety’ since the time of the climate

camp. This state of affairs had a significant impact on my academic choices and interests in the years that followed.

Method

Because the waves of my teaching, parental, and purely human interests in various aspects of water come and go, I've organised these shifting meanings in a auto-phenomenographic method. The search was organised around the question, 'What is water to you in the context of a climate catastrophe?'

Phenomenography is a method that was developed to study the learning experience (Marton,1986). Its primary application was to identify the diversity of ways in which people understand the same topics. The implementation of this method resembles in-depth questioning of students on understanding what they heard during the lecture (Ingerman et al., 2009). However, it has also gained popularity as a tool for identifying differentiation in the understanding of specific life experiences. The prefix auto- in autophenomenography is intended to enable the identification of persistent (or contingent) differentiation of experience of reality in a single person, rather than socially diverse experiences (Shu, 2020). Apart from the function of identifying the teacher's own resources, autophenomenography helps to create a map of basic, difficult and present meanings, which were previously useless in terms of teaching. I will use fragments of the parental diary, unpublished transitions of the global education syllabus and class notes, and notes from applications for research grants on the impact of climate change events on the work of kindergartens. I looked for references to water in the surviving texts. However, on occasion, I had to reconstruct my reflection on this subject, when, contrary to my expectations, the fragment did not reflect legible references to water. This approach is in line with this trend in autophenomenography, which tries to incorporate intimate explorations into the description of long-lasting or traumatic experiences (Allen-Collinson, 2011; Pedersen, 2019).

Water as a resource

The course I prepared at the university is called 'Global education –

educators confronting multiple global crises'. I have been running it for 3 years since 2018. The basic method of work was simple. I prepared simulations of crises caused by climate change: summer heat waves and mass inflows of climate refugees, low river levels caused by drought and a long-lasting blackout in consequence etc. Students predicted effects in various areas of the state's functioning based on these obvious threats in the region and an exaggerated scale in the scenarios of events. They quickly identified connections between systems. I was careful not to frighten students, but to allow them to discover local places through the lens of infrastructure connections in the spirit of the book "Connectography" by Parag Khanna (2016), in which the importance of places from a global perspective is dependent on connecting them with pipelines, optical-fibre cables, rail, roads, etc. Discovering taken-for-granted but the critical infrastructure for community functioning, such as the location of waterworks, boosted their critical thinking abilities.

After the catastrophic phase, future teachers reacted by inventing the most optimistic variants of events. Finally, they were to focus on what should be prepared in advance so that the most optimistic scenarios had a chance to materialise in the event of a similar crisis.

I tried to emphasise the importance of planning for events that have not yet occurred, but if they do occur even once, it is critical for the quality of social reaction to plan ahead of time, even if it is in the form of an earlier imagination of the unimaginable. My classes usually result in extensive recommendations and guidelines for educational institutions and individual teachers. However, we never made them public, treating them as an exercise in thinking.

During the exercise, focusing on the water produced interesting results. Nobody doubts that people require water to survive, so it's a good place to start looking. The connection between rivers and the operation of various types of power plants is not always obvious. The scale of agriculture's water demand is also difficult to comprehend until you calculate and consider what this water is insufficient for. And who will run out of drinking water first, depending on the agreed rationing method.

Essentially, it is relatively simple to recognise water as a resource and identify access constraints. Such recognition is almost always revealing, but it is rarely risky because it does not expose the teacher's own

vulnerability. Even in times of drought the perspective on resources and accessibility does not appear to be frightening.

When it's dry, I water the plants in front of the tenement house, but never enough, because the water consumption metre from the water supply reminds me that it's not free. I collected rainwater in the allotment garden and used restricted access to non-drinking water suitable only for plants. Because I have limited access to it, I must plan its use, keeping certain days of the week and times in mind. (August 2021).

Water as a research topic

I come from a city that experienced its 'millennium flood' in 1997, which brought its residents together for years. I live in a region that was visibly shaped by glacial periods millennia ago. The city is surrounded by moraine hills, and the landscape features erratic boulders. There are traces of erosion and accumulation everywhere.

In this group of meanings, water is framed in some narrative. It is wrapped up and forms a larger whole. I created such voluminous narratives while preparing a research project about the social effects of climate change.

In 2019, we submitted a project with a group of friendly academics from Poland and Norway to investigate how the effects of climate change are becoming an everyday topic in early childhood education institutions. The issue may occur as weather disturbances impacting the facility's educational profile when contact with nature becomes impossible due to the heat. Or because of local extreme events, such as landslides. And on a daily basis, recognising ongoing species extinction, particularly of insects or the emergence of rising ocean water levels as a topic in educational materials. The project was titled: **EARLY** Childhood Education Institutions, **FamiliEs** And Small Child**Ren** Facing Climate Change, and the acronym **EARLY FEAR** was to show how dangerous the waters we wanted to muddle. It was the time of climate school strikes, which showed how children and adolescents, as successive generations, became a junction point for public, professional and family thinking and discussions about climate change. Our group was consolidated by the fact that we were all parents and we wanted to turn our own fears into

a useful diagnosis of the institution's work and support for grass-roots discussions about the state of the world. The research project was never launched because it did not receive funding.

Such would-be endeavours are missing from the academic CVs because there are only efforts with no results. The practice of incorporating what you already know into a promising project accumulates. Past opportunities have passed by, but they somehow change the teacher's worldview, either exhausting or perfecting our curiosity-driven skills.

Water has proven to be essential in my practice of curiosity for my own use. When visiting my hometown of Wrocław, a city devastated by the millennium flood, I discovered water with my children wrapped in an educational narrative. And prepared for visitors. The 'Hydropolis – Water Knowledge Center' was established for this purpose. We spent time there with the children learning about the structure of the water molecule and its states of aggregation.

I got the impression that having a good understanding of various details is a good starting point towards discovering the unknown in the world. We were able to think together about how much water is in the clouds after such an interest in the subject was sparked, and we attempted to calculate this weight. Then we tried to come up with some plausible explanation for why such a weight is kept off the ground.

Water as a refuge

I drink coffee while studying. I drink yerba mate while I write. I drink wine while I rest. When I need to think creatively, I rush to the shower. Whenever it rains, I tell the kids, 'This rain is not rain'. I am frequently incorrect, and they all too frequently catch a cold as a result.

This group of meanings of water as a coveted place 'elsewhere' flourished during the pandemic. It is associated with maintaining mental health in the face of high uncertainty, state-ordered isolation, and risk assessment when interacting with a new society.

In the second month of the lockdown, in May 2020, we purchased an allotment with the intention of creating our holiday and writing base on this allotment. There was also deliberate discernment in caring for oneself and loved ones:

There will be no vacations this year, so anyone who can choose an allotment garden should do so. I'm not sure how it will work in practise, and some of the variants counted now may seem funny one day because the story will turn out differently, but when I read about the planned beach rationing... Well, 15 m2 per individual, which promises to be entertaining with children, plus the queue when entering the beach. There simply isn't enough room for everyone. Anyway, our house will be too hot, and allotment gardens will be too dry, and greengrocers will be too expensive. (May 2020)

The prospect of being unable to revive through freely gazing at the distant sea horizon turned out to be stressful. The sanitary regime was fragile, but unpredictable. What was constant in my location was drought and, consequently, the prospect of high prices. Spending time in allotment was a good idea for adapting to these circumstances.

The desire to connect with nature drove the search for refuge. When we were closed for quarantine, we had virtual travel days around the world with the kids. During our time in Finland, we came across playlists with sounds of walking in the snow, the creaking of melting snow, and the crossing of murmuring streams on foot. Water's sounds have proven to be extremely soothing in a variety of situations, particularly with eye strain from media overuse during a pandemic. I listened to it for several weeks.

Such meditations with the sounds of water suspend the passage of my time and allow me to look at the world with more concern. While waiting for the coffee to cool down, I watch it steaming. Nothing I have ever learned about water explains why it evaporates in such an unusual way. The change of its state of aggregation is quite a playful process of particles detaching from the surface and forming whirling steam chimneys above the cup. I have no idea why they appear empty on the inside. Nothing I'd ever learned about water could have prepared me for the sight of steaming coffee.

Conclusion

The described distribution of water's meanings follows the chronological

development of events: Activism-Academia-Adaptation. Water as a Resource-Research-Refuge became active at different times. Resource is fairly neutral in terms of mental costs, identifying water within its infrastructure and social injustice behind access to drinking water. Research requires awakening curiosity and seizing opportunities. And Refuge is founded on an almost animal instinct to care for oneself and one's loved ones, as well as on creating conditions that allow you to release tension and see the world in a new light.

In these phenomenographically interpreted meanings, the pandemic emerged as a dominant order. It introduced new meanings to the reflection on learning, teaching, and research. The distant countries of global education continue to be within reach of knowledge. The phenomena that can spark research attention are still at hand. The awareness of the mental costs of learning and the need for psychological adaptation to deteriorating living conditions is new and discovered during a pandemic, despite being present earlier. These meanings can be redirected back into teaching, where they can lift heavy and difficult topics related to climate change.

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