



ARE YoU a WATER ZOMBIE?

How can we be water wise

A WATER & SOCIAL JUSTICE UNCONFERENCE

Mon. March 25/13 • Drop in 10am-3pm • 280N York Lanes

- An unconferece is a participant-driven meeting
- Cost: Free! -Lunch provided!

This unconferece is brought to you through the joint efforts of
IRIS - Institute for Research and Innovation in Sustainability
the Centre for Human Rights (CHR)
the President's Sustainability Council, York University

www.iris.yorku.ca/unconference

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Participants

Faculty and Lecturers

- Lewis Molot, Full-Time Faculty, Environmental Studies
- Ellie Perkins, Faculty of Environmental Studies

Undergraduate Students

LA&PS

- Lada Kotova
- Enrique Miranda
- David Aperador

Environmental Studies

- Bushra Noureen

Fine Arts

- Jennifer Evola

Schulich

- Hao Yang

Science and Engineering

- Jennifer Angoh

Graduate Students

- Shishir Handa (Science)
- Darnel Harris (FES)
- Jessica Reeve (FES)
- Angelica Neilson (FES)
- Daniel Andzade (FES, visiting student from University of San Paulo)

Staff

President's Sustainability Council

- Pavel Graymason

Centre for Human Rights

- Noel Badiou

Centre for Refugee Studies

- Michelle Millard

IRIS – the Institute for Research and Innovation in Sustainability

- Annette Dubreuil, Facilitated the day



Opening Speaker: Professor Lewis Merlot, Faculty of Environmental Studies

11am – 12pm Sessions

Session #1 – What do you think about the pledge to phase out the sale of bottled water by 2015?

Location: 280N York Lanes

Initiator: Pavel Graymason

Who Participated? Hao Yang, Bushra Noureen, Jennifer Angoh, Chris, Ashley

Summary of the Discussion/Main Facts:

- What are your thoughts on the phase out?
- What is the definition of bottled water?
 - Some senior members of CSBO bottled water as everything but Canadian Spring water provided for staff
 - Not completely defined yet but most likely to be any plastic container that only contains water (Not vitamin water, carbonated water)
- Human rights and waste issue
 - Ashley: Defies logic to have carbonated water and vitamin water but not regular water
 - Pepsi and Coca-Cola behind a ban on bottled water, possible that vitamin water is solution against the ban on bottled water
- Banning bottled water will just make people turn to other bottled beverages
 - This happened in England over 70% turned to sugary beverages
- Tap water contains chemicals people should have choice not to consume that
- Human rights say water should be free, but even out of the tap, its not.
 - We're paying for water through student fees
 - Human rights actually say water should be affordable as possible
- Fluoride issue
 - Studies debate the issue of fluoride and human health
 - Government studies say that fluoride is good and independent studies disagree
- Infrastructure issues at York, lead pipes, calcified pipes
 - Renovations taking place
 - If we use them, they stay workable and clean
- Coke facilities provide their own buildings
- A packaging issue, human rights and health issue
- Advertisements and marketing (pro-bottled water and now ant-bottled water)
- Hydration stations not filtered beyond public water
 - Will be free-fill and water fountain
 - The plastic in bottled water is minimal
- Types of water: Reverse osmosis, spring water, vitamin enriched water, vapour distilled
- Not as many regulations on Canadian bottled water as in the states
- Bottled water audits are not surprises but do occur several times a year
- You always need scepticism in the scientific
- Gross sources of water

Solutions and Recommendations Proposed / Action Plan:

- Work on phasing out all plastic bottles including pop and juice

Session #2 – Gap filling between science and social science related to water issues

Location: 280N York Lanes

Initiator: Shishir Handa

Who Participated? Noel Badiou, Annette Dubreuil, Lewis Molot, Angelica Neilson, Darnel Harris, Daniel Andzade (Brazil)

Summary of the Discussion/Main Facts:

- Attended a forum recently – realize that there is a knowledge gap
- EcoSchools – certify schools for ecological performance
- Respect for science has been diminishing: neo-conservative governments, evangelicals. Result is that science is undermined.
- Need to make it harder for the Harper Conservatives to dismiss science. How to build the public support of science
- Water vs air. You need air in minutes. Water is more tangible – liquid form. Air is top of mind with asthma.
 - Is water one of the ways to increase understanding for science.
 - Very small proportion of fresh water is available
 - Great Lakes levels are down, except for Lake Ontario
- People will notice when they are threatened. Biodiversity and conservation is more removed – and so less likely to attract support. Walkerton was responsible for killing people so people took notice. But normally we take things for granted. Endocrine disruptors may start to re-focus concern on tap water, but otherwise it is very healthy. Public cares about public health.
- Connection between tax dollars
- Run-off. Toxicity and run-off needs to be limited. People dump things down the sink.
- Connect to personal health – people can make more sustainable choices, which will do less harm when things do go down the sink
- Don river salinity levels become as high as the oceans sometimes – from road salt
- Climate change is adding uncertainty to manage water resources – as weather patterns are shifting – and we don't know exactly where all the water is in the hydrological system
- Ontario government has initiative a climate change adaptation system – Lake Simcoe – beginning to do some planning on flooding, drought, infrastructure
- Risk management is needed – determine high risk areas
- Why does the gap exist? Philosophy of science, as an institution was not created to dialogue. Need to see if from a different perspective and from different roles. Not working with offices like Research Impact to provide plain language summaries that are available to the general public. Not worried about communicating with the general public.
- With eutrophication and acid rain – scientists played an active role with the fossil fuel industry. Public pressure is needed (i.e. 1978 acid rain article in Toronto Star – killing Muskoka lakes – captured the public's imagination, and it was a minority government + serendipity too – TTC strike helped bring the legislature to vote).
- Popular education is important. Students can now finish science in grade 10. To reach the whole public, need to pitch at the grade 6 or 7 level.
- Public has difficulty connecting the dots – they know the issues, but doesn't change behaviour
- Journalism – they know very little about the subject matter. Fact checking with the interviewee isn't allowed.
- Shows like Daily Planet get it right.
- How to make science sexy again? Or understandable?
- If it affects their immediate life they will change their lifestyle.
 - In Canada this is hard, b/c everything is in such abundance.
 - E.g. recycling – care for future generations
 - Drinking water:
 - Don't just rely only on technology for drinking water – remember Walkerton
 - Acidification – pH changes
 - Temperature related changes
- Pride and ethnicity, political consensus, ideological views divide us, rather than bringing us together to collaborate on the things we can agree on: wanting to be healthy

- Epidemiological studies can't yet establish cause and effect on endocrine disruptors to be quantified
- We are contaminated – from our environment – we're sponges.
- People would have more confidence with water monitoring at our tap – but that is too expensive
- Drinking water plants are all in compliance. But endocrine disruptors are emerging issues where there are no standards yet. Activated charcoal filter can remove it from the water
 - Need education – b/c you can get bacterial growth
 - Causes a new problem
- Removing minerals has negative impacts as well

Solutions and Recommendations Proposed / Action Plan:

- More education – for the young and general public
 - Eg. Earth Day festivals at school – cook hot dog with mirrors
- Better education for teachers
 - Promote more experiential education, inter-disciplinary, collaborative
 - Have more accountability for the Faculties of Education so that they learn these methods of pedagogy
- What can we do as individuals?
 - Be more respectful of others
- Deliverable that is measurable
- Literature – knowledge mobilization
 - Assistance for researchers to communicate
- Providing lecturers online more readily –using internal tools
 - Open tv channel – broadcasting channel that exists in Brazil – shared by many universities
- Using mass media communication technologies – between experts and non-experts
 - longer segments, including CHRY radio on campus
 - improving news – less focus on bad news
 - ensuring press releases are issued
- Negativity associated with the environmental movement.
- Good regulations have worked – people aren't aware of what's next, what needs regulation now
- Engagement outside of classes. Where are these discussions happening? Where is the critical debate happening?
 - Carrots needed to encourage students to be active
- Tangible projects for credit
 - i.e. environmental audits
- Clickers need to be rented by students.

12pm – 1pm Sessions

Session #1 – Quality of tap water and water fluoridation

Location: 280N York Lanes

Initiator: Ashley

Who Participated? Bushra Noureen, Hao Yang, Angelica Neilson, Annette Dubreuil, Michelle Millard, Enrique Miranda, Shishir Handa, Daniel Andzade, Lewis Molot, David Aperador

Summary of the Discussion/Main Facts:

- Fluoridation
 - Poor can't afford dental care
 - Sugar consumption
 - Distressed populations have higher consumption of sugar – self medication
 - i.e. Kosovar refugees
 - India – culture – to be happy – much consumption of sweets and type 2 diabetes in youth

- Very aspirational culture
 - High nicotine cigarettes
 - Comfort food – high fat and sugar
 - Common human response to stress
- No general consensus
- Fluoride comes in many forms:
 - Hexafluorosilicic acid – is what is used and this is industrial waste
 - Sodium fluoride
 - Calcium fluoride
- What is the trade-off
 - Dental agencies conducts many of the studies
 - Sodium fluoride pacifies people – was used by the communists
 - Studies – less cavities – but connection to calcium fluoride
 - Acute vs. chronic
 - Fluoride is a chronic issue – it has a cumulative effect. Should use precautionary approach.
 - Increase in bone cancer, dental and skeletal fluorosis, organ impairment, thyroid problems
 - Don't know the limits
 - Individuals – use the precautionary principle and take action
 - Rational mind can't accept it – b/c the sky is blue, trees are there, but don't truly internalize it. Living within catastrophes
 - Companies – don't change b/c of government regulation, and then people who don't know aren't given the options that are better. Very few use the precautionary principle
- By products in creating fluoride products are gas. Scrubbers are now on smoke stacks and liquefied.
- Dosage is important
- Pesticide bans have been successful.
 - Policy does not change based on just science
 - Science is the foundation, but it doesn't change behaviour
- It is forced medication, and infringes our freedom of choice.
 - ~97% of Western Europe doesn't not fluorinate their water.
- Resources
 - Fluoridealert.org
 - <http://www.fluoridetoronto.com/>
 - <http://www.torontosun.com/2011/11/10/city-votes-to-keep-fluoride-in-our-water>

Solutions and Recommendations Proposed:

Session #2 – Resources of water research

Location: 280N York Lanes

Who Participated? Bushra Noureen, Hao Yang, Angelica Neilson, Annette Dubreuil, Michelle Millard, Enrique Miranda, Shishir Handa, Daniel Andzade, Lewis Molot, David Aperador

Note: Session was combined with **Session #1 – Quality of tap water and water fluoridation**

1pm – 2pm Sessions

Session #1 – How to get Canadians to care more about science and scientific issues (water research)

Location: 280N York Lanes

Initiators: Shishir Handa and Annette Dubreuil

Who was involved: Ashley, Jennifer Evola, Daniel Andzade, Angelica Neilson, Hao Yang, David Aperador, Pavel Graymason, Enrique Miranda, Ellie Perkins

Summary of the Discussion/Main Facts:

Why we care – first experience

- Elementary school presentations
- Realized that scientists are normal people. Liked being in nature – and wanted a job that would be there.
- Media – commercials for scientific shows – National Geographic
 - Things you can't see with your naked eye
- Awareness and realizing I can make an impact
- Grade 11 Chemistry teacher – inspired to learn on your own beyond school. Direct applicability – realized could apply the knowledge in my own life – empowering. I.e. link between lethargy and nutrition
- Care about science because it supports things I care about. Scientific method is an ideology. Care a lot about policy, and understand science. Parents cared.
- As a discourse or a method can be against it. Bill Nye the Science Guy.
- High school – science teacher. Realizing how and why things happen.
- Food chains and decomposition in grade 6

How to get people to care

- Show people how it will affect them
 - Make global and large issues a personal issue
- Fosters a sense of gratitude – we're very privileged – we take things for granted.
- Being born in Canada – lush with water and forestry – we are spoiled
 - Positive and negative externalities aren't priced
- Hard to keep track of the different effects - we're producing more problems than we can monitor and find solutions for (Batman – Joker)
- Naturopathic vs. allopathic medicine
 - People need to be educated to be critical thinkers – to cut through the BS.
 - Journals aren't necessary true
- Science doesn't always equal truth. Cartesian/Newtonian thinking – that if we understand the parts, we'll understand the whole. Epistemological discussions are interesting – the separation between the subject and the object – complexity, chaos theory. Einstein's theory of relativity. There is objectivity in artificial realms, but not in reality. Karl Popper – Wittgenstein – you can't every be objective. Interested in those that want science to be more self-aware of itself. It has created as many problems as it has resolved. The discourse legitimizes a lot of destruction.
- There is a well-funded chamber of science-deniers. I.e. climate change is 97% consensus. One side of the argument is funded by very obvious self-interest.
- Science is a system.
- Most people's understanding of science is very basic
- Our values tend to determine our understanding over anything else
- Science makes judgemental facts.

- There are scientists who study how to get people to get addicted to products – any most scientists get paid by corporations
- Everyone has a capacity to change – but it is confusing to wade through all the information – so cognitive dissonance happens.
- There is no separation from what we think about something and what we know. Knowledge is something you can use, vs. information
- Ability to understand new information is based on the knowledge we already have
- Nice to have scientific proof – to back up things we already know
- Humans are always searching for the next step. When we make a decision, to stop doing something, we have to fill it with something else.
- We also make decisions to “forget” or that we can’t take action
- Not possible to choose to not do something. Better to choose to do something else.
- 4Rs – people think reuse is most important – vs. rethinking and reduce
- Need to work to have business more outside
 - Schulich mining program is working to make things more sustainable.
- Systemic and ethical programs are a step to alleviating exploitation issues
- Einstein – can’t solve a problem with the thinking that created the problem
 - Holistic thinking – aboriginals
 - Our actions derive/are a manifestation from our thoughts – so we need to look to our actions
- Tend to be good at solving specific solutions – but fail to see the ramifications of our solutions. Lack of a holistic lens is why this happens.
- Charismatic enlightenment of those close to you – butterfly affect. Be the change you wish to see in the world.
- Happiness index – great idea. Measure success not by wealth, but by happiness. Includes mental health, cultural resilience, environment, free time.
- Solidarity on issues that are important – like seed saving movements, land-less movement in South America. Women’s rights approach.

Solutions and Recommendations Proposed /Action Plan:

Final discussion and reflections:

- Water bottle phase out
 - Less expensive than buying it in bottles, but there is still a cost to the University
 - While supportive of environmental issues, feel there should be a right to purchase non-fluorinated water
- Scientists and Non-scientists
 - Education is key – more in-depth and using more experiential education
 - Fluoridation
 - Good debate
- Why care about science
 - Great philosophy

-Angelica-change and solutions can be derived by bringing our conceptualizations into a practice

-Annette – rich discussion – enjoyed the philosophical discussion

-Pavel – enjoyed the fluid discussion, look at a more organic process that incorporates skills in a community based way

-Daniel – enjoyed being here, and seeing the unconference format. Wasn't always clear when the sessions are starting. Have to think of ways of building collective knowledge – that is always dispersed – and we have to break down the walls – mental and structural.

- Potential future topics
 - Safety
 - Bridges over black creek
 - Woodlots
 - Renewable energy - Conservation vs. technology
 - Collateral learning and sharing – blending, mending, interconnecting knowledge
 - Jane & Finch – TD Community Engagement Centre
 - Maloca – experiential
 - Land-use planning

