

The Sustainable Psychologist

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by saving your money →

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The Editor's Rave

This is a copy of an article I have submitted to InPsych:
Saving the planet by saving your money

This year, the Board has set up a Cost Saving Working Group, which has made a long list of recommendations for reducing the costs of operating the Society. This means that more of members' money can be used for member benefits.

I have the honour of convening this working group, in my role as Chair of the Public Interest Advisory Group, the committee that advises the Board on the work of the Society designed to benefit the community at large. It so happens that I've been working for a sustainable culture since 1972. Two other members of the working group are part of the APS Green Team, a wonderful bunch of staff members who have worked to reduce the APS environmental footprint for years. So, it's not surprising that several of our recommendations to the Board have a dual purpose: to save money and to reduce our environmental impact.

The Board has accepted most of our recommendations, so that now they are official APS policy. While some of them refer to what happens at National Office, and the way staff members are expected to do things, others apply throughout the Society, to the activities of all Branches, Colleges and Interest Groups.

Well, you can't implement policies unless you know about them, so here they are:

The APS will now develop an **energy conservation plan**, the aim of which is to continually reduce the consumption of electricity at National Office.

Travelling to meetings and other functions, particularly air travel, is the single largest contributor to our environmental footprint, and is a substantial cost to the Society. Accordingly, it is now policy to minimise travel requirements in all aspects of what we do. A goal of 5% reduction per annum was set by minimising face to face events and promoting the use of virtual meetings. This has direct benefits to members too: even if the APS pays your airfare, hotel accommodation and meals, being away from home still has many personal costs.

Minimising travel can be applied to professional development too. Last year, I completed an 8-session course run by a colleague thousands of kilometres from me, via the internet.

Major purchases or replacements of equipment will be undertaken in an environmentally responsible manner. And yes, this can indeed save money.

As far as possible, the APS, including Member Groups, will go paperless. When this is not possible, the APS will continue to use 100% recycled paper. The Board has already implemented almost completely paperless meetings, and actually, if properly done, this can also lead to improvements in efficiency and convenience.

There will be continuous improvement in **recycling rates** and **reduction** in the volume of **waste** by the APS. This applies at all levels, not only at National Office.

The APS will take steps to minimise **water wastage**, and to reduce the environmental impact of providing good quality drinking water. For example, bottled water costs more per volume than petrol! Where possible, provide filtered water, reducing costs and the need to dispose of empty containers. Not using something in the first place is better than recycling it.

Finally, the Board affirmed that the APS has a key role to play in increasing **community awareness about climate change** issues. After all, the effects of climate change have major implications for everyone's mental health and wellbeing.

There is a Chinese curse: "May you live in interesting times." This certainly applies to us. We must all do our best to maintain what we can for our children, and their children in perpetuity. The APS is doing its best — and saving money for members at the same time.

Bob Rich, PhD, MAPS

What we can do

Degrowth

Steve de Shazer has said that a chronic problem is kept going by the solution. This is manifestly true regarding psychological problems, and just as true in the wider arena.

All the problems you see around you are due to society's addiction to economic growth. The solution offered to deal with the problems is economic growth, like this:



A simpler word for "economic growth" is "greed." I want more, without limit. A natural consequence is competitiveness and aggression, because in a limited system, I can only get what I want by depriving you of it. The economy is a zero-sum game.

It doesn't have to be like that.

The Worldwatch Institute has released a report titled *Degrowth Offers Alternative to Global Consumer Culture*, which offers a hope of a better way. They are keen to have it spread around, so here is their press release:

If everyone lived like the average American, according to the Global Footprint Network, the Earth could sustain only 1.7 billion people—a quarter of today's population—without undermining the planet's physical and biological systems. Overconsumption in industrialized societies and among developing world elites causes lasting environmental and human impacts. In his chapter, "The Path to Degrowth in Overdeveloped Countries," Worldwatch Senior Fellow and *State of the World 2012* Project Co-director Erik Assadourian describes the benefits and opportunities of proactive "economic degrowth"—defined as the intentional contraction of overdeveloped economies and more broadly, the redirection of economies away from the perpetual pursuit of growth.

Fixation with economic growth and increasing levels of consumption contributes to debt burdens, long working hours, increased rates of obesity, dependence on pharmaceuticals, social isolation, and other societal ills, Assadourian writes. Meanwhile, the window to prevent runaway climate change is closing, and mitigating global warming will be all but

impossible without dramatic reductions in consumption and fossil fuel use. High levels of warming will result in large population shifts due to natural disasters, such as coastal flooding, prolonged drought, and the introduction of disease to new regions—a future scenario not only incompatible with perpetual economic growth but likely to lead to economic and societal decline.

In response to the destructive impacts of the growth-centered global economy, degrowth has begun to gain traction as an economic strategy in recent years. In Italy and France, there are now degrowth political parties, and worldwide, the third bi-annual International Degrowth Conference recently concluded in Venice with over 700 registered participants. More broadly, there is growing recognition that an end to or reversal of growth will be an essential rite of passage for global civilization as humanity comes to understand that climate change and natural resource scarcity are rooted in the impossibility of perpetual human growth in a finite biophysical environment.

Efforts to facilitate degrowth are in the early stages worldwide and range from shifting taxes and moving from private to public goods, to building Transition Towns and promoting healthier, more sustainable consumption habits, such as “Meatless Mondays” that are helping to reduce levels of meat consumption.

“Moving toward degrowth will involve redefining prosperity altogether—resurrecting traditional understandings of what this word means with regard to health, social connectedness, and the freedom to work less while still earning a livable wage,” said Assadourian. “Degrowth offers a new vision of prosperity focused on living well with less, instead of maximizing growth and consumption. It strives to establish a stable economic system that no longer transcends Earth’s limits.”

Advocates of degrowth also voice the need for equitable distribution of societal benefits. Industrialized countries will need to curb their overconsumption, while the poorest third of humanity undoubtedly will need to increase resource consumption at least modestly to improve their quality of life through improved sanitation and safe water, nutrition, shelter, and transportation. “By realigning economic priorities, policymakers can improve individual well-being, strengthen community resilience, and start to restore the Earth’s ecological systems,” said Assadourian.

In Chapter 2 of *State of the World 2012: Moving Toward Sustainable Prosperity*, Assadourian details three reforms that would augment the global movement toward degrowth in industrialized societies:

Transform the consumer culture: Shifting societal norms regarding food, housing, and transportation can affect great change. To promote degrowth, governments can help normalize living in smaller homes, leading walkable lifestyles, and eating less food as well as food that is less processed and lower on the food chain. Communities can also facilitate degrowth and increase their resilience by cultivating opportunities for localized formal and informal economic activities, such as small-scale farming, child and elder care, midwifery, and helping to develop essential skills like repair and carpentry.

Distribute tax burdens more equitably: Taxes on the wealthiest sectors of societies, on polluting resources, on advertising, and on financial transactions could discourage excessive economic growth and overconsumption. This new revenue could further fund degrowth initiatives, such as goods-sharing services, or improve existing essential infrastructure (like water and sanitation services and public transit) and help build important sustainability infrastructure like green roofs, renewable energy, and bicycle paths.

Share working hours: If the real average per-capita work week were calculated, counting the unemployed, the underemployed, and people working excessive hours, it would be much shorter. Indeed, in the United Kingdom, this real average work week was 21 hours in 2010, according to the New Economics Foundation. Restructuring the work week to better distribute work hours would help reduce unemployment and poverty, while also significantly improving the quality of life of employees.

These reforms are just a few of the many initiatives that societies can implement in order to catalyze a movement toward global degrowth. Degrowth, Assadourian argues, offers a new perspective and an array of solutions to the social and environmental problems that afflict the global community today.

Worldwatch's *State of the World 2012*, released in April 2012, focuses on the themes of inclusive sustainable development discussed at Rio+20, the 20-year follow-up to the historic Earth Summit of 1992, also held in Rio de Janeiro. The report presents a selection of innovative ideas and practices to achieve global environmental sustainability while meeting human needs and providing jobs and ensuring dignity for all.

<http://www.worldwatch.org/degrowth-offers-alternative-global-consumer-culture>

An interview

Mark England has sent me a few interesting questions. Here they are, with my answers to them:

Q1: Bob, you have just served a term on the APS Board. The Board sets the strategic direction for the APS and its members. During your term of office an APS Strategic Plan was developed, so considerable thought was given by the Board to strategic directions. Where, how and to what extent does Environmental Psychology figure in APS strategic thinking and planning?

Yes Mark, I've now retired 4 times, with 3 to go.

I am afraid the membership as a whole is not all that environmentally conscious. Our interest group should have 20,000 members! Of course, Environmental Psychology is more than looking at people's impact on the natural environment, and what we should do about the damage, but without question that is such an important issue that it should have all thinking people fully involved. And psychologists at large are not.

However, this is not for want of trying. When Lyn Littlefield came from La Trobe University to be the Executive Director of the APS, she brought a treasure with her: Susie Burke. Susie is the green heart of the APS, and while she is there, we'll be an environmentally leading organisation.

However, she is not alone. There is a Green Team of staff members, including Cathy Johnston, who is General Manager Barry Whitmore's senior assistant. Both Cathy and Susie were part of a working party I convened on reducing costs. (Other members were Sydney-based organisational psychologist George Mylonas, and Directors Trang Thomas and Nick Reynolds).

Many of our cost saving recommendations were green measures. In fact, the Green Team had put together a raft of measures for reducing the APS's environmental footprint. We adapted this document, and presented it to the Board.

I have submitted an article to InPsych about it, which is reproduced in this newsletter as my "rave."

Q2: Bob, you have a grass roots background in building an alternative lifestyle. Is that psychologically fulfilling?

The first time I retired, it was as a Research Scientist at the CSIRO, in 1978. This was for philosophical reasons: I knew that every dollar I earned, every dollar I either spent or saved, was food for the multinationals, a measure of my contribution to the destruction of our future.

So, my wife and I chose a lifestyle of near-self-sufficiency, in which we replaced money-energy with time-energy. Between 1979 and 2005, we lived below the official poverty line every year, and raised our kids at the same time.

The surprising by-product was contentment. We felt we lived like royalty. It was a physically vigorous, mentally stimulating, challenging lifestyle that was full of problems, but satisfying.

Genetically, we are designed for a hunter-gatherer lifestyle. I have looked at the anthropological research, and extracted 6 elements present in the lives of hunter-gatherers that are absent in the lives of many people in our crazy culture. These 6 aids to contentment, plus meaning (from the work of Viktor Frankl) are in my "first aid" document, which I send to all my new clients <http://anxietyanddepression-help.com/firstaid.html>.

Not everyone can copy my actions, but everyone can adopt these 7 measures.

Q3: You are a strong advocate of the importance of psychologists working with their hearts as well as their heads. Can you comment further on this.

A rule of the universe is: THE MORE YOU GIVE, THE MORE YOU GET. Of course, if you give in order to get, then you're not really giving...

We are not on this planet to gather possessions, or fame, status, wealth, happiness, all the illusions of a consumer society. We are here in order to learn lessons, and to grow, and in order to assist others to do the same.

If you take this attitude, life becomes satisfying. If you take the contrary attitude of the desperate grasp for Happiness, you miss out. The seeking for happiness is the greatest single source of dissatisfaction.

Psychologists have the skill set to change society, although we are mostly remiss in working for this. Most psychologists have chosen this profession because they want to make a difference in people's lives. Let's do it.

Q4: We live in a very fragile environment in Australia and so tend to hug a few coastal locations in very large communities. Living in cities like this we can forget the importance of the environment in which we live. Could we redesign the city?

I live in a little country town just outside Melbourne. It is a tourist destination, and is on the road to other tourist destinations. It is amusing to watch the lemmings leave the city in order to escape the environment they don't even realise is harming them. They drive in droves to get a sniff of nature.

I think the answer is a plan put forward by Ted Trainer, from UNSW. He would like to see the freeways ripped up and planted with potatoes. © His concept of a city is a daisy-chain of villages, each largely self-sufficient in essentials and providing some specialist services. They are connected by a high-efficiency public transport network, and bike paths, and no roads.

So, each village is surrounded by nature, and lives on it. Each has services essential to existence, but services needing a larger population base are scattered. For example each village will have a hospital. Each hospital will have one specialty.

Thank you Bob

Mark, you're welcome. It's not often I have the opportunity to spout my stuff.

Turning off consumerism

by Lucy Hyde

Money doesn't buy happiness. Neither does materialism: Research shows that people who place a high value on wealth, status, and stuff are more depressed and anxious and less sociable than those who do not. Now new research shows that materialism is not just a personal problem. It's also environmental. "We found that irrespective of personality, in situations that activate a consumer mindset, people show the same sorts of problematic patterns in wellbeing, including negative affect and social disengagement," says Northwestern University psychologist Galen V. Bodenhausen. The study, conducted with colleagues Monika A. Bauer, James E. B. Wilkie, and Jung K. Kim, appears in [*Psychological Science*](#), a journal of the [Association for Psychological Science](#).

In two of four experiments, university students were put in a materialistic frame of mind by tasks that exposed them to images of luxury goods or words mobilizing consumerist values (versus neutral scenes devoid of consumer products or words without such connotations). Completing questionnaires afterwards, those who looked at the pictures of cars, electronics, and jewellery rated themselves higher in depression and anxiety, less interested in social activities like parties, and more in solitary pursuits than the others. Those primed to materialism by exposure to certain words evinced more competitiveness and less desire to invest their time in pro-social activities like working for a good cause.

In two other experiments, participants completed tasks that were framed as surveys—one of consumer responses, another of citizens. The first experiment involved moving words toward or away from the participant's name on a computer screen—positive and negative emotion words and "neutral" ones that actually suggested materialism (*wealth, power*), self-restraint (*humble, discipline*), transcendence of self, or self-indulgence. The people who answered the "consumer response survey" more quickly "approached" the words that reflected materialistic values than those in the "citizen" survey. The last experiment presented participants with a hypothetical water shortage in a well shared by four people, including themselves. The water users were identified either as consumers or individuals. Might the collective identity as consumers—as opposed to the individual role—supersede the selfishness ordinarily stimulated by the consumer identity? No: The

“consumers” rated themselves as less trusting of others to conserve water, less personally responsible and less in partnership with the others in dealing with the crisis. The consumer status, the authors concluded “did not unite; it divided.”

The findings have both social and personal implications, says Bodenhausen. “It’s become commonplace to use *consumer* as a generic term for people,” in the news or discussions of taxes, politics, or health care. If we use term such as *Americans* or *citizens* instead, he says, “that subtle difference activates different psychological concerns.” We can also take personal initiative to reduce the depressive, isolating effects of a materialist mindset by avoiding its stimulants—most obviously, advertising. One method: “Watch less TV.”

What is humane education?

by Zoe Weil

I’ve been a humane educator for more than 25 years, teaching about the interconnected issues of human rights, environmental stewardship and animal protection, with the goal of providing students with the knowledge, tools and motivation to be conscientious choicemakers and changemakers for a just, peaceful and healthy world for all.

Early on in my career, I looked up the word “humane” in the dictionary, and one of the definitions was this: “Having what are considered the best qualities of human beings.”

After reading this definition, I began to see my role as fostering humanity’s best qualities in my students. But I didn’t want to presume to name these best qualities for them, so I began asking my audiences what *they* thought were humanity’s best qualities. Over and over they generated similar lists. No one ever said greed or violence or hatred. The most common word I heard was compassion, closely followed by honesty, kindness, generosity, courage, perseverance, respect, curiosity, integrity and wisdom. With these lists in hand, I’ve endeavoured to help students explore how to put such qualities into practice in their lives.

This sounds a lot like character education, but that was a term I hadn’t yet heard when I became a humane educator in the 1980s. As I learned more about character education, I was thrilled to discover that the goals of humane education and character education were fundamentally the same: to foster humanity’s best qualities and abiding values and help students implement them in their lives. Where humane education and character education diverged was around the focus of these values. While character education programs tend to focus on the proximal practice of core values, humane education generally asks how we can put these best qualities into practice in a globalized world.

We all know what compassion feels like, and what kindness looks like. We know when we experience empathy, and we are aware when we are kind to another person or animal. We also know how kindness feels when we are its recipient. But what does it mean to be kind within a globalized economy? What does it mean to be kind in relation to our food, clothing, product, career, transportation, and dwelling choices, and in relation to the economic, production, agricultural, energy and other systems in society?

The most ostensibly kind teenager in a high school may be complicit in horrendous cruelty and exploitation and shocking levels of environmental degradation when she sits down to eat in the school cafeteria or when she buys a new electronic device or pair of athletic shoes. But how would she know?

Fostering good character in a globalized world necessitates an education that extends the best qualities we seek to foster in our children beyond the classroom walls, beyond the local community, and beyond our nation’s borders.

There are four elements that comprise quality humane education, and they are to:

- provide accurate information about the pressing issues of our time so students have the *knowledge* to address entrenched and pervasive challenges;
- foster the 3 Cs of curiosity, creativity and critical thinking so students have the *skills* to address challenges;
- instil the 3 Rs of reverence, respect, and responsibility so students have the *will* to address challenges;
- offer positive choices and tools for problem-solving so students can become solutionaries who *solve* challenges.

Imagine a class in which each student chooses an everyday item in their life. It could be an iPhone or computer, an item of clothing, a slice of pepperoni pizza or a hamburger,

anything at all. Their assignment is to bring the 3 Is of inquiry, introspection and integrity to their item by asking several questions:

- 1) What are the effects, both positive and negative, of this item on you, other people, other species, and the environment? (Inquiry)
- 2) What alternatives to this item do more good and less harm? (Inquiry)
- 3) What systems perpetuate this item? (Inquiry)
- 4) Is this item aligned with your values? (Introspection)
- 5) What different choices could you make that would be more aligned with your values? (Integrity)
- 6) If no healthy and humane alternatives exist, what systems would need to change and what role could you play? (Integrity)

Imagine a group extending the values they themselves have identified as core components of good character so that those values have legs in the globalized world of which they are a part. This is where I hope character education is heading, toward an expansive view of the practice of good character in today's society.

There are bullying problems in schools that we see and address, and then there are bullying problems in schools that are hidden. Every child with a cell phone or a computer is indirectly complicit in this hidden bullying. Their electronics are produced in factories in which millions of people (many of them children themselves) toil under inhumane conditions, often under threat should they speak out or seek to unionize.

Unwittingly or not, our dollars, coupled with our desire to buy electronics at a low price, have fed this exploitive system. Putting the values of fairness, compassion, justice and integrity into practice in relation to cell phones and computers is challenging. It means exploring how to shift inhumane and unjust systems so that they become both humane and economically viable. Such challenges are part and parcel of living with good character. We may not be able to easily divest ourselves of all of our complicity in harm, but we can work to transform harmful systems.

Vandalism and graffiti at school are also a problem that we see and address, but virtually every adult and child in the U.S. is indirectly complicit in environmental degradation on a grand scale through our consumer and transportation choices as well as our diets.

While we are right to teach our children to be respectful of their environments by not littering, despoiling, vandalizing, or graffitiing, such lessons need to be contextualized in a much broader and far-reaching sense to have real meaning in today's world. In the 21st century, half of all species are threatened with extinction; a dead zone grows in the Gulf of Mexico fed by agricultural run off from the Mississippi river; a whirlpool of plastic twice the size of Texas swirls in the Pacific, and the ice caps melt as the temperature warms and seas rise.

Violence and cruelty in school is another problem that we see and address, but every child who eats chicken wings or drinks milk in the cafeteria is indirectly complicit in cruelty. The factories that produce the meat, milk, and eggs for school cafeterias perpetuate animal cruelty as their norm. What is done to chickens, turkeys, pigs, cows, and lambs routinely on today's farms would be illegal if done to these students' dogs, cats and parakeets. At the same time, the conditions under which slaughterhouse workers labour are considered among the most dangerous and egregious in the U.S. We endeavour to cultivate kindness and compassion among our children at school, yet we generally fail to provide them with foods that are kind and compassionate, even in their own school cafeterias.

Good character that extends beyond the surface, proximal relationships in our schools and communities is exceedingly difficult to cultivate and foster in today's world, where our products, foods, and energy sources come to us through a web in which we are inextricably connected but about which we are barely cognizant. And yet, this is the exciting opportunity at the core of character education.

Of course, we must still cultivate interpersonal kindness and respect; we must still address bullying, cruelty, and destructiveness in our midst, but this cannot be the end point of character education. A school full of seemingly respectful children who have little awareness of their complicity in suffering removed from sight, and who have little sense of their responsibility to create and support humane and just systems are not, ultimately, the

kind of children we should be raising in today's world, which calls upon us to bring our good character to a much wider field of engagement.

We all seem to agree that compassion and kindness, wisdom and integrity, perseverance and courage, honesty and trustworthiness, generosity and helpfulness, responsibility and respect, and critical and creative thinking are among the best qualities of human beings. Now the great task is to put these qualities into practice meaningfully for a healthy future for all people, all species and the ecosystems upon which we all depend.

This is the kind of character education that will set our schools afire with innovation and relevancy and enthusiastic students and teachers. It will allow our students, who yearn to play a meaningful role in the world, to do so by having good character presented not only as a list of ways to behave at school, but also as an ideal that their good minds and big hearts must work to enact in a complex world. Their teachers will need to be working alongside them, because truly none of us knows the many ways to put good character into practice within such complex systems. But that is the joy and pleasure of the endeavor. We all get to work at it and learn from and with one another collaboratively.

It's my hope that history will look back on the graduates of the first decades of the 21st century as the solutionary generation; that humane education will offer legs to put character education's goals into practice in ways that create a vibrant, healthy, restored and secure world for all people, animals and the planet.

Source: <http://www.care2.com/causes/how-to-help-our-children-make-the-world-a-better-place.html#ixzz1mp4217NG>

NZ river is now a legal person

by Stephen Messenger

Here is an example for Australia to follow:

From the dawn of history, and in cultures throughout the world, humans have been prone to imbue Earth's life-giving rivers with qualities of life itself — a fitting tribute, no doubt, to the wellsprings upon which our past (and present) civilizations so heavily rely. But while modern thought has come to regard these essential waterways more clinically over the centuries, that might all be changing once again.

Meet the Whanganui. It is a river, but in the eyes of the law, it is a person.

In a landmark case for the Rights of Nature, officials in New Zealand [recently granted](#) the Whanganui, the nation's third-longest river, with legal personhood "in the same way a company is, which will give it rights and interests". The decision follows a long court battle for the river's personhood initiated by the Whanganui River iwi, an indigenous community with strong cultural ties to the waterway.

Under the settlement, the river is regarded as a protected entity, under an arrangement in which representatives from both the iwi and the national government will serve as legal custodians towards the Whanganui's best interests.

"Today's agreement which recognises the status of the river as Te Awa Tupua (an integrated, living whole) and the inextricable relationship of iwi with the river is a major step towards the resolution of the historical grievances of Whanganui iwi and is important nationally," [says New Zealand's Minister for Treaty for Waitangi Negotiations, Christopher Finlayson](#).

"Whanganui Iwi also recognise the value others place on the river and wanted to ensure that all stakeholders and the river community as a whole are actively engaged in developing the long-term future of the river and ensuring its wellbeing," says Finlayson.

Although this is likely the first time a single river has been granted such a distinction under the law, chances are it's not the last. In 2008, Ecuador [passed similar ruling](#) giving its forests, lakes, and waterways rights on par with humans in order to ensure their protection from harmful practices.

And, while it may seem an odd extension of rights, in many ways it harkens back to a time when mankind's fate was more readily acknowledged as being intertwined with that of the rivers, lakes, and streams that sustained us — a time in which our purer instincts towards preserving nature needn't be dictated by legislation.

<http://www.treehugger.com/environmental-policy/river-new-zealand-granted-legal-rights-person.html>

Resources

A good way to send the message

Development Assistance Research Associates (DARA), an independent aid analysis organisation, and the Climate Vulnerable Forum, a global partnership of nations that are disproportionately affected by global warming have produced the second edition of their “Climate Vulnerability Monitor: A guide to the cold calculus of a hot planet,” dedicated to the innocent victims of climate change.

Instead of engaging in the usual rhetoric of trying to convince those who refuse to accept climate change, the report uses excellent psychology. It focuses on economics.

They have estimated that climate change now costs the global economy about US \$1.2 trillion a year — 1.6% of the total global GDP.

In contrast, shifting to a low-carbon economy is estimated to cost 0.5% of global GDP within the next 10 years.

You can read the whole report here:

<http://daraint.org/wp-content/uploads/2012/09/CVM2ndEd-FrontMatter.pdf>

Or a summary by Daniela Hirschfeld here:

http://www.scidev.net/en/climate-change-and-energy/adaptation/news/climate-change-mitigation-far-cheaper-than-inaction.html?utm_source=link&utm_medium=rss&utm_campaign=en_news

Two new environmental apps

Allison Winter at Environment News Network has described two “apps” designed for smartphones or tablets that will be of interest to anyone who wants to be environmentally aware. It explores global data on several critical issues, including how human populations are impacting the natural world and the production and consumption of energy resources. It uses a series of 3D globes to illustrate seven topics, including energy, the environment, politics and population.

Over 200,000 places are listed, including cities, landmarks, and natural features. You can compare trends in population, pollution and forest loss, and trace the shifting dynamics of the distribution of energy resources. You can zoom in to explore fine detail.

The second new app Allison recommends is a water pollution indicator. The WAZE app was developed by an Israeli team and can let you know the pollution level of a body of water before you buy a house there, drink it, swim or fish in it.

The app sends users a pop-up window on their smartphones’ screens informing them of pollution issues associated with their location and any responsible parties that may be to blame for the pollution.

For more information about the 3D Digital Atlas app, see [Yale360](#).

Read more about the WAZE app at [YNET News](#).

A new book by Marc Bekoff

Marc is an environmental psychologist with a passion for animals. Much of his research has explored the similarities between humans and other beasts.

Animals at Play is a kids’ book designed to go against a current trend. More and more, books for children are set in an urban environment, worsening the next generation’s rift from nature.

Marc writes:

It is our goal that Kids & animals will inspire other young people to draw and write about their feelings for animals and to put their own ideas into action to care for animals, protect their habitats, and promote compassion, empathy, coexistence, and peace. It is perfect for classes, discussions, and activities focusing on humane education and conservation education so that we can all expand our [compassion footprint](#) (see [also](#)).

While it may be an uphill battle we need to get kids out into nature and away from their desks, couches,



computers, and other electronic devices. We need them to have direct experiences with the magnificence of nature including other animals and the best, and most likely the only way to do it, is to encourage them, or if need be require them, to get off their butts and incorporate “nature time” into the curriculum of all schools, not as an after school option but as part of the main school day. The future of the planet depends on our doing this right now. We should use the results of this study of children’s book as an indication of just how important and irreplaceable these direct experiences truly are. We need to [rewild](#) our children before it’s too late.

Chasing Ice: a movie to see

In the spring of 2005, acclaimed National Geographic photographer James Balog headed to the Arctic to capture images to help tell the story of the Earth’s changing climate.

[Chasing Ice](#), which opens in theatres in November, is the story of one man’s mission to gather undeniable evidence of our changing planet. Balog deployed revolutionary time-lapse cameras across the brutal Arctic to capture a multi-year record of the world’s changing glaciers. His hauntingly beautiful videos compress years into seconds and capture ancient mountains of ice in motion as they disappear at a breathtaking rate.

[Chasing Ice](#) premieres November 9 in NYC.

Learn more about the film and watch the trailer at [ChasingIce.com](#), and watch James Balog in discussion with Bill Moyers.

Animal self-reflection

by Patricia Donovan

In two new contributions to the field of comparative psychology, David Smith, PhD, of the University at Buffalo and his fellow researchers report on continuing advances in this domain.

Smith is a professor in the Department of Psychology at UB, and a member of the university’s graduate program in evolution, ecology and behavior and its Center for Cognitive Science. His co-authors on the articles are Justin J. Couchman, PhD, visiting assistant professor of psychology, State University of New York at Fredonia, and Michael J. Beran, PhD, senior research scientist, Language Research Center, Georgia State University.

In “The Highs and Lows of Theoretical Interpretation in Animal-Metacognition Research,” in press at the journal [Philosophical Transactions of the Royal Society](#), Smith, Couchman and Beran examine the theoretical and philosophical problems associated with the attribution of self-reflective, conscious mind to nonverbal animals.

Philosophical Transactions is a highly visible journal in the biological sciences and one of the oldest [scientific journals](#) published in English.

“The possibility of animal metacognition has become one of the research focal points in comparative psychology today,” Smith says, “but, of course, this possibility poses difficult issues of scientific interpretation and inference.” In this article, they evaluate the standards that science brings to making difficult interpretations about animal minds, describing how standards have been applied historically and as they perhaps should be applied. The article concludes that macaques do show uncertainty-monitoring capacities that are similar to those in humans.

The other contribution, “Animal Metacognition,” will be published in March by Oxford University Press in the volume “Comparative Cognition: Experimental Explorations of Animal Intelligence.” Smith says this volume will be one of the preeminent sources for scholarship in animal cognition for the next decade.

In this article, Smith and his colleagues provide a comprehensive review of the current state of the animal-metacognition literature. They describe how Smith inaugurated animal [metacognition](#) as a new field of study in 1995 with research on a bottlenosed dolphin. The dolphin assessed correctly when the experimenter’s trials were too difficult for him, and adaptively declined to complete those trials.

The dolphin also showed his own distinctive set of hesitation, wavering and worrying behaviours when the trials were too difficult. In sharp contrast, when the trials were easy, he swam to the responses so fast that he would make a bow-wave around himself that would swamp Smith’s delicate electronics. Smith says: “We finally had to buy condoms to protect the equipment.”

Subsequently, Smith and many collaborators also explored the metacognitive capacities of joystick-trained macaques. These Old-World monkeys, native to Africa and Asia, can make specific responses to declare uncertainty about their memory. They can respond, “Uncertain,” to gain hints from the experimenters of what to do on the first trial of new tasks. They can even respond, “Uncertain,” when their memory has been erased by transcranial magnetic stimulation. Accordingly, this second article by Smith and colleagues also supports the consensus that animals share with humans a form of the self-reflective, metacognitive capacity.

“In all respects,” says Smith, “their capacity for uncertainty monitoring, and for responding to uncertainty adaptively, show close correspondence to the same processes in humans.

“At present,” he says, “members of South-American monkey species or New World monkeys have not shown the same robust capacities for uncertainty monitoring, a possible species difference that has intriguing implications regarding the emergence of reflective mind in monkeys, apes and humans.”

Provided by University at Buffalo

<http://www.physorg.com/news/2012-03-psychologists-advances-animals.html>

Ammunition

Fires and deaths from deforestation linked

by R Greenway

A new study links smoke from the burning of wood waste from deforestation to deaths from the effects of breathing all that smoke.

Worldwide, smoke from these fires (called landscape fires) contributed to an average of 339,000 deaths per year between 1997 and 2006, according to research published in *Environmental Health Perspectives* and released during the Annual Meeting of the American Association for the Advancement of Science (AAAS).

Sub-Saharan Africa and Southeast Asia were the hardest hit by fire-smoke deaths, with an estimated annual average of 157,000 and 110,000 deaths respectively, attributable to fire smoke exposure, said researcher Fay Johnston, who represented a global team at the 2012 AAAS Annual Meeting in Vancouver, Canada.

Johnston and her co-authors specifically assessed the health impacts of particulate matter smaller than 2.5 micrometers, an important byproduct of landscape fire smoke. First, they looked at satellite data to gather information on areas burned each year during the study period; particulate matter exposures were estimated using a chemical transport model, satellite-based observations, and other data. They applied an accepted World Health Organization framework for determining annual mortality in different regions, and they used results from previous research on the health effects of smoke-related particulate matter to estimate deaths attributable to fire smoke. They further calculated annual mortality during a La Niña period, and an El Niño period. Worldwide, deaths from fire smoke during those periods were estimated at 262,000 and 532,000, respectively, compared with an estimated 10-year global average of 339,000 deaths.

“Fire emissions are an important contributor to global mortality,” the EHP article concludes. “Adverse health outcomes associated with landscape fire smoke could be substantially reduced by curtailing burning of tropical rainforests, which rarely burn naturally. The large estimated influence of El Niño suggests a relationship between climate and the burden of mortality attributable to landscape fire smoke.”

http://www.enn.com/top_stories/article/44032

<http://ecowatch.org/2012/saudi-arabia-renewables/>

67 year old Prince Turki Al Faisal Al Saud of Saudi Arabia told the Global Economic Symposium in Brazil that he hoped the kingdom might be powered entirely by low-carbon energy within his lifetime.

Mecca is to be the first Saudi city to be powered entirely by renewables.

There is no such thing as clean coal

by Beth Buczynski

I've said it a thousand times, but just in case you missed it, **there is NO SUCH THING as clean coal.**

According to a Duke University-led [study](#), North Carolina rivers and lakes downstream from the settling ponds of coal-fired power plants have dangerously high levels of cadmium, selenium, antimony and thallium. This result is unexpected, since local power plants were retrofitted with scrubbers and other technologies designed to reduce the health threat of coal fired power.

Blocked from drifting into the air, these contaminants have simply found another way into our world, in the solid waste residue and wastewater produced by the facilities. In fact, plants attempting to produce the mythical "clean coal" through the use of scrubbers and other flue gas desulfurization technologies could have greater concentrations of selenium and other contaminants in their wastewater than traditional facilities.

Great, so not only is clean coal a lie, trying to produce cleaner power plants could actually be more dangerous than just burning it like normal.

The Duke study measured the concentrations of major and trace elements in over 300 samples from coal combustion residue effluents in North Carolina, the heart of coal country. Samples of surface water were taken from lakes and rivers at different downstream and upstream points and pore water extracted from lake sediments. [According to Waterkeeper Alliance:](#)

The study results showed that the French Broad River and Mountain Island Lake have the highest levels of arsenic contamination of all the sites studied. The Environmental Protection Agency (EPA) drinking water standard for arsenic is 10 µg/L. The Duke University study found 44.5 µg/L of arsenic at the Asheville coal-fired power plant discharge into the French Broad River and a whopping 92 µg/L of arsenic in the Riverbend discharge to Mountain Island Lake. This small lake provides drinking water to nearly one million people in the greater Charlotte region of Mecklenburg and Gaston counties.

Hartwell Carson and Donna Lisenby, two Western North Carolina Riverkeepers, [have their own evidence](#) to suggest why these important lakes are so polluted. Their data shows a very significant increase in the total amount of water pollution discharged by the Asheville plant after scrubbers were added in 2005 and 2006.

"These are very toxic pollutants that have no business in the French Broad River where people swim and recreate every day," said French Broad Riverkeeper Hartwell Carson. "The fact that the scrubbers have doubled the amount of water pollution is a great concern and illustrates why we need to clean up the toxic coal ash lagoons and move Asheville Beyond Coal."

Ditto for the rest of the country, no?

<http://www.care2.com/causes/clean-coal-is-poisoning-our-water.html#ixzz2A1EASxC3>

Antarctic ice shelf is shrinking

The European Space Agency has had a satellite observing the Antarctic ice for 10 years. During that time, an area called the Larsen Ice Shelf has reduced in area by 85%.

"The northern Antarctic Peninsula has been subject to atmospheric warming of about 2.5°C over the last 50 years — a much stronger warming trend than on global average, causing retreat and disintegration of ice shelves."

An ice shelf is thick ice over sea, attached to the land and holding back the glaciers. Its melting doesn't in itself raise sea levels, but it is an indication of what's to come.

Read more at http://www.esa.int/esaEO/SEMDWMEWF0H_index_0.html

Between 2003 and 2010, about 385 billion tons of ice have vanished into the sea each year — enough to cover the entire US with water to a depth of a foot and a half.

New coal and health report welcomed

by Fiona Armstrong

The national coalition of health groups, the Climate and Health Alliance, has welcomed a new report from Sydney University highlighting the risks to health for people living and working in communities near coal mines and coal fired power stations.

CAHA Convenor Fiona Armstrong said the *Health and Social Harms of Coal: Spotlight on the Hunter* report was an important contribution to understanding the implications of energy and resources policy on human health.

"This report serves to highlight the risks to the health of communities living in proximity to coal mining and processing and coal fired power stations. Coal is harmful to human health at every stage of the production cycle, with people exposed to pollution and dust from coal mining at risk of developing serious diseases affecting their hearts, lungs, kidneys and nervous systems; while the pollution from burning coal to produce electricity poses cancer, respiratory and cardiovascular disease risks, and affects children's intellectual development."

There has been a failure to carefully monitor the health and wellbeing of people in coal communities, Ms Armstrong said.

"The huge expansion of the coal industry in Australia is occurring without due regard for the health and wellbeing of the community. Successive governments have failed to take account of the risks to the health of people from coal mining and production - there must be a substantial improvement in monitoring of all potential risk factors and careful health impact assessments conducted of all coal mining and combustion activity in Australia."

The report concurs with much international evidence that the financial costs from health and social harm associated with coal mining and production may well outweigh any benefits associated with the economic activity created.

"Recent research suggests that the coal industry may be costing national economies more than it returns.^{[1],[2]} When the perverse incentives for coal and the health and environmental costs of harm are accounted for, it appears coal creates an economic burden rather than a benefit," Ms Armstrong said.

"This report provides an opportunity for the Australian community to begin to consider whether this industry is in the national interest, given the health, social and environmental harm associated with coal. The evidence suggests it is not, and it is time for these fundamental considerations of health, wellbeing and protection of the biosphere to be recognised in energy and resources policy."

Contact: CAHA Convenor Fiona Armstrong convenor@caha.org.au or 0438 900 005.

www.caha.org.au

[1] Epstein, P. Full cost accounting for the life cycle of coal, *Annals of New York Academy of Sciences*, 1219: 73-98.

[2] Muller, N et al. Environmental Accounting for Pollution in the United States Economy, *American Economic Review*, August 2011, 101, pp. 1649-1675.

SUBMISSION GUIDELINES

Contributions need to be brief. Ideal is something to fit one page. Pictures, tables etc. will reduce the word count. And shorter filler items are invaluable. I may shorten an article, or make minor line edits. Particularly valued are responses to this issue, and to recent issues before it. Content should be relevant in some way to psychology and the environment, using clear language. Anything inflammatory, discriminatory or libellous will be consigned to the deep.

The next issue is due out in May 2013. Deadline is 15th April, 2013.

Send contributions to bob at bobswriting.com.

Bob