The Sustainable Psychologist

Newsletter of the APS Psychology and the Environment Interest Group

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At times I feel as if I am spread out over the landscape and inside things, and am myself living in every tree, in the splashing of the waves, in the clouds and the animals that come and go, in the procession of the seasons.

Carl Jung

The Editor's Rave

Last year, I completed a course run in Darwin, but I live in Victoria. Doing this course has a smaller environmental footprint than if I went to Melbourne for it (30 minutes by car, then a train ride). What's more, I have the material permanently; it's not in one ear, out the other.

You've guessed it: the course is online.

Meetings — it's nice for a bunch of people to get to know each other by meeting in the same room. They can become people instead of respondents (or opponents). But how much of this is learned behaviour? I belong to an international writers' organisation that has a Board of Directors and several committees. ALL meetings are either by internet chat or email, and they work very well. The current secretary is in Britain, most of the other office bearers in various States of the USA. Think how much less environmental impact this mob has per capita, compared to the APS with its need for face to face meetings for its many units and subgroupings.

I used to be Secretary of the Counselling College. Certainly, we had face to face meetings, but a huge proportion of the work was (and still is) done by email exchanges. A group of three or four works on an issue, and when they are ready, they circulate the rest of the committee. Not only do you have the same kind of mutual stimulation and idea interchange as when in the same room, but there is, again, the additional benefit of having it all in writing, to be considered again.

This kind of process reminds me of David Epston's now rather ancient finding that one good therapeutic letter is worth three to four face to face sessions.

We can, and should, move the majority of our meetings to be run via a medium like Skype, supplemented by email exchanges. Our PD events should either be VERY local, or online.

This can even apply to much of our annual conference. One way of doing this might be to have live presentations in several places at once. Each can be recorded, and shown on a screen in each of the other locations. Distal audience members can still ask questions or participate in the discussion. Those unable to attend any of the locations can still participate on their home computer.

I know, I know, this would be bad for the economy. Think of all those aeroplane seats not filled, all those hotel rooms left empty, those restaurant meals replaced by home cooking. And how strange not to spend hours and even days doing nothing but travelling, in order to get to an event.

Oh... but what about the networking? Well, I have friends all over Australia, and all over the planet, whom I have never met. Networking, human contact, is essential. The mechanism for achieving it is one of habit. We are used to making friends through personal contact, and this feels right and natural. Think of it this way: the virtual world allows you to add to this, without taking anything away. Once upon a time, the only contacts you could have were people in your location. Then the telephone, the car, the aeroplane extended the possibilities. Now the internet is doing the same.

Bob Rich

Debate

Julie Le-Fevre

Dear Bob,

How predictable (and how mischievous) of you to frame Pipkin's and my article as a debate between believers and deniers! Such sloppy thinking - $2 versus $40 to fill up the tank? – meaningless without a context of wage relativity and how far that tank will take you with 30 years of vehicle technology improvements. But how typical from people who show every evidence of taking full advantage of democracy and capitalism in their education and occupation, yet somehow fail completely to understand even the basics of how the system works. (Mind you, I agree with the "noxious species" and density – but we are not allowed to go there…)

Psych Research Methods 101 should have screamed "beware of modelling"! Remember the old GIGO (garbage in, garbage out)? I am not suggesting that the science in the modelling is garbage, but I am concerned that there are reputable scientists who have different views and claim that variables from their field have been left out. If you discount these scientists and their claims that their field of study is a part of climate science and may change the outcome, then are you not also adopting denial because this does not accord with your beliefs?

Here's a hypothetical: a stash of 100 coins is discovered: 93 are identifiable and total $85. No matter how we count them or in what order (modelling), our predicted outcome will always be $85. There are 7 coins which are unidentified: "Science A" claims to have the answer — they are worth 3 cents each. Now our total (predicted outcome) is $85.21 — a change which is neither here nor there. But "Science B" disputes this — they claim the coins are comprised of the rarest of rare earth alloys and are worth $500 each. Hmm. Adding even one to our modelling changes the outcome significantly; adding all seven changes it so utterly ($3585) that our original outcome has no predictive value. In this example it doesn't matter which outcome is positive or negative — it does matter with climate science because getting the problem wrong is as bad as getting the solution wrong. If one is truly objective, then it is obvious that science is never "settled". "Consensus" is only agreement on what we think we know to date and how the data has been analysed. How solid and for how long has the consensus been on Einstein's theory of relativity, and how recently has this been challenged? The challenge may ultimately not hold up, but it will take science in a different direction.

Was it really too much to ask for an open mind, for objectivity, critical analysis and logical thinking? Was it too much to ask that psychologists use their special skills and knowledge to take a step back and look at the uncontrolled variables of human behaviour (motivation, perceptual set, censorship and sanctions, etc., etc.,) which may also be at play here? Was it too much to remind ourselves that wishing won't make it so ("renewables" is an apt example at this time) and that shutting down dissenting views will not change the facts?

And here is another cat to set among the pigeons. If you are all convinced about anthropogenic global warming and imminent planetary disaster if carbon dioxide emissions are not significantly reduced, then why are you not all calling for a calm, rational and factual debate on the use of nuclear power to generate electricity? After all, much of the world already gets its power from nuclear stations, the technology and safety has increased significantly since the early days, and at present it is the only non-CO2 emitting source of reliable, baseload, 24/7 electricity. Working out how to calm people's fears so that they can at least take in the information and thus make an informed decision might be a start.

One last little point: nowhere in my first letter or in this one, have I said that the science and the scenarios are wrong — scepticism is the antithesis to "black and white". However, I have obviously been placed in the "deniers" camp — I am wondering how many of you read my comments in the same way — now, what was I saying about perceptual set?

Comment on Julie Le-Fevre's article in May 2011 issue of The Sustainable Psychologist

Dr Barrie Pittock, Honorary Fellow CSIRO, PSM

My attention has been drawn to the article "Anthropogenic Global Warming" by Julie Le-Fevre. I am not a psychologist but rather a physical scientist who has worked on a number of socially important scientific problems and helped author or edit several multi-disciplinary international reports and books, including some on climate change. See my book *Climate Change: The Science, Impacts and Solutions* (CSIRO, 2009).

Le-Fevre's article is full of assertions that are highly debateable, not least that psychology has the "most thorough grounding in research methodology." Such arrogance does not auger well for a sound argument. But let me take some of her main points one by one:

- She claims the analysis re anthropogenic global warming (AGW) is based (by implication solely?) on computer modelling. That is nonsense. The first and remarkably accurate prediction of the effect of increased carbon dioxide concentration in the atmosphere was made by the Swedish chemist Svante Arrhenius in 1896 on the basis that carbon dioxide absorbs heat radiation and this is amplified by increased water vapour due to increased evaporation. He estimated the effect of doubling CO_2 to be a global surface warming of

about 4-6ºC. This was before computers were invented and is remarkably close to present day estimates. The estimate was based on elementary chemistry and physics. Modern computer estimates, using well-established laws of physics and chemistry, are tested by the computer models' performance in predicting observed phenomena such as the amplitude of the seasonal cycle and variations with latitude. Moreover, the models have been tested against observations over the last 150 years or so when CO_2 has increased from the pre-industrial concentration of about 270 ppm to about 380 ppm today. Only by including the effect of increased CO_2 can the models reproduce what has actually been observed.

- She remarks that "predictions based on the modelling have swung wildly." This ignores the fact that the predictions relate first to assumed rates of increase in CO_2 and that they must include not only long-term trends due to increasing CO_2 but also natural variability due to natural processes. These processes, such as the oscillations between El Nino and La Nina are included in the models, but the key point regarding extremes of rainfall and soil moisture is that global warming changes the behaviour of these natural processes. This key point is basic physics, not some wild theory. A warmer Earth means more evaporation from moist surfaces and an atmosphere that can hold more moisture. Thus, in natural situations where rainfall is not occurring, such as in El Nino situations in Australia, increased evaporation produces more rapid drying, thus more severe droughts. And in situations such as La Nina or uplift over mountains, where natural processes lead to rainfall, there is more moisture in the air, so greater condensation and release of latent heat. This drives convection harder, giving more intense rainfall. Hence increased CO_2 leads both to increased drought severity and increased flood rains, with timing dependent on the El Nino-La Nina cycle. My group predicted more extreme rainfall in a paper and reports in the early 1990s but it was largely ignored, so for example the Ranger uranium mine was flooded by record rainfalls in early 2011 and had to shut down for about six months. If they had taken note of our warnings they could have designed their open cut and tailings dam to cope, but they did not.
- Le-Fevre states that "Somebody needs to state the obvious — that wishful thinking will not make it so!" This applies in many areas, not least to those who claim that human-induced climate change is not happening. The fact is that there is much evidence that it is happening and the consequent risks are high, even though there are some uncertainties, especially about the exact timing and details. We must take a risk management approach. We do not insure our house against fire because we believe it **will** burn down this year, but because **there is a small but finite risk** it might. So it is with climate change. The chance that it is real is considerably larger than in the case of our house burning down, but the principle is the same — we should act sensibly to minimise the risk.
- As to her claims that action by Australia will make no difference there are two main points. First, we have the highest per capita emissions of any country so we need to act if we expect others to act, and in any case many other countries have already acted in various ways to try to reduce their emissions or at least foster renewable energy production. More importantly, acting now will be good for Australia as it will help put us in a class with those countries that are adapting to a new technological revolution. Whatever the short-term view, in the long run fossil fuel usage will have to be reduced and we are blessed with more potential renewable energy, especially solar power, than any other country. By incentivising the switch to renewables we can speed up the development of cheaper large-scale renewable energy production, increase employment and decentralise it to solve serious social problems in many regional and remote communities.
- Le-Fevre also fails to mention peak oil, which is a phenomenon now acknowledged by the International Energy Agency. As oil becomes more expensive we will have to turn to alternatives for transport, including electric cars and trucks (this revolution is well under way), and better public transport including inter-city fast trains. Here again renewable energy presents an opportunity whether it is using renewable electricity to charge up car batteries, or for generating alternative fuels such as hydrogen for fuel cells or liquid ammonia as a substitute for LPG. Yes, these technologies are just developing, and have yet to fully benefit from the economies of large-scale production, but we need to foster their growth now if we are to cope with high oil prices and worsening climate change a decade or more from now.

I have not answered every point made by Le-Fevre, nor itemised the many dangers from AGW such as rising sea levels, acidification of the oceans and more extreme weather events, but space is limited and I hope you get the general picture, even though it is complicated. The science of AGW is sound, and it does not mean the end of the Australian economy if we adapt to the necessary changes. What it does mean is that we should look for opportunities and welcome the transformation of our economy to a low- carbon emissions economy. We will all be better off if we seize the opportunities.

Peter Darnley

Hi Bob,

Thank you for the 'debate.' I think Pip Lipkin has the rights of it.

This is particularly because he doesn't mention climate change. Well, in 1970, it wasn't on people's horizon. I remember something titled *The Doomsday Book*, forget the author's name, who had a new ice age and global cooking as both being likely.

Where Julie has the wrong of it is that she looks on climate change as a problem. It isn't, but only one of the many deadly serious symptoms of the disease. Pip's speech outlines some of the others: resource depletion, resource-based wars, other wars caused by hate and intolerance — I loved his citing of Calhoun's experiment showing the effects of crowding on rats.

He was also right in citing the Club of Rome reports. Didn't Donella Meadows write a follow-up in about 2009? Their predictions proved to be pretty spot on.

Anyway, here is something: suppose climate change is mostly due to natural fluctuations? (Not that it is — those who monitor sunspot activity tell us we should actually be cooling not warming, and we are definitely warming.) But even if humans haven't caused the rise in temperatures, we still have to live with it. We need to adapt to the changes that are occurring, and we need to do everything possible to avoid contributing to the problem. It's like, you're driving on an icy road and go into a skid. You skid because the road is slippery, but if you'd driven more carefully, you might have retained control. And if you are skidding, it's still up to you to try to save the situation. Would you just sit back and say, "Not my fault!" as you crash over the edge?

So, whatever the causes, we need to do something about it, like get off the addiction to fossil fuels, or more generally, to get off the real, underlying problems, which are growth in population and growth of consumption per capita.

Keep up the good work,

Peter Darnley.

More on environmental threats

Caution: Do not make connections.

Bill McKibben

Washington Post, May 24, 2011

Caution: It is vitally important not to make connections. When you see pictures of rubble like this week's shots from Joplin, Mo., you should not wonder: Is this somehow related to the tornado outbreak three weeks ago in Tuscaloosa, Ala., or the enormous outbreak a couple of weeks before that (which, together, comprised the most active April for tornadoes in U.S. history). No, that doesn't mean a thing.

It is far better to think of these as isolated, unpredictable, discrete events. It is not advisable to try to connect them in your mind with, say, the fires burning across Texas — fires that have burned more of America at this point this year than any wildfires have in previous years. Texas, and adjoining parts of Oklahoma and New Mexico, are drier than they've ever been — the drought is worse than that of the Dust Bowl. But do not wonder if they're somehow connected.

http://climateandcapitalism.com/?p=5369

The Contradiction of Sustainable Growth

Andrew Gaines

Business coach Anthony Howard recently posted an article entitled Creating Sustainable Growth. He said:

I recently had the privilege of attending The Performance Theatre—an exclusive gathering of around 80 world leaders from business, academia, government and the social sector, together with world class thinkers—which meets each year in a city of global importance. This year we met in Beijing, in the context of China's new 5 year plan. If this plan is achieved China will contribute 30% of the world's growth over the next 5 years, and by 2020 consume all of the world's current exports. These are staggering numbers which have significant implications for business, but even more profound implications for the environment.

Anthony's observation is very important. He went on to ask:

Will China—and the rest of the world—be able to adopt the necessary sustainable practices that will stop us using too much of the world's resources?

What will we do to mitigate the looming global crisis in food, water and energy?

My response is to challenge the notion of 'sustainable growth' in today's world.

Hi Anthony,

It seems that we have — not a paradox, but a real contradiction. On the one hand people ask: what will we do to mitigate the looming global crisis and food, water and energy? This could be generalised to ask: what will

we do to reverse the present trends to ocean acidity, land degradation, deforestation, cancer producing industrial toxins in the food chain and — now beginning — self-escalating global warming? Currently all of these trends show a 'hockey stick' escalation. Things are getting worse faster.

Viewed through the lens of ecological sustainability, it appears that we have a self-destructive global civilisation devoted to economic growth. Since the physical manifestations of economic growth are closely coupled with environmental degradation — the more stuff the more degradation — the contradictions is between economic growth as currently constituted and the ongoing continuation of civilisation itself.

Many would regard this as a strong and unpleasant assertion. To deal with it rationally, and not just respond with emotionally driven labels such as 'Greenie, socialist, demented…' we need to be clear about what ecological sustainability actually involves.

I think Karl Henrik Robèrt's *The Natural Step* gives the best scientific reality-based approach to understanding ecological sustainability. The short version is that an ecologically sustainable society will not use nature's resources faster than they can replenish or regenerate. One example is the depleting water tables that both cities and agriculture depend on in many areas.

It is not hard to see that what is happening with water is simply one example of a much larger trend. For decades now, World Watch Institutes State of the World reports have chronicled cumulative environmental degradation. The Stockholm Resilience Institute shows that we are over the red line in key areas. And Overburdening Australia spells out the resource and environmental implications for Australia.

Conclusion? In today's world "sustainable growth" is an oxymoron. It is understandable that a global forum of business leaders would not be talking about intentionally slowing growth in order to transition to a civilisation that works within the earth ecological parameters. But they should. Or at least they should be investigating whether the assertions of the 'environmental doomsayers' have some truth in them, and mentally testing whether proposed solutions to becoming 'more sustainable' (another oxymoron) will be sufficient.

As responsible people, we should all be doing this, of course. I have done my homework, and my conclusions are evident here. My response has been to form Transform Australia, a new group devoted to healthy whole system change such that we become an ecologically sustainable and socially healthy society that is pleasurable for most to live in.

Climate change is now our problem

Giles Parkinson

A collection of new studies from leading climate scientists has thrown up a devilish challenge for the world's political leaders: Not only do current climate change policies fall well short of stated targets (which we, and they, already knew), but the impacts may now be felt by the current generation, rather than the next. At least that removes the question of equity and discount rates for future generations.

The international community made a "political" agreement at Copenhagen and Cancun to try and limit average global warming to 2°C — without actually announcing the policies that would achieve it. It even recognized — under pressure from the most vulnerable nations, that aiming for a 1.5°C limit would be a good idea. We are currently around a 0.6°C increase with greenhouse gas already emitted likely to take us beyond 1°C.

The new studies — described as the most comprehensive yet on the political, economic and technological pathways needed to reach the 2°C target — highlight just how far short the current pledges fall below the stated targets.

According to the scientists — from the Zurich's Institute for Atmospheric and Climate Science, the Potsdam Institute for Climate Impact Research, the UK's Met Office Hadley Centre, and Melbourne University, among others — the world needs to reach a peak in emissions between now and 2020. But it also needs to reduce its current level of 48 gigatonnes a year to 44 gigatonnes by the end of the decade and then keep falling.

This was broadly the most feasible path of nearly 200 different scenarios to keep emissions at "safe" levels — or at least to have a "likely (greater than 66 per cent chance) of keeping them there. The later action is deferred, the more it will rely on improbably and probably impossible rates of reduction — it will be counting on some technological miracle from something that has not been invented yet.

The study noted that the preferred pathways will be difficult to achieve, and while they are not beyond the current level of political rhetoric, they are certainly beyond policy engagement.

At the current rate of growth, the world will be emitting somewhere between 53 and 57 gigatonnes by 2020. The weaker range of pledges under the Cancun agreement makes a barely discernible difference and puts the world at 53 billion tonnes, while the top-end Cancun pledges (which include a commitment by Australia to cut its emissions by 25 per cent by 2020), takes the figure to around 48 gigatonnes. Another four billion needs to come from somewhere — much of it from the largest emitters.

The implications of this target are that unless the world starts to reduce emissions in the next few years, the reductions may be beyond what is technically and economically possible. “We are getting close to the point where we might not make it,” says Dr Malte Meinshausen from the University of Melbourne’s School of Earth Sciences and a senior author on the study.

“As long as we keep emitting carbon dioxide, the climate will continue to warm. There is no way around a zero carbon economy sooner or later if we want to stay below 2 degrees,” Dr Meinshausen said. Just to get close to the target, countries need to honour the higher end of their pledges.

What may concentrate the political minds is a parallel study also released in the journal *Nature* this week, that underlines the point that global warming is no longer a problem that will impact future generations. The 2°C limit — and its consequences — could be reached within two decades.

The study, by scientists from Reading and Oxford Universities, the Met Office Hadley Centre, and New Zealand’s Victoria University, said large parts of the world would experience five-year average rises of 2°C by 2030 — this included Europe, north Asia and Canada, as well as North Africa.

"Certain levels of climate change are very likely within the lifetimes of many people living now ... unless emissions of greenhouse gases are substantially reduced in the coming decades," the study found.

The studies find that unless the world develops technologies that can deliver “net negative emissions” — such as using biomass combined with carbon capture and storage, the 2020 target might have to be even tighter — at around 42 gigatonnes.

More than 70 per cent of the "likely" chance scenarios assume global net negative CO2 emissions from industry and energy. The problem is that the combination of bio-energy and CCS has not been demonstrated on a significant scale in the real world. Concerns exist about CO2 storage potential, as well as the competition of large-scale bio-energy systems with food production, biodiversity and ecosystem services. And other negative emission technologies, such as direct air capture of CO2, are not included in most models at present. Negative emissions technology will be required well into the future to reach a 1.5°C scenario.

The conclusions of the two studies come as a fierce debate rages within Australia on the manner of policies that should be implemented to address climate change, and — within conservative ideologies here and in the US — whether it is even a problem that needs addressing.

But, as reported last week, even a study part-funded by the Koch brothers — the billionaire oil industry folk who have been the biggest funders of climate change denial activists and programs — has concluded that the earth is, in fact, warming.

The proposed carbon pricing mechanism proposed by the Labor government and currently making its way through parliament, outlines a 5 per cent target, with a 25 per cent target possible in certain scenarios that would be reviewed by an independent Climate Change Authority. The Coalition has outlined a plan to reduce emissions by 5 per cent based on “Direct Action”, but has no policy scenarios that could tackle a more ambitious target. Even the achievement of its 5 per cent target is doubted by most independent analysts.

The international community, meanwhile, continues to struggle with the concept of a binding treaty, or even on voluntary pledges that might meet the 44GT target outlined by scientists. There is little expectation that any sort of agreement can be achieved before 2015, due mostly to the gridlock in US Congress.

“If the international community is serious about avoiding dangerous climate change, countries seem ill-advised by continuing to increase emissions, which they have done so in the last 10 years, which ultimately will lead to disastrous consequences later on,” Meinshausen said.

“We can anticipate Australia will be one of the countries hardest hit by climate change due to recent years of droughts and floods. This is consistent with projections that we are going to expect more of these kinds of extreme conditions in the coming decades,” he added. “the world needs to do more this decade.”

http://www.climatespectator.com.au/commentary/climate-change-now-our-problem#comment-54846

Catching up to my predictions...

Bob Rich’s comment on the above

In the 1970s, I predicted climate catastrophe somewhere between 2000 and 2020. This set of reports now predicts it by 2030.

The next official prediction will be closer still.

Actually, climate catastrophe is only in the future if you live in a place that is so far untouched. Since the effect is not like the throwing of a switch but rather is the worsening of adverse weather events, many people have already been devastated by climate change. In the past few years, think of wildfires in Russia and Australia, floods on the Indian subcontinent, drought in Africa, hurricanes/cyclones and tornadoes in unexpected locations or of unexpected severity.

If you survive, looking back you might well decide that climate catastrophe started in about 2010, + or - a few years.

How others see us: Climate Change and the End of Australia

Jeff Goodell

Want to know what global warming has in store for us? Just go to Australia, where rivers are drying up, reefs are dying, and fires and floods are ravaging the continent.

It's near midnight, and I'm holed up in a rickety hotel in Proserpine, a whistle-stop town on the northeast coast of Australia. Yasi, a Category 5 hurricane with 200-mile-per-hour winds that's already been dubbed "The Mother of All Catastrophes" by excitable Aussie tabloids, is just a few hundred miles offshore. When the eye of the storm hits, forecasters predict, it will be the worst ever to batter the east coast of Australia.

I have come to Australia to see what a global-warming future holds for this most vulnerable of nations, and Mother Nature has been happy to oblige: Over the course of just a few weeks, the continent has been hit by a record heat wave, a crippling drought, bush fires, floods that swamped an area the size of France and Germany combined, even a plague of locusts. "In many ways, it is a disaster of biblical proportions," Andrew Fraser, the Queensland state treasurer, told reporters. He was talking about the floods in his region, but the sense that Australia — which maintains one of the highest per-capita carbon footprints on the planet — has summoned up the wrath of the climate gods is everywhere. "Australia is the canary in the coal mine," says David Karoly, a top climate researcher at the University of Melbourne. "What is happening in Australia now is similar to what we can expect to see in other places in the future."

Read on at http://www.rollingstone.com/politics/news/climate-change-and-the-end-of-australia-20111003

What we can do

Backward March

Sunday 13th November, 2001

Baillieu Government takes us Backward on Environment

Join the Backward March and call on the Premier to stop taking Victoria backward!

WHEN: **Sunday, 13 November** from 1.00 - 2.30 pm

WHERE: Parliament House, Spring Street, Melbourne

WHY: In just one year, Premier Baillieu has taken Victoria decades backward on the environment:

* Cattle trampling our national parks
* New wind farms blocked
* Co2 emissions target ignored
* Endangered species habitat logged
* New coal-fired power station approved
* Green Wedges threatened
* Westernport destruction fast-tracked

Premier Baillieu said he would 'fix the problems, and build the future,' but when it comes to our environment his government has created new problems and is threatening out future!

FoE is working with the Victorian National Parks Association, Environment Victoria and the Wilderness Society to organise this rally, highlighting the fact that Victoria is going backward under the environmental policies of the Baillieu government.

Please come along if you can.

Transforming Australia

Professor Bob Douglas

Recently I attended a National Summit on “Transforming Australia” in Geelong. This was a three-day meeting of 60 invited activists from various civil society groups around Australia. We were united by a common concern that Australia will not be able to deal effectively with the problems that now confront the human world without transformative change in the way we manage our institutions, and especially our economy. The firm view of this group was that simply tinkering around the edges of “business as usual” is a formula for national catastrophe. The starting point for most of the participants was that we must urgently transform our governance, our economy and our culture in ways that will permit our descendants to live within the limits of nature's economy.

Australia’s political system is largely ignoring the seriousness of the gathering storm that includes climate change, peak oil, disastrous loss of ecosystems, increasing world hunger and inequity and continuing growth in the human population. It is currently incapable of addressing these issues because it is being corrupted by the special interests of the status quo. If our children are to survive to a ripe old age we must transform our political institutions, including especially the way they are funded.

The Geelong Summit was the 5th meeting I have attended on this topic in the past 18 months. The Transform-Australia movement is still in its infancy but it is a growing network of thinkers, researchers, environmen-

talists and social policy activists. The summit was an opportunity for sharing understanding and assets and to explore together, the process of building a radically new way of thinking about Australia's future.

Of course, similar movement are developing in other countries around the world. Ours is not the only political system that is proving incapable of dealing with the realities that threaten our habitat. But the consequences for Australia if we do not do so are more disastrous than in many other parts of the world. Already it seems from evidence presented by a national expert on the matter, our marvellous coral reefs are almost certainly doomed.

There was much discussion about the factors that motivate change. Fear for the future is a strong stimulus to denial. Genuinely believing that a better and more attractive future is achievable is more likely to result in openness to radical change than lots of doom-saying. That being said, we can no longer ignore the scientific evidence that our human world has already crossed a number of critical natural boundaries, which means that we have exceeded already by about 50% the Earth's capacity to sustain us in our current use of resources and release of waste. Yet, still our population and the global economy are growing and eroding these precious resources.

So, where to next? We are a smart species; too smart I hope to hasten our own extinction. Smart enough also I think to recognise that there are greater satisfactions in being alive then simply possessing more "stuff". Realistic enough to understand at last that limits to growth have been reached and that we are capable of designing a stable state economy that will work, not just for some people, but for all of us, and the planet's health as well. All of this will clearly take some time and those who are frightened of change will resist it if they can.

A number of groups now exist in Australia, committed to the transformative task. The Transform-Australia Group, which helped to convene the summit, has a website www.transform-australia.net and a Manifesto, which it invites ordinary citizens and community groups to endorse. The Transform Australia Manifesto spells out a vision, mission and values as well as aspirations for the evolving movement. Its current supporters include a group of 10 catalysts who see their task as promoting broad scale community understanding of systems thinking and the shift in mindset that is required in the special circumstances that we now face.

The Vision for the Manifesto reads as follows: "Our vision is for a Transformed Australia, where the well-being of all humans and the health of the planet are synonymous; where we accept that nature is our provider and we are its stewards; where we acknowledge that our economy, ecology and ecosystem are interdependent; and where a sustainable future for our descendants exists".

If you have read this far, I hope you will visit the website, consider the manifesto in its entirety and append your name as a supporter of the principles espoused there. Essential change will only come as a result of the will and insistence of people in the community. Leadership will not come from our politicians on this matter but they will respond to the community's lead.

Bob Douglas is Chair of SEE-Change ACT and a catalyst with the Transform Australia group.
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Environmental census

Professor Robert Gifford

Hello, As many of you will already know, I have been working on a global, universal census of people who have at least some scientific or professional interest in environmental psychology.

The first census, conducted four years ago, was done as my main project as president of the environmental division of the International Association of Applied Psychology.

This resulted in a census or directory that included 662 people around the world with a least some interest in environmental psychology, and their interests and their locations. We are members of quite a few different organizations with overlapping interests; this is my attempt to include everyone in one virtual place.

After four years, people change, so I decided it was time to update the census. So, recently, an email was sent to all those 662 people, asking for them to update their information (if any updating was needed), and to send the request to anyone (e.g., grad students who have joined the field during the past 4 years, or professionals who might have been missed the first time around, etc.)

Over 100 people have already updated their interests, and so far about another 150 new people have now joined the census. Some emails were outdated; if yours is not the same as it was four years ago, you might not have received that email. If so, please update your information.

On the other hand, if you are already on the census, with the same email address, this is all a bit of a repeat, but I am sending it to the listserv in case you are NOT yet in the census, or if any of you know of grad students or colleagues who may not be on it (the census is fully searchable, so you can check).

The main purpose of the census is to facilitate communication in the field—to find people doing the same work as you, to help create informal networks, to promote universities and organizations that employ people with environmental psychology interests, to find potential grant partners, etc. The census has no other purpose

than to count and connect people who care about this field. The email addresses are programmed in such a way that they cannot be "harvested" en masse by marketers, etc.

The census is written in six major languages, so do feel free to send it to anyone in the world who speaks any of these six major languages. The census can be found here:

http://web.uvic.ca/psyc/EPCensus/page1.html

I expect that I will not make another call for another four years, so be assured that you will not receive frequent messages from me from or about the census. We all receive too much email as it is. But do feel free to browse the census to see all the amazing work done by so many people around the world.

Finally, you may receive this message on another listserv if you are on a similar one; my apologies in advance if that happens...but could someone please place this message on other listservs that probably include people with interests in environmental psychology?

Environmentally yours,

Robert Gifford

Professor, Psychology and Environmental Studies Director, Interdisciplinary Program in the Human Dimensions of Climate Change Editor, Journal of Environmental Psychology

Department of Psychology University of Victoria, Victoria, BC Canada V8W 3P5

Talking with Ross Garnaut

Thank goodness that before Christmas 2011 the Federal Parliament has reached agreement on legislation to establish an Australian carbon pricing scheme. This agreement is built on bitter debate around climate change by which governments and their leaders have risen to prominence and fallen away. Under the Commonwealth Clean Energy Act 2011 the scheme starts on July 1, 2012 with a fixed price of $23 a tonne. A floating price phase will commence on 1 July 2015.

Central to the debate has been the work by Professor Ross Garnaut to examine the economic impact of climate change on Australia. His subsequent report was provided in 2008, updated in March 2011 and discussed in public forums around the country mid this year.

I was fortunate through serendipity to attend one of these public forums, hear what Professor Garnaut had to say and make a suggestion. The answer points to the tremendous impact that the new legislation will have on ordinary Australians. This new initiative to combat climate change is in some respects a Christmas gift to all Australians.

I suggested to Professor Ross Garnaut that:

"Australia is very, very good at sharing wealth and we've done that since Federation, perhaps more so than many other countries. Australians tend to shy away from the notion of a tax, a carbon tax, being a little cynical about where the money will go. It may be perhaps better if we talked about a carbon reduction bonus where some percentage of the eleven billion dollars went directly back to the citizens of Australia, perhaps as a Christmas cheque. The bonus money could for example be used for the purpose of purchasing solar power or another alternative technology that then reduces the cost of electricity to the consumer and further encourages carbon reduction."

After much joyous mirth from the audience, Professor Garnaut responded by saying something along the line of:

"In my recommendations I do have the majority of the eleven billion dollars going back to the community. I've suggested as much as possible of that in tax cuts and for low and middle income earners and if you structure them right you get quite a big economic dividend from that. We've got an issue in Australia of disincentives for labour force participation, because of the interaction of our tax and social security system. We could do something about that in reducing those disincentives for labour force participation by reducing taxes. So that's what I've suggested. A variation on your theme: I recommended on my first report that we start with an Emissions Trading Scheme with a fixed price and then move to a floating price after a period. It didn't occur to me to call the fixed price period a tax. But that's what's happened in our political discourse."

A transcript of this public forum is available at: http://www.garnautreview.org.au/update-2011/events-speeches/brisbane-june-600.html

Mark England MAPS, CPA

Resources

From Susie Burke

Dear Colleagues,

I have collected a number of news items that may be of interest to you.

Regards,

Susie Burke

Public Interest, Environment and Disaster Response

Climate and Health Summit, Durban, South Africa, December 4th, 2011

Below please find the first official announcement for the Climate and Health Summit, to be held in Durban in December. Please circulate to your networks.

There will be a website operational by early September for registration.

Please think about who in your organisation might like to attend in order to contribute to global climate and health policy.

http://www.climateandhealthcare.org/action/summit/

Four Degrees or More Conference, Summary

The Four Degrees or More Conference was held at Melbourne University in July. This conference examined the implications for Australia of a four degrees global average temperature rise (predicted for 2070-2100 on our current emissions trajectory).

Doctors for the Environment member (and therefore CAHA member) Dimity Williams has written a summary of her experience of the conference for the DEA newsletter which is reproduced on the CAHA blog here.

Health in a hot world

The **Adaptation Research Network for Human Health** has produced: **Health in a hot world —** a new network information sheet which examines the impact of a four degree rise in average temperatures on human health.

You can access the Health in a hot world factsheet here.

Carbon tax

The health sector's response to the carbon pricing announcement (from NCCARF's Network News Update, July 2011, For all the latest network news visit the network website: http://www.nccarf.edu.au/humanhealth).

The health blog 'Croakey' is running a series of articles detailing the health sector's response to the carbon pricing announcement.

Michael Moore and Helen Keleher from the Public Health Association of Australia state that the carbon pricing is an important public health advance. David Shearman, Honorary Secretary of the Doctors for the Environment Australia, says that the announcement is a small but significant step towards a healthier world. Fiona Armstrong from the Climate and Health Alliance asks whether the carbon announcement now means that climate policy is sorted. The articles can be accessed the Croakey home page: http://blogs.crikey.com.au/croakey/

Climate change poses an immediate, growing and grave threat to the health and security of people.

Statement calling for urgent action on climate change

This statement http://climatechange.bmj.com/statement/view was issued by health and military experts yesterday in London following a conference on the health and security implications of climate change in London this week.

Its signatories include Dr Fiona Godlee, Editor in chief, BMJ (British Medical Journal), Dr Hamish Meldrum, Chairman of Council, British Medical Association, Professor Hugh Montgomery, Professor of Intensive Care Medicine at University College London and Director of the UCL Institute for Human Health and Performance, Professor Sir Ian Gilmore, Royal College of Physicians, Dr Richard Horton, Editor-in-chief, The Lancet, Dr. Hege Gjessing, President, Norwegian Medical Association, Dr Heidi Stensmyren, Vice-president Swedish Medical Association, and Dr Bjørn Oscar Hoftvedt, Norwegian Medical Association.

For the full statement, follow this link:

http://climatechange.bmj.com/statement/view

A news story from Reuters News Agency appears here:

http://www.trust.org/alertnet/news/climate-change-a-catastrophic-threat-to-global-health-experts

An extract of the Statement appears below:

Climate change poses an immediate, growing and grave threat to the health and security of people in both developed and developing countries around the globe.

Climate change leads to more frequent and extreme weather events and to conditions that favour the spread of infectious diseases. Rising sea levels, floods and droughts cause loss of habitat, water and food shortages, and threats to livelihood. These trigger conflict within and between countries. Humanitarian crises will further burden military resources through the need for rescue missions and aid. Mass migration will also increase, triggered

by both environmental stress and conflict, thus leading to serious further security issues. It will often not be possible to adapt meaningfully to these changes, and the economic cost will be enormous. As in medicine, prevention is the best solution.

Action to tackle climate change not only reduces the risks to our environment and global stability but also offers significant health co-benefits.[i] Changes in power generation improve air quality. Modest life style changes – such as increasing physical activity through walking and cycling — will cut rates of heart disease and stroke, obesity, diabetes, breast cancer, dementia and depressive illness.

Climate change mitigation policies would thus significantly cut rates of preventable death and disability for hundreds of millions of people around the world.

The health co-benefits of lower carbon use save money: reducing EU greenhouse gas emissions by 30% by 2020 (compared to 1990 levels) would save over €80 billion a year in healthcare costs and through increased productivity of a healthier workforce[ii].

Happy birthday Climate and Health Alliance!

Report from Fiona Armstrong, CAHA Convenor

The Climate and Health Alliance, of which the APS is a member, has been going for 12 months. The Alliance began at a historic meeting of health care stakeholders who met in Melbourne at the national office of the Australian Psychological Society on Wednesday the 4th of August 2010 to discuss a proposal to establish what was then described as a 'Green Health Alliance'.

Around 50 people from more than 40 major health care organisations attended this meeting, and made a unanimous decision to form what was agreed to be called the "Climate and Health Alliance" (CAHA). (This was not backing away from a broader agenda that recognises the effects of ecological degradation on human health, but acknowledging that climate change is the most urgent symptom of that).

In our first year we have accomplished a good deal.

CAHA has attracted some of Australian largest health groups to its membership; can boast some of Australian leading climate and health researchers on its expert advisory committee; has formed partnership with leading environmental NGOs; established relationships with universities and research institutions; and been recognised internationally for making an important contribution to raising awareness of climate and health issues!

Specific achievements include:

- Our beautiful logo
- Partnering with The Climate Project, the Australian Youth Climate Coalition, and Union Climate Connectors in a Climate Advocacy Day in Canberra
- Developing our Policy, Research and Advocacy Agenda
- Establishing our much admired website
- Partnering in the campaign to raise awareness of the need to protect public health by restoring environmental flows to the Murray Darling Basin
- Participating in Deckchair Democracy
- Providing a seminar series to undergraduate health students at Deakin University
- Establishing seven policy working groups with nearly a dozen amazing volunteers to develop position papers on our Priorities
- Developing a partnership project with the Climate Institute to develop a joint paper on the health benefits of climate action
- Establishing a fundraising committee with a target of $150K to deliver our Policy, Research and Advocacy Agenda
- Becoming a consortium partner with Sydney University, Melbourne Sustainable Societies Institute and Monash Sustainability Institute in two different project proposals for DCCEE Climate Change Grants program
- Our invitation to partner with Health Care Without Harm, World Medical Association, the Health and Environment Alliance, and World Health Organisation in the first ever Global Climate and Health Summit to be held in parallel with the COP 17 UNFCC meeting in Durban in December!

All of this has been achieved as an unfunded group, relying on pro bono and in-kind support. We hope to change that in the coming year ☺.

We have lots of plans for the year ahead — not least of which includes encouraging our governments to recognise the health risks of climate change and the health benefits of climate action, and for this to be explicitly recognised in health and climate policy.

Looking for health professionals who support climate action

The Climate and Health Alliance is looking for people who work in the health sector who understand the serious threat of climate change and the health benefits associated with strategies to reduce emissions and who

are willing to talk to talk to their local media (wherever they might be) and share their views that the carbon price package is an important public health measure.

The government's package is by no means assured and building public support for its implementation will be important.

If the current backlash against the policy continues, the government may lose the support of some of its members to support the package, and Australia will again be left with no policy to take to the next UNFCCC negotiation in Durban in December and we may lose a window of opportunity to help influence other countries to act while there is still time to mitigate effectively.

As the Climate Commission has said, this is the critical decade. If we don't start to reduce our emissions over the next few years, we will have reached a point where changes to the climate system are irreversible and we will have put in motion a series of tipping points that further mitigation will be powerless to halt.

Health professionals are trusted members of their communities and if doctors, nurses and allied health professionals say: "I support climate action," people will listen. It will provide support for others in the community who are also trying to share this message.

There are people available from the 'Say Yes' coalition of civil society groups of which CAHA is a member who are able to work with health professionals who are willing to share this message and say 'yes!' to climate action. Media support and contacts can be made available.

Please contact CAHA Convenor Fiona Armstrong for details on how to share your support for climate action — convenor@caha.org.au or call 0438 900 005.

Books for Psychologists with an interest in the Environment

Adapt: Why success always starts with failure, Tim Harford.

It only has one chapter about Climate Change, but the rest is about making changes and accepting when things have not worked the way we want them to. The chapter about climate change talks about the need for everyone to be involved in taking action and not leaving it to someone else/ more powerful. It also considers the role of government both in terms in policy and leadership.

The author mentions (just in this chapter) the following books; the final one which I have included a full blurb for as I think it would be very useful.

The Economic Environmentalist, Prashant Vaze

How Bad Are Bananas? Mike Berners-Lee

Why Aren't We Saving the Planet? Geoff Beattie. 2010

Subjects

Attitude (Psychology); Environmental protection - Citizen participation.

Summary:

Global warming. Many of us believe that it is somebody else's problem, that it will affect other people and that other people will come up with the solution. This is not true. "Global" warming is a global problem: it will affect every single one of us and will be only be stopped by a huge shift in our individual attitudes and behaviour. Each time one of us switches on a light, reaches for something in a supermarket, gets into a car or bus, or even chooses what clothes to buy, we are making a choice that can affect the environment. We already know that we need to start making better choices for the sake of our natural world, now.

So why aren't we already saving the planet? This book follows one psychologist's mission to find some answers to this question. Challenged by a student to use psychology to find the root of the problem, Geoffrey Beattie (an environmental "unbeliever") begins a personal and life-changing journey of discovery. The reader is invited to accompany him as he uses psychological methods to examine people's attitudes to global warming. Along the way we find the author's own attitudes being challenged, as well as our own.

This ground-breaking book reflects new and innovative research being carried out into how to change attitudes to the environment and how to encourage sustainable behaviour. It is eminently readable and interesting and, as such, should be of read by anyone who is concerned about our planet. In fact, you should also read it if you're not concerned about our planet.

Energy Savers web site

One of the most powerful ways of inducing attitude change is to get people involved in DOING something. And one of the most powerful ways of getting people to do something is to help them to save money.

The US Office of Energy Efficiency and Renewable Energy (EERE) maintains a wonderful web site that gives you all the ammunition you need for this. Every aspect of personal and commercial life is covered with up to date hints and leads. (Well, maybe not your sex life, but probably everything else ☺.) You can even get an RSS feed so you can keep up to date.

Do people a favour and point them to http://www.energysavers.gov/

Ecopsychology articles

We are pleased to higlight these important articles in the latest issue of ***Ecopsychology***.

Andy Fisher: The *Ecopsychology* Interview

The Use of Nature for Emotion Regulation: Toward a Conceptual Framework Author: S.Å.K. Johnsen

We are also pleased to highlight the following open access article.

A Definition for Wildness Author: L.J. Cookson

Advantages of **submitting your research** to ***Ecopsychology***…

Rapid peer review
Fast track article publication
Open access options
Readership in more than 140 countries
Outstanding editorial board
Global visibility and reach
Dedicated author support team

Environmental literacy: new book from Dr. Roman Seidl

Linking to the term "environmental literacy" I want to point to a book that may be of interest for some of you. We have published it recently on Cambridge University Press: Scholz, R. W. (2011). *Environmental Literacy in Science and Society: From Knowledge to Decisions*.

Check it out (sample chapter and index) on:
http://www.cambridge.org/ch/knowledge/isbn/item6047352/EnvironmentalLiteracy in Science and Society

Here is the abstract from the CUP web page:

In an era where humans affect virtually all of the earth's processes, questions arise about whether we have sufficient knowledge of human-environment interactions. How can we sustain the Earth's ecosystems to prevent collapses and what roles should practitioners and scientists play in this process? These are the issues central to the concept of environmental literacy. This unique book provides a comprehensive review and analysis of environmental literacy within the context of environmental science and sustainable development. Approaching the topic from multiple perspectives, it explores the development of human understanding of the environment and human-environment interactions in the fields of biology, psychology, sociology, economics and industrial ecology. The discussion emphasises the importance of knowledge integration and transdisciplinary processes as key strategies for understanding complex human-environment systems (HES). In addition, the author defines the HES framework as a template for investigating sustainably coupled human-environment systems in the 21st century.

All the best
Dr. Roman Seidl
ETH Zurich
Internet: http://www.nssi.ethz.ch

New online climate change newsletter

Krishnaa Human Initiatives, a Citizen Sector Organization, registered under The West Bengal Societies Registration Act XXVI of 1961 and enlisted with the NGO Partnership System of Planning Commission, Government of India, launched an online monthly English Newsletter on CLIMATE CHANGE issues at:

http://www.surfat10.com/climateicare/blog1.php

CLIMATE I CARE is about impacts of climate change and possible mitigation strategies to compensate the same. It aims to identify the impacts and find an optimal but inexpensive solution to reverse the change.

Editorial objective

Climate change is now a duty of every human being to make their earnest attempt to prevent this change from becoming a reality. Launching in 2011, Climate I Care highlights the need for disseminating research, projects, new policies, strategies or action plans, impact analysis, mitigation measures which may lead to the development of a cumulative and aggressive mechanism to prevent the impacts of climate change.

Publishes

Climate I Care publishes articles, graphic-orials, periodics, fact-sheet dealing with climate change, impacts and its mitigation and disseminates experiences from projects and case studies where due consideration to environmental, economic and social aspects is given and especially "the links and leverages that can be attained by this holistic approach."

Coverage

Climate I Care regards climate change under the perspective of its wider implications: for economic growth, water and food security, and for people's survival — especially those living in the poorest communities in developing countries.

Topics may include but are not limited to:
Climate change
Variability
Global warming
Mitigation
Adaptation
Natural resources
Uncertainty
Impacts
Ecology and ecosystems
Urbanization

Key journal audiences

Researchers and Academics performing research and studies on climate change
Activist of Climate Change
Journalist,Reporters,Editors interested in climate change
Engineers, Designers of Hydraulic structures
Cultivators
Natural Resource Managers
Companies undertaking construction and development projects which may be influenced by climate change
Business strategy and policy makers that take into consideration their future survival
Government organizations such as Environment Ministries and Planning Committees
Banks, insurance companies, energy providers and the like whose business is influenced by climate change.

Climate change and health

The World Health Organization has published a fact sheet on this issue:
http://www.who.int/mediacentre/factsheets/fs266/en/index.html

Key facts

- Climate change affects the fundamental requirements for health — clean air, safe drinking water, sufficient food and secure shelter.
- The global warming that has occurred since the 1970s was causing over 140 000 excess deaths annually by the year 2004.
- Many of the major killers such as diarrhoeal diseases, malnutrition, malaria and dengue are highly climate-sensitive and are expected to worsen as the climate changes.
- Areas with weak health infrastructure — mostly in developing countries — will be the least able to cope without assistance to prepare and respond.
- Reducing emissions of greenhouse gases through better transport, food and energy-use choices can result in improved health.

Abstracts of environment sessions from the APS conference

From Dr Susie Burke

What do Australian political leaders think about climate change? (Symposium)

FIELDING, K., HEAD, B., WESTERN, M., LAFFAN, W., & HOEGH-GULDBERG, O. (The University of Queensland)

In the context of public uncertainty about climate change, political leadership has the potential to bring about change by influencing the way people think about and respond to climate change. Despite the potential of political leaders to influence the public's climate change beliefs, little is known about the knowledge and attitudes of political elites, beyond the expressed party positions or views of prominent individuals. To address this issue we undertook a survey of 311 Australian political leaders at the Federal, State, and Local levels of government. The findings confirmed that participants' personal beliefs about climate change largely reflect their political affiliation. In terms of beliefs that global warming is happening, is human induced, and impacts are serious, Greens party members held the strongest beliefs, followed by Labor party members, and those who are non-aligned politically, while members of the Liberal/National party coalition expressed the weakest beliefs. These differences in beliefs were further reflected in the priority given to climate change in their political work. Political affiliation was also associated with who political leaders attended to in relation to information about climate change and, interestingly, political leaders generally judged their own beliefs in climate change to be stronger, or in advance of, the views of their electorate. Implications of these data for policy and climate change communication are discussed.

Notes from Susie Burke

- Also asked about who influences politicians' ideas about climate change/environment, and had a number of categories including *scientists*, *farmers, political party, etc.*
- Greens party members and Labor party members were most likely to rely on scientists (97% and 84% respectively) compared to only 43% of Liberal party members.

Household energy conservation: What predicts engagement in curtailment and efficiency behaviours?

HINE, D.W., FIZZLE, F., ROBERSON, F., MARKS, A., & MORGAN, M. (School of Behavioural Cognitive and Social Sciences, University of New England)

dhine@une.edu.au

Households can reduce energy use and greenhouse gas emissions by engaging in curtailment and/or efficiency behaviours. Curtailment behaviours involve reducing one's use of existing energy consuming equipment, such as turning off heat in unused rooms or driving the car less. On the other hand, efficiency behaviour involves upgrading one's home (e.g., sealing cracks around windows) or purchasing new equipment (e.g., energy efficient appliances) to reduce overall energy use. In the current, study we surveyed 140 Australian households about their beliefs about reducing household energy use, including the extent to which they felt personally responsible for reducing Australia's greenhouse gas emissions, their general attitude toward energy consumption, their estimates of the cost and effort associated with engaging in energy reduction activities, and their assessment of the impact of these activities on Australia's overall level of emissions. We also measured the extent to which respondents engaged in a range of curtailment and efficiency behaviours. Regression and profiling analyses revealed that our predictors, as a set, explained significant amounts of variance in both curtailment and efficiency behaviours. However, the pattern of results varied across the outcome variables, with anticipated cost and effort being particularly important in predicting efficiency behaviours, and attitude and perceived personal responsibility predicting curtailment. Implications for encouraging household energy conservation will be discussed.

Public risk perceptions, understandings, and responses to climate change in Australia and Great Britain

RESER, J. (Griffith University)

j.reser@griffith.edu.au

The paper reports on national survey findings of a collaborative and cross-national research project

undertaken by Griffith University and Cardiff University examining public risk perceptions, understandings and responses to the threat and unfolding impacts of climate change and natural disasters in Australia and Great Britain. These surveys were distinctive in their cross-national comparative collaboration, in their in-depth nature, in their focus on underlying public understandings and psychological responses to climate change, and in their shared objective of documenting and monitoring important psychological and social changes and impacts in the human landscape relating to global climate change. The Australian survey included a number of multi-item scales of particular relevance to climate change beliefs and concerns, direct experience, psychological adaptation and coping, and psychological impacts, as well addressing the nexus between climate change and natural disasters. Public concern levels with respect to the threat and perceived impacts of climate change were remarkably similar and very high, despite dramatic differences in geographic regions, climate, climate change exposure, and recent histories of extreme weather events. However Australian respondents viewed climate change as a more immediate proximal, and certain threat to their local region and nation, than was the case for British respondents, for whom the problem was perceived to be more distant, uncertain, and less familiar in terms of anticipated consequences. Findings from this two nation study are providing a very different picture of where the Australian public is at with respect to climate change.

Notes from Susie Burke

- Prefers to use the term climate change 'acceptance' rather than 'beliefs'
- Only 5.8% of people surveyed were truly sceptical about climate change
- Summary of findings from recent article in InPsych:

Climate change: Australians' attitudes and concerns	
• Believe climate is changing	78%
• Sceptical about climate change	6%
• Some level of human contribution	90%
• Serious problem for Australia if nothing is done	78%
• Serious problem now	45%
• Concerns risen over last 2 years	71%
• Considerably distressed about climate change	20%
• Direct experience of natural disasters	37%
• Own region vulnerable to climate change	59%
• Want taxpayers' money spent on tackling climate change	68%

• In favour of new windfarms	92%
• In favour of new coal-fired powerstations	24%
• Responsibility needs to be taken by government	77%
• Responsibility needs to be taken by big business	74%
• Trust Government to take appropriate action	16%

Motivational Drivers of Low Emission Farming Practices in Australia: It has nothing to do with a Concern for Climate Change

Methuen Morgan and Donald W. Hine, School of Behavioural Cognitive and Social Sciences University of New England

Efforts to mitigate climate change will invariably require the co-operation of the individuals responsible for the agricultural sector, including farmers. The Australian agricultural sector is the second largest emitter of greenhouse gases in Australia today, contributing 15.9 % of the approximately 537 Mt CO2-e (million tonnes of carbon dioxide equivalent) released each year. Comprising less than 1% of the total population, Australian farmers have the responsibility of managing and safeguarding approximately 54% of the Australian landmass. This study investigated the relationship between climate change beliefs, trust, environmental attitudes, self-efficacy, perceived economic benefits of farming behaviours and the adoption of low emissions farming practices in a sample of 582 rural landholders from across Australia. Overall, the respondents were sceptical of the anthropogenic contribution to, and the consequences of climate change. Indeed the overwhelming majority of this sample considered climate change information from government sources to be untrustworthy, the media reporting to be "alarmist" and the evidence presented to be unreliable. Multiple regression analysis revealed that beliefs about climate change, trust and environmental attitudes explained a very small proportion of the variance in the adoption of low emission farming practices. In contrast, respondents' beliefs that these practices would be financially profitable and help ensure the long-term viability of their farms explained 27 % of additional variance in the outcome measure. Implications for encouraging the uptake of low emission farming practices will be discussed.

Psychology and climate change: What Australian psychology students are doing around the Country: Student Forum

HINE, D., MORGAN, M., ELLUL, M, GUY, S., MARGETTS, E., & CHRISTIE, L.
dhine@une.edu.au

Increasing numbers of Australian psychology students are seeking opportunities to do research in the diverse field of environmental psychology, ranging from studies of individual behaviour change, farmers' attitudes, or the development of environmental values, through to studies on people's perceptions and understandings of climate change. Increasingly, students are undertaking environmental projects not just within environmental psychology departments, but also under the banner of social psychology, community psychology, developmental psychology, organisational psychology, and even in geography departments! Encouraging research in environmental psychology is a vital part of helping Australia, and the world, develop and adopt effective strategies for reducing environmental threats, and helping us to adapt to significant changes in our environment. In this forum, hear a selection of students from Australian universities discuss their research interests and projects. The forum will be chaired by (Prof Don Hine), and include students from University of New England, Griffith University, and Melbourne University.

Notes from Susie Burke

- Methuen Morgan, University of New England, supervised by Don Hine. Studying farmers and coal seam gas extraction, and the 'shut the gate' campaign.
- Michelle Ellul, Griffith University, supervised by Joe Reser and Shirley Morrissey. Studying climate change perceptions and attitudes
- Sophie Guy, Melbourne University, supervised by Yoshi Kashima. Studying whether analogy is effective to help people form accurate mental models about climate processes. She is testing a bathtub analogy that describes the process of carbon accumulation to see if it helps people to understand and reason about emission rates and climate policies.
- Elise Margetts, Melbourne University, supervised by Yoshi Kashima. Studying mechanisms behind behavioural spillover. So, if someone is performing one environmentally friendly behaviour, what would facilitate more environmentally friendly behaviours (positive spillover) being performed or why might they choose not to perform other environmentally friendly behaviours (negative spillover)?

Louise Christie, Griffith University, supervised by Joe Reser and Shirley Morrissey. Studying how people adapt and cope with the possible psychological distress resulting from the threat of a natural disaster? Can being psychologically prepared make it more likely for individuals to undertake the necessary physical preparations? Does being prepared psychologically increase resilience and become a protective factor for individuals

who experience an extreme weather event? How do people's worldview and cultural biases predict their psychological preparedness for the threat of a natural disaster/perceived threat of climate change?

SUBMISSION GUIDELINES

Contributions need to be brief. Ideal is something to fit one page. I have reduced font size, so if it's all text, that's about 800 words. 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 2012. Deadline is 15th April, 2012.

Send contributions to bob at bobswriting.com.

Bob

THE ZAMANG

In Brazil's jungles you'll still find a tree
with a huge head of branches, its blossoms free.
It's called the Zamang. But you'd better go fast:
Brazilian jungles aren't likely to last.
[from *A Young Greenie's Alphabet* by Bob Rich]