

# Rethinking scientific meetings: an imperative in an era of climate change

Simon N. Young, PhD

Co-Editor-in-Chief, *Journal of Psychiatry and Neuroscience*, and Department of Psychiatry, McGill University, Montréal, Que.

Why should a journal specializing in neuroscience research related to psychiatry run an editorial related to climate change? Most neuroscience/psychiatry researchers are motivated by 2 main factors: a fascination with the workings of the human brain and a desire to do something that will in the long run play a role in reducing the suffering of psychiatric patients. When we behave in a way that may contribute negatively, even in a miniscule way, to psychiatric disorders, that is inconsistent with one of our main objectives. My argument is that climate change will contribute in an important way to psychopathology, and therefore neuroscience/psychiatry researchers should try to limit their carbon footprints. Travel by air to meetings is an important contributor to the carbon footprint of researchers.

The latest research suggests that until recently forecasts of world temperature increases have significantly underestimated the magnitude of the problem.<sup>1</sup> Future scenarios that now seem quite possible include the destruction of many large cities by rising sea levels, rapidly intensifying tropical cyclones, food shortages and hundreds of millions of refugees.<sup>2</sup> Although climate change will clearly have adverse effects on human health, analyses of this topic have often focused on physical health (see McMichael and colleagues<sup>3</sup>) despite the fact that world health surveys show that psychiatric disorders are not only an important burden in their own right, but also worsen physical health (see Moussavi and colleagues<sup>4</sup>). Climate change will inevitably increase the burden of psychiatric disorders as it will increase many of the risk factors for psychiatric disorders, including inadequate nutrition and stress effects on the developing brain, trauma from events such as hurricanes and cyclones, disruption of social contacts when people become refugees, an increase in poverty and increased stress.

As Everett<sup>5</sup> has pointed out, universities have a particular responsibility for setting an example of sustainable development, although individual faculty members "may find themselves caught between claims of social responsibility on the one hand and traditional norms of their disciplines on the other." Although data on the carbon footprint of the different

activities of researchers are nonexistent, air travel to meetings is undoubtedly an important contributor. A recent analysis of CO<sub>2</sub> emissions of the employees of an atmospheric research institute in Norway is instructive.<sup>6</sup> More than 90% of the emissions from their work-related travel were from air travel, with only 3% from ground travel and 5% from hotel use. The annual travel-related emissions for scientists from that institute was 3.9–5.5 metric tons of CO<sub>2</sub> per capita, which, as the authors point out is more than the global average per capita emission and greater than that of many countries such as China (3.8 metric tons) and India (1.2 metric tons). So if neuroscience/psychiatry researchers want to decrease their carbon footprints, how can they do it in a way that is consistent with their research goals? I have 3 suggestions.

The first is to ask whether attendance at a meeting is really necessary and whether it merits the carbon footprint attendance will involve. Obviously there is less concern about meetings involving ground travel than those requiring air travel. Nonetheless we all have heard the stories of how a core group of researchers give similar lectures at meetings on several different continents within a limited timeframe. I have noticed that attendance at meetings in cities such as Kyoto and Florence is much higher than at meetings in ... I do not want to get into trouble so I had better let you fill in your own candidates for dull cities. This raises the possibility that research is not always the only motive for attending meetings. Nonetheless, meetings can be vitally important for the advancement of science. *Nature* has recently published a series on meetings that had world-changing consequences,<sup>7</sup> but also suggests in an editorial that "scientists these days rarely expect to hear much new science at a conference" and that the proliferation of meetings is sometimes driven "by researchers wanting to pad out their CVs, and by the prestige conferred on an institution by hosting such an event."<sup>8</sup> Assessments of researchers for tenure and promotion often include consideration of presentations given internationally, but this attitude has to change. In a recent committee meeting I attended, one of the committee members pointed out that the academic under discussion had an excellent publication

Correspondence to: Dr. S.N. Young, Department of Psychiatry, McGill University, 1033 Pine Ave. W, Montréal QC H3A 1A1; fax 514 398-4370; Simon.Young@mcgill.ca

*J Psychiatry Neurosci* 2009;34(5):341-2.

record but had unfortunately given hardly any presentations at international meetings. When I pointed out that this was not an issue given the carbon footprint involved in attending meetings the committee members all laughed, which I thought ironic given that the area of specialization of the candidate dealt with aspects of moral responsibility. I had to get quite assertive to convince them that I was serious. This anecdote is a good example of how social responsibility may conflict with the traditional norms of academia,<sup>5</sup> and it is the traditional norms that have to change.

The second suggestion is to consider how modern technologies can help lower the carbon footprint of meetings. Academics seem to use technologies such as videoconferencing more for education than for scientific meetings. I have yet to attend a meeting where a major speaker has given a talk from her/his hometown using videoconferencing, yet such a technique would lower the costs of the organizers and lower the carbon footprint of the meeting. Of course networking at a meeting can be as important as listening to talks, but not every presenter has to be present in person. The logical extension of this, the virtual conference that occurs in cyberspace, has been around for long enough that a history of cyber sessions appeared as early as the year 2000,<sup>9</sup> but the extent of the impact they will have on researchers remains to be seen. The bottom line is that those organizing meetings need to experiment with modern technologies and to assess how they impact those attending both in person and virtually.

The third suggestion is that the use of carbon offsetting when flying to a meeting is a necessity. Carbon offsetting is making slow progress but there are bright areas. An article in *Science*, "Greening the Meeting,"<sup>10</sup> mentions that when the Ecological Society of America added an optional fee for carbon offsets to their meeting registration fee only 6 members paid in 2006, but 500 paid in 2007. However this number was

still only 15% of the meeting's registrants. Those organizing meetings should definitely give registrants the option of paying for carbon offsets when registering. I would like to think that eventually researchers will accept this as a compulsory part of every meeting registration. Airlines often give passengers the option of paying carbon offsets for their travel, but airlines obviously have a motive for keeping those fees low. Ratings of different organizations that provide carbon offsets are available online (e.g., [www.davidsuzuki.org/files/offset\\_guide/assessment\\_criteria\\_relative\\_weighting.pdf](http://www.davidsuzuki.org/files/offset_guide/assessment_criteria_relative_weighting.pdf)).

I am sure that a time will come when attendance at a meeting where the organizers have not made a serious attempt to deal with the carbon footprint of the meeting will seem as anachronistic as attending an appointment with your general practitioner while he is smoking.

**Competing interests:** None declared.

## References

1. Monastersky R. A burden beyond bearing. *Nature* 2009;458:1091-4.
2. Schneider S. The worst-case scenario. *Nature* 2009;458:1104-5.
3. McMichael AJ, Woodruff RE, Hales S. Climate change and human health: present and future risks. *Lancet* 2006;367:859-69.
4. Moussavi S, Chatterji S, Verdes E, et al. Depression, chronic diseases, and decrements in health: results from the World Health Surveys. *Lancet* 2007;370:851-8.
5. Everett J. Sustainability in higher education: implications for the disciplines. *Theory Res Educ* 2008;6:237-51.
6. Stohl A. The travel-related carbon dioxide emissions of atmospheric researchers. *Atmos Chem Phys* 2008;8:6499-504.
7. Brave new worlds. *Nature* 2008;455:137-8.
8. Meeting expectations. *Nature* 2008;455:836.
9. Lecueder S, Manyari DE. Virtual congresses. *J Am Med Inform Assoc* 2000;7:21-7.
10. Lester B. Greening the meeting. *Science* 2007;318:36-8.



## Journal of Psychiatry & Neuroscience

**Online manuscript  
submission and peer review**

**AVAILABLE at**  
<http://mc.manuscriptcentral.com/jpn>