

RR LETTERS TO UNIVERSITY OF SYDNEY MANAGEMENT & NUTRIENTS' EDITORIAL BOARD

----- Forwarded message -----

From: rory robertson <strathburnstation@gmail.com>

Date: Tue, Apr 10, 2012 at 7:10 PM

Subject: URGENT: Another eye-popping error in scientists' lame defence of shonky sugar study

To: dvc.provost@sydney.edu.au, chair.academicboard@sydney.edu.au, stephen.simpson@sydney.edu.au, Michael.Spence@sydney.edu.au, Stephen.Garton@sydney.edu.au, Derrick.Armstrong@sydney.edu.au, Shane.Houston@sydney.edu.au, John.Hearn@sydney.edu.au, Jill.Trewhella@sydney.edu.au, Ann.Brewer@sydney.edu.au, Gwynnyth.Llewellyn@sydney.edu.au, Kathryn.Refshauge@sydney.edu.au, Chris.Peck@sydney.edu.au, Bruce.Robinson@sydney.edu.au, Jill.White@sydney.edu.au, Iqbal.Ramzan@sydney.edu.au, vice.chancellor@sydney.edu.au, chris.coffey@sydney.edu.au, debbie.bowman@sydney.edu.au, tim.payne@sydney.edu.au, andrew.potter@sydney.edu.au, rebecca.murray@sydney.edu.au, jane.oakeshott@sydney.edu.au, meryl.bradford@sydney.edu.au, vc.admin@sydney.edu.au, jane.harvey@sydney.edu.au, dbier@nutrition.org, ajcn@nutrition.org, jnsubmit@nutrition.org, nutrients@mdpi.com, peter.howe@unisa.edu.au, jon.buckley@unisa.edu.au, alicia.li@mdpi.com, pike@mdpi.com, lin@mdpi.com, sean.h.adams@ars.usda.gov, jjb_anderson@unc.edu, enrico.bignetti@unipr.it, jeffrey.blumberg@tufts.edu, werner.bonrath@dsm.com, d.cameron-smith@auckland.ac.nz, francesco.capozzi@unibo.it, karenc@uow.edu.au, fdunshea@unimelb.edu.au, edecker@foodsci.umass.edu, wrcraig@andrews.edu, vflood@uow.edu.au, faye@cirad.fr, haub@ksu.edu, bengt.jeppsson@med.lu.se, kmecklin@uoguelph.ca, kuhlensc@illinois.edu, leidyh@missouri.edu, mjplemay@gmail.com, rhmcdonald@ucdavis.edu, bmeyer@uow.edu.au, goran.molin@appliednutrition.lth.se, k.pentieva@ulster.ac.uk, caryl.nowson@deakin.edu.au, pribis@andrews.edu, remig@ksu.edu, s.samman@mmb.usyd.edu.au, andrew@scholeylab.com, song@msu.edu, jj.strain@ulster.ac.uk, james.swain@case.edu, tamurat@uab.edu, teranmd@illinois.edu, ustunol@anr.msu.edu, sv98@columbia.edu, [wendy.ward@utoronto.ca](mailto>wendy.ward@utoronto.ca), m.westerterp@hb.unimaas.nl, susan.whiting@usask.ca, l.williams@rowett.ac.uk, zile@msu.edu

Rory Robertson
Sydney
10 April 2010

Good evening distinguished members of The University of Sydney's management and of the Editorial Board of *Nutrients* journal.

As noted in my recent correspondence (attached), I've challenged an influential paper published by University of Sydney scientists: "**The Australian Paradox: A Substantial Decline in Sugars Intake over the Same Timeframe that Overweight and Obesity Have Increased**". Indeed, it is clear that there is no "Australian Paradox", just an idiosyncratic and unreasonable assessment – and avoidance - of the available sugar data by those who coined the phrase.

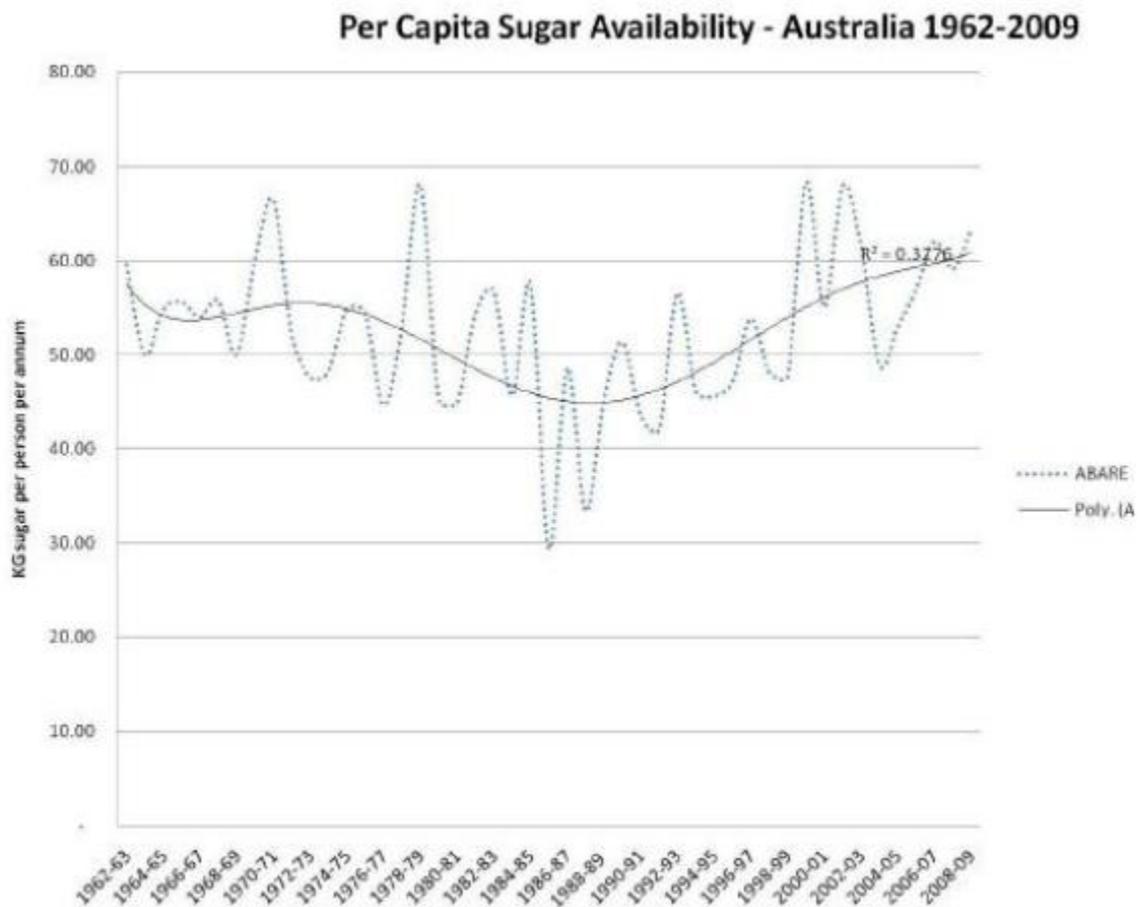
The authors of the paper - Dr Alan Barclay and Professor Jennie Brand Miller - have produced a rebuttal of my critique (see attached). Below is my response to their weak and error-laden rebuttal, in which they unreasonably maintain that all is well with their paper despite obvious errors aplenty.

BRIEF RECAP OF KEY ERRORS AND OMISSIONS IN THE AUSTRALIAN PARADOX PAPER

Dr Barclay and Professor Brand Miller concluded: "This analysis of [i] apparent consumption, [ii] national dietary surveys and [iii] food industry data indicates a **consistent and substantial decline** in total refined or added sugar consumption by Australians **over the past 30 years**" (my emphasis; p. 9 of 14 of PDF at <http://www.mdpi.com/2072-6643/3/4/491/>)

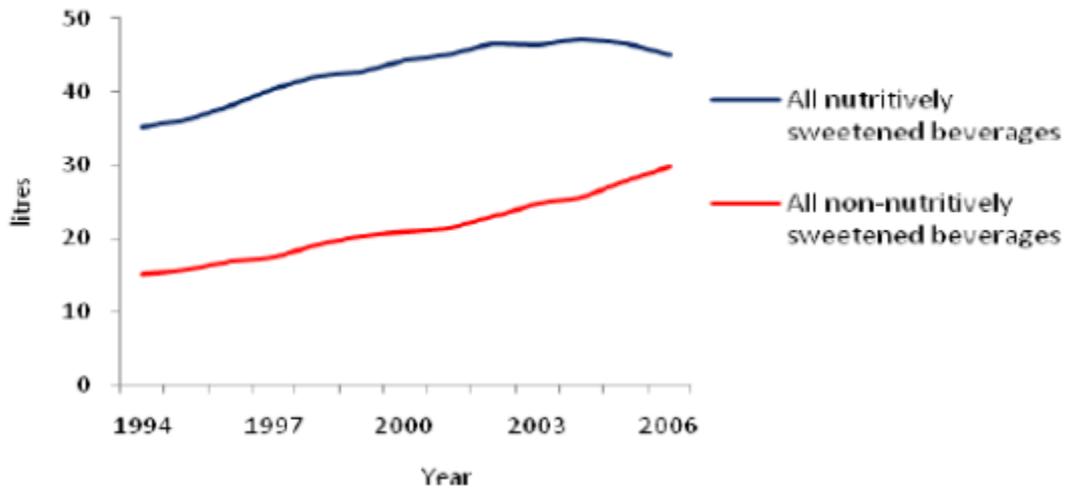
Unfortunately, as documented in detail in my critique (PDF attached), the authors' various embarrassing errors and omissions are so significant that their conclusion (in the paper's title) simply is invalid. Just look at the **post-1980 uptrends in every one of the charts in my critique**, the final six reproduced directly from *Australian Paradox*. **In particular, the authors:**

1. Did not know or chose not to mention that the primary data source of their preferred series - apparent consumption - was discontinued by the ABS after 1998-99. **Obviously any statement about "the past 30 years" is invalid when the series was abandoned as unreliable by the ABS more than a decade ago** (4306.0).
2. Did not mention "**Sugar availability**" - a simple calculation of production less exports - despite the data being official, up to date, and this series being the dominant part of any (unavailable) apparent consumption calculation. Sugar availability should be the starting point for any discussion on Australian sugar consumption. Importantly, the post-1980 trends for both sugar availability and sugary imports - together forming a very strong proxy for (unmeasurable) apparent consumption - are up not down, let alone down "substantially". Please consider the first chart below (from p. 14 in my critique). It makes abundantly clear the fact that the authors' claimed decline in consumption "over the past 30 years" simply is the result of ignoring the bigger picture. Interestingly, the author(s) were **aware** of these data before publishing *Australian Paradox*, yet not a peep about the fact that it invalidates the story they had chosen to tell. How is that consistent with reasonable scientific method? How can they maintain their fiction that sugar consumption is down substantially since 1980 when obviously the post-1980 trend is flat/up?
3. Claim that **a 30% rise in sales of sugary softdrinks between 1994 and 2006 is evidence of a "substantial" fall in refined sugar consumption since 1980!** The authors seem unaware that this is plainly ridiculous, notwithstanding the (irrelevant) fact that sales of diet softdrinks grew faster (the authors' Figure 5A is reproduced below).
4. Claim that somehow the post-1980 uptrends in the consumption of "total sugars" for both adults and children across two (adults) or three (children) nationwide nutrition surveys are clear evidence of a "substantial" fall in refined sugar consumption since 1980. Huh? (See pp. 15-18 in my critique.)



<http://sweetpoison.com.au/wordpress/wp-content/uploads/2010/11/percapita.jpg> ; <http://www.raisin-hell.com/2011/02/heart-foundation-says-sugar-isnt.html>

**Figure 5A: Sugary soft drinks (TOP LINE)
Beverage sales per capita**



AUTHORS' REBUTTAL OF ROBERTSON'S CRITIQUE

So far, Dr Barclay and Professor Brand Miller - unreasonably - have not conceded any of these obvious errors. Indeed, they have claimed that my critique is "factually incorrect", supposedly because I am "not a nutritionist".

In a detailed rebuttal of my critique (attached), the authors dig a deeper hole, reinforcing the assessment that they cannot be trusted with facts if the facts contradict their preferred story.

On point (2), the authors on the basis of nothing introduce the claim that nearly one-quarter (roughly 14kg) of today's 60kg per person of "sugar availability" - production less exports, before imports and non-food leakages - is lost from our potential food supply because it is used in ethanol production (see footnote 1 on p. 2 of the attached rebuttal).

Yet sugar is not a significant input into ethanol production in Australia. Actually, the biggest producer (Manildra) uses wheat and wheat waste while the next two largest producers use sorghum and other grain, or sugar's by-product molasses. These facts are available from a two-minute Google search (see 9 of 24

at <http://www.accc.gov.au/content/item.phtml?itemId=961783&nodeId=c5006d5e6145ec6c55231148c819855e&fn=ACCC%20Petrol%20Monitoring%20Report%20Chapter%206.pdf> , <http://ethanolfacts.com.au/myths> and <http://www.dbrl.com.au/>).

So, under scrutiny, and in response to my observation that the *Australian Paradox* paper displays a negligent disregard for key facts on sugar consumption, Dr Barclay and Professor Brand Miller introduce a fifth major error, literally making up a fact - that a big chunk of Australia's available sugar is used for vehicle fuel, not eaten - to fit the story they want to tell. These are scientists?

Notably, there is no convincing rebuttal of points (1), (2) or (3) above. So the *Australian Paradox* paper remains an embarrassment for all involved - the authors, The University of Sydney and the journal *Nutrients*. And the errors keep coming.

On point (4), looking at the detail of available nationwide nutrition surveys, the authors claim for adults that: "Although there were small increases in *total* sugars from 1983 to 1995, **there were sharper declines in 'sugary products' such as soft drinks that contribute refined sugar to the diet**". **Contrary to this latest (mistaken) claim, softdrinks are not categorised as "sugary products" but are located in "Non-alcoholic beverages"** (see p. 96/162 in link below, and p.

86/162). And, unsurprisingly, the consumption of “**Non-alcoholic beverages**” - including sugary soft-drinks and fructose-laden fruit juices - surged over the decade to 1995.

As discussed in my critique (pp. 15-18), it is true that daily consumption of “**Sugar products and dishes**” did fall over the decade to 1995 (lower by 4g per head). But that grouping - mainly sugar for tea and coffee, as well as honey and jams - is only a small subset of the broad range of sugary products in our food supply.

In particular, beyond the recorded surge in the consumption of sugary softdrinks and fruit juices, there were big increases recorded for the consumption of “**Cereals and cereal products**” and “**Cereal-based products and dishes**”, two large fast-growing categories that together include sugary breakfast cereals, biscuits, cakes, breads, pizza bases, etc (pp 66-68 of 162 in link below) “**Confectionery**” - the consumption of which also surged - has its own separate grouping (p. 70/162). So too, males also consumed more “**Milk products and dishes**”, a category which includes the refined sugar added to ice-cream, flavoured milks and yoghurts ([http://mbsonline.gov.au/internet/main/publishing.nsf/Content/6A40E29D690738DECA25725F00810008/\\$File/nutrient.pdf](http://mbsonline.gov.au/internet/main/publishing.nsf/Content/6A40E29D690738DECA25725F00810008/$File/nutrient.pdf)).

For adults, in the end we are left agnostic about whether consumption of *refined* sugar rose or fell between 1983 and 1995. Softdrinks may well have driven an overall uptrend but it's hard to prove.

The data are a minefield, even for clever nutritionists. Strong statements claiming a "substantial" post-1980 decline in the consumption of refined sugars are available only to those who are determined to "prove" something they already think they know (notwithstanding a range of key facts that says otherwise).

Nevertheless, if it's not clear from the national nutrition data that *refined* sugar consumption has fallen substantially for adults - and it is *not* clear - then even the most promising series (of four) for the authors contradicts the *Australian Paradox* conclusion.

For children, the longer-term trend over the period spanned by the point estimates for 1985 and 2007 is up not down for “Total sugar”, “Sugary products”, “Confectionery”, “Non-alcoholic beverages” and that large sugary category of “Cereal-based products and dishes”. Clearly, for children, the post-1980 trend in sugar consumption rose as obesity ballooned. What Australian Paradox?

ASSESSMENT

Dr Barclay and Professor Brand Miller responded to my observation of four big errors in their *Australian Paradox* paper by introducing a fifth big error. Disturbingly, based on nothing they claimed that nearly one-quarter of all "sugar availability" is going into our cars as motor fuel, not eaten (see footnote 1 on p. 2 of the attached rebuttal).

In fact, a two-minute Google search reveals that the correct figure is zero or close to it. I used to think the *Australian Paradox* analysis was just sloppy. Now I wonder if it's not a bit more serious than that. In any case, the authors were unable to provide a convincing rebuttal of my points (1), (2), (3) or (4) above.

(1) No valid data for our preferred sugar series over the past decade because the ABS abandoned its apparent consumption estimates as unreliable after 1998-99? No problem, the authors seem to be saying. Apparently it doesn't bother them that any observation about apparent consumption over "the past 30 years" is invalid. Huh, wasn't that their main evidence driving the (mistaken) *Australian Paradox* conclusion?

(2) The timely official "Sugar availability" data showing a flat/up post-1980 trend contradict our preferred story of a "substantial" decline in consumption since 1980? Not a problem: after all, "sugar availability is not the same as consumption", the authors say dismissing this as an issue. Yet flat/up sugar availability alongside rising sugary imports completely invalidates the *Australian Paradox's* conclusion of a post-1980 decline in refined sugar consumption. "Sorry, no comprehend!"

(3) Bizarrely, the authors still are keen to focus on a two-year (2005 and 2006) wiggle in sales of sugary softdrinks - the wiggle itself associated with a low-profile structural break in the series after 2004 - and pay almost no attention to the overall 30% increase! **The authors still seem unaware that Figure 5A above - showing a 30% rise in sales of sugary softdrinks - contradicts rather than supports their preferred story of a substantial post-1980 decline in sugar consumption.**

(4) **The authors (again) are mistaken** in claiming that the big increase in softdrink consumption is captured in "Sugary products" in the national nutrition dataset, and pay little attention to the fact that "Sugary products" are only a **subset** of total sugary products. Unconvincingly, they argue that nationwide nutrition surveys show a fall in total *refined* sugars since 1980 despite the clear increases in *total* sugars (intrinsic plus refined). On refined sugars, the data seem agnostic for adults but suggest a clear post-1980 consumption uptrend for children via not one but five sugar-laden categories.

In summary, Dr Alan Barclay and Professor Jennie Brand Miller batted none for four in producing convincing evidence of a "substantial" decline in refined sugar consumption "over the past 30 years". But they showed an impressive commitment to their preferred *Australian Paradox* story by manufacturing the fiction that nearly one-quarter of Australia's available sugar is used in producing ethanol to run motor vehicles, not eaten. The real figure is zero or close to zero.

While the authors still concede nothing, it is abundantly clear that the *Australian Paradox* paper involves sloppy treatment of critical facts; indeed, someone unkind might say that the paper displays a reckless disregard for the facts that do not suit the preferred story.

Beyond the *Australian Paradox* **Dr Barclay and Professor Brand Miller in their best-selling diet books make a further spectacularly false claim: "There is an absolute consensus that sugar in food does not cause diabetes"** (see *Low GI Diet Handbook*, 2011, p. 73 and *the diabetes and pre-diabetes handbook* [sic], 2010, p.43). **This statement is either delusional or again is evidence of that reckless disregard for facts.** There's "an absolute consensus", yet debate rages all around? Could either author even say that sentence out loud with a straight face?

Moreover, in *the diabetes and pre-diabetes handbook* readers are assured that "**alarmist reports about fructose**" involve only "**rats and mice** fed excessive quantities" of fructose. Yet recent scientific studies do not exactly wrap the strong evidence of sugar/fructose driving diabetes in mystery: "recent data suggest that fructose consumption in **human[s]** results in increased visceral adiposity, lipid dysregulation, and decreased insulin sensitivity, all of which have been associated with **increased risk for cardiovascular disease and type 2 diabetes.** A proposed model for the differential effects of fructose and glucose is presented..." (My emphasis; <http://onlinelibrary.wiley.com/doi/10.1111/j.1749-6632.2009.05266.x/abstract>). And: "...within a 6- to 12-month period of time, consumption of a high-fructose diet in **[Rhesus] monkeys** [with genomes that are a 93% match with human genomes] produces many of the features of metabolic syndrome in humans, including central obesity, insulin resistance, inflammation, and dyslipidemia. **In a subset of animals, the high-fructose diet also results in overt T2DM [diabetes].** Thus, this rhesus monkey model of diet-induced obesity, insulin resistance, and dyslipidemia is directly translatable to metabolic syndrome in humans" (<http://onlinelibrary.wiley.com/doi/10.1111/j.1752-8062.2011.00298.x/abstract> , pp.247).

In my opinion, the range of evidence above suggests that Dr Barclay and Professor Brand Miller often have been negligent when dealing with critical facts. This is particularly disturbing - as noted in my previous email - because the Heart Foundation, Diabetes Australia, Nutrition Australia and the Dietitians Association of Australia all seem to have taken false comfort from the mistaken conclusion of an *Australian Paradox*. Moreover, a range of other entities also are seeking to influence the Australian Government's (pending) high-profile nutrition advice, some citing this shonky sugar study.

The *Australian Paradox* clearly has become a menace to Australian public health. The authors' weak and error-laden rebuttal of my critique is a further embarrassment to all concerned - the authors, the University of Sydney and the journal *Nutrients*. So I'm left

wondering: who is in charge of quality control at The University of Sydney and the journal *Nutrients*, and what is going to be done to fix this serious problem?

My hope is that The University of Sydney and the journal *Nutrients* together will do the right thing and correct the public record on the invalidity of the shonky *Australian Paradox* paper, without further delay.

Best wishes,
Rory

rory robertson

economist and former-fattie

now fairly fructose free!

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----- Forwarded message -----

From: **rory robertson** <strathburnstation@gmail.com>

Date: Thu, Apr 5, 2012 at 12:34 PM

Subject: URGENT: growing media focus on sydney scientists' shonky sugar study

Good afternoon, distinguished members of The University of Sydney's management.

Please find attached:

1. A punchy 2-page letter of complaint to the 40-odd scientists on the Editorial Board of *Nutrients* E-journal (<http://www.mdpi.com/journal/nutrients/editors/>)
2. A 22-page paper: "Spectacular errors in Sydney University's high-profile exoneration of sugar (When will over-confident academics correct the public record?)"

The latter piece discusses various aspects of the debate on sugar, obesity and diabetes. In particular, I've challenged an influential paper published by Dr Alan Barclay and Professor Jennie Brand Miller: "**The Australian Paradox: A Substantial Decline in Sugars Intake over the Same Timeframe that Overweight and Obesity Have Increased**" (see PDF at <http://www.mdpi.com/2072-6643/3/4/491/>)

Indeed, I've documented in detail the fact that two University of Sydney scientists have got key data issues so wrong that their conclusion (in their title) simply is invalid. To save yourself time, maybe just go to Figure 5A in the paper above and wonder if a 30% rise in sales of sugary soft-drinks is evidence for or against a "substantial" decline in per capita sugar consumption.

Below I've laid out the latest developments in this growing dispute. Also listed below are some of the places the shonky "Australian Paradox" paper is cited. The way the paper's invalid conclusion is being used makes it very important, in my opinion, for the public record to be corrected without further delay.

The key question: is there any serious "quality control" on academics' output at The University of Sydney or on publications in the E-journal *Nutrients*.

I'm sorry if some take the view that this note is not the best way to handle this dispute. It's just that I've struggled now for a month to get any satisfactory response using other avenues. Indeed, the main response I've received so far is from one of the authors rejecting my critique on the basis that "Rory is not a nutritionist", so he wouldn't have a clue. That's not really good enough given that this dispute is not about nutrition, but simply whether the relevant data trends for sugar are flat/up or down "substantially".

What is needed, in my opinion, is for this growing problem to be taken seriously by those who oversee The University of Sydney's hard-won and impressive - yet ultimately fragile - reputation for academic and research excellence. My only request - please - is for the public record on this matter be corrected without further delay.

Best wishes,
Rory

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rory robertson

economist and former-fattie

now fairly fructose free!

strathburnstation@gmail.com

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