

EIGHT CRITICAL QUESTIONS FOR DR ALAN BARCLAY AND PROFESSOR JENNIE BRAND-MILLER **10 August 2012**

Removed from <http://www.medicalobserver.com.au/news/is-sugar-really-the-culprit-of-the-obesity-epidemic>

Dr Barclay and Professor Brand-Miller, I'm pleased to see that you have responded to my comments above. I hope on this website we can work together to clear up several issues that so far you have chosen not to address.

I'm mainly an economist so I will not debate your version of the scientific evidence on fructose consumption. Suffice it to say, I think you are wrong. But that's only my opinion and there is room for debate.

My dispute with you is not about science. It is not about nutrition. It is about your publication of demonstrably false empirical facts on sugar consumption - twice, under the label of "Australian Paradox" - in a scientific journal (see <http://www.australianparadox.com/>).

You have claimed – falsely, I show below - that the available data show "an inverse relationship" between the consumption of refined or added sugar (down) and obesity (up).

Dr Barclay and Professor Brand-Miller, if you cannot provide credible answers to all EIGHT specific questions I pose below, then in my opinion you should be required to correct the scientific record without further unreasonable delay.

As background, readers of Medical Observer should be aware that the deeply flawed "Australian Paradox" paper claims to have documented "...a consistent and SUBSTANTIAL DECLINE in total refined or added sugar consumption by Australians OVER THE PAST 30 YEARS". (So discussion should be restricted to the relevant 1980 to 2010 time-frame, please.)

Dr Barclay and Professor Brand-Miller, the obvious problem with your claim that sugar consumption has declined over the past 30 years - at all, let alone substantially - is that four valid indicators of sugar consumption in your own charts point UP not down. Readers can check the authors' own charts reproduced as Figures 1-4 on pp. 2-3 at <http://www.australianparadox.com/pdf/NutrientsLETTER2405122.pdf>.

Growing numbers of reasonable people regard that as pretty clear evidence that the story of a substantial decline is spectacularly wrong. Extraordinarily, on top of your four valid sugar indicators trending up in your own charts, Dr Barclay and Professor Brand-Miller, your preferred indicator is invalid, discontinued as unreliable.

Let's be clear: it's not only me who sees problems with your Australian Paradox paper. Dr Rosemary Stanton has been rather scathing:

- "And yes, I agree with you [Rory] that we have no evidence that sugar consumption in Australia has fallen. A walk around any supermarket shows that huge numbers of foods contain sugar. I argue this point frequently with colleagues";
- "I have many objections to that particular paper and to the idea that sugar is not a problem"; and
- "I have expressed my opinion about the paper to the authors and - when it was published - I commented on it in several fora. I will almost certainly cite it at some stage as an example of something I consider to be incorrect". (<http://theconversation.edu.au/two-books-one-big-issue-why-calories-count-and-weighing-in-6372> ; <https://theconversation.edu.au/energy-drinks-a-trigger-for-heart-attacks-and-stroke-7036>)

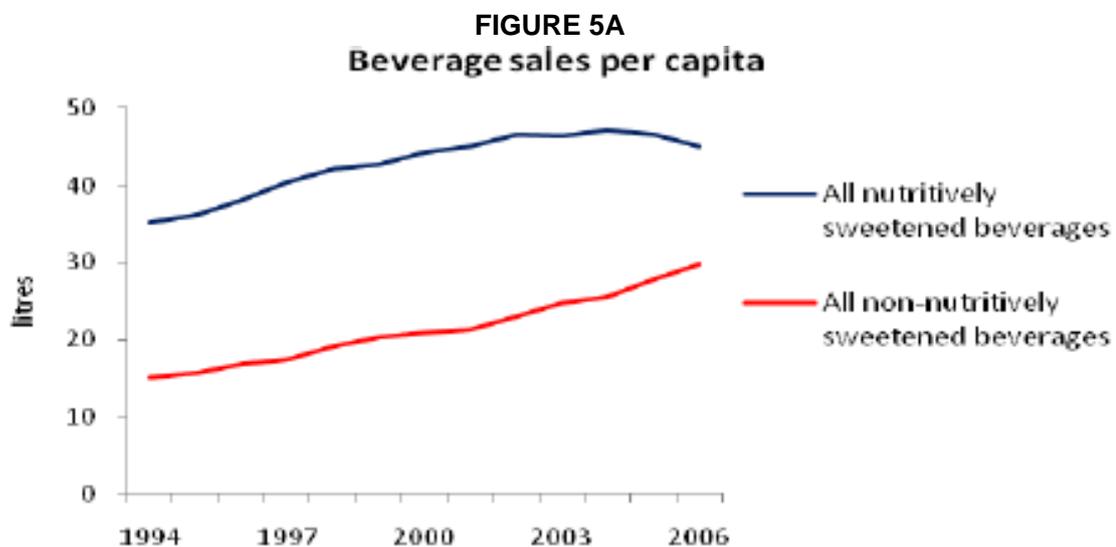
Professor Boyd Swinburn – a global expert in obesity issues – also has said publicly that your paper is deeply flawed. According to The Sydney Morning Herald, he thinks that your "...summary of the data as showing 'a consistent and substantial decline in total refined or added sugar by Australians over the past 30 years' belies the facts 'and is a serious over-call in my opinion'. His conclusion is that 'the ecological trends of sugar and obesity are pretty well matched and I do not believe there is any paradox to explain'" (<http://www.smh.com.au/national/health/research-causes-stir-over-sugars-role-in-obesity-20120330-1w3e5.html>).

So, we have a range of competent analysts saying that the so-called "Australian Paradox" is not even a puzzle - it's just plain wrong, because sugar consumption and obesity have tended to move in the same direction.

Indeed, Dr Barclay and Professor Brand-Miller, the only real paradox with Australian Paradox is why what you are saying – the available data show "a consistent and substantial decline in total refined or added sugar consumption by Australians over the past 30 years" - is exactly the opposite of what your own valid charts are saying - the trend has been up - and why clownish quality control at Nutrients has – twice - allowed publication of your sloppy analysis and always-unlikely conclusion.

In any case, I have eight specific questions. Questions 1 and 2 are toughies. So too are Questions 4 and 8. And the rest are no snack either. Anyway, I trust your answers will clear up some of my serious concerns, concerns broadly shared by Dr Stanton and Professor Swinburn.

Question 1: Dr Barclay and Professor Brand-Miller, are you aware that your published chart of sugary softdrinks in "Australian Paradox" (Figure 5A) shows a 30% rise - NOT a decline - and that the charted figures on diet drinks and bottled water are a furphy given that the only issue is sugar consumption? (Water consumption and other non-sugar consumption are irrelevant. By the way, Figure 5A can be viewed in <http://www.mdpi.com/2072-6643/3/4/491/htm>).



Readers, the top (dark) line in Figure 5A shows per-capita sales of sugary softdrinks. Yes, it shows a 30% increase between 1994 and 2006. Yes, it suggests, if anything, that sugar consumption increased not declined. Yes, the second (red) line - sales of diet and non-sugary drinks – is irrelevant, a furphy.

The chart captures the fact that between 1994 and 2006 Australians on average drank more of everything - sugary drinks, diet drinks and bottled water.

Question 2: Now, Dr Barclay and Professor Brand-Miller, here is a key sentence reproduced directly from your Australian Paradox paper: "Food industry data indicate that per capita sales of low calorie (non-nutritively sweetened) beverages doubled from 1994 to 2006 while nutritively sweetened beverages decreased by 10%" (Para 3 in 4. Discussion at <http://www.mdpi.com/2072-6643/3/4/491/htm>)

So, looking at Figure 5A again Dr Barclay and Professor Brand-Miller, are you aware that your sentence above - published in a science journal and supposedly twice peer-reviewed - is ABSOLUTELY FALSE, and that to make it correct you would need to replace "decreased by 10%" with "increased by 30%"?

Readers, no doubt it also is plain to you that, bizarrely, Dr Barclay and Professor Brand-Miller somehow interpreted the 30% rise in sugary softdrink sales in Figure 5A as evidence for - not against! - their claimed "substantial decline" in per-capita sugar consumption since 1980! Yes, I too was shocked when I noticed that amazingly basic error the first time. Put up your hand if you think this paper was competently "peer reviewed"?

Would it shock you to learn that the “Guest Editor” of the relevant “Special Issue” of the Nutrients journal in which Australian Paradox is published was, in fact, the lead author? How is that arrangement consistent with genuine quality control when it matters? (http://www.mdpi.com/journal/nutrients/special_issues/carbohydrates)

Question 3: Dr Barclay and Professor Brand-Miller, will you please correct that sentence in your journal article, and then correct your conclusion that sugar consumption declined?

Please, let's have no more pretending that there are no serious errors in your deeply flawed “Australian Paradox” paper.

Question 4: Dr Barclay and Professor Brand-Miller, will you please acknowledge that the ABS "apparent consumption of sugar" series - which forms the basis of your preferred FAO series - was discontinued by the ABS after 1998-99?

If you remain unaware of the fact that this critical dataset was indeed discontinued, please notice that the ABS has typed the word CEASED in bright red letters at the top of the relevant publication:

<http://www.abs.gov.au/ausstats/abs@.nsf/mf/4306.0> .

Question 5: Dr Barclay and Professor Brand-Miller, why did you NOT notice - or at least why did you did NOT note in "Australian Paradox" - the fact that the database underlying your preferred FAO "apparent consumption of sugar" series had been discontinued in 1998-99?

Question 6: Assuming that you were unaware of that fact - and did not deliberately withhold it from your readers and your paper's reviewers, if any - do you now understand that you cannot reasonably publish the story of a 30-year decline - 1980 to 2010 - as fact when your preferred series is invalid for over one-third of the relevant time-frame, and four sets of valid data point up not down?

Readers, the fact that no valid series on Australian "apparent consumption of sugar" exists after 1998-99 - and no reliable series exists for many years beforehand - can be confirmed by ringing the ABS on 02 6252 5337 (the phone number published on the final dataset), and asking about release 4306.0.

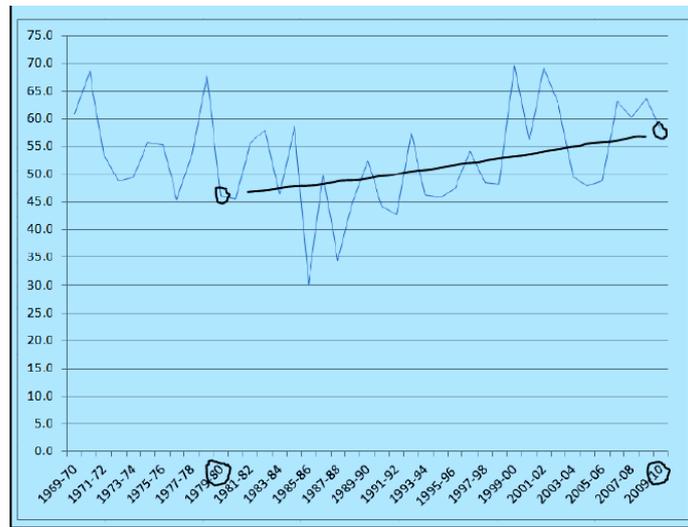
And contrary to Dr Barclay and Professor Brand-Miller' story above, the ABS stopped publishing sugar consumption figures because there was a particular problem with the reliability of the sugar data. The ABS chose to "bite the bullet" in part after judging that its recent counts had understated the true figures. Moreover, the ABS and Australian Government do indeed still publish apparent consumption data for easier-to-measure food and drink products, including beef, lamb, pork, chicken, butter, milk, cheese, beer and wine, but NOT hard-to-measure sugar (see p 55, Table 2.3 and 2.4 at http://www.daff.gov.au/__data/assets/pdf_file/0011/1910819/food-stats2009-10.pdf and <http://www.abs.gov.au/ausstats/abs@.nsf/mf/4307.0.55.001/>).

The ABS obviously didn't give up counting sugar after 1998-99 because it couldn't find any. Readers, refined sugar was a particular problem for those counting it for the same reason it remains a particular problem for those trying to avoid eating it. It's nearly everywhere in processed food. The obvious problem for at least a decade or two before 1998-99 was that the rapid growth of manufactured food and drinks – and an increasingly vast range of products infused with sugar in varied, and variable, portions – year after year after year had made it increasingly difficult and costly to identify and reliably count the amount of sugar in our food supply. Try it - how much added sugar did you eat last week?

In particular, the ABS stopped publishing measures of sugar consumption because it struggled to know how much sugar was contained in rapidly growing imports of things like bakery products, confectionery, soft-drinks, cordial and syrup, processed fruit and vegetables, and “other processed foods” (see various charts on p.17 of 189 at http://www.daff.gov.au/__data/assets/pdf_file/0011/1910819/food-stats2009-10.pdf).

The ABS stopped publishing figures on the apparent consumption of sugar – after 60 years! - because it judged it had no ability - given available resources - to count sugar imports with any reasonable level of reliability; and that reliability had been an issue for some time.

FIGURE 1 – SUGAR AVAILABILITY



Source: *Australian Paradox Revisited* ; My "trend" for "the past 30 years"

With no good data series for "apparent consumption of sugar" spanning the period 1980 to 2010, "sugar availability" is the next best thing, because the latter is the dominant component of the former. To be clear: **"Sugar availability" = Local production – Exports**; and

Apparent consumption of sugar ~ Sugar availability + Imports – "Leakages"

Question 7: Dr Barclay and Professor Brand-Miller, in your initial rebuttal of my critique in March, your main specific argument against my analysis was that the uptrend in "sugar availability" in Figure 1 (in the link above) was a poor indication of human consumption because cars not humans were consuming up to 14kg per person of sugar via the rapid growth in ethanol production (see p. 2 at <http://www.australianparadox.com/pdf/RESPONSE-TO-ROBERTSON.pdf>).

So, after Michael Pascoe informed you that the correct figure is ZERO not close to 14kg per person (because ethanol plants in Australia use leftover wheat, sorghum and molasses, not sugar), why did you not concede the point?

Why did you simply pretend your paper has no problems? I challenged your analysis - saying that your Australian Paradox paper is dominated by four serious errors that reverse your (false) conclusion - and you responded by arguing up to "14 kg per capita per year" of sugar is consumed by cars not humans, a fifth eye-popping error! Dr Barclay and Professor Brand-Miller, why did you not concede the point and then correct your original Australian Paradox paper?

Readers, rather than conceding anything, Dr Barclay and Professor Brand-Miller simply pretended nothing of consequence had happened, deleted their made-up false main excuse and then went ahead and published a rebuttal – "Australian Paradox Revisited": <http://www.australianparadox.com/pdf/nutrients-03-00491-s003.pdf> - that did not address the various serious errors outlined above.

Is that how public debates on critical public-health matters are supposed to be conducted by senior officials employed by the University of Sydney?

Widely respected journalist Michael Pascoe has documented what I consider to be the authors' unreasonable and unscholarly behaviour in this matter. On Dr Barclay and Professor Brand-Miller's carefully calculated fluffy but-false claim of up to "14kg per capita", Mr Pascoe wrote:

"There's a good reason why there are 'no firm figures' - sugar is not used for ethanol production in Australia, as the most cursory of Google searches on Australian biofuels would show. Fuel ethanol here is produced from red sorghum and waste products from sugar and starch production."

"I [Pascoe] told the Professor I thought she was wrong [the correct figure is zero or thereabouts], she checked and admitted that was the case. Having failed on two of the three key issues with the jury out on the third, I didn't bother about the reply. In the Nutrients e-journal, Brand-Miller and Barclay published their reply to Robertson under the title, "Australian Paradox Revisited" with the ethanol bit deleted" (<http://www.smh.com.au/business/pesky-economist-wont-let-big-sugar-lie-20120725-22pru.html#ixzz22MqjmOF4>)

Can someone, anyone, please tell me how that sort of response - getting a whole series of important facts completely wrong but simply pretending everything is sweet before rushing off to publish the false facts all over again - is reasonable behaviour in the public debate on obesity and related maladies, the most important public-health issue of our time?

Question 8: Finally, Dr Barclay and Professor Brand-Miller, perhaps the most-important question is **WHY** the exact moment that you agreed with each other to quietly retract/delete without acknowledgement your made-up false claim about ethanol production/cars consuming a big chunk of the available sugar, somehow was **NOT** also the right moment to agree to formally correct or retract your entire error-ridden Australian Paradox paper?

Dr Barclay and Professor Brand-Miller, if answering these questions is difficult - or accurate answers are going to be a problem for you in the cold light of day - I suggest you simply "cut to the chase" and correct or retract your deeply flawed paper without further unreasonable delay.

I should tell you that there is concern among a growing number of reasonable people that senior University of Sydney scientists are refusing to correct the scientific record on sugar and obesity. The view is that it simply is unacceptable for the public debate on the biggest health issue of our time - obesity and diabetes, a.k.a. diabetes - to be led astray by factually incorrect analysis produced by high-profile scientists who inadvertently mangled the readily available facts yet now refuse to correct the public record.

Dr Barclay and Professor Brand-Miller, with your "Australian Paradox" story based on a dataset that was discontinued as unreliable more than a decade ago, and with all four of your valid indicators of sugar consumption pointing up rather than down in your own charts, I'm guessing you now know full well that your high-profile paper does not have a leg to stand on.

If someone had claimed to have documented a new species – the "Australian Blue Kangaroo", for example - and I had shown the claim to be hopelessly wrong, the sensational but false claim would have been withdrawn immediately.

Readers, not only is there no Australian Blue Kangaroo in existence - sorry, only Red, Grey and assorted smaller species - but the claimed "Australian Paradox" – "an inverse relationship" between sugar consumption (down) and obesity (up) - is just an idiosyncratic and unreasonable assessment and avoidance of the available sugar data by those who coined the phrase. It's not a paradox, it's not a puzzle, it's just a series of serious errors published in a journal with little or no quality control.

Dr Barclay and Professor Brand-Miller, please correct the scientific record without further unreasonable delay, by correcting or simply retracting your deeply flawed Australian Paradox paper.

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