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Sydney, Australia,
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TIME FOR A NEW EDITOR-IN-CHIEF AT NUTRIENTS JOURNAL, TO FIX BROKEN PEER-REVIEW PROCESS

Dear Professor Peter Howe (Editor-in-Chief), other Members of *Nutrients*' Editorial Board and outside observers

Good afternoon. I'm writing to express my dismay at your woeful response to my 20 March letter requesting that *Nutrients*' sub-standard quality-control processes be fixed. Having demonstrated to *Nutrients* via my critique of a hopelessly flawed obesity study that your peer-review process is broken or non-existent, I had assumed you would try hard to ensure that problems in future material would be corrected before publication. How wrong I was.

In response to my letter, *Nutrients* has published an *Editorial* on the issue, and a rebuttal of my critique by the authors of that obesity study, both featuring more of the same sub-standard quality control I highlighted in March. I have been shocked by *Nutrients*' ongoing indifference to careful quality control. *Nutrients*' **unwise defence** of the hopelessly flawed obesity study – the “desired standards of publication” were attained - **belies the clear evidence**.

In this letter, I document what I consider to be *Nutrients*' gross incompetence in publishing *Australian Paradox* and *Australian Paradox Revisited* (links below). Most obviously, the authors' main conclusion – sugar consumption and obesity are unrelated, because a “**substantial decline**” in the former “**over the past 30 years**” occurred alongside a big increase in the latter - **clearly is contradicted** by a series of the authors' *own* big-picture charts (reproduced overleaf) indicating increased sugar consumption since 1980.

Awkwardly, neither the journal nor its authors - one the “**Guest Editor**” of the “Special Edition” in which *Australian Paradox* was published - have done themselves any favours with their ham-fisted response to my request for improved quality control. What started as **regrettable sloppiness with key facts has morphed into something more troubling**. With no credible defence available, the authors at one point resorted to inventing a story about our cars consuming a big and growing chunk of the available sugar to defend their dud paper. Disturbingly, no-one has been prepared to simply and honestly admit their major errors on a critical health issue. Neither *Nutrients* nor its high-profile authors have corrected the public record. The Australian public continues to be misled about key facts surrounding the causes of obesity.

The **main paradox** with *Australian Paradox* is why what your authors are saying – sugar consumption has declined - is exactly the opposite of what their *own* (valid) charts are saying - the trend has been up (overleaf) - and why clownish quality control at *Nutrients* twice has allowed publication of their nonsense. The Editorial Board may yet win a Shonky Award (<http://www.choice.com.au/reviews-and-tests/awards/shonky-awards/shonkys/the-2011-shonky-awards.aspx>).

***Nutrients*' dismal performance on this matter is especially troubling because obesity and its related disorders are the single biggest health issue for a growing proportion of society.** Reliable information is critical, yet here we have an academic journal going out of its way to support a paper that has become a menace to public health. Neither the authors nor their strong-but-misguided supporters at *Nutrients* have corrected the public record. *Nutrients* claims that “the desired standards of publication” were met, yet the available data (overleaf) show increased sugar consumption. The public clearly is being misinformed. No wonder this increasingly troubling episode is attracting growing media interest.

It is unacceptable for trusted parts of the science community to make a habit of publishing misinformation on key facts surrounding the causes of obesity. Accordingly, *Nutrients*' Editor-in-Chief should resign, and hand over his quality-control responsibilities to someone who takes more seriously the need for a science journal not to publish papers full of dominating errors, especially if they are prone to become a menace to public health. It was Max Planck who once said (something like) “Science advances one [career's] funeral at a time” (http://en.wikiquote.org/wiki/Max_Planck).

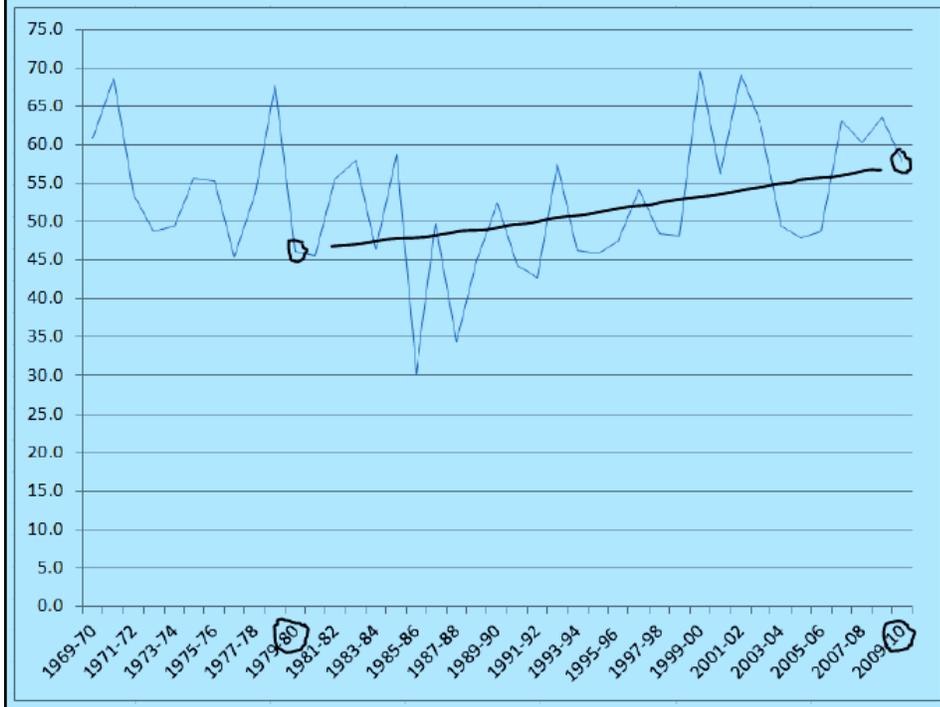
Background: *Australian Paradox* (April 2011) and *Australian Paradox Revisited* (April 2012)

Recall that I encouraged the Editorial Board to take a fresh look at *The Australian Paradox: A Substantial Decline in Sugars Intake over the Same Timeframe that Overweight and Obesity Have Increased*, a paper published by *Nutrients* in April 2011. For those who paid little attention at the time, my original letter is reproduced at 3. in Resources, on the left-hand side of www.australianparadox.com (with my critique available at 1. and the authors' original rebuttal at 2.).

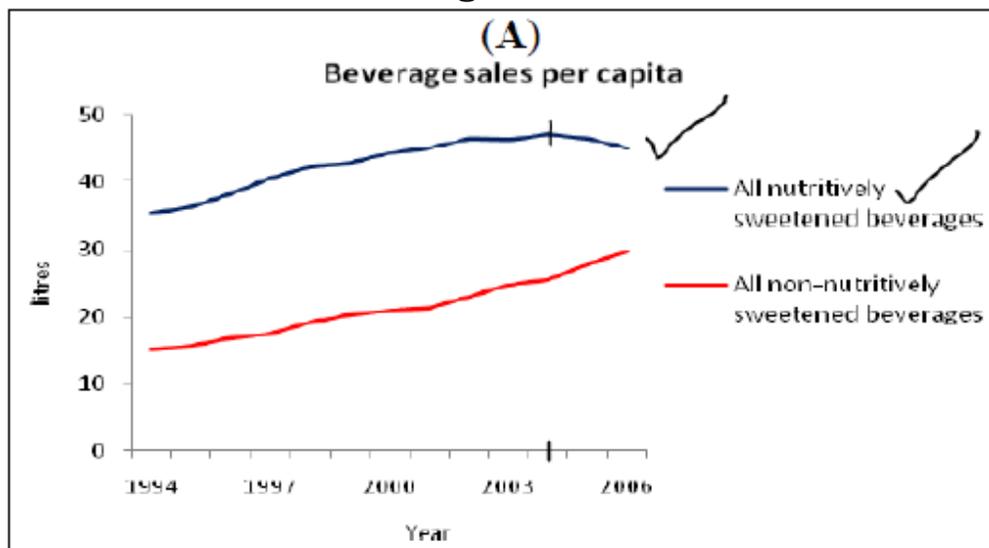
The original problem was - and remains - that **dominating errors in that hopelessly flawed *Australian Paradox* paper invalidate both its conclusion and its title.** That is, **there is no “Australian Paradox”** in the link between sugar and

Figure 1

Figure 1. Changes in availability of refined sugar from sugar cane (production minus exports) in Australia per capita from 1969–1970 to 2009–2010. Data were derived from statistics published by the Australian Bureau of Agricultural and Resource Economics and Sciences, ABARE [10]. Sugar availability does not account for food wastage, use in animal food, beer and alcohol fermentation, or in non-food industrial use. From 1998–1999, the Australian Bureau of Statistics no longer derived apparent consumption statistics for any foodstuff, including sugar.



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

Figure 2

Source: *Australian Paradox* ; My mark for 2004 (not 2003) “peak” in sugary softdrinks

Figure 3
TOTAL SUGARS (ADDED & NATURALLY OCCURRING)

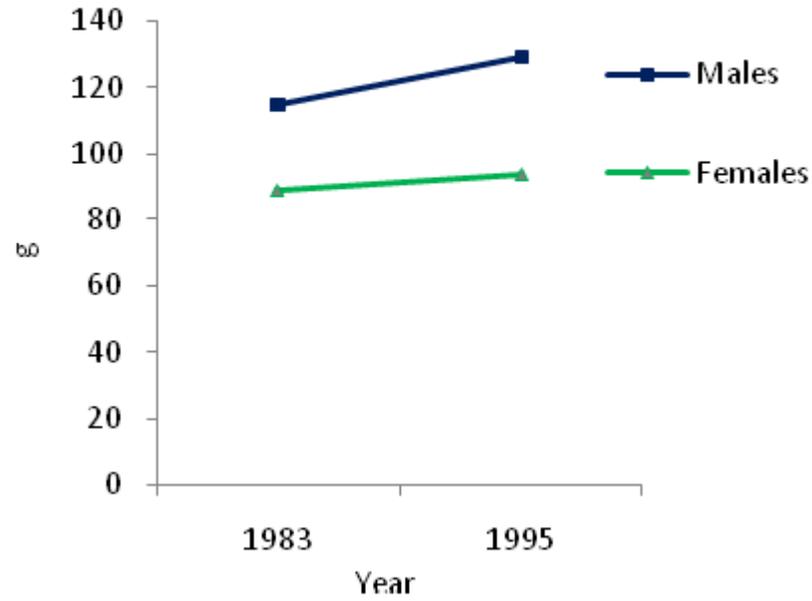
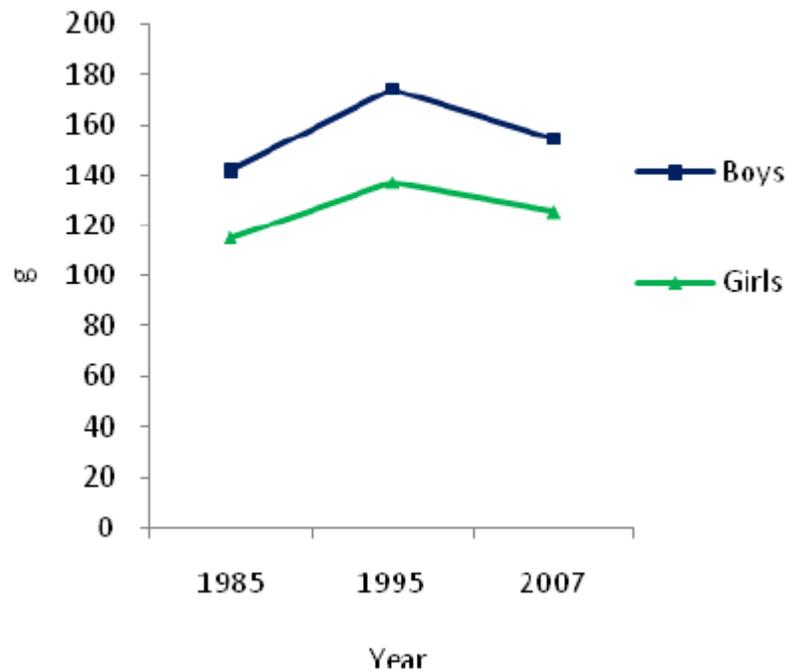


Figure 4
TOTAL SUGARS (ADDED & NATURALLY OCCURRING)



obesity, just an idiosyncratic and unreasonable assessment - and avoidance - of the available sugar data by those who coined the phrase. The authors' own charts confirm that there has been plenty of sugar fuelling our obesity epidemic.

Advance warning: I go into great detail in explaining the situation below, and please accept my apologies in advance for often being long-winded on even simple points. I suppose it reflects a frustration that neither *Nutrients* nor its authors - one the Guest Editor for the Special Issue in which *Australian Paradox* was published - so far have been prepared to concede even that which is obvious.

Again, the various big-picture sugar indicators shown in *Nutrients'* authors' own charts - reproduced above - have tended to increase not decline over their chosen post-1980 timeframe. Yes, the authors' own charts completely contradict their conclusion of a "substantial decline" in sugar consumption "over the past 30 years". Yes, what were they thinking? In any case, with sugar and obesity flat/up over recent decades there is no "Australian Paradox", but later on we'll see that the authors have got themselves into ridiculous tangles "explaining" that up is really down, trying to breathe life into their dud paper.

Importantly, my critique of *Australian Paradox* has been viewed by dozens of scientists, economists and health specialists in Australia and offshore. Notably, **Professor Boyd Swinburn** - an authority on obesity at Deakin University - also recently expressed publicly the strong opinion that *Australian Paradox* belies the readily available facts (see next link). Moreover, I can tell you that **not one** independent observer has claimed to see problems with my analysis; indeed, many observers struggle to understand how or why *Nutrients* published such a spectacularly sub-standard paper, with its somewhat dangerous false conclusion. (<http://www.smh.com.au/national/health/research-causes-stir-over-sugars-role-in-obesity-20120330-1w3e5.html>)

I'm a part-timer on this topic, devoting a chunk of my weekends this year to bringing the dominating problems with *Australian Paradox* to your attention. So **imagine my disappointment** when I noticed that instead of responding seriously to my concerns, *Nutrients* simply shrugged its shoulders, **complained about unwanted scrutiny from "an individual"** and buried its head in the sand, publishing an *Editorial* insisting - despite obvious evidence to the contrary - that *Australian Paradox* had met "desired standards" and that all is well at the journal (<http://www.mdpi.com/2072-6643/4/4/258/>).

As usual, shooting the messenger turns out to be a poor strategy. In my opinion, this episode now features a sloppy disregard for facts on a critical health issue colliding with something more disturbing. Long story short, *Nutrients'* authors' **main excuse** in their **original** rebuttal for why my analysis is wrong was a fact they simply invented. Their main excuse was that **cars not humans** have been consuming **up to almost one quarter of the available sugar** (up to 14kg of 60kg or so). The real-world figure is **zero** (documented below) but they used their made-up false fact to argue that the upward trend in "sugar availability" in their Figure 1 is **not** a good guide to human consumption because rapid growth in sugar-fuelled ethanol production - "non-food industrial use" - is driving a growing wedge between availability and consumption. (Check out the imaginative false claim on page 2 of <http://www.australianparadox.com/pdf/RESPONSE-TO-ROBERTSON.pdf>).

In their **second** rebuttal, *Nutrients'* authors quietly abandoned that made-up false excuse, but did not automatically concede that humans *not* cars have been eating that disputed chunk of available sugar. Instead they looked around before pretending that nothing had happened, and went on pretending that all is fine with *Australian Paradox*. Is that how real scientists operate? Awkwardly, Figure 1 still trends up not down and the authors no longer have an excuse - even a made-up one - for why the trend in sugar availability is not a good guide to the (hard-to-measure) trend in consumption. In fact, official data showing rapid growth in sugary imports suggest the uptrend in availability probably is an *underestimate* of any uptrend in sugar consumption!

In my opinion, ***Nutrients* did the wrong thing last year** when it published *Australian Paradox* in the first place, dominated as it by errors and featuring as it does the false and somewhat dangerous conclusion that sugar consumption and obesity are unrelated. To go ahead and ignore those serious errors **again** and give the authors a free pass last month to further promote that false conclusion - in the form of *Australian Paradox Revisited* - frankly seems **irresponsible**, especially after the invalidity of *Australian Paradox* had been demonstrated and after it had become a threat to Australian public health (<http://www.australianparadox.com/pdf/WHO'S%20CITING%20OZ%20PARADOX.pdf>).

Accordingly, after reading this letter, *Nutrients'* Editorial Board and its authors in my opinion should issue a high-profile mea culpa for getting the link between obesity and sugar so wrong, and then apologise for negligently misleading the Australian public so seriously on the facts surrounding the causes of obesity and its related disorders, today's single biggest health issue for a growing proportion of society.

Details on *Nutrients'* sloppy response to scrutiny and further problems with its authors' dual rebuttals

The starting point for analysis is to compare and contrast the authors' first and second rebuttals of my critique. As noted above, the **original** rebuttal is available at <http://www.australianparadox.com/pdf/RESPONSE-TO-ROBERTSON.pdf> (the fabulous cars-ate-the-sugar story is on p. 2). The **second** rebuttal was "published" by *Nutrients* but due to (further) carelessness it can be found – at present - only by "googling" *Australian Paradox Revisited*.

With no credible response available to explain the major errors that dominate *Australian Paradox* – after all, the available data trend up not down in their own charts - the authors' rebuttals have been limp and error-laden, about as convincing as their standard media response: "**Mr Robertson is not a nutritionist and does not understand nutrition**". That (only half-correct) observation would be relevant if nutritionists had some natural advantage over jaded economists and fresh-faced school children in the required task of assessing whether given sets of data – in neat charts - trend up or down.

As noted above, the authors' ham-fisted response to long-overdue scrutiny has **inadvertently demonstrated to a wider audience that my original critique actually hit the nail right on the head**. In their rebuttals, *Nutrients'* authors have again been sloppy or worse with key facts - most spectacularly in the process of claiming that ethanol production consumes up to about one-quarter of our available sugar, when the correct figure is zero.

Importantly, the fact that *Nutrients'* authors had **no credible explanation** - only a spectacularly false made-up excuse - for the uptrend in sugar availability in Figure 1 confirms that the high-profile nutritionists literally do not know what they are talking about when it comes to the data spanning the topic of sugar and obesity in Australia.

After quietly abandoning their made-up main excuse for why my analysis is wrong, they did **not** automatically concede that sugar consumption probably followed sugar availability's clear upward trend. Instead of conceding the point, *Nutrients'* authors simply pretended that nothing had happened. (What do you call that again?) Despite their made-up main excuse disappearing like sugar dissolving in tea, *Nutrients'* authors unreasonably kept on pretending that *Australian Paradox* is untouched rather than demolished by my critique. Yet that claim is belied by the upward trends for the various sugar indicators illustrated in their own charts.

Similarly, the Editorial Board - via the publication of both its misguided *Editorial* and its authors' error-prone rebuttal - has demonstrated even more clearly that *Nutrients'* peer-review process is either broken or non-existent. And that competence is far from the natural state of affairs at *Nutrients*.

For the record, below I've listed some of *Nutrients'* assorted recent sloppiness. Later in this section I've documented further detail on the authors' series of major errors, almost all of which *Nutrients* happily published.

1. The **mis-spelling of my surname as "Roberston"** in the original rebuttal (p.3) remains uncorrected in the published version (as of 24 May - google *Australian Paradox Revisited*). Does *Nutrients'* gold-plated peer-review process even stretch to running spellcheck? Did anyone besides the authors read the piece before publication?
2. **Figure 1** in *Australian Paradox Revisited* (reproduced above) **has no quantity label on its vertical axis**. It needs "kg per person per annum". Again, did anyone besides the authors even read the rebuttal before publication?
3. *Nutrients* allowed its authors to claim boldly that I'd made "**factual errors**", yet they failed to document any such errors. Instead, they simply went through the motions of wandering past the dominating errors I had highlighted, claiming unconvincingly that all is well with their *Australian Paradox*. After all, it's "peer-reviewed" by experts!
4. Your *Editorial* **mistakenly links to the wrong paper**, to *Australian Paradox* not *Australian Paradox Revisited*.
5. The **publication date recorded for *Australian Paradox Revisited* is wrong**. In fact, the piece appeared on web around the same time as your *Editorial* (10 April).
6. I'm still **puzzled by your *Editorial's* claim that *Nutrients* had not "received any formal correspondence" on the disputed paper**. That's despite my formal two-page letter (see link above) sent to all 40 or so members of the Editorial Board on 22 March? Is this claim completely false, or just seriously misleading for many readers?

Yep, everything I've seen at *Nutrients* just oozes competence. Facts: like 'em or hate 'em, they're sort of important when you're pretending to be in the quality-control business. Taking the cake, however, was your *Editorial's* complaint about an "**unprecedented internet campaign**" **shining a spotlight on *Nutrients'* lack of a credible peer-review process**. Perhaps we can agree that an E-journal – owing its very existence to the internet - complaining about an "internet campaign" is rather amusing? Alanis Morissette might call it ironic.

In any case, what would you suggest? **Was any other option available to a diligent citizen making an honest attempt to have the public record corrected after the Editorial Board's negligent publication of a woeful paper featuring the obviously false - and frankly somewhat dangerous - conclusion that sugar consumption and obesity are unrelated?** Correct me if I am wrong but "*Nutrients* does not have a policy of inviting correspondence to the Editor" (according to your *Editorial*), it does not acknowledge the letters it receives and it certainly does not publish them.

Put another way, *Nutrients* prefers to operate with little or no accountability to the general public, no matter how hopelessly wrong the conclusion of any paper it publishes, even after the paper has become a menace to Australian public health. Yet *Nutrients* then comes across as all cranky and disappointed when "an individual" (me) takes his concerns elsewhere, to "the internet". Actually, I simply distributed my critique of the dud *Australian Paradox* paper via email to a small proportion of those who may have been misled by its false conclusion, and sent letters to several entities that should be aware of the quality-control problems at *Nutrients*.

Now, I don't like to complain, but - beyond the sloppiness highlighted above - **I was disappointed that *Nutrients* published its authors' (second) fluffy rebuttal of my critique - *Australian Paradox Revisited* - without my key criticisms being properly represented or addressed.**

Instead of showing editorial leadership and forcing *Nutrients'* authors - one the Guest Editor for the Special Issue in which *Australian Paradox* was published - to properly address the series of major problems, *Nutrients'* dozing Editorial Board simply allowed them a "free kick" to pretend - contrary to overwhelming evidence - that everything is fine with *Australian Paradox*. Your authors unreasonably refused to concede anything, except that maybe there is one "s" too many in "sugars" in their extended title.

Even after my 20 March letter had prodded the journal into a state of semi-alertness, the Editorial Board was unable or unprepared to do its job properly. In particular:

- *Nutrients* is untroubled by the fact that **the ABS discontinued as unreliable** your authors' preferred series - Apparent consumption of sugar - after 1998-99, more than a decade ago? Sorry, but if there are no valid ABS data, there is no valid story on apparent consumption. It was your authors' job to know that only the ABS (not FAO) can originate valid apparent consumption of sugar data. It's revealing that they had no idea it was even an issue.
- *Nutrients* is untroubled by its authors' *own* charts showing a series of big-picture **sugar indicators trending up not down?** That's the end of any real debate right there. The tangles *Nutrients'* authors manage to get in trying to prove up is down are a bonus, as such examples of scientific method rarely are observed near a serious university.
- *Nutrients* is untroubled by its authors' ridiculous story in *Australian Paradox* that **a 30% increase in sugary soft-drink sales** between 1994 and 2006 (Figure 2) is evidence of a substantial decline in sugar consumption? Such nonsense doesn't pass even the "laugh test", yet *Nutrients* happily waved it through?
- Similarly, *Nutrients* did not notice via that chart its authors' **false claim of a 10% fall** in sugary soft-drink sales: "Food industry data indicate that per capita sales of low calorie (non-nutritively sweetened) beverages doubled from 1994 to 2006 [yep] while nutritively sweetened beverages decreased by 10%" [huh?]. Actually, the correct figure still is up by about 30%. Wakey, wakey!
- In *Australian Paradox Revisited*, *Nutrients* is untroubled by its authors' misleading claim that the ABS "no longer" derives "apparent consumption statistics for any foodstuff, including sugar", despite the fact that the Australian Government still publishes that data **on easy-to-measure foodstuffs like meat and dairy products** across the road at ABARES? Sugar no longer is counted not because the ABS couldn't find any but because officials increasingly were overwhelmed by the extreme difficulty of counting total sugar imports - while observing any reasonable budget constraint - as **sugar increasingly was already mixed in varied portions into fast-growing imports involving tens of thousands of varieties of manufactured and processed food products**. (This is documented in detail on pp. 11-13 of <http://www.australianparadox.com/pdf/SUGARnOBESITY27032012.pdf>).
- And *Nutrients* didn't think to mention that the ongoing downtrend in **apparent consumption of beer** - it's still a "foodstuff" and it's still published by the ABS after half a century - further reduced any possibility that some giant "leakage" somehow is driving a wedge between available sugar and apparent consumption, leaving sugar-fuelled ethanol production as the authors' forlorn last (false) hope to save their dud paper. (For beer, see the long-term trend at <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4307.0.55.001main+features42009-10>)
- *Nutrients* allowed its authors to claim that I don't know the difference between sugar availability and apparent consumption, despite the fact that my 20 March letter (and my critique) featured the relationship between availability and consumption in the first place (see pp. 11-15). As with the simple task of assessing whether a chart trends up or down, one does not need to be wise in the ways of science to understand the simple difference between apparent consumption and sugar availability (that is: $AC \sim SA + Imports - "Leakages"$).

- *Nutrients* allowed its authors to claim that sugar availability shows “no significant trend” when clearly the trend over the **relevant post-1980 timeframe – “over the past 30 years” – is up** (see Figure 1). *Nutrients* snoozing Editorial Board didn’t think to insist the authors explain how any flat/up trend is even vaguely consistent with their (obviously false) claim of a “substantial” decline in consumption?
- Importantly, the fact that *Nutrients’* authors stretched out of their comfort zone to manufacture a (false) story about cars eating a big and growing chunk of the available sugar – their main excuse for why the uptrend in Figure 1 is not a reasonable guide to the trend in sugar consumption - **confirms that there is little real substance behind the claim of an Australian Paradox**. The evidence now is very clear: the always-unlikely claim of a 30-year decline in sugar consumption – and thus that sugar and obesity are unrelated - simply fell over when subjected to basic scrutiny involving fact-checking. Hello *Nutrients’* fact-checkers!
- On a lighter note, I enjoyed the bit in *Australian Paradox Revisited* where the authors argued that “**Fructose Was Not ‘Scarce’**” and suggested that Aboriginal Australians are eating only about as much fructose today as in pre-European times before refined sugar and sugar cane arrived, because back then they gorged all year round on fruits, nectars and bush honey. That’s sweet as – except that, awkwardly, not everyone agrees that fructose was “not scarce” back in the days: traditional Aborigines had an “exceptional ‘sweet tooth’ ...[but] The enthusiastic pursuit of honey was said to be **out of proportion to the small quantities obtained**” (p. 20, http://journals.cambridge.org/download.php?file=%2FNRR%2FNRR11_01%2FS095442249800043a.pdf&code=9375ddce000e5a5d28e851f47f408cbf). By the way, my economist mates loved the story about how “at certain times” in the history of the world, the “consumption of honey” – “even by the poor” – “may well [have] rivalled our current consumption of refined sugar”. With all that honey and beekeeping, the poor would scarcely have had time to remember that they were poor and hungry. Yep, “fructose was not ‘scarce’” back in the day, even for the (starving) poor, so there’s nothing historically unusual about humans gobbing down today’s giant-sized portions of sugar/fructose, day after day, decade after decade. And that’s why sugar is not a problem. QED.

Extraordinarily, that series of obvious and dominating errors was not sufficient to convince *Nutrients* to do anything more in its *Editorial* than push its head deep into the sand and insist that its peer-review process is top-notch, matching world-best practice. What a joke. Instead of showing editorial leadership and forcing your authors to confront the obvious errors in *Australian Paradox* and then *Australian Paradox Revisited*, you fell back towards the *Fox News* motto of “We Report, You Decide”: “I will leave our readers to judge for themselves”.

Well, I’m a reader and I’m happy to provide my updated and unvarnished assessment of *Nutrients’* expert peer-review process. “Incompetent” is an obvious word that springs to mind. Or is it “non-existent”? Did anyone at *Nutrients* even read its authors’ rebuttal of my critique before it was published? Is *Nutrients* aware that the minimum requirement for *credible* “peer review” is that someone with some level of competence on the topic - preferably not one of the authors’ friends - actually reads the paper and ensures that obvious errors are corrected before publication?

Authors’ cavalier treatment of facts collides with unwanted scrutiny

The authors’ original and published rebuttals – *RESPONSE TO RORY ROBERTSON* and *Australian Paradox Revisited* - have allowed us a rare opportunity to observe a disturbing collision between important facts and overconfident academics. As noted above, the authors out of thin air claimed that Australian cars not Australians have been consuming a big and growing chunk – up to 14kg per person per year - of today’s 60kg or so of available sugar (Figure 1):

In Australia, ABARE data...show that ethanol production as a biofuel for transport rose from 42 million litres to 209 million litres (almost 4-fold) from 2005 to 2009. [Then footnoted] If 100% raw sugar were used for this purpose and the fermentation process were 100% efficient (it isn’t), it would require ~14kg per capita per year, ie a significant proportion of the ‘available’ sugar. Although there are no firm figures for how much raw sugar is presently being used for ethanol production, supplies of C-molasses alone are not adequate, and the absolute amounts are likely to be increasing. (My bolding; p.2 of <http://www.australianparadox.com/pdf/RESPONSE-TO-ROBERTSON.pdf>).

Amusingly, the authors – who are not slow to explain that, as nutritionists, they really are very, very knowledgeable about the “ins and outs” of Australia’s food supply – simply “knew” that ethanol is a big non-food driver of sugar usage. The authors explained in all seriousness that “there are no firm figures” on the *exact* amount of sugar consumed by local ethanol production - yes, that’s a pity but take our word that sugar usage in Australia’s fast-growing biofuel industry is big and growing fast! Would you believe up to 14kg per person per year? Nearly a quarter of all sugar produced but not exported: that’s “a significant proportion of the ‘available’ sugar”, and the clueless economist Rory Robertson missed it completely!

Awkwardly, a brief Google search reveals a pretty firm, pretty exact figure: zero (or thereabouts). That is, raw sugar is **not** a significant input to local ethanol production. The largest producers use grains or sugar's by-product, molasses (see pp. 9-10 of 24 at <http://www.accc.gov.au/content/item.phtml?itemId=961783&nodeId=c5006d5e6145ec6c55231148c819855e&fn=ACC%20Petrol%20Monitoring%20Report%20Chapter%206.pdf> and <http://ethanolfacts.com.au/myths>).

So, what can we say about all of the above? Well, I must say that *Nutrients'* authors' spectacular made-up false fact that cars not humans were eating up to one-quarter of available sugar is a classic, an eye-popper! It will stick in my mind for a lifetime, as the nutritionists-under-scrutiny's version of the old "dog ate my homework" excuse! These are scientists? Sorry, not cool.

One obvious conclusion is that the authors are not as smart as advertised, time after time misreading their own charts on (rising) sugar consumption. Then, under close scrutiny, they literally manufactured a "fact" to make their long-time pet story of decline seem somewhat more plausible. They claimed that sugar usage by cars is growing fast, yes indeed, eating into supplies of available sugar, and leaving human consumption on a declining trend.

My critique had earlier assessed there to be no obvious evidence of big "leakages" driving a wedge between the clear uptrend in sugar availability (Figure 1) and something similar for (unmeasured) apparent consumption. Thus my basic story was that the 30-year trend in the latter probably also was up over the past three decades, especially given official data showing an uptrend in sugary imports.

Yes, at some point **before** the publication of *Australian Paradox Revisited* the authors figured out that cars don't consume sugar after all, and they **quietly abandoned their main explanation for why sugar consumption had a declining trend all of its own. And congratulations to the Editorial Board, if indeed it was the Board that stopped the authors from publishing that particular piece of nonsense about cars consuming a chunk of the available sugar.** (Yet *Nutrients* was comfortable publishing the other major errors? What about consistency?)

Interestingly, after quietly abandoning their main explanation for why sugar availability and consumption do not share similar uptrends, *Nutrients'* authors did not automatically concede the point. Instead, they simply pretended that nothing had happened and went on claiming falsely that *Australian Paradox* is untouched rather than demolished by my critique. Yet the authors' *own* big-picture charts still clearly suggest that sugar consumption over time has increased not declined.

I have to give *Nutrients'* authors credit for going out of their way to invent a big, vaguely plausible, fast-growing leakage – cars consuming heaps of sugar as ethanol ("non-food industrial use") – to save their dud paper, but in the end that **disqualified them as serious scientists** in my opinion because the correct figure is zero, and you're not allowed to just make stuff up when responding to the serious charge that your academic paper is dominated by large errors!

It was after this extraordinarily ham-fisted attempt to twist non-existent facts to advantage that I felt comfortable calling *Australian Paradox* a "shonky sugar study". Is that unreasonable? In any case, watching overconfident academics doing "whatever it takes" – even under scrutiny – to defend earlier errors is not a pretty sight. In the case of *Australian Paradox*, sloppiness with key facts has given way to something more troubling.

Final summary of the state of play with *Australian Paradox*: Sugar up, obesity up - No paradox at all!

To recap, neither *Nutrients* nor its authors see a problem with the fact that the authors' preferred series - Apparent consumption of sugar – was **discontinued as unreliable** by the ABS after 1998-99. Such extraordinarily poor judgment punctured the credibility of both *Australian Paradox* and *Nutrients'* peer-review process from the very start.

The authors thus are left with three valid sets of data: (i) up-to-date Sugar availability; (ii) dated industry sales of sugary softdrinks; and (iii) dated snapshots of "Total sugars" consumption from occasional nationwide nutrition surveys.

Awkwardly, the authors' *own* big-picture charts of these indicators of sugar consumption all trend up not down (Figures 1-4). Yes, with upward trends everywhere you look, that's *Australian Paradox* – "sugar down yet obesity up" – demolished right there. No, the observation of "sugar up, obesity up" is not a paradox; it's not even slightly puzzling, because it's what most observers had assumed in the first place. Yes, the ongoing existence of *Australian Paradox* is a growing embarrassment for all involved – the authors, the University of Sydney and *Nutrients*.

But the authors and *Nutrients* did not let their dud paper die without a fight. With their three "independent lines of evidence" all contradicting their long-time pet story, the authors needed to identify **three "special factors"** to explain why their charts point up not down. They claimed that:

- In Figure 1, **motor vehicles not humans consumed a big chunk of the available sugar**. Of course, our cars did nothing of the sort, leaving apparent consumption free to follow the upward trend in sugar availability.
- In Figure 2, **the faster growth in diet drinks and bottled water somehow offsets a 30% rise in sugary softdrinks**. It doesn't. Indeed, the relevant issue is **sugar** consumption not non-sugar consumption so the authors' observation is a **complete furphy**. Remarkably, the authors seem genuinely unaware of that fact.
- In Figures 3 and 4, **the consumption of intrinsic/natural sugars increased while that of refined sugars declined**. The authors produced no convincing evidence that natural sugars were the driving force (there is none), made further serious errors while fashioning their preferred story, and tended to stretch the data well beyond what is reasonable. Notably, **for children**, the longer-term **trend** over the two decades spanned by the (separately sourced) point-estimates for 1985 and 2007 is **up not down** for "Total sugars", "Sugary products", "Confectionery", "Non-alcoholic beverages" and the other large sugary category of "Cereal-based products and dishes". Again, what Australian Paradox?

In any case, refined versus natural sugars mostly is a non-issue in this dispute. For starters, eating either refined fructose - in softdrinks - or unrefined fructose - in fruit juice - in unnaturally large doses provides the same boost to obesity. Moreover, **the authors make the (incorrect) claim in *Australian Paradox Revisited* that "concentrated sources of sugar, sucrose or fructose" are unlikely to be "primary" drivers of "overweight and obesity"**, so they are happy to pour fructose-laden fruit juices in with fructose-laden softdrinks. It is increased consumption of some combination of those concentrated sources of fructose that helped produce uptrends in their own charts (Figures 1-4).

So, wrong, wrong, wrong and wrong. In summary, the authors batted none-for-four in their efforts to find credible evidence of a decline in sugar consumption. Sorry, but four wrongs – plus bonus points for the fabulous "cars ate a big chunk of the available sugar" story - do not make a right. *Australian Paradox* is an embarrassment, it should not have been published and would not have been published in a real journal with real quality control.

What needs to be done?

Australian Paradox has become a **menace to Australian public health**. As discussed, its conclusion that sugar and obesity are unrelated is hopelessly wrong - the opposite of the story told by the available data in *Nutrients'* authors' own charts – yet the paper is being cited far and wide by entities keen to limit official warnings about elevated sugar consumption damaging public health (see <http://www.australianparadox.com/pdf/WHO'S%20CITING%20OZ%20PARADOX.pdf>).

Again, the Editorial Board of the pay-for-publication E-journal *Nutrients* and its authors in my opinion should issue a **high-profile mea culpa** for getting the link between obesity and sugar consumption so wrong, and then **apologise for misleading the Australian public so seriously on obesity and its related disorders, the single biggest health issue today for a growing proportion of our society**.

After correcting the public record on sugar and obesity, *Nutrients'* Editor-in-Chief and *Nutrients'* authors - one also the Guest Editor for the Special Issue in which *Australian Paradox* was published – in my opinion **should consider resigning** from their various public-sector roles. Whether or not their private-sector roles are in direct conflict with their public roles, the Australian public and taxpayers can have **no confidence** in health information provided by those who have shown themselves to be unprepared to recognise important facts on serious health matters, even after the facts have been pointed out repeatedly.

As for others on the Editorial Board, I hope you have taken the time to absorb this (admittedly long-winded) discussion. If you too now have a strong sense of the woeful performances behind *Australian Paradox* and *Australian Paradox Revisited*, it might make sense to **resign from the Editorial Board** and have your names removed from *Nutrients'* website as quickly as can be arranged (<http://www.mdpi.com/journal/nutrients/editors#editorialboard>). Like it or not, your reputations are at stake here. Similarly, the University of Sydney probably only now is coming to grips with what can happen when quality control goes to sleep.

For now, some **obvious questions still require answers:**

- **When will the high-profile but overconfident University of Sydney scientists concede their obvious errors and correct the public record on the relationship between sugar consumption and obesity?**
- **How come independent “peer review” seems to have been non-existent at E-journal *Nutrients*?**
- **Whatever happened to quality control in science departments at the University of Sydney?**

In any case, remember when revamping *Nutrients*' peer-review processes, a good start would be getting someone other than the authors to read the material before publication. Then, to add **credibility** to the process, it would be good if that reader – sometimes called “the referee” – also knows something about the topic under discussion and is not a friend of the authors.

Finally, my confident forecast is that within a decade or two, across the scientific, medical and nutritionist communities, fructose will be linked to obesity and diabetes in the same way that today the sun is linked to sun cancer, and tobacco is linked to lung cancer. **So my bottom line is that removing added sugar from our food supply is the obvious low-hanging fruit in any serious anti-obesity and anti-diabetes campaign.**

If society over time can gain a better understanding of - and then reduce - the damaging health effects of excess sugar/fructose, then tens of billions of health-care and aged-care dollars could be saved or redirected, every year. Not to mention the much happier, healthier and **longer** lives that would be lived by a slimmer population with greater control over its appetite.

Thank you for your time. Oh, and by the way, if – as reported recently in *The Australian Financial Review* - the Editorial Board really is considering publishing my critique, please do not. With *Nutrients* so much “on the nose” these days, I’m happy to keep my detailed discussion of *Australian Paradox* unpublished at www.australianparadox.com/.

Regards,
Rory

rory robertson
economist and former-fattie
now fairly fructose free! 😊

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