



The science & art of living the way nature intended

The Bond Briefing

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RATIONAL EVIDENCE-BASED COMMENT FOR THE GENERAL PUBLIC & HEALTH PROFESSIONALS. WE SAY EXACTLY WHAT WE THINK

Intellectual Ammunition: Paleo Denial – the Argument. **Evolutionary Hard Wiring:** Hyper-fast Snake Response. Breaking News: Ugg Wins Small Business Award; Paleo Harvest at Printer; Video: Geoff/George Anderson. **Q&A:** Diabetes, Alzheimer's etc; Mannitol/Beer Problem? Motor Neuron Disease. **Behind the Tabloid Headlines:** Nuts Help you Live Longer; Alcohol not Fattening? **Evolutionary Lifestyle:** Sleep Detoxifies Brain; **New Bond Videos:** Diet for Diabetics; Grains and energy; Ugg Foods Lecture, Part 2 of 3. **Hints:** Cooked Blueberry Nutrients. **Events:** Oxford Uni.

Intellectual Ammunition

Paleo Denial – the Argument

There are some who cast doubt on the teachings of evolutionary nutrition...

Our precepts are based on the discovery that we still have the same physiology, the same digestive system, the same biochemistry, the same mentalities, the same *genome* as our ancestors 60,000 years ago in the savannas of east Africa [1].

Now some might argue that things have changed – that Darwinian adaptation has operated and that we are different from our Pleistocene ancestors.

Of course, with the dispersal of humans around the globe, we have changed a little on the outside – we have differentiated into Asiatics, Caucasians and so forth – but underneath we are still the same basic model. In fact we have less genetic diversity worldwide than just a few groups of chimpanzees living in Cameroun [2].

For all the huge varieties of dog from Chihuahua to Great Dane, they are still dogs under the skin, still carnivores and still prey to the same doggy phenomena – for example poisoning by chocolate.

In humans, one can point to a couple of instances where classic natural selection, under intense pressure, has induced changes in a few genes.

The one most quoted is the persistence in Northern Europeans of lactose tolerance.

Cont p 3.

Evolutionary Hard-wiring

Hyper-fast Snake Response



No one who unexpectedly comes across a snake can deny that they have an immediate shock of fear and disgust.

Not surprisingly you might think. Poisonous snakes were a pervasive creature in our ancestral environment and they are, even today, a leading cause of death in savanna foragers.

Now it has ALSO been observed that babies do NOT react badly to snakes or, indeed, to other creepy-crawlies. Some worthy idiots then concluded that fear of these things is an optional behavior and that adults could/should avoid inculcating the fear in babies.

We now know better. We know that baby brains have not yet wired-up snake-detection circuits and that the mother's/carer's protection is vital to keep babies safe during their first 3 years while the wiring grows into place.

Now researchers wondered if the same phenomenon is found amongst other creatures exposed to the same risks [3]. They found that a troupe of macaque monkeys, reared without ever seeing a snake, panicked faster on seeing a snake than to ANY OTHER stimulus. They are hard-wired just like us.

Breaking News

Ugg Wins Small Business Award



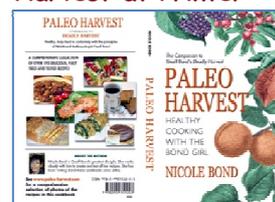
[More on Ugg Facebook](#)

Entrepreneur Kim Lloyd

Congratulations to Ugg Foods (www.uggfoods.com) for winning the [Federation of Small Businesses](#) award.

This dynamic start up (for which I am scientific advisor) is making impressive strides with its Bond-conforming bread & muffin ready-mixes. See [June 2013](#)

Paleo Harvest at Printer



Nicole's new cook book, with over 170 recipes, is now with the printer and we hope to have copies in time for Yuletide. More at: www.paleo-harvest.com.

Enquire: admin@naturaleater.com

Video: Geoff/George Anderson



Geoff talks to Paleo physical-activity trainer George Anderson, (www.intelligentrunning.com) about living an ancestral lifestyle. <http://youtu.be/a9mw2jOxYIQ>

Questions

Alzheimer's, Diabetes and More



Q. A mid-market daily newspaper carried the above headline. What do you make of it?

A. A misleading half-truth. But the headline writer improved the headline in the [online edition](#) to 'Could Alzheimer's be Type 2 diabetes?'

But what is this claim based on? As so often, the journalist is cavalier with her evidence. The only clue she gives is that the researcher is Ewan McNay. After some digging, I find that McNay wrote a paper in 2012 which could be the source [4].

Be that as it may, it has been known for YEARS that high insulin levels (such as occur in diabetics) are ONE FACTOR in Alzheimer's.

But high insulin levels occur in ANYONE on a typical western high glycemic diet, NOT JUST diabetics. I wrote about it in 'Alzheimer's Disease and Dementia', *Deadly Harvest*, [Chapter 9](#), page 253.

But, as I relate there, many other lifestyle factors play a role too: intake of certain saturated fats, lack of essential fatty acids (notably omega-3), deficiency of plant micronutrients [[March 2002](#), [May 2003](#)], poisoning with plant toxins (notably gluten, [Nov 2006](#), and soy, [Feb 2002](#)), lack of physical activity [[Feb 2003](#)] [5], lack of sunshine [[Aug 2009](#)], and lack of sleep ('*Sleep Detoxifies Brain*' p 3). It also helps to allow yourself to feel a little hungry for, say, an hour before you tuck into the next meal [6].

In fact they are the usual suspects! After all, foragers (aged or otherwise) don't get Alzheimer's and all we have to

do is emulate their lifestyle – just like we say.

Can Alzheimer's be reversed? There is hope: see: '*Rolling Back Alzheimer's*', [Aug 2012](#).

The reported parting shot from McNay: "Type II diabetics really do have low-level Alzheimer's".

Mannitol: Beer Problem?

Q. A publication called: 'Your Guide to Paleo' claims that beer is harmful because of its mannitol content. What is wrong with mannitol?

A. Goodness knows. Mannitol is a naturally occurring polyol like xylitol ([Jan 2010](#)) but slightly more glycemic. You are eating it, quite naturally, in a wide range of plants, and it is used quite a bit in processed foods, confectionary and medications. As far as I can tell, there is not a significant content in beer.

The real villain in beer is maltose. Maltose is a double molecule of glucose and, at a GI of 110, is even more glycemic than glucose itself (100).

It is what makes beer highly glycemic and causes heavy drinkers to have 'beer bellies', to be prone to cardiovascular disease and to suffer the ailments of metabolic syndrome (high blood pressure, bad cholesterol profile, high triglycerides, bad glucose control and obesity).

So, in my view, beer is harmful not because of mannitol content but because of its MALTOSE content.

Motor Neuron Disease (MND)

Q. Is there anything you can recommend for Motor Neuron Disease?

A. This is also known as Lou Gehrig's Disease and it concerns the degeneration of nerve cells which control movement.

The causes are not clear and why some people are affected and most are not is yet to be determined.

Some studies find that free-radical damage is a factor [7]. Yet others find that people who

live in regions with aluminum-rich soils are susceptible [8] (In the West, just watch out for those aluminium saucepans!). Other peoples in tropical areas where cassava (which is rich in cyanide) is a staple are at risk [9]. Cassava, also called manioc, is a starchy tuber. Some will know its flour - tapioca.

So too are similar tribes who eat the pulse, 'grass pea' (*Lathyrus sativus*) which contains (like most pulses) a neurotoxin [10].

So what helps? The first thing is a diet rich in antioxidants – that means plenty of conforming plant food.

One antioxidant, vitamin E, is particularly helpful for those with a rare dominant gene 'SOD1' [11]. Vitamin E is found in many conforming plant foods, notably nuts and also conforming vegetable oils like Canola (rapeseed) oil.

'Creatine' is a substance that helps counteract the progress of MND. The body normally makes its own creatine from proteins – but studies find that ADDITIONAL creatine supplements do improve MND [12].

Finally, there is even some hope of reversal. One study found that a diet rich in spinach, strawberry and blueberry is effective [13].

Moral? It is no coincidence that these are all rich sources of antioxidants!

My View? It would be a fool-hardy soul who claimed that he had the answer to MND.

However there is hope: from the foregoing straws in the wind, one can stack the deck of cards in one's favor – notably by consuming antioxidant-rich foods like berries.

Behind the Tabloid Headlines

"Nuts - From Pecans to Peanuts, they help you live longer, stave off cancer and even improve memory"

The author of this [article](#) didn't cite his sources. After some prospecting I identified the most likely source as a large

population study done by C Fuchs and colleagues at Harvard Medical School [14]. They analyzed what happened to some 120,000 people over 25 to 30 years.

When all factors were taken into account, those who ate nuts EVERY DAY were 20% less likely to have died by the end of the study than those who ate none. There was a 29% reduction in heart disease and an 11% reduction in cancer.

This is all very positive and confirms the headline. However, the study doesn't mention memory, so in this the headline is misleading.

As the researchers say, they have found a CORRELATION which does not necessarily imply CAUSATION. Nevertheless, this is good news, supporting The Bond Precepts.

After all, hunter-gatherers ate nuts all the time. At certain times they supplied 50% of calories for San Bushmen.

So we can suppose that our bodies came to rely on the qualities that nuts bring, and without them, we don't do so well.

This message reinforces our use of nut flours in bread and cake recipes and in the Ugg Food mixes (www.uggfoods.com)

p.s. The BBC did a more sober report on the same study [here](#).

Alcohol not Fattening?



So claims an [article](#) by a science journalist who says that he can find no study to support the assertion that alcohol makes you fatter.

On the contrary (so he says) all studies tend to the conclusion that those on MODERATE alcohol intake get less fat than those who are teetotal. Notice the nuance: alcohol drinkers still put

on weight – just less fast than non-drinkers.

In support of this view, he cites a number of Population studies, (good on CORRELATION but not on CAUSATION), but he doesn't give the references so that we can look them up.

One explanation, thinks the journalist, is that alcohol calories are not the kind that the body turns into fat.

My View? This is not such an outlandish idea. I wrote a piece in [May 2013](#), 'Not all Calories are the Same'. So there could be something in it – but until we have identified what is going on, we cannot be sure.

But what we do know militates against this conclusion: alcohol increases insulin levels, blocks body-fat from being drawn out of the fat cells, and causes the body to switch from burning flab to burning the alcohol itself [15].

Evolutionary Lifestyle

Sleep Detoxifies Brain



Brain plumbing glows as it cleans

Typically foragers would sleep 8 to 9 hours a night and often have a siesta during the day. If this was the case for eons, we can be sure our bodies came to rely on it being like that (See: 'Docs: Sleep Evaluation Vital, [Dec 2006](#)).

Now researchers have found yet another reason for sleep. It is the time when the brain has a detox [16].

The brain and spinal cord have a circulatory system (similar to the *lymphatic* system) called the 'glymphatic' system.

During sleep, the sluices open up and the brain gets a good rinse with cerebrospinal fluid. Notably, it flushes out a toxic compound involved in Alzheimer's called 'beta-amyloid'.

Today, some 70% of our populations are in a state of sleep deprivation [17] (less than 6 hours per night). Is it surprising that Alzheimer's is on the rise? Could lack of sleep have done for Margaret Thatcher who famously only slept four hours a night?

See 'Alzheimer's, Diabetes and More', page 2.

New Bond Videos

Ugg Foods Information Series

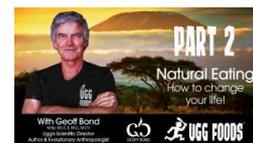
Q2. As a Type II diabetic, what kind of food is best for me? (3 mins)

<http://youtu.be/ej-ZCckgBwc>

Q3. If I stop eating whole grains, will I and my children have enough energy? (2.5 mins)

<http://youtu.be/BNqGEhcrYWM>

Ugg Foods Lecture



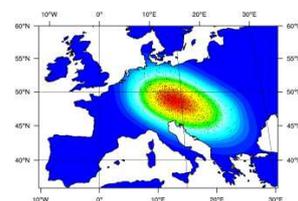
Part 2 of 3. A comprehensive overview of the lifestyle which nature intended.

<http://youtu.be/dgkcSJ26xZO>

Continued from Page 1

Paleo Denial - Our Response

A new study suggests that lactose tolerance originated in central Europe some 7,000 years ago [18]. Those peoples dispersed to become the Anglo-Saxons, Scandinavians, Germans and Slavs.



Origin of lactose-tolerant genes

Another is the observation that Europeans are more tolerant of a diet rich in 'fermentable carbohydrates' (starches and sugars) than most other ethnicities [19].

Notably, compared to hunter-gatherers, Europeans have much

lower insulin resistance and better glucose tolerance.

But my view is that these are just tweaks on the basic model. Even then, simply 'tolerating' lactose and fermentable carbohydrates doesn't mean that the body is enjoying them. In fact, as we say, we would ALL do better to avoid them.

[Next Month](#): Epigenetic effects

Hints & Tips

Cooking Blueberries Changes Health Benefits

As we cook a superfood, packed with micronutrients, there is the nagging worry that we are destroying the goodness.

Blueberries are a case in point. We already know that traditional methods of juicing and canning can reduce their content of micronutrient 'polyphenols' by up to 80%.

In tests on blueberries baked in muffins, researchers find a mixed picture [20]. Some levels did drop, notably of its most potent component, anthocyanin (up to 20%), but phenols increased and others like quercetin stayed the same.

My View? One shouldn't eat wheat flour muffins anyway – but it is good to know that, if you decide to try Nicole's recipe for guilt-free blueberry muffins

(in [Paleo Harvest](#), see page 1), they will still do some good!

Upcoming Events

Details and updates:

<http://bit.ly/bond-event>.

LECTURE: (Open to the public)
January 15, 2014, Oxford, UK

Place: Green-Templeton College, Oxford University, UK.

Map: <http://goo.gl/maps/81FpG>

Title: Longevity and healthy lifespan– Darwinian insights into living to your genetic potential.

Info & Res: Mary Perryman
mary.perryman4@gmail.com

CME LECTURE TOUR

January 20, 2014 – Feb 16
California, USA



Deadly Harvest: Geoff's latest work encapsulates current thinking on lifestyle anthropology. www.deadlyharvest.com

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FaceBook (Geoff): www.facebook.com/naturaleater

FaceBook (Group): <http://tinyurl.com/Bond-FB-Group>

LinkedIn: <http://cy.linkedin.com/in/naturaleater>

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