



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

**Paleo-ageing:** Healthy Elderly - Young Gut-bugs. **Paleo-research:** Paleo Diet Studies. **Paleo-climate:** Out of Africa – Climate Change? **Optimal Body Functioning:** IQ and Good Health are Genetically Linked. **Recipe:** Irish Whiskey Cake. **Ancestral Biology:** Load-bearing for Cartilage. **Ancestral Health:** Our Living Gut – part XVI. **Ancestral Behavior:** Risk-taking Forager Males. **Paleo Climate:** Vulnerable Civilizations: -Volcanoes Triggered Revolts, Famines, etc. **From Forager to Astronaut:** Keeping Mars Pioneers Alive (IV); Greenery for Astronauts; Forests Healthify Amygdala. **Briefing:** Epigenetic Effects (IV).

## Successful Ageing

### Healthy Elderly: Young Gut-bugs



A Canadian-Chinese study finds that if you are ridiculously healthy and 90 years old, your gut microbiota is not different from a healthy 30 year old [1]. These were oldies with no known health issues and no family history of disease. They maintained the wide diversity of gut bugs of their youth.

The researchers speculate that this is a consequence of an active healthy lifestyle and diet, although cause and effect cannot be determined. > p4

## Paleo Research Progress

### Paleo Diet Studies

As we have often lamented, there is a dearth of Paleo Diet studies – mainly because there is no money in proving its worth.

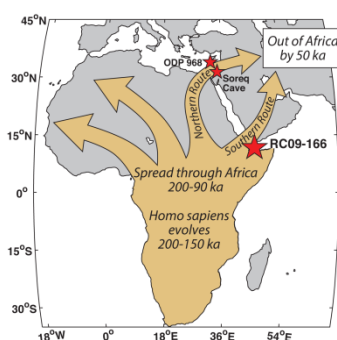
However, Dr Rainer Klement of Leopoldina Hospital, Germany has ferreted out and put together an inventory of such studies. See list here: <http://bit.ly/2iSTg6M>

Klement concludes that, compared to control diets, the Paleo one, **AVOIDING GRAINS AND DAIRY PRODUCTS** drives “beneficial metabolic changes”.

**My View?** Just so!

## Paleo-climate

### Out of Africa – Climate Change?



Enlarge: <http://bit.ly/2Abn7hS>

Did climate change trigger our species into migrating out of Africa?

According to Prof. Jessica Tierney of Arizona University, at the height of the last Ice Age (around 70,000 years ago), climate in the Horn of Africa shifted from a wet phase called “Green Sahara” to one that is colder and even drier than it is now.

She discovered this by analyzing cores of ocean sediment taken in the Gulf of Aden.

Suggests Tierney, “The transition from a Green Sahara to dry was a motivating force for people to leave”.

**My View?** This is an interesting possibility. But, knowing how human nature works, it is more likely that as foragers multiplied the surplus population had to migrate to somewhere new. This, allied to male-seeking of novelty and adventure would be enough for humans to overflow out of our homeland and into the rest of the world.

See: **Risk-taking Forager Males, p. 2**

## Optimal Body Functioning

### IQ and Good Health are Genetically Linked

Nearly a hundred years ago, the eminent English psycho-biologist, Charles Spearman, in his 1927 book, *The Abilities of Man* [2] noted the positive association between higher IQ scores and better health. Ever since, sociologists, always on the alert for “inequalities”, have been trying hard to prove that it is just a question of slower people leading poorer lifestyles – and that public policies can be devised to compensate.

Nonetheless, however the data is sliced and diced, the association remains: Brighter people, even with poor lifestyles, still live longer – and have a better health-span. Higher IQs had lower death rates from coronary heart disease, stroke, cancers, respiratory diseases, digestive diseases, injury, dementia and many more.

Quietly, in recent years, a small coterie of scientist has worked on the genetics at play [3,4]. In the most recent, Ian J Deary, professor of differential psychology, at University of Edinburgh, Scotland, comes up with an interesting result which puts the answer firmly on genetics [5].

In short, genetics are the key to a concept called “system integrity”. Put another way, the closer people’s genetic make-up is to “optimal bodily functioning”, then the more they are endowed with both a higher IQ and resistance to disease. They are both sides of the same coin. Says Prof Deary: >p 4

## Recipe

**Irish Whisky Cake**  
(Paleo conforming)

Enlarge: <http://bit.ly/2kMRvMR>

**Yield: up to 12 servings**

Our thanks to Irish colleague Pam Connolly for this interesting variation on a traditional Christmas cake.

- 5oz (140g) dried apricots
- 5oz (140 g) dried figs
- 4oz (115g) prunes
- 2.5oz (70g) dried dates
- 4oz (115g) dried mulberries (or raisins)
- 6oz (170ml) Irish whiskey (or a mix of whiskey and orange juice)
- 4 eggs, beaten
- 10oz (285g) Ugg Chia Seed Muffin Mix [\*]
- 8 tsp ginger
- 2 tsp cinnamon
- 2 tsp mixed spice
- 2 tbsp olive oil

1. Place fruit in saucepan with whiskey and bring to simmer. Leave to stand for at least an hour.
2. Mix all other ingredients together. Add the dried fruits.
3. Fill a baking mold (about 8-inch diameter) with the mixture and bake in a hot fan-assisted oven at 275°F (140°C) for about 1 hour.

**Comment:**

Yes, it is a little heavy on the candied fruits but hey, this is a Yuletide! Eat it without guilt – it is just small lapse in the big scheme of things.

\* This recipe calls for an [Uggfoods](http://www.uggfoods.com) muffin mix. It can be ordered from [www.uggfoods.com](http://www.uggfoods.com) and also Amazon: <http://amzn.to/2kiVOXt>. Failing that, try our **Rich Christmas Cake**, [Nov 2014](http://bit.ly/1xHBUqV), <http://bit.ly/1xHBUqV>.

## Ancestral Biology

**Load-bearing to Grow Cartilage**

Foragers, both men and women, are constantly carrying loads. If this was the case for eons then, it seems to me that, without it, our bodies won't function properly.

Indeed, we have known for many years that load bearing is necessary for **BONES** to renew themselves. So it is that bed-ridden people and astronauts rapidly lose bone mass. Now professor of bioengineering at Missouri University, USA, Elizabeth Loba, finds that mechanical loading is also vital to generate **CARTILAGE** tissue [6].

Moreover, that in conditions of microgravity – such as long space flights – astronauts suffer impaired fracture healing and cartilage formation.

**My View?** For healthy bones and joints it is important to regularly carry loads. Yes, carry toddler on your shoulders and eschew the supermarket trolley.

See: **Importance of Load Carrying**, [Aug 2014](http://bit.ly/2kMRvMR) [7]

As for astronauts, this is one more challenge for the Mars mission. See:

- **Greenery for Astronauts**, p.3.
- **Space Travel: Immune Dysfunction**, [Oct 2017](http://bit.ly/2kMRvMR) [8]
- **Keeping Mars Pioneers Alive**, p.3

## Ancestral Health

**Our living Gut – part XVI**

[Last month](http://bit.ly/2kMRvMR) [9] we saw how gut dysbiosis is a factor in cell damage and Sepsis. Continuing:

**Antibiotics Linked to Diabetes II**

Anton Pottegård, University of Southern Denmark, examined a cohort of over 1.3 million people. He found that Type II diabetics had used 60% more antibiotics than non-diabetics [10]. It is known that antibiotics drastically alter the gut flora in ways that favor diabetes

[11]. Nevertheless, it is also possible, opine the researchers, that diabetics, being prone to sickness, get prescribed antibiotics more frequently.

**Antibiotics Fatten Kids**

For years, farmers have been feeding antibiotics to livestock to *fatten* them. Finally someone thought it important to see if antibiotics have the same effect on humans. Yes, they do, according to a study from Johns Hopkins University, Baltimore USA [12].

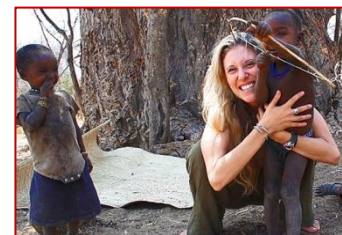
At age 15, 21% of the children in the study had taken antibiotics seven or more times during childhood. They weighed about 3 lb (1.4 kg) more than those who received no antibiotics. Says author Dr Schwartz: "Your BMI may be forever altered by the antibiotics you take as a child."

[Next Month](http://bit.ly/2kMRvMR) [13]: Gut Microbe extinctions.

## Ancestral Behavior

**Risk-taking Forager Males**

Inveterate student of the Hadza foragers, Alyssa Crittenden of Nevada University, USA, and colleagues find that, compared to girls, males are more risk-taking [14]. The difference starts to appear in late childhood.



Alyssa with boy and his bow & arrow

Enlarge: <http://bit.ly/2kqBHvu>

Say the researchers: "We suggest that sex differences in risk preferences may have been present long before agriculture and the modern work environment."

**My View?** It seems like a statement of obvious. Even so, full credit to the researchers, all female mark you, for following the evidence to its conclusion.

As I wrote in *Deadly Harvest*, [Chapter 8](http://bit.ly/2kqBHvu), p. 212 [15]:

"The kinds of genes that make for high [male] status in Pleistocene times included those for risk-taking,

bravery, strength, aggressivity, heroism, female protection, ingenuity, and hunting skills.

See also:

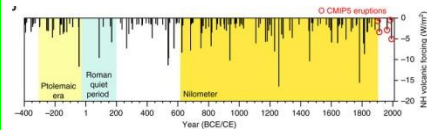
**Out of Africa - Climate Change?** p1.

**Interest in Sport: Mars vs Venus - Evolutionary Insights.** [July 2016](#) [16].

**The Dig Tree VI,** [July 2007](#). Explorer Burke's 'futile risk-taking'. [17]

### Paleo-climate

#### Vulnerable Civilizations: Volcanoes Triggered Revolts, Famines etc



Enlarge: <http://bit.ly/2AHXBW7>

*Volcanic eruptions since Ancient Egypt. Bigger spikes, bigger misery.* An interesting study published in the prestigious journal, *Nature*, has shown that well known revolts, famines and so forth during recorded ancient history were triggered by violent volcanic eruptions (image) [18].

The most recent massive eruption was Tambora, Indonesia, in 1815, known as "the year without a summer". A world-wide veil of dust produced a two year-long 'volcanic winter'. Harvests failed and many countries suffered hunger and civil unrest.

**My View?** The human species in forager times has survived major climate changes such as when the polar ice-caps came all the way down to Manhattan and London. Reliance on agriculture made our survival precarious. In particular, volcanoes, which are unpredictable and uncontrollable, are, arguably, the greatest threat to our well-being. A Tambora-scale explosion is due sometime – will it be soon?

### From Forager to Astronaut

#### Keeping Mars Pioneers Alive (IV)

*I am serializing my contribution to Dr. James Melton's book, Red Planet Leadership* [19].

[Last month](#) [20] we looked at the challenges of sustainable food supply in space and on Mars. We continue:

**Physical activity** is, perhaps, the remaining critical lifestyle factor to

get right. Again, decades of Space Station experience have zeroed in on a 'good enough' system. Using bungee cords to hold them down in the absence of gravity, astronauts work out on various jungle-Jim machines.

In our savanna environment, the forager band was the unit of survival. A leader, always male, emerged by common consent from within the group. There were no formal power relations, and attempts to dominate the group were punished. They had a number of corrective mechanisms to keep a leader in check: gossip (damaging his reputation, prestige and authority); criticism (to correct his behaviour); disobedience (making him ineffective as a leader); departure (leaving the group); and, yes, murder. Such correction mechanisms are called "strategies to overcome the powerful" (STOPs).

The position of leader has clear evolutionary advantages. A good leader has great respect and prestige, and this translates into greater privileges, more sexual liaisons and so, greater success of his genes in the gene pool. In other words, a forager does not become a leader because he is able to dominate the others, but because his abilities benefit the group.

These observations have given rise to a new discipline: Evolutionary Leadership Theory.

[Next Month](#) [21] **Part V** – The mismatch between modern management nostrums and our evolutionary programming.

#### Greenery for Astronauts

Space travel can cause sleep disorders, energy loss, inattentiveness, difficulty in problem-solving, and memory loss. It can cause people to be more hostile, and act more impulsively.

In part II, [Sept 2017](#) [22], of the previous article, I said that space missions need to create:

"the MENTAL environment which, to stop the Astronauts going mad, conforms as closely as possible to their savanna-bred psyches."

Raymond Odeh and Charles Guy of the University of Florida, USA, say

gardening is an important part of the answer [23]. They made an exhaustive examination of the studies demonstrating how the simple presence of plants has a powerful psychological effect.

The authors conclude that what applies to humans on Earth also applies to astronauts in space. Plants can help reduce both social and cognitive problems associated with space travel, and suggest that plants should be part of the design of future space missions.

Peggy Whitson, an astronaut aboard the ISS, confirms this: "It was surprising to me how great six soybean plants looked... I guess if we go to Mars, we need a garden!" See: **Forests Healthify Amygdala**, next.

#### Forests Healthify Amygdala



Noise, pollution, and crowds. That is life in a city – and it can cause chronic stress. Indeed, it is well documented that, compared to country dwellers, city dwellers are at a higher risk of psychiatric illnesses such as depression, anxiety disorders, and schizophrenia.

What is going on? In city-dwellers a region of the brain called the 'amygdala' goes into overdrive

Now researchers at the august Max Planck Institute, Munich, Germany have refined this observation. City-dwellers living close to a forest have healthier amygdalas [24].

The researchers claim that their study, "makes the first connection between urban planning and brain health".

**My View?** "First connection"! The number of studies showing how green spaces are good for mental health is legion. See:

- **Green Spaces Deliver Lasting Mental Health Benefits** [Feb 2014](#) [25].

- **Healthy Urban Living: Reconnect with Nature,** [Feb 2017](#) [26]

The reason is not hard to find: the deepest parts of our psyches need to feel "at home" – one which

replicates our ancestral homeland – and the concrete jungle is not it!

See: **Greenery for Astronauts**, p.3

**Continued from Page 1**

### Healthy Elderly: Young Gut-bugs

**My View:** who knows? But, as always, adopting the Paleo lifestyle is a one-way bet - it is the only way to go.

See also: **Our living Gut – part XVI**, p. 2

### Briefing

### Epigenetic Effects - Part IV

[Last month](#) [27] we saw the unintended consequences of Father's high fat diets, & Psychological Stress. Now:

### Good intentions pave the way to unintended consequences

Government authorities (the FDA in America) often identify the need (as they see it) to rectify their citizens' poor dietary habits. They therefore require food manufacturers to "enrich" certain products with a selection of micronutrients. Now, this well-intentioned meddling backfires. Research on mice

suggests that mandatory "fortification" of breakfast cereals with folic acid might be a mistake. It switches on genes in a pregnant woman's fetus that can make that individual obese for life [28].

Worse, once switched on, the effect passes down the generations. If you are struggling with obesity today, it could be because your grandmother supplemented with folic acid when she was pregnant with your father.

[Next Month](#) [29]: **Epigenetic Effects V**, Pollutants & Conclusion

**Continued from Page 1**

### IQ and Good Health are Genetically Linked

"That cognitive ability is correlated with health is now beyond doubt. This is uncomfortable territory, because it suggests policy interventions cannot easily iron out health disparities." He acknowledges that this idea is uncomfortable for socially minded epidemiologists. "But this is too important a finding to allow it to get lost in controversy".

**My View?** Note that this is not a get-out-of-jail card for bright people. **EVERYONE** will live longer and do better on a good lifestyle (notably the Paleo one) – even if the disparity between the brightest and slowest stays the same. See **Bad Genes don't doom us**, [April 2010](#) [30].

### Spreading the Word

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

Talks to private organizations

### RADIO INTERVIEWS

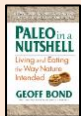
My Q&A session with Amy of Humarian [31] will be posted in two parts during January 2018.

More details soon and on [Facebook](#) [32], [Twitter](#) [33] and [Next Month](#).

**USA TOUR 2018** Jan 20 to March 18

**Book Signing:** Friday March 9.

I will be signing copies of [Paleo in a Nutshell](#) [34] at the [Square One](#) [35] stand in the Natural Products exhibition, Expo West, Anaheim, Los Angeles, CA  
[www.expowest.com](http://www.expowest.com)



**Paleo in a Nutshell:** Geoff's latest work encapsulates, concisely and easily, current thinking on living the way nature intended.  
[www.paleo-nutshell.com](http://www.paleo-nutshell.com)



**Paleo Harvest Cookbook:** Over 170 delicious, Bond Precept conforming recipes  
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