



The science & art of living the way nature intended

The Bond Briefing

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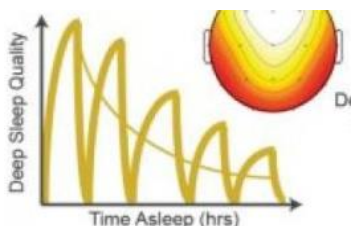


RATIONAL EVIDENCE-BASED COMMENT FOR THE GENERAL PUBLIC & HEALTH PROFESSIONALS. WE SAY EXACTLY WHAT WE THINK

Human Nature: Sleeping Patterns – Age Changes. **From Forager to Astronaut:** Keeping Mars Pioneers Alive (I). **From Nature to Human Zoo:** Zoo Monkeys get Human Gut Bugs. **Human Behavior:** Grandparent Sentinels; Night Owls – ‘Fast-Life’ Histories; Polygyny Triggered Viking Raids? **Ancestral Health:** Our Living Gut – part XIII. **Viewpoint:** Peer-review Science Tainted. **From the Journals:** Most People lack Vitamin D – Sunscreen to Blame; “Five-a-Day” Good, “Ten-a-Day” Better. **Briefing:** Epigenetic Effects – part I. **Spreading the Word:** Radio Interview – Dr Shawn Benzinger; UK Paleo Awards 2017 - Judging Paleo Products.

Human Nature

Sleeping Patterns - Age Changes



Young Adult Sleep Pattern



Old Adult Sleep Pattern

Enlarge all: <http://bit.ly/2fDq2Yq>

"Nearly every disease killing us in later life is linked to lack of sleep," says Prof. Matthew Walker, of UC Berkeley [1]. "We've done a good job of extending life span, but a poor job of extending our health span. We see improving sleep, as a remedy."

Sleep deterioration is linked to Alzheimer's disease, heart disease, obesity, diabetes and stroke.

Walker warns that the sleeping pills are a poor substitute for the natural sleep cycles that the brain needs in order to function well. "Don't be fooled into thinking sedation is real sleep. It's not,"

Walker does not have any easy answers, but others, looking at hunter-gatherers, think that this has a link to "sentinel guarding". See: -

- **Grandparent Sentinels**, p 2;
- **Night Owls: Fast Life Histories**, p 2.

From Forager to Astronaut

Keeping Mars Pioneers Alive (I)



Red Planet Leadership

James Melton

www.jamesmelton.com

(click on image)

The innovative thinker and speaking guru, James Melton, asked me to write a piece for his new book about the challenges of keeping humans functioning well in an alien environment, like Mars...

What happens when you take a group of humans, designed by nature for life on the savannas of east Africa, shut them up in a tin box and ship them off to outer space? In a curious way we already have a very good idea. Not, as one might think, from the current space program, but from the exploration of Antarctica.

And the main dilemma didn't come from the physical challenges and hardships but from the psychological stresses. As early as 1899, the crew of the De Gerlache expedition aboard the Belgica, the first ship to over-winter in the Antarctic, suffered widespread psychological disturbance. "Mentally, the outlook was that of a madhouse", wrote the ship's doctor.

However, for one man on board, Roald Amundsen, it was a salutary lesson on the importance of man-management.

Amundsen went on to lead the first team to reach the South Pole in 1912. In contrast to Robert Falcon Scott, (who was racing him to the Pole) > p. 4

From Nature to Human Zoo

Zoo Monkeys get Human Gut Bugs



Howler monkey hanging by tail eating mangoes

Researchers find that howler monkeys kept in zoos have a totally different gut microbiome to those in the wild [2].

In the wild, each primate species had its own microbe profile. Yet in captivity, they all lost their distinctive microbes and ended up being dominated by the same bacteria that dominate our modern human guts -- species of Bacteroides and Prevotella.

Using DNA the authors measured the amount and diversity of plants being consumed by the captive and wild primates, and the difference was stark.

Wild primate stool contained up to 40 percent plant DNA, while the captive primate stool contained almost none.

My View? This study parallels the one on 'Forager Stools' I report in, **Our Living Gut - Part II, July 2016** [3]. Clearly something is very wrong with not only how we feed ourselves, but also zoo animals. Prof. Michael Crawford found much the same in his ground-breaking 1968 study on savanna animals in the wild or in zoos: **How to Make Good Body-fat, March 2010** [4].

Human Behaviour

Grandparent Sentinels

As people get older, so sleep gets more elusive. This is the case even for hunter-gatherers.

In a state of nature we live in groups. So differences in sleep patterns help ensure that at least one person is awake at all times.

Research suggests that mismatched sleep schedules and restless nights may be an evolutionary leftover from a time when danger lurked in the middle of the night [5].

"Any time you have a mixed-age group population, some go to bed early, some later. If you're older you're more Early Bird. If you're younger you're more Night Owl."

Say the researchers: "These findings should shift our understanding of age-related sleep disorders. Older people go to doctors complaining that they wake up early and can't get back to sleep. But maybe there's nothing wrong with them."

"Many of the medical issues we have today could be explained not as disorders, but as a relic of an evolutionary past in which they were beneficial."

My View? As we can see from the following article, **Night Owls: Fast Life Histories** and, on page 1, **Sleeping Patterns – Age Changes**, researchers are dancing around this subject, apparently ignorant of what the others are finding.

There could be something in all of these theories. But that is the glory of the scientific method: This is the early stage of new discoveries and it will take a while to home in on a coherent explanation.

In the meantime, we can find great clarity by asking: "What would a forager do?"

For a start, foragers get a lot of sunlight in the morning. This is very important: it resets the body-clock every day. See: **Morning Sun keeps off the Pounds**, [May 2014](#) [6].

Secondly check out: **Sleep in a State of Nature**, [Oct 2015](#) [7] and, **Evolutionary Sleep Patterns**, [Sept 2015](#) [8].

Night Owls: 'Fast-Life' Histories

Some people are Night Owls, some others are Early Birds. Most people are somewhere in between. This feature is called a 'chronotype'.

According to Dr Dario Maestripieri and team of Chicago University, these characteristics are inheritable.

They find that so-called Night Owls, both male and female, showed greater propensity for risk taking [9].

This so-called "Eveningness" was associated with risk-taking in financial, ethical, and recreational decision making [10].

Meanwhile, Early Birds had relatively low sexual experience and greater long-term relationships.

Maestripieri sees his studies as suggesting that your chronotype is genetically determined and is just an overt signal of many other aspects of personality.

My View? Others link the phenomenon of diverse chronotypes to 'sentinel guarding' See:

- **Grandparent Sentinels**, this page.

Also: - **Die Young, Live Fast: Evolution of an Underclass**, [May 2011](#) [11]

Polygyny Triggered Viking Raids?



Irish Gaels repel Viking raiders

<http://bit.ly/2fHYZv3>

For about 300 years (from 750 AD to 1050 AD) the Vikings were the scourge of Europe. They pillaged rich monasteries and villages, and kidnapped their women. What provoked this? Ben Raffield of Simon Fraser University, Canada, has an idea [12].

He focused on the ratio of males to females in Viking society, The Vikings were polygynous (some men had many wives) and the society was strongly hierarchical. As a result there were many low-status men who had no woman.

Meanwhile, the high status men needed to maintain their status by building up their wealth. The two

phenomena combined such that high status men mounted raiding expeditions to increase their booty whilst their low-class henchmen could satisfy their wants by capturing women for themselves.

My View? There is some merit in this argument. Forager bands were (and are) always fighting over women. The famed French anthropologist Napoleon Chagnon tried to explain World War II to an Amazonian Yanomamo warrior. The tribesman responded: "You probably raided the Germans because of woman-theft, didn't you." **The World until Yesterday**, [Feb 2013](#) [13].

Why did the Vikings stop behaving like psychopaths? In **Human Evolution Speeds Up**, [Dec 2007](#) [14], I report how geneticist Henry Harpending of Utah University finds that races are evolving away from each other and that, maybe, peace-loving genes spread throughout Scandinavian peoples.

Meanwhile others think that the psychopaths violently colonized their neighboring lands, leaving the peaceniks at home. See also:

Viking Revenge Murder: Lessons. [March 2017](#) [15].

There is yet another argument: That in Viking society, the eldest son inherited all. Younger sons had to seek their fortune overseas.

Finally an unspoken factor: around 1,000 AD, the Vikings adopted Christianity. So... "Only one woman per man", and "turn the other cheek" became the watchwords!

Ancestral Health

Our living Gut - part XIII

[Last month](#) [16] we saw how gut dysbiosis is a factor in **Pre-eclampsia & Antibiotic-caused Diseases**. We continue:

Antibiotics and Breast Cancer

Christine Velicer of University of Washington, Seattle, USA found that over a 17-year period, women who had taken more than 25 antibiotic prescriptions had double the risk of breast cancer compared to those who had not taken any antibiotics [17].

She theorizes that the antibiotics, by trashing colon health, undermined the immune system.

Tetracycline Zaps Sperm

In an animal study, researchers found that the antibiotic tetracycline sharply reduced sperm viability and that the fathers passed this vulnerability on to their sons [18]. This is the 'trans-generational effect' [See: [Ancestors' Lapses Visited on Us, Dec 2010](#) and [Epigenetic Effects - Part I](#), this page.]

Tetracycline is still commonly used as an additive in animal feed – of all things! So who knows what mischief it is still doing to us?

[Next Month](#) [19]. **Type I Diabetes and Antibiotics; Injected Antibiotics Disrupt Infant Gut Flora.**

Viewpoint

Peer-review Science Tainted

I read some 40 scientific press releases a day. The interesting ones I highlight for further study. See: [Synthesizing Torrents of Info: April 2015](#) [20].

But often, when I try to boil an article down to its essence, I find that it has no meaning at all.

I am not alone. In what is known as a 'Sokal Hoax' [a], professor Peter Boghossian and Dr James Lindsay made up a learned paper on the "conceptual penis" as a "gender-performative, highly fluid social construct" that is "the conceptual driver behind much of climate change",

You read that right – the journal published this gobbledygook!

Boghossian said: "We don't understand it. Nobody does. But it fits the prejudices of much of academia: leftist, postmodern, relativist, feminist and moralizing.

[a] In 1996, physics professor, Alan Sokal, at New York University submitted an article, liberally salted with nonsense, to *Social Text*, an academic journal of 'postmodern cultural studies'. "Since it flattered the editors' ideological preconceptions". *Social Text* published the article with its nonsense title: "Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity."

"Academia is overrun by left-wing zealots preaching dangerous nonsense. They've taught students to turn off their rational minds and become moral crusaders."

The authors' explanation of how they created the article is hilarious and well worth looking up: <http://bit.ly/2wPX0L6>.

My View? Hoax articles apart, there is a veritable tsunami of dross studies. Many are deliberately headline-grabbing and much of what I do is debunk the deception and humbug. See: [Tsunami of Health News, June 2009](#) [21].

The social sciences are much more vulnerable to ideologically-driven fantasy. That is why I take a deep interest in Evolutionary Psychology. Most of it squarely contradicts the social science fantasies and puts the study of human behavior on a truly scientific footing.

From the Journals

Most People Lack Vitamin D: Sunscreen to Blame.

Yet another review finds that most western populations are now suffering a vast range of common diseases of which Vitamin D starvation is a major factor [22].

The researchers lay the blame squarely on inadequate exposure to sun and the use of sunscreens.

Don't think you can just take a supplement. For why vitamin D pills don't work, see, [Vitamin D Supplementation, March 2010](#) [23]

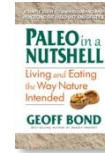
Moreover, many conditions, like diabetes II, Crohn's disease, kidney disease and celiac disease, prevent your body from absorbing vitamin D and using it.

The researchers make the usual recommendations: get into the sun every day if possible, expose arms and legs, spend a minimum of 10 minutes in the sun, and forego sunscreen – an SPF of only 15 still cuts vitamin D production by 99%.

An SPF of only 15 still cuts vitamin D production by 99%

For my review of sunshine dosage, see [Sunshine is Human Food, page 5, Oct 2003](#) [24].

My View? What more is there to say? I have written dozens of times about the vital role that sunshine plays in human health – without it we sicken and die. Here are some recent writings:



[Sunshine & Sunlight, Paleo in a Nutshell](#), page 29 [25].

[Sunshine Holidays for Vitamin D, June 2016](#) [26]. [Vitamin D advice Lowballs, June 2015](#) [27]. [Sunlight Boosts Immune System, Dec 2016](#) [28]. [Sunlight Starvation: a Factor in Pancreatic Cancer, May 2015](#) [29].

"Five-a-Day" Good, "Ten-a Day" Better

A huge meta-study (a study of studies) carried out by researchers at Imperial College, London, finds that the benefits of consuming fruit, salads and vegetables improve all the way up to 10 portions a day [30]. That equates to an intake of 800 grams (1lb 12oz).

At this level, there are the following reductions of risk: Heart disease 24%, stroke 33%, CVD 28%, all cancers 13%, and dying early 31%.

What about forager-type intakes greater than 800 grams per day? The researchers could not find anyone who did that!

My View? They should have asked us Paleo Practitioners!

Briefing

I regularly report on how our lifestyle can switch on genes, or switch them off – often with harmful consequences. This is known as an 'Epigenetic Effect'. Here I serialize our latest knowledge of the subject.

Epigenetic Effects - Part I

My generation was a charmed one: it lived its formative years when unhealthy foods were rationed; when it was impossible to over-indulge; when meals were prepared from scratch at home; when convenience foods, junk foods and intensive farming were unknown; and when we walked or cycled everywhere. It was also before powerful chemicals came into use in farming and household products.

We now learn that parents' (and even grandparents') poor lifestyles can afflict the child with a predisposition to many diseases. These are known as '*Transgenerational epigenetic effects*'

We are used to the idea that our genes are the blueprints for our bodies. This is quite true, but the story goes further. Many genes switch on and off or just lie dormant all the time. For example, some genes switch off when a child has reached adulthood and stop the growing process.

Other genes remain dormant and might only switch on when something happens. Such was the case during the Dutch famine at the end of WWII. The Dutch women who starved during pregnancy gave birth, unsurprisingly, to underweight babies. The children were more susceptible to diabetes, obesity, cardiovascular disease, micro-albuminuria, schizophrenia, depression, stress, poor cognition, and accelerated ageing. [31].

The surprise comes in the second generation:...

[Next Month: Epigenetic Effects II](#)

Spreading the Word

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

Talks to private organizations

RADIO INTERVIEW

I have recorded a 30 minute podcast with Dr. Shawn Benzinger of Humarian [32]. It will be made available soon. Watch this space!

JUDGING UK PALEO PRODUCTS



Enlarge: <http://bit.ly/2xTYb11>

On September 11th I joined organizer Jan Minihane (second from right) and five other judges to give our opinion on a vast range of Paleo products.

Jan Minihane had already done a Labor of Hercules to whittle down the number of contenders from the many thousands of hopefuls.

I am impressed by the many small businesses, inspired by the Paleo movement, to bring healthier foods

– and ways of living -- to the general public.

Voting is open also to the general public and you can have your say, until September 30th by going to the Paleo Awards website:

<https://ukpaleoawards.co.uk>

Since the competition is still open, I cannot report in detail on our deliberations – that is reserved for the [next #BondBriefing](#).

Continued from Page 1

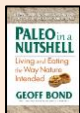
Keeping Mars Pioneers Alive (I)

Amundsen's leadership led to a successful and uneventful journey.

Above all he demonstrated an open, flexible mind by adopting Eskimo dog-sledding and Eskimo techniques for living in this hostile environment.

Scott's inflexible leadership, for all its bravery, led to a catalogue of bone-headed decisions, mishaps and disasters which finally ended in death for himself and his team...

[Next Month Part II](#) - Lessons from Antarctic survival.



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



Paleo Harvest Cookbook: Over 170 delicious, Bond Precept conforming recipes www.paleo-harvest.com

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