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The Bond Briefing

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

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Genetic Programming

Maximum Human Lifespan

Sometimes people say to me – ah but we live so much longer than foragers did, don't we! As though there were no old people in a forager band. This is rubbish. In fact, as I have frequently discussed, the grandparent generation was vital to the survival of the human species. See **Childhood, Chapter 8, Deadly Harvest** [1].

But the question arises: just how long is the natural human lifespan? Dr Jan Vijg and team at Einstein College of Medicine, New York, NY. think they have an answer [2].

They looked at survival rates of super-centenarians (over 110 years old) from 1968 to 2006.

Age at death for these super-centenarians reached a plateau around 1995 at a maximum age of survival of 115 years.

There will be exceptional, freakish instances of people who survive even longer. The Frenchwoman, Jeanne Calment who died in 1997 aged 122, is an example - a 'statistical outlier'. She achieved the maximum documented lifespan of any person in history.

Finally, the researchers calculated 125 years as the absolute limit of human lifespan.

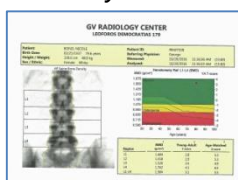
Says Dr. Vijg. " Resources now being spent to increase lifespan should instead go to lengthening old age spent in good health."

My View? Just so! Foragers lived in good shape to the end. Americans can expect to spend the last 8 years of life disabled. See: **Cliff-edge Mortality and Compression of Morbidity**, page 2.

Health Heritage

Stunning Bone Health

We live like we say and, from time to time we have a health check. Recently Nicole, who will be 80 next year, had a bone density test.



Spine Density
<http://bit.ly/2fBazHQ>



Full report (pdf):
<http://bit.ly/2fx0DOP>

Nicole: <http://bit.ly/2fwVW7C>

Her results were stunning. For both spine and hip she has the peak bone health of a 30-year-old. Says Nicole, "I last had my bones tested at the age of 53 when I was told that the "densities were commensurate with my age"

It seems, therefore, that my bone density has actually INCREASED since then!"

My View? This is just one person's experience and not a scientific study. Nevertheless it cannot be a coincidence that Nicole has been living like we say for the last 25 years.

By the way, she is not taking any medication or any supplements.

News Flashes

Fungus & Crohn's Disease

When thinking about the flora in our guts, we tend to focus heavily on the bacteria – see: **Our Living Gut**, p.3. However, there are many other occupants too – notably fungi.

Now researchers find that a fungus, *Candida tropicalis*, is closely linked with the bacteria, *Escherichia coli* and *Serratia marcescens*, which are also implicated in Crohn's disease [3]. The prevalence of these factors in the gut indicates a state of 'dysbiosis'.

Note: *C. tropicalis* is not the same fungus as gives the common 'Candida' infection – which is caused by a different fungus, *C. albicans*.

What is to be done? The researchers say that, when compared to non-sufferers, Crohn's patients tend to share similar diets and environments. Frustratingly they are not more specific. However, in **Our Living Gut**, we discuss dysbiosis and what to do about it.

ICU Patients - Dysbiosis in Days

The microbiome of patients admitted to the intensive care unit (ICU) at a hospital differs dramatically from that of healthy patients. In some cases, those 'bad' organisms became 95 percent of the entire gut flora within days of admission to the ICU. Some of the patient microbiomes, even at the time of admission, resembled the microbiomes of corpses! [4].

The researchers recommend that it is vital, as part of the treatment, for the dysbiosis be put right.

Jungle Lore

Beware the Bogus 'Paleo' Label



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

Paleo Cookies

The Blurb: "To create a biscuit without flour, butter, milk, or sugar seems unlikely for everyone, but not for us!"

Ingredients: Emmer, agave syrup, sesame, almonds, walnuts, sesame, linseed, vanilla, cocoa nibs ...

My View? This pretend Paleo product promotes its chief content as 'Emmer'. Whereas, as we should all know, Emmer is a wheat grain! Indeed it was one of the first varieties (along with einkorn) that those early farmers began to cultivate. As such it is often promoted as the next fad.

The name of 'Paleo' is often hijacked to promote products or diets which bear little or no resemblance to the real thing. Keep your wits about you and AVOID!

Similarly pseudo-grains like quinoa and amaranth are just that: pseudo grains with all the drawbacks of true grains. AVOID!

Go easy on Mammoth Meat

Another misconception is that humans ate mammoth-meat by the hundredweight and so we should all be eating fatty bacon and pork chops by the bucketful. WRONG!

We now know that not even Neanderthals consumed meat on that scale

Authentic Paleo.

In our work we deal with the AUTHENTIC Paleo Lifestyle - and nothing else!

Questions

Protein- seasonal availability

Q. I saw Professor Raubenheimer speak on his 'Protein Leveraging' diet. Spider monkeys in the wild had a relatively constant protein intake throughout the year regardless of how the carbohydrates and fats varied. In support he cites these papers [5,6]. What do you think?

A. Professor Raubenheimer, who has South African origins, is a busy man who co-authors a great many papers. I reported on the most recent one [last month](#): **Fulfil Protein Appetite, Fulfil All** [7].

Indeed there is much evidence for what he calls 'protein leveraging' That is, we keep eating until our protein intake is satisfied.

Moreover, in the second study you cite, he observes:

"...a change in the nutritional environment that **DILUTES** dietary protein with carbohydrate and fat promotes **OVER-CONSUMPTION**, enhancing the risk for potential weight gain."

My View? Coming from a quite different angle Professor Raubenheimer confirms our hunter-gatherer observations: that some 25% of the diet (by weight) should be protein-rich and the other 75% plant food, low in fat and starches.

Food Watch

Farmed Salmon Quality Decline

The levels of omega-3 fish oils (DHA & EPA) in farmed salmon has HALVED in the last 10 years according to Prof. Douglas Tocher of Stirling University, Scotland [8].

What is going on? It is all in the fish-food. Originally salmon were fed on an 80% fish diet – mainly anchovies. But anchovies are getting fished out and are down to 20%, and so salmon are now fed 80% non-marine foods based on grains and seeds. (Yes, really!)

The industry is looking for other ways of increasing the fish-oil content of salmon-feed. One is by cultivating certain marine algae. Another is to use GMO technology to get plants like oil-seed rape (Canola) to make fish-oils directly.

Rapeseed (Canola) is already rich in a form of omega-3, alpha-linolenic acid (ALA).

However, ALA is poorly converted into fish-oil in both human bodies and salmon bodies.

So, the thinking goes, it should be possible to get the rapeseed plant to do the conversion into DHA and EPA for us.

Either the algae or the rapeseed can then be made up into salmon-feed.

My View? Salmon – even with its reduced fish-oil content – is still the richest source of DHA and EPA – so continue to seek it out.

Meanwhile we are keeping watch on how this whole business is evolving.

See: **Farm Fish vs. Wild Fish**, [March 2007](#) [9], and **Patrick Garlepp - Ironman**. Page 4.

Briefing

Cliff-edge Mortality and Compression of Morbidity

Every few days or weeks, a forager band had to walk 10 to 15 miles to the next camp site. Everyone had to make that walk, including the normal grandparents! And that is the normal human condition: people stay fully functioning until the end of their days.

But a point will come in an old person's life where they announce: "I don't think I can make that long walk to the next campsite..." They will lie down, the band will make them comfortable and, over a few days, the old person fades away. This is known as 'cliff-edge mortality'.

These people do not die of any identifiable disease like cancer or heart disease. No, on the contrary, they die of old age! That is to say, all parts of the body have aged to the point where everything shuts down at the same time.

Even today, the vast majority of centenarians and 'super-centenarians' (over the age of 110), live a forager-like end-of-life where there is 'compression of morbidity'. This means that any diseases like heart disease or respiratory disease are postponed until the very last few months of life. In other words, just

like foragers, they have very long 'Healthy Lifespans'.

In contrast, Americans can expect to spend the last 15 years of life sick – and the last 8 years of life 'disabled' [10].

Meanwhile, obesity rates amongst the old have rocketed in 20 years from 13% to 25% -- and almost all will be on a variety of powerful medications.

Ancestral Health

Our living Gut - part V

Last month [11] We saw how *dysbiosis and excessive hygiene are factors in auto-immune disease*:

Multiple Sclerosis

Investigators from Brigham and Women's Hospital (BWH) have found that people with multiple sclerosis have different patterns of gut micro-organisms than those of their healthy counterparts. [12]

Samples from MS patients contained higher levels of certain bacterial species – including *Methanobrevibacter* and *Akkermansia* – and lower levels of others – such as *Butyricimonas* – when compared to healthy samples.

Other studies have found that several of these micro-organisms may drive **INFLAMMATION** or are associated with autoimmunity. Importantly, the team also found that microbial changes in the gut are linked to changes in the activity of genes that play a role in the immune system.

However, like so many other studies linking gut-bugs to disease, they don't tell us a) which is the cause and which is the effect, nor, b) what change in lifestyle, if any, could reverse the cause.

Professor John Cryan of Cork University, Ireland also finds that gut bacteria can trigger multiple sclerosis. [13] They also activate brain and marrow cells similar to immune cells.

In another study, Dr Gurumoorthy Krishnamoorthy of the Max Planck Institute, Munich, Germany finds a paradox: a healthy microbiome can trigger multiple sclerosis; disease-causing bacteria are not implicated. [14]

He thinks that it is rather a change in the immune system that leads to MS – but exactly what bacteria are involved is not yet clear.

Next Month: Bone Building

Ancestral Programming

Threatened by Diversity



Download pdf: <http://bit.ly/2fHpfVn>

In a prescient paper by psychologist Brenda Major of University of California, Santa Barbara, not all Americans value the country's multicultural ethos [15].

Says Major, who specializes in social identity:

"Many whites are feeling very threatened by the increasing ethnic and racial diversification of America.

"Donald Trump understands that, feels their same angst and plays to it. The threat of diversity among white Americans who highly identify with their ethnicity is playing a key role in shaping this year's presidential contest...

"I predict that white identity politics will become a larger part of the political discourse in the United States in the coming years."

My View? We now know that Major was spot on with her prediction. Mind you, anyone with a smattering of evolutionary psychology might suspect that deep forces would, by now, be stirring in white psyches. Nature programmed our ancient ancestors to be both strongly defensive of their homeland and also strongly loyal to their group. Ethnic diversity is reaching a tipping point where the white 'In-group' feels its identity imperilled by infiltration from alien Out-groupers.

See: **In-group, Out-group**, page 197, [Chapter 8](#), *Deadly Harvest*.

This is an interesting topic about whose many aspects I have regularly written: See:

Ethnically Homogeneous Neighborhoods are Healthier, [Dec 2012](#) [16]

Birds of a Feather: Cooperation, [Nov 2012](#) [17].

Ethnic Diversity is Not How Nature Intended, [Oct 2007](#) [18].

Story-telling in Evolution, Part II, [Nov 2009](#) [19]

Melting Pot to Balkans, [Dec 2001](#) [20].

Invader Farmers Spread Genes, [Nov 2004](#) [21].

Jungle Lore

Defining Dietary Fiber, Part III last month: [22]

Attempts to use measurements of 'soluble' versus 'insoluble' fiber as equivalents of 'fermentable' versus 'non-fermentable' respectively, have proven inaccurate. The term "*plant polysaccharides*" is a common synonym for "*microbiota food*," but this category excludes important non-plant carbohydrates and *oligosaccharides* – such as those in breast milk. Yes, breast milk contains dietary fiber!

Indigestible and seemingly useless 'fibers', *oligosaccharides*, in breast milk are important to baby's healthy gut flora [23]. Now, a recent study adds to the knowledge. It finds that the flora (good bacteria) make SCFAs without which the infant is more at risk from food allergies, asthma and depressed immune system [24]. Moreover, and this is the clever part, the composition of the fibers changes as the months go by so as to change the profile of bacterial species in a healthy and appropriate way.

Back to our dietary fiber definition. The important question is this: is it the right fiber for the right bugs? Sonnenburg suggests the term '*microbiota-accessible carbohydrate*' or 'MAC'.

Even so, one individual's MAC will not be the same as another's – we each have different microbiomes. So we will stay with '*Dietary Fiber*' even though we have difficulty actually defining it and measuring it. But does it matter? It all comes down to one principle: live like a hunter-gatherer and give yourself the best chance to cultivate the right microbiome – your herb garden!

Supporter News

Patrick Garlepp - Ironman



Enlarge: <http://bit.ly/2fwVM0g>

Patrick, who lives in Vancouver, Canada, has been a follower for many years. He came to us as a keen participant in international ironman triathlon competitions.

Patrick's day job is in the salmon fishing industry. He is critical of salmon farming and criticizes its declining omega-3 content (see **Farmed Salmon Quality Decline**, p. 2).

Patrick tips that sockeye salmon is very rich and that it is good enough to go for less-fatty pink salmon.

Canned salmon is OK as well as fresh, but in all cases the salmon should be wild not farmed.

Patrick's wife (59) is equally athletic which is helping her to keep her youthful curves : <http://bit.ly/2eM9rBl>

Off the Beaten Track

Smartphone Choice Personality

Are you Android or iPhone? According to a study from the University of Lincoln's School of Psychology it could be an indicator of your personality.

Compared to iPhone users, Android users had higher scores in Honesty, Humility, Agreeableness, Openness, and Introversion.

In contrast, iPhone users scored higher on Status Seeking and Herd Mentality [25].

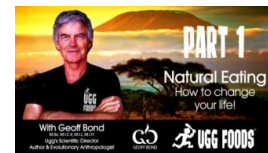
The researchers also find that women were twice as likely to own an iPhone as men.

The researchers' next project is to analyze the apps that people download.

My View? There were very few secrets between the members of the forager band – the In-group. However, the Out-group members were unknown quantities.

In the modern world, we are broadcasting our personalities – and much else – for the whole world to see.

Spreading the Word



Video for www.Uggfoods.com : Remastered by Georgiades Productions. **All About Paleo - Part I.** <http://bit.ly/2fHC0iP>

Lecture Tour: California, January 16th, 2017 to March 10th 2017.

Private Talks. Including Rotary Club.



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



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

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