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Human Behaviour: Origins of Religions. **Letter:** Plant Food – Starting Young. **Human Dimorphism:** Size & Shape of Sexes Unchanged. **Buyer Beware:** Overconfident False-news Victims. **Spreading the Word:** Anna Taute. **News Shorts:** Early Obesity ups Dementia; “Psycho-biotics” & Mood; Afternoon Napping Boosts Brain; Red Seaweed Fights Cancer; Psoriasis – Sugar & Fat link; Leafy Greens lower CVD risk; Omega-3 DHA poisons Tumors; Fasting Undermines Gut Bugs; Calories on Food Labels; Unreplicable Studies. **Ancestral Microbiome:** Ancient Gut Bug Insights.

Human Behaviour

Origins of Religions

The origins of religions have intrigued thinkers and anthropologists for centuries. Darwin in his *Descent of Man* [1] writes: “The feeling of religious devotion is a highly complex one, consisting of love, complete submission to an exalted and mysterious superior, a strong sense of dependence, fear, reverence, gratitude, hope for the future, and perhaps other elements.”

Darwin continued: “There is no evidence that man was aboriginally endowed with the ennobling belief in the existence of an Omnipotent God. On the contrary there is evidence that... numerous races exist who have no idea of one or more gods... but that natural phenomena are ascribable to the presence in animals plants and things, and in the forces of nature, of such spirits prompting to action as men are conscious they themselves possess.”

This latter belief – in all aspects of nature being possessed of spirits – is called ‘animism’. It is regarded as “the oldest trait of religion, present in present-day hunter gatherers”. So find Cambridge University evolutionary anthropologists, Hervey Peoples and Frank Marlowe [2] in a major survey of all modern day forager societies [3]. This is typical of the Hadza and the !Kung-San who are models for our Paleo lifestyle.

Peoples and Marlowe report that belief systems grow in sophistication with the increase in complexity of society as follows:

- Belief in an afterlife
- Shamanism (or “witch-doctoring”)
- Ancestor worship > p4

Letter

From a UK reader who wishes to maintain child identity discretion:

Plant food: Starting young



<https://bit.ly/2VYZ190>

“My 10-month old son loves his broccoli! Earlier he tucked into avocado for lunch...”

My View? Well done!

As we say in **Baby/toddler, Natural Eating** [4], [Chapter 6](#) [5], page 111:

“Get your baby *used to* healthy foods, and that *liking* will stay with him for life.”

We go on to say:

“It is better to get your child used to the bland taste of vegetables before introducing the sweeter and jazzier taste [of fruits] like grapes, bananas, tangerines [etc.]”

Your child follows in a long line of successful Natural Eaters of whom this is a selection:

Joanne’s Alysia is One Year Old, [July 2000](#) [6]; **Emmanuelle’s Pioneering Children**, Aug 2000 [7]; **Bonny Baby Bouvet**, [Sept 2001](#) [8]; **Welcome Natural Eater Adele!** [June 2009](#) [9]; **Harris Family Update & Tips III**, [March 2003](#) [10].

We wish your child well and look forward to hearing how he gets on!

Human Dimorphism

Size & Shape of Sexes Unchanged

It is a commonplace that, on average, men are taller, heavier, and more muscled than women. This phenomenon is known as ‘dimorphism’ and is common in a huge variety of creatures from gorillas to lions to sea-lions. In humans the extent of dimorphism is relatively modest, at about 15% [11]. Nevertheless, some anthropologists have suggested that, since the agricultural revolution, natural selection pressures would have reduced the amount of dimorphism. Now a study on the genetics of modern populations finds that this is not the case [12]. Human morphological sex differences have not changed in some 2 million years of evolution.

My View? As the French say: “Vive la Différence!”

Buyer Beware

Overconfident False-news Victims

Individuals who falsely believe they are able to identify false news are more likely to fall victim to it. So finds a study published in the prestigious journal PNAS [13].

These overconfident respondents are also less able to distinguish between true and false claims about current events and they share false content, especially when it aligns with their political leanings.

My View? We are in a never ending battle to discern what is real in the ‘fog of war’. Even scientific journals are not foolproof. But our readers can be assured that we prize intellectual honesty in our reporting, however uncomfortable it might be.

See: **Unreplicable Studies**, p 3

Spreading the Word

From Anne Taute, London, UK
www.ovalbooks.com

So far I have ordered 8 copies [of *Deadly Harvest*] to be sent to others whose lives have been changed for the better by it.

I only wish you could have heard the comments from the recipients after a few months on this change of diet:

"I haven't felt this energised in years."

"I've lost a stone (14 lb, 6 kg) in weight and can now fit into clothes I bought years ago."

"There were so many delicious vegetables on the Paleo list that I had never considered before."

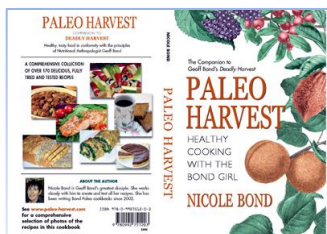
"The best thing with this eating plan is that you are never hungry so are never tempted to snack between meals."

And so on.

I also lost a stone in weight (half went in the first fortnight) and have maintained that loss, despite enjoying a few unhealthy, not to say outrageous items from time to time, such as a slice of chocolate cake.

When seeing people in the street with weight issues I long to preach the Paleo way of life. Only wish I had known of it decades ago.

Thank you, Anne, for your terrific efforts to get the message out.



www.paleo-harvest.com

By the way, chocolate cake does not have to be "outrageous" – try Nicole's recipe for "Chocolate Delight" in her cookbook, *Paleo Harvest!*

News Shorts

Early Obesity ups Dementia

Dementia risk increased by 1.8 times for women who were overweight in early adulthood compared to those who had normal weight [14]. For both men and women, the risk increased by 2.5 times in those who were obese.

Says researcher Adina Hazzouri, PhD, of Columbia University, "... efforts aimed at reducing dementia risk need to begin early in life with a particular focus on obesity".

Our View? Yet another straw in the wind indicating that whether or not we get dementia is within our control. See: **Alzheimer's Disease and Dementia**, *Deadly Harvest*, [Chapter 9](#) [15], page 253 and **Neurologist with Alzheimer's**, [May 2021](#) [16].

"Psycho-biotics" & Mood

Get used to this new term of 'psycho-biotics'. It describes how manipulation of the gut microbiome can be used to correct brain and mood disorders.

Now a study finds that, in mice, stress promoted gut bugs which produce chemicals that affect the brain in such a way that gave rise to depression.

The researchers found that simply transferring feces from healthy mice to ones with mood disorders was enough to relieve their depression [17].

My View? We speak often of how the gut microbiome influences brain function, see: **Gut Bugs affect behavior, mood, brain**, [Jan 2017](#) [18]; **Our living Gut – part XX. Fecal Transplants**, [March 2018](#) [19].

Modern lifestyles lead to a bad gut bug profile ('dysbiosis') and the only way we know to deal with it is to live the way nature intended – the way we say.

Afternoon Napping Boosts Brain

In older people, afternoon (after lunch) napping was linked to better cognitive function including orientation, language, and memory. So finds a study of 2,214 healthy Chinese, average age 71 [20]. 1,534 regularly napped and 680 didn't.

All subjects slept on average 6.5 hours per night and those who napped did so for at least 5 minutes and no more than 2 hours.

My View?

The study could not identify what is going on. But we've been here before: good sleep habits improve the drainage of toxic waste from the brain via its "glymphatic" system. See: **Sleep Posture Clears Brain Waste**, [Sept 2015](#) [21]; **What does Sleep do? Deficiency Link with Alzheimer's**, [Jan 2019](#) [22].

What do foragers do? Napping in the heat of the day was quite common, especially amongst the older folk. See: **Sleep in a State of Nature**, [Oct 2015](#) [23].

The researchers wondered what brings on the urge to nap – is it a reaction to age-related inflammation? Possibly – in some cases. But I too have enjoyed post-prandial naps for decades and I am certainly not in a state of chronic inflammation.

Moral? If you enjoy an after lunch nap do it gladly – it is doing your brain good!

Red Seaweed Fights Cancer

In the past people have wondered why the incidence of colon cancer in Japan is the lowest in the world. Now a study [24] has looked into a common ingredient in the Japanese diet – red seaweed.

It finds that red seaweed gets broken down in the gut to release "sugars" which serve as food for healthy probiotic bacteria. Indeed the sugars themselves also trigger the death of cancerous colon cells.

My View? Our ancient ancestors never had access to seaweed, red or otherwise. However, it seems that this novel food can be a welcome immigrant to our Paleo diet.

Psoriasis: Sugar & Fat Link

A diet rich in sugar and fat leads to an imbalance in the gut's microbial culture and contributes to inflammatory skin diseases such as psoriasis and arthritis [25]. Up to 30% of psoriasis patients have morning stiffness, fatigue, swollen fingers, joint pain, and nail changes.

The good news is that the effect can be reversed. Say the researchers: “patients with psoriatic skin and joint disease should consider changing to a healthier dietary pattern.”

My View? Just so!

Leafy Greens lower CVD risk



Mustard Greens [26]

Yet another study finds that consumption of nitrate-rich vegetables lowers risk of CVD by up to 26% [27]. One cup a day was the optimum amount.

Examples of such vegetables are: Spinach, Mustard greens, Arugula, Kale, Swiss chard, lettuce, Beetroot, Radishes, Turnips, Watercress, Bok choy, Chinese cabbage, Kohlrabi, Chicory leaf, Celery, Onion, Garlic. No problem for us there!

Omega-3 DHA Poisons Tumors

We speak often of the omega-3 oil DHA. The body can, with difficulty, make it from plant seed oils like rape (Canola) and flax. But it is most reliably obtained directly from oily fish like salmon and sardines. DHA is crucial to brain function and quenching of inflammation.

Now a study has found a new role: DHA finds its way into cancer cells, where it oxidizes and so poisons the cancer cell to death [28].

Of course, the intake of DHA has to be enough. The researchers recommend at least 250 mg (¼ gram) of DHA per day. This is easily done: for example 30g (1 oz) of salmon, sardine, mackerel, herring, or trout does it all. Even so, the average American diet is much lower at a DHA intake of 50 mg/day.

Fasting undermines Gut Bugs

A very low calorie diet severely modifies our gut microbiome and reduces resistance to colonization by “*Clostridioides difficile*” (the difficult-to-treat hospital bacterium) and it sharply reduces the

absorption of nutrients across the gut wall [29].

The subjects were overweight and obese women put on an 800 calorie per day diet.

Say the researchers, the subjects developed a “hunger microbiome”

My View? Severe fasting like this is not how it was in a state of nature.

So the good news is, we don't recommend starvation dieting to lose weight. Indeed it doesn't work! (See: **Hadza Forager Energy Expenditure same as Westerners**, [Sept 2012](#) [30].

It is tough, but it just requires eating well, yet leaving you a little hungry before the next meal.

See also next article

Calories on Food Packets

In: **Not all Calories are the same**,

[May 2013](#) [31] I showed how the calories consumed are not actually used by the body in the ways we think. Those calorie values are based on experiments by the American chemist and nutritional researcher, Wilbur Atwater in the 1880s using a “bomb calorimeter”.

However, humans are not bomb calorimeters and in 2001, British nutrition consultant Geoffrey Livesey coined the term “net metabolizable energy” to describe the concept of “caloric availability”. In particular he proposed replacing the Atwater calorie values on food labels.

He argues that, on average, protein has an availability of 70%, carbohydrates about 90% and fats 98% (which is why they are, indeed, fattening!)

Some 30% of the calories in protein are thrown off as heat in a process called “thermogenesis”. See **“Breakfast like a King...?”** [March 2020](#) [32].

We had a similar problem with setting the calorific value of dietary fibers like xylitol. See: **Calories in Dietary Fibre**, [Oct 2017](#) [33].

Unreplicable Studies

Studies in leading psychology, social science and medicine journals that fail to be confirmed in subsequent studies (and therefore are less likely to be true) are, in spite of that, often

the most quoted papers in the popular media [34].

These messages are multiplied up because their findings are ‘interesting’ even if false. When found to be false, such studies are rarely condemned as such.

Mostly they are in the ‘soft’ sciences like sociology and cultural anthropology. It is much less of a problem in the ‘hard’ sciences like physics and chemistry.

My View? The influence of an inaccurate paper can have repercussions for decades. In our Briefings we keep our sceptical antennae fully deployed. See **Overconfident False-news Victims**, p1.

Ancestral Microbiome

Ancient Gut Bug Insights

We have many times highlighted how forager gut bugs – modern and ancient – differ radically from those in modern western populations. See **Forager Gut Bugs not like ours**, [April 2014](#) [35]; **Forager Stools**, [July 2016](#) [36].

Now a study has examined 2,000 year-old fossilized feces from dry caves in Utah and Mexico [37]. The differences with modern microbiomes “are striking”. For instance, say the researchers: “a bacterium known as ‘*Treponema succinifaciens*’ is not in a single Western microbiome but it's in every single one of the eight ancient microbiomes. Indeed almost 40% of ancient microbial species had never been seen before.”

Overall, these ancient microbiomes were not resistant to antibiotics (which is good) and they suppressed inflammation in the gut (which is good).

My View? Researchers have got very good at analyzing ancient gut bugs and comparing them to modern ones. But, frustratingly, so far they cannot work out just what it means for us.

We have to believe that it is better for us to have microbiomes that are “Paleo” – for that is how it would be if we lived in a state of nature.

Certainly we can **LIVE** Paleo and hope that our gut bug profile will obligingly fall into line. But will it? As

we wrote in: **Modern era Microbe Extinctions**, [Dec 2017](#) [38], it is likely that many species of microbe are no longer around to colonize our guts, even if the conditions are favorable.

Perhaps it doesn't matter too much – after all, if you live healthy in the modern world, we are showing that you can, anyway, live long and in good shape to the end.

Even so, we can do something about dietary fiber. See the study of ancient feces by Dr Michael Kliks, UC Berkeley, in: **Defining Dietary Fiber – Part II**, [Sept 2016](#) [39].

Continued from Page 1

Origins of Religions

- d) High “inactive” gods,
- e) Active ancestor worship,
- f) Active high gods (who intervene in human affairs).

Shamans are men or women who “mediate between the earthly and spirit worlds to promote cohesion

and physical and mental well-being in the society”.

The researchers find that the !Kung San do have a belief in the afterlife whereas the Hadza do not. The !Kung-San have shamans but the Hadza do not. Indeed, the Hadza seem to be particularly impervious to religiosity – to the despair of Christian missionaries who have been trying to proselytize them for over a hundred years [40].

However, neither tribe had beliefs in High Inactive Gods, Active Ancestor Worship, or Active High Gods. Beliefs in such entities seem to come about with the rise of large farming civilizations (e.g. Sumer, Babylon & Tyre) which needed a powerful belief system, together with an authoritative priestly caste, to hold everyone together.

There would have been a strong natural selection for increased religiosity – civilizations, whose individuals were only weakly

religious, would have collapsed from internal conflict.

My View? Today we live in highly complex societies which survived because they were cemented by particular belief systems.

Now these belief systems are dissolving. Dubbed the ‘Prince of Paradox’, the philosopher, G.K. Chesterton [41] observed: “When men choose not to believe in God, they do not thereafter believe in nothing, they then become capable of believing in anything.”

That seems to be the challenge today – in the vacuum created by secularism, the craziest ideologies are running riot.

Will our complex societies survive these earthquakes? Or will we splinter back to mutually hostile Stone Age-style clans, each with their: “Rich set of myths and stories about ancestors, about the sun, the moon and the stars, and a modest range of rituals and taboos [42]?”

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



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