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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

Ancestral Social Dynamics: Seven Universal Moral Rules; “Shame” Basic to Human Biology. **Ancestral Sleeping Patterns:** Immature Adolescent Brain Wiring. **Ancestral Child Development:** The Science & Art of Mothering. **Q&A:** Fasting & Dysfunctional Sleep; Blue Light Blocking Glasses; Konjac Flour Noodles. **News Flashes:** Lifestyle causes 80% of Cancers; Flour Main Cause of Work Asthma; Mushrooms Reduce Cognitive Decline; Choline Fights Alzheimer’s. **Hints: Teas: Maximizing Antioxidants. Ancient Bacterial Friends:** Bacterial General Cleaner; Mars Mission – Astronaut Gut Bugs. **Conference Report:** Medicine Man Magic Cures. **Advance Notice:** Lecture ARTZ

Ancient Social Dynamics

Seven Universal Moral Rules

The social dynamics in a forager band are a highly complex interplay of unity, loyalty, trust, suspicion, gift-giving reciprocity, guilt, gratitude, making amends, and forgiveness.

Conflict resolution explains why they engage in costly displays of prowess such as bravery and generosity, why they defer to superiors, why they divide disputed resources fairly, and why they recognize prior possession.

Now anthropologists from Oxford University find that seven moral rules, are universal to 60 primal societies around the world [1]:

- Help your family,
- Help your group,
- Return favors,
- Be brave,
- Defer to superiors,
- Divide resources fairly,
- Respect others’ property,

The authors opine that their findings give **NO SUPPORT** to the views of ‘Moral Relativism’. > 3

“Shame” Basic to Human Biology

Human foragers have to live in groups – on their own, they die. Their high dependence on each other drove the evolution of our species’ social sensibilities. In particular, our ancestors had to make sure that other group members would stay willing to help them.

This requires much brain-power to work out all the permutations of interacting forces. For example weighing up whether the benefit of stealing is worth the loss of group support. In fact, the brain does shortcuts – it guides us by **EMOTIONS**. One such is **SHAME**. > 4

Ancestral Sleeping Patterns

Immature Adolescent Brain Wiring

Following on from [last month](#) with insights from sleep scientist Prof. Matthew Walker’s latest book [2].

“Why do 16-year-olds drive like they are missing part of their brain? – Because they are!” *Allstate Insurance*

Walker quotes this advertisement to illustrate the fact that teenage brains are still not fully wired and have several more years of rewiring to go. Adolescent brains, during non-REM (non-dream) sleep, undergo their final re-programming. Cognitive skills, reasoning, and critical thinking start to improve. That is, deep sleep is a driving force of brain maturation.

The maturation process begins at the back of the brain and progresses to towards the frontal lobes which are where rational thinking and critical decision-making occur. In other words, rationality is one of the last things to flourish in teenagers “as it is the last territory to receive sleep’s maturational treatment”.

This process is heavily compromised in many jurisdictions by early school start times. During puberty, the teenage body-clocks move steadily forward until they overtake the adult one. They have peak wakefulness at 9:00 pm and don’t feel sleepy until the small hours. But then the teenager has to wake up at 6:00 a.m. in order to be at school by 7:30. “Like an animal wrenched out of hibernation too early, the adolescent brain needs more sleep and time to complete the body-clock cycle to operate efficiently and without grogginess.”

In **School Starts too Early**, [Oct 2015](#) [3], I report how making school > 4

Ancestral Child Development

The Science & Art of Mothering

In [Dec 2017](#) [4] I serialized the ideas of evolutionary psychologist, Prof Dacia Narvaez of Notre Dame University, Indiana, under her term: **The “Nested” Human**.



This title sums up her central thesis that, from an evolutionary point of view, babies and toddlers need to be brought up in a “nest-like” environment. This is one where there the child is enveloped in the “evolved human nest”.

What does it look like? Studies [5,6] among small-band hunter-gatherers around the world find the following characteristics:

- Affection and constant touch or physical presence (according to a child’s needs)
- Responsiveness to needs to keep baby from becoming distressed
- Breastfeeding on request for 2-5 years (average age of weaning is four years)
- Multiple adult kin, responsive caregivers (‘Alloparenting’: see [April 2009](#) [7])
- Positive social support for mother and baby
- Self-directed play throughout childhood in nature with multi-age playmates

Also, adds Prof. Narvaez, soothing birth experiences (no separation of newborn from mother, no painful procedures, etc). >4

Questions

Fasting and dysfunctional sleep

Q. Does fasting help mitigate the damage from dysfunctional sleep?

A. No; on the contrary, fasting seems to disrupt REM (dreaming) sleep [8]. REM sleep is a vital function without which we die.

It is balm to mental health and recalibrates and fine tunes the emotional circuits of the brain.

REM sleep boosts cognitive performance, boosts creativity and develops emotional IQ.

For more on REM sleep, see: **What does Sleep do? Deficiency Link with Alzheimer's**, [Jan 2019](#) [9].

Blue Light Blocking Glasses

On several occasions we have highlighted the sleep-disturbing effect of blue light – especially before going to bed. It comes especially from the screens of electronic devices and from LED bulbs. See: **Forager/Modern Light Exposure**, [2018 05](#) [10].

Naturalizing Primordial Sleep & Bright Screens Blight Teen Sleep, [Sept 2015](#) [11].

There is, however, a 'fix' if you insist on looking at your device screens late at night. Wear glasses that block blue light. They are amber in color and, according to a study from the University of Toledo, Ohio, they do work [12].

They recommend the brand 'Uvex' – they are reasonably priced and the light doesn't suppress your melatonin, it prevents a phase-shift and it improves sleep."

Konjac Flour Noodles

Q. What do you make of Konjac flour noodles?

A. A useful addition to the Paleo-keto armory of food sources. See: **Konjac Root (Elephant Yam)**, [April 2018](#) [13].

News Flashes

Lifestyle Causes 80% of Cancers

A very solid study in the prestigious journal 'Nature' finds that, "most cancers are the result of environment and behavioral factors" [14].

My View? This is a remarkable about-turn from the current mind-set which blames 'bad luck' for the arise of cancers.

I have long campaigned against this view, see: **Cancer is Optional**, [Oct 2005](#) [15], and **Dangerous Headlines! "Most cancers are caused by bad luck - not lifestyle"** [Dec 2012](#) [16].

At last it is being accepted that we are almost entirely responsible for whether or not we develop a cancer. See **Cancer, Deadly Harvest**, [Chapter 9](#), page 229 [17].

Flour Main Cause of Work Asthma

A study finds that wheat flour is the main cause of occupational asthma in France [18]. Naturally enough, people who work with food and beverages are most vulnerable.

My View? Another grainy mischief! The phenomenon of 'Baker's Asthma' has been known for a very long time. It is triggered by plant poisons in wheat called: '*alpha-amylase inhibitors*'.

I wrote about them in: **Are Humans Granivores (Grain eaters)?** *Natural Eating II*, [Chapter 4](#), p 64 [19].

Mushrooms Reduce Cognitive Decline

Seniors who consume more than two standard portions of mushrooms weekly may have 50 per cent reduced odds of having mild cognitive impairment (MCI) [20].

A portion is three quarters of a cup of cooked mushrooms with an average weight of around 150 grams.

They were golden, oyster, shiitake and white button mushrooms, as well as dried and canned mushrooms. However, it is likely that other mushrooms would work too.

The benefits are due, think the researchers, to the mushroom compound "*ergothioneine*" (ET). It is a unique antioxidant and anti-inflammatory which must be obtained in the diet, and mushrooms are one of the main sources.

In addition, other mushroom compounds called "*hericenones*", "*erinacines*", "*scabronines*" and "*dictyophorines*" promote nerve renewal, particularly in the brain.

My View? This study just found correlations and cannot identify causation. However, we often overlook the role of funguses in our evolutionary past and it is surely a

good thing to make them a regular part of the diet.

Choline Fights Alzheimer's

Choline is a kind of B-vitamin essential to life. The body converts it into acetylcholine, an important neurotransmitter.

Now a study finds that choline acts to protect the brain from Alzheimer's disease in at least two ways [21].

First, choline sharply reduces levels of homocysteine. An amino-acid, homocysteine is a potent neuro-toxin which, by rotting nerves and forming amyloid plaques, doubles the risk of Alzheimer's.

Secondly, choline reduces the activity of microglia (brain immune cells), thus calming brain inflammation and preserving nerves from a premature death. See: **Dietary Fiber reduces Brain Inflammation**, [Oct 2018](#) [22].

My View? The recommended intake for choline is 550 mg/day for men and 425 mg/day for women. These are easily achievable amounts – yet most Americans are deficient in choline with intakes of 332 mg/day and 294 mg/day respectively [23].

Good Paleo sources of choline in descending order are:

- Egg;
- Scallop, cooked, steamed;
- Salmon, pink, canned;
- Chicken, breast, cooked, roasted;
- Atlantic cod, cooked;
- Shrimp, canned;
- Brussels sprouts, cooked, boiled;
- Broccoli, cooked, boiled.

See also: **Pregnant Mom's Choline Boosts Child's Genetic Resistance**, [Dec 2012](#) [24].

Egg Choline Builds Baby Brains, [Sept 2018](#) [25].

Hints & Tips

Teas: Maximizing Antioxidants

Malayan researchers have looked into the best way of brewing common tea (botanic name: *Camellia sinensis*) so as to best extract its antioxidants [26].

Tea is sold processed in three main ways: Green, Black and White. The researchers find that they should each be brewed differently in order to make the most of their antioxidant properties:

Black: short, hot water steeping
 White: the longer steeping the better.
 Temperature is not important.
 Green: Prolonged cold steeping
 (2 hours)

My View? Just drink the tea you fancy prepared in the way you like best. Think of the antioxidants, whatever they may be, as a gratuitous bonus.

See also: **Tea with Milk**, [Feb 2007](#) [27];

Healthy Tea, [July 2003](#) [28]

Parkinson's & Lifestyle – Black Tea, [Jan 2013](#) [29]

Ancient Bacterial Friends

Bacterial General Cleaner

In [Feb 2019](#) [30] I reported on a product that sprayed back friendly bacteria on to your skin so as to maintain a healthy microbiome.

Clearly this is becoming a trend. I now learn of a Californian company, which proudly claims that its general cleaner does **NOT** kill 99.9% of all known germs – on the contrary it sprays back friendly bacteria which “clean surfaces, eliminate stinky smells, and work to balance the bacteria in your home.” [31]

My View? This company deserves to be patronized if only for its highly inventive name: ‘Counter Culture’!

See: **Myth of a Germ-free World**, [Apr 2011](#) [32]

Allergies: Hygiene Good, ‘Old Friends’ Germs, Good, [Nov 2012](#) [33].

Skin Microbiome Battles Cancer, [April 2018](#) [34]

Mars Mission: Astronaut gut bugs

In **Keeping Mars Pioneers Alive (III)**, [Oct 2017](#) [35] we spoke of the pre-occupation with providing a viable food supply. In particular NASA seeks to move away from pre-packaged freeze-dried foods towards fresh fruits, salads and vegetables.

Now studies on astronauts gut bugs make this even more important [36]. Space travel alters the astronauts' gut microbiome. Worse, astronauts also suffer from a weakened immune system. See: **Space Travel: Immune Dysfunction**, [Oct 2017](#) [37] and [38]

This double whammy means that astronauts on deep space missions, (like those to Mars) are highly

vulnerable to infections and even cancers.

The researchers think that a number of measures are needed to counteract this issue. The obvious one is to, yes, eat a fiber-rich diet of plenty of fresh fruit and vegetable.

A second measure is very up-to-date thinking: while the future astronaut is still earthbound, a sample of his feces would be collected and packaged.

During the space-flight, these would be transplanted as needed to restore the astronaut's gut bugs. See: **Fecal Transplant**, [March 2018](#) [39]

My View? Early astronauts had appalling diets (see: **Space Junk: Glenn's Space-age Diet**, [Nov 1998](#) [40]).

Astronauts' eating habits have moved on since then but their gut bugs are still the product of the Western diet, and so will still be dysbiotic (dysfunction of the microbiome).

Future astronauts would do even better to transplant stools from hunter-gatherers. See: **Forager Stool**, [July 2007](#) [41]

Conference Report

In April 2019 I attended the annual conference of The European Human Behavior and Evolution Association (EHBEA), Toulouse, France. Here is my first feedback.

Medicine Man 'Magic' Cures

Every forager band has a traditional healer or ‘medicine man’. The other members of the forager band believe him to have special powers which give him the ability to heal sickness.

He would know all the secrets of traditional plants and herbs and, in special healing dances, he would go into a mysterious trance which gave him the power to ‘lay on hands’ and effect cures.

Traditional healers are universally present in all primal societies – so they must be effective in some way.

[#BondBriefing reader](#), Michel Raymond, PhD, of the Institut des Sciences de l'Évolution de Montpellier, gave an interesting paper entitled “The Origin of Medicine and the Placebo Effect”.

Raymond posited that medicine man healing was real and due to what we call today ‘The Placebo Effect’. This

effect is most marked when the traditional healing is administered by a recognized authority such as a doctor, priest or, indeed a monarch (which was called ‘The Royal Touch’). In this Michel observed that a vital element in modern medicine is the human contact between the patient and health professional. Indeed the longer the contact (or consultation) the better the cure.

In this regard the current trend to automate health care with impersonal on-line diagnostics and machine-made remedies is a disastrous policy. It cuts out the vital healing dimension brought by human contact and the placebo effect.

At the end of his talk, I asked Michel how the Placebo Effect works in animals. He said that it only works if the animal recognizes the healer as a ‘dominant individual’. In many cases this is the owner of the domestic pet or the veterinary doctor with whom the animal has had a previously established rapport.

In **How do Placebos Work**, [June 2014](#) [42], I report how this effect works by getting the immune system to shift resources to dealing with the ailment rather than some other priority.

Continued from Page 1

Seven Universal Moral Rules

Moral Relativism is the idea that there is no universal or absolute set of moral principles and so it holds that we ought to tolerate the behavior of others even when it upsets us.

My View? Feeling ‘upset’ is our brain's pre-installed software warning us that this is behavior harmful to group harmony and should be protested.

It follows that living in a society pervaded by Moral Relativism is bound to be highly stressful since it cuts across our savanna-bred psyches.

However much the social engineers would wish it otherwise, we cannot escape our hunter-gatherer programming.

See **Tribal Relationships**, *Deadly Harvest*, Chapter 8, page 206 [43]. See: **“Shame” Basic to Human Biology**, page 1.

Continued from Page 1

"Shame" Basic to Human Biology

This feeling 'codes' the social cost of behaving in an anti-social manner.

A study across 15 small scale communities across the world finds that 'shame' is a human 'Universal' and that it: "is a design feature crafted by [natural] selection and not a product of cultural contact or convergent cultural evolution" [44].

See: **Seven Universal Moral Rules**, p 1.

Continued from Page 1

Adolescent Brain Wiring

start-times later would be the most effective way to improve performance in both schools and students.

See also **Daylight Savings Stupefies**

Teens, [Oct 2015](#).

Insomniac Tip from Prof. Walker

As people get older, they have a tendency to a) go to bed earlier and earlier and, b) to succumb to a nap too late in the afternoon. Both these tendencies must be resisted. Nap, if you want, in early afternoon; resist the early-bird dinner at 5:00 pm in favor of dining at 7:00 pm and retiring at 10:00 pm.

Continued from Page 1

The Science & Art of Mothering

Prof. Narvaez continues to militate for these principles and against the 'Killing of Mothering' in our modern societies. "Both mothers and allo-mothers are discouraged from mothering in industrialized societies where promoting "baby independence" and preventing "baby spoiling"



are forceful myths, part of the "taboo on tenderness".

Prof. Narvaez has started a website:

<https://evolvednest.org/>

See also: **An Indulgent Upbringing**, *Deadly Harvest*, [Chapter 8](#) [45],

Spreading the Word

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

Talks to private organizations.

Advance Notice

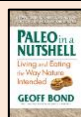
Lecture

Date: Feb 1, 2020

Time: 14:15 – 15:15

Title: The Paleolithic lifestyle for optimum health and fitness. Insights from our evolutionary origins.

At: ARTZ Symposium, Montabaur Castle, nr Frankfurt, Germany.



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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1 Oliver Scott Curry, Daniel Austin Mullins, Harvey Whitehouse. Is It Good to Cooperate? Testing the Theory of Morality-as-Cooperation in 60 Societies. *Current Anthropology*, 2019; 60 (1): 47 DOI: 10.1086/701478

2 Scribner; Reprint edition (June 19, 2018) ISBN-13: 978-1501144325

3 <http://bit.ly/1OpXR6Q>

4 <http://bit.ly/2Az5ix5>

5 Hewlett, B.S., & Lamb, M.E. (2005). Hunter-gatherer childhoods: evolutionary, developmental and cultural perspectives. New Brunswick, NJ: Aldine.

6 Konner, M. (2005). Hunter-gatherer infancy and childhood: The !Kung and others. In B. Hewlett & M. Lamb (Eds.), *Hunter-gatherer childhoods: Evolutionary, developmental and cultural perspectives* (pp. 19-64). New Brunswick, NJ: Transaction.

7 <http://bit.ly/1sX4jH2>

8 Sleep Breath. 2017 Sep;21(3):577-586. doi: 10.1007/s11325-017-1473-x. Epub 2017 Feb 11. The effect of intermittent fasting during Ramadan on sleep, sleepiness, cognitive function, and circadian rhythm. Qasrawi SO.

9 <http://bit.ly/2UzPccS>

10 <http://bit.ly/2yjB6G7>

11 <http://bit.ly/1PrtiZ>

12 *Chronobiol Int.* 2009 Dec;26(8):1602-12. doi: 10.3109/07420520903523719. Amber lenses to block blue light and improve sleep: a randomized trial. Burkhardt K, Phelps JR. www.ncbi.nlm.nih.gov/pubmed/20030543

13 <http://bit.ly/2PFfbNz>

14 Song Wu, Scott Powers, Wei Zhu, Yusuf A. Hannun. Substantial contribution of extrinsic risk factors to cancer development. *Nature*, 2015; DOI: 10.1038/nature16166

15 <http://bit.ly/1STIWGH>

16 <http://bit.ly/1KslcXM>

17 <http://bit.ly/DH-Ch9>

18 European Respiratory Society's International Congress 2014, Prof Frederic de Blay

19 <http://bit.ly/NE-4>

20 Lei Feng, The Association between Mushroom Consumption and Mild Cognitive Impairment: A Community-Based Cross-Sectional Study in Singapore. *Journal of Alzheimer's Disease*, 2019; 1 DOI: 10.3233/JAD-180959

21 Ramon Velazquez, Salvatore Oddo. Maternal choline supplementation ameliorates Alzheimer's disease pathology by reducing brain homocysteine levels across multiple generations. *Molecular Psychiatry*, 2019; DOI: 10.1038/s41380-018-0322-z

22 <http://bit.ly/2wgpwYs>

23 Bidulescu A, Chambless LE, Siega-Riz AM, Zeisel SH, Heiss G. Usual choline and betaine dietary intake and incident coronary heart disease: the Atherosclerosis Risk in Communities (ARIC) study. *BMC Cardiovasc Disord.* 2007;7:20

24 <http://bit.ly/1T7N9ZL>

25 <http://bit.ly/2EXhyjO>

26 Fatemeh Hajiaghaalipour, Temperature and Time of Steeping Affect the Antioxidant Properties of White, Green, and Black Tea

Infusions. *Journal of Food Science*, 2015; DOI: 10.1111/1750-3841.13149

27 <http://bit.ly/2nMckFq>

28 <http://bit.ly/2EqTJf9>

29 <http://bit.ly/1nHarRU>

30 <http://bit.ly/2HwcBrz>

31 <https://countercultureclean.com/>

32 <http://bit.ly/1iPXFp9>

33 <http://bit.ly/2fEMuPl>

34 <http://bit.ly/2PFfbNz>

35 <http://bit.ly/2A9m8Cb>

36 *Front. Astron. Space Sci.*, 22 July 2016 | <https://doi.org/10.3389/fspas.2016.00023>, The Challenge of Maintaining a Healthy Microbiome during Long-Duration Space Missions, Alexander A. Voorhies

37 <http://bit.ly/2A9m8Cb>

38 Austin B. Bigley. NK-cell function is impaired during long-duration spaceflight. *Journal of Applied Physiology*, 2018; DOI: 10.1152/jappphysiol.00761.2018

39 <http://bit.ly/2qQHLs6>

40 <http://bit.ly/2M3eYd>

41 <http://bit.ly/2kmbT1M>

42 <http://bit.ly/1J6F8MD>

43 <http://bit.ly/ch-8>

44 Cross-cultural invariances in the architecture of shame, Daniel Sznycer, Leda Cosmides, John Tooby, *PNAS*, Sep 2018, 115 (39) 9702-9707; DOI:10.1073/pnas.1805016115

45 <http://bit.ly/1vViUr7>