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Human Mentality: Psychedelics in Perspective. **Recipe:** Spinach Bake with pine nuts and currants. **News Short:** Brain Microbiome and Alzheimer's. **Evolutionary Behavior:** Childcare in a state of nature. **Frontiers of Human Behavior:** EHBEA Conference update; (Networking, Catering, Resources). **News Shorts:** Forest Bathing good for teens; Resistant Starch, Weight Loss & Change in gut bugs; Did Dementia exist in ancient Greece and Rome?

Human Mentality

Psychedelics in Perspective

Long time #BondBriefing reader and Paleo dentist, Dr Kevin Boyd, of Chicago, USA, suggested I take a look at natural psychedelic medications, particularly with reference to two books: **"How to change your mind: The new science of psychedelics"** [1] by the science journalist, Michael Pollen and, **"The Immortality Key: The secret history of the religion with no name"** [2] by classicist scholar of Greek, Latin, and Sanskrit, Brian C Muraresku.

Psychedelics are a subclass of hallucinogenic drugs whose primary effect is to trigger non-ordinary mental states (known as psychedelic experiences or "trips") and an apparent expansion of consciousness.

The main psychedelic compounds considered in these books are: **a) LSD** which Swiss chemist Albert Hofmann first synthesized in 1938 from lysergic acid, a chemical found in ergot, a fungus that infects rye and, **b) Psilocybin**, the active chemical in 'magic mushrooms'.

They are both renowned for giving a sense of "the dissolution of one's ego followed by a sense of merging with nature and the universe and having a blissful unity with the rest of mankind."

This description triggered my interest since it reflects very closely the description the San Bushmen give of the experience of "Trance Dancing". See video clip from the 1966 Marshall Expedition [here](#) [3]. >p4

Recipe

Spinach Bake with pine nuts and currants

This remarkable dish makes a 'slab' of nutritious nuts, spinach and more, which can be sliced up into bite-sized finger food, or served in larger portions as the center-piece of a meal.



<https://bit.ly/44imMZG>

Continues: Recipe p 2

News Short

Brain Microbiome & Alzheimer's?

For three years, a man in his 70s had experienced serious cognitive decline. But then his doctors checked a sample of his cerebrospinal fluid and noticed a fungus called *Cryptococcus neoformans*.

When they put him on a course of antifungal medication, the results were startling. Within two years, he had regained his driving license and returned to work.

Certain infections like gum disease, and herpes, have been linked with Alzheimer's. But cases of "reversible dementia" are starting to inspire enormous interest in the idea that our brains are teeming with microorganisms – and that an imbalance in this "brain microbiome" may predispose people to brain disease.

>p4

Evolutionary Behavior

Childcare in a State of Nature

[Last month](#) [4] I finished serializing the book by one of our readers, Dr Darcia Narvaez, **The Evolved Nest**. Now comes yet another study making similar points as Dr Narvaez:



"Hunter-gatherers can help us understand the conditions that children may be psychologically adapted to because we lived as hunter-gatherers for 95% of our evolutionary history." So say Dr Nikhil Chaudhary, an evolutionary anthropologist at the University of Cambridge, and Dr Annie Swane-poel, evolutionary psychiatrist at University of Hertfordshire, UK. They highlight major differences in the ways in which hunter-gatherer children are cared for compared to ours [5].

Physical contact & attentiveness

Levels of physical contact with infants remain far higher in hunter-gatherer societies. In Botswana, 10-20 week old San !Kung infants are in physical contact with someone for around 90% of daylight hours, and almost 100% of crying bouts are responded to with comforting or nursing – scolding is extremely rare. This exceptionally attentive childcare is made possible by non-parental caregivers, or 'alloparents'. >p 3

Recipe

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Spinach Bake with pine nuts and currants



Yield: Servings 12

- 1½ lb. (680g) spinach leaves
- 2 tablespoons olive oil
- 2 large eggs
- ½ teaspoon salt
- 1 cup pine nuts
- 2 cloves garlic, minced
- ½ cup currants

Wilt spinach in a large saucepan over low heat (do not add water).

Drain cool, then squeeze moisture out of spinach and set aside.

Meanwhile beat the eggs with the salt. Set aside.

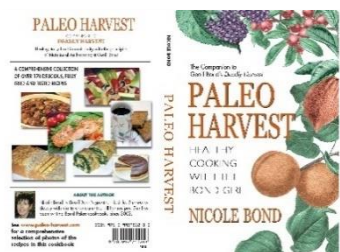
In an oiled frying pan sauté the pine nuts, minced garlic and currants for 2 minutes. Fold into the eggs.

Spread out spinach over the bottom of an oiled rectangular baking dish 13" x 8½" (33cm x 22cm) and pour the egg mixture over the spinach. Flatten the mixture into the spinach with a fork.

Bake at 350°F (175°C) for approximately 30 minutes.

You can download the recipe here: <https://bit.ly/3w4xGG1>

Find more Paleo recipes in Nicole's cookbook www.paleo-harvest.com:



Frontiers of Human Behavior

EHBEA Conference Update

A couple of weeks ago I attended the annual conference of the European Human Behavior and Evolution Association (EHBEA), held this year in Montpellier, France.

It was mainly a forum to catch up with the latest insights about how our evolutionary past programmed our natures of which more [next month](#). Today we report on ancillary matters.

Networking

The conference was also an opportunity to catch up with [#BondBriefing](#) readers such as **Dr Michel Raymond** of the University of Montpellier and of whose studies we have reported several times: **Medicine Man 'Magic' Cures**, [April 2019](#) [6]; **Evolution of Menopause**, [June 2017](#) [7]; **Volcano selects Personalities**, [March 2017](#) [8]; **Social Stratification Begat Male Homosexuality**, [Dec 2013](#) [9] – and to meet, too, one of Michel's eminent colleagues, **Dr Claire Berticat**.



<https://bit.ly/3UCMJAA>

Claire has also been a devoted reader for many years. Her interests have become focused on the major harms of the high glycemic and high insulinemic Western diet caused by a high sugar, high refined starch intake.

Indeed, some five years ago we wrote an article on one of her studies called: **Chronic Sugar Intake Harms Cognition and Behaviour**, [May 2019](#) [10].

Just recently (March 2024), Claire, Michel, and team, published another major study in the prestigious journal PLOS: **Chronic and immediate**

refined carbohydrate consumption and facial attractiveness, [11].

Catering

A buffet lunch was provided on every day of the conference. One might imagine that a conference focusing on evolutionary human origins would focus on Paleo (or something similar). None of it!

Buffet lunches at this Conference, as at the one last year in London were, (perhaps keen to keep up with fashionable trends) resolutely vegetarian and, in parts, vegan .

This can present a challenge to us since many of the dishes rely on potato, pastas, bakeries, cereals and pseudo cereals like quinoa.

This is where the **80-15-5 rule**, [Jan 2020](#) [12], comes into play. Do the best you can with this meal and get back on track with the next meal (see later).

Here is a typical selection I chose from the buffet:



<https://bit.ly/49YxTbB>

It has two halves of a hard-boiled egg (done in beetroot juice?) a cucumber salad, some kind of savory vegan cake (possibly made with heritage grain, spelt) and some kind of hummus (chickpea).

The lot is sprinkled with pine nuts and, interestingly, edible flowers.

So this is a worthy meal albeit incurring modest lapses with the small amount of wheat and hummus. However, it is light on protein and acutely low on omega-3.

These deficiencies I rectified in the evening at a local bistro with a dinner of roast salmon fillet and Mediterranean salad.

Resources

For those interested, these are links to the main features of the conference:

Programme: <https://bit.ly/4aUG6yF>

Abstracts: <https://bit.ly/4aT8hOr>

Posters: <https://bit.ly/3w2G1dh>

Next month: Reporting on some interesting presentations.

Evolutionary Behavior

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Childcare in a State of Nature



Alloparents provide almost half of a child's care. Infants have 14 alloparents a day by the time they are 18 weeks old and are passed between caregivers eight times an hour. The study emphasises that alloparenting is a core human adaptation, contradicting our 'intensive mothering' narratives which lead to maternal exhaustion.

Care-giving ratios

Hunter-gatherer societies have a high ratio of available caregivers to infants/toddlers of some 10:1.

"Almost all day, hunter-gatherer infants and toddlers have a capable caregiver within a couple of yards of them. From the infant's perspective, that proximity and responsiveness, is very different from what is experienced in many nursery settings in the UK."

Children providing care and mixed-age active learning

In hunter-gatherer societies, children play a big role in providing care to infants and toddlers. They begin providing some childcare from the age of four and are capable of sensitive caregiving.

Infants primarily learn via observation and imitation. From around the age of two, hunter-gatherer children spend large portions of the day in mixed-age (2-16) 'playgroups' without adult supervision. There, they learn from

one another, acquiring skills and knowledge collaboratively via highly active play practice and exploration.

Says Dr Chaudhary: "Classroom schooling is often at odds with the modes of learning typical of human evolutionary history."

My View? As the old African saying goes: "It takes a village to raise a child."

In today's world we can at least try to live in multigenerational households; allow our children plenty of free, unsupervised play; and eschew the blandishments for moms to put their infants in the cold impersonality of government childcare so that they can join the 'work force'.

News Shorts

Forest Bathing good for Teens

A study from University of Waterloo researchers suggests that "forest bathing" – the simple method of being calm and quiet amongst the trees, observing nature around you while breathing deeply, can help youth de-stress and boost health and well-being [13].

After standing and looking at an urban lake for just two or three minutes, youth anxiousness **DECREASED** by 9%.

On the other hand, their anxiousness **INCREASED** by 13% when standing in a busy downtown location for the same length of time.

This is after adjusting for several other factors, including age, gender, ethnicity, mental health diagnosis, and social status.

My View? Yet another confirmation of how our alienation from Nature is harming our mental health. We have written specifically about the benefits of Forest Bathing of which the following are examples:

Forests Healthify Amygdala, [Nov 2017](#) [14]; **Green-space Deficit Disorders**, [Aug 2018](#) [15]; **Nixing "Nature Deficit Disorder"**, [May 2018](#) [16]; and the website of the [Forest Therapy Institute](#) [17]

Resistant Starch, weight loss & change in gut bugs

A Hong Kong study published in the prestigious journal Nature, finds that

dosing with "resistant starch" produced an average 2.8kg weight loss after 8 weeks [18]. See **Resistant Starch**, [Jan 2014](#) [19].

The participants consumed the resistant starch, as a powdered supplement, in one 40g dose in 300ml (1¼ cups) water, twice a day.

The researchers say that the resistant starch changed the gut bugs. These in turn altered the bile acid profile, reduced the absorption of fats, and reduced inflammation by making the colon less "leaky". See **Leaky Gut**, [March 2003](#) [20].

My View? The researchers used a form of resistant starch extracted in a laboratory from maize (corn). But where do we get resistant starch in real life – and do we need to bother?

Indeed, we can live perfectly well without it – a diet rich in dietary fiber is all we need – just eat up your non-starch plant food! See: **Dietary Fiber reduces Brain Inflammation**, [Oct 2018](#) [21].

Otherwise, resistant starch is quite hard to come by. It is in green bananas, see: **Potatoes & Resistant Starch Revisited – part II**, [Oct 2015](#) [22]. This is a worthwhile source.

On the other hand, some sources promote boiled, baby potatoes eaten chilled. This is not recommended. The potatoes still contain their anti-nutrients and have a poor percentage of resistant starch. See: **Potatoes & Resistant Starch**, [Sept 2015](#) [23].

See also: **Leaky Gut in the Obese**, [April 2020](#) [24]

Did Dementia exist in ancient Greece and Rome?

An analysis of classical Greek and Roman medical texts suggests that severe memory loss – occurring at epidemic levels today – was extremely rare 2,000 to 2,500 years ago, in the time of Aristotle, Galen and Pliny the Elder [25].

The researchers pored over a major body of ancient Greek medical writing by Hippocrates (465 BCE to 375 BCE) and his followers. The text catalogues ailments of the elderly

such as deafness, dizziness, and digestive disorders -- but makes no mention of memory loss.

A few centuries later, in Rome, Galen, Pliny and Cicero make mention of a total of 4 cases which "might" be dementia.

Enterprisingly, the researchers compared these results with the modern day pre-industrial foragers, the Tsimane. They note that they have a rate of dementia among the elderly of only 1% whereas in USA it is 11%. This indicates, say the researchers that: "the environment is a huge determinant on dementia risk."

My View? Just so! We know that dementia is a lifestyle disease. See: **Alzheimer's Disease and Dementia, Deadly Harvest, Ch. 8** [26], p 253.

See also our articles on Tsimane brain health: **Forager Lifestyle Slows Brain Ageing, June 2021** [27]; **Pre-industrial peoples - low Dementia Rates, May 2022** [28]

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Brain Microbiome & Alzheimer's?

Richard Lathe at the University of Edinburgh, UK, analyzed post-mortem brains and found a wide variety of microbes, with different

types and amounts in different brain regions.

Lathe estimates that this brain microbiome contains some 100,000 species. It is a fifth of the size of the gut microbiome. Roughly 1000 "core" species make up 90 per cent of the brain microbiome.

The researchers also found that, in people with Alzheimer's disease, certain microbes were over-represented. These included the fungus *Cryptococcus* and *Candida*, and the bacteria *Streptococcus* and *Bacillus*.

Those with a gut microbiome weakened by antibiotics were more likely to have *Candida* in their brain.

My View? One thing we can do is have a healthy gut microbiome – limit antibiotics to the strictly necessary and emulate the lifestyle of a forager as we suggest! Likewise with the issue of viruses – your Paleo-tuned immune system is the main line of defense. See our article on reader Dr Alain Fymat's work: **Brain Diseases and Viruses? Oct 2020** [29].

Continued from Page 1

Psychedelics in Perspective (See: **1951 Bushmen on Film, July 2011** [30]). This is where the forager

band dances all night long to an incessant drumbeat until the individual falls to the ground in a trance: The men describe their experience as a process of death and rebirth. "You give up what you are, give up your identity, enter the unknown, willingly going into fundamental mysteries and so enter the state of transcendence."

The American professor of comparative mythology, Joseph Campbell, describes this, for men, as the classic tale of the hero's journey into the unknown. The boy becomes a man, and the man becomes a hero. After the dance, the Bushman is reborn as an ordinary, fully functioning man. (**Myths & Rituals, Deadly Harvest Chapter 8** [31], p 221)

Why would the Bushmen want to do this? One major reason is what they call "Star Sickness". This is the force that takes over a group of people and causes "jealousy, anger, quarrels, and failures of gift giving. These behaviours pull people apart and damage unity. Trance dancing mends the social fabric "as it releases hostility".

Next month: San & psychedelic plants; transcendence in the ancient world; what is going on in the brain?

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 ISBN-13: 978-0141985138

2 ISBN-13: 978-1250281500

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