

THE HUMAN QUESTION

The larger ambition of Raw Meaty Bones and why it remains unfinished

STATUS AND SCOPE

This paper records the larger purpose of Raw Meaty Bones: Promote Health. The book was consciously modelled on Silent Spring and was intended to trigger comparable changes in pet health, human health, scientific inquiry and public responsibility. It also asks why that ambition has not been realised. The human comparison remains a research proposition, not a prescription to copy a carnivore diet or a substitute for medical and dental advice.

“If the Cybernetic Hypothesis can explain how and why marginalised carnivores die, and if chewing on natural food proves to be the ‘miracle prevention’, then perhaps something similar applies to humans too?”

Raw Meaty Bones: Promote Health, Chapter 14, page 315

That question concluded the book when it was first published in 2001. It carried the argument beyond pet feeding. Veterinary observations in dogs and cats had led to a hypothesis about food, oral function, periodontal disease, immunity, systemic illness, survival and ecological regulation. The closing sentence asked whether the same organising principles might illuminate the human condition.

The question remains open, but it has not been answered by being ignored. Raw Meaty Bones assembled a case sufficient to require independent investigation. The task now is to preserve that record, state its limits and understand why an apparently simple preventive proposition failed to recruit the institutions responsible for testing it.

1 The Silent Spring ambition

I modelled Raw Meaty Bones on Rachel Carson's Silent Spring. Carson began with an accepted technology and showed its less visible consequences across animals, ecosystems and human health. She challenged the reassuring categories through which industry and government had made widespread harm appear normal. I hoped to do something similar with industrial pet food, periodontal disease and the veterinary institutions that sustained them.

This intention is explicit in Chapter 13. The book discusses Silent Spring, the power of truthful redefinition, the delay between scientific recognition and public action, the role of the media, regulatory conflicts, professional complicity and the need for organised community response. Chapter 14 then enlarges the inquiry through the Cybernetic Hypothesis and ends with the human question. The sequence was deliberate.

The comparison should not be used as borrowed prestige. Silent Spring did not prevail because its author chose the correct literary model. Carson combined scientific depth with public intelligibility, but her book also entered a society in which other scientists, journalists, citizens, legislators and a President were able to amplify, test and act upon the warning. A book can redefine a problem. It cannot supply every institution required for correction.

Raw Meaty Bones sought changes in animal care, veterinary science, professional ethics, consumer protection and research. Its human-health ambition followed from the same comparative method. If industrial substitution could disrupt co-evolved functions in carnivores, then the effects of processing, altered oral work and disturbed microbial relations in humans also deserved examination.

2 The four books and the human condition

The subsequent books did not abandon that wider purpose. *Work Wonders* translated the practical prevention message for households. *Multi-Billion-Dollar Pet Food Fraud* examined how commercial claims, professional authority and consumer trust can conceal harm. *Spin Doctors* recorded suppression, institutional resistance and the repeated failure of appointed guardians to correct course. Together, the four books concern animals, but they also concern human conduct.

They ask why people surrender observation to authority, why professions defend arrangements that contradict their stated purposes, why commercial language displaces biological reality, why obvious suffering becomes routine and why systems deprived of effective negative feedback persist. The pet-food problem is therefore both a veterinary scandal and a study of the human condition.

3 Did Raw Meaty Bones make the case

In my assessment, yes. No single book could complete the trials that universities, professions and governments declined to undertake. *Raw Meaty Bones* nevertheless did what a serious warning book could reasonably do. It assembled clinical observation, published evidence, natural comparators, practical experience, an explanatory hypothesis, institutional history and proposals for corroboration or refutation. It also disclosed the author's position and invited challenge.

The book did not merely assert that raw meaty bones work. It explained why food must be considered in both chemical and physical form, why the mouth matters to general health, why the natural comparator had been displaced, why conventional research could miss the relationship and what evidence might prove the argument wrong. Chapter 13 proposed routes for public and institutional action. Chapter 14 placed the larger scientific question on the record.

The absence of later institutional uptake does not show that the case was inadequately presented. It shows that communication is only one element in a system of correction. Evidence has no independent power to make a threatened profession examine itself, compel an industry to surrender advantage or give an unfunded hypothesis an academic home.

4 Criticism that should be faced

The book can still be criticised without conceding its central case:

- It asks one volume to serve as clinical account, scientific argument, practical guide, institutional history, polemic and campaign manual. That breadth reveals the whole system, but it makes the book difficult to classify and gives each audience an excuse to regard another part as outside its concern.
- Observation, published association, causal inference, hypothesis and allegation are not always signposted with the precision now expected. Readers hostile to the conclusion can use that proximity to dismiss stronger propositions with weaker or less tested ones.
- Some language was deliberately confrontational. Terms such as foul-mouth AIDS conveyed the seriousness of immune disturbance but also allowed critics to react to the phrase instead of the evidence. The same applies where moral or legal condemnation appears before a reader has accepted the biological case.
- The most extensive health claims were supported by clinical experience, comparative reasoning and then-available literature, not by the long-term controlled studies that the argument itself called for. That is a limitation of the evidence base, although the continuing refusal to conduct decisive research cannot fairly be charged to the book alone.
- The title and public category encouraged many readers to treat the work as a raw-feeding book. Its inquiry into science, commerce, psychology, government and human health could therefore remain unseen even by people who knew of it.

These are weaknesses of access, calibration and institutional reception. They warrant clearer routing and stricter separation of claim types. They do not answer the clinical observations, negate the natural comparator or excuse the failure to test the hypothesis.

5 Why the expected impact did not follow

The predicament becomes easier to understand when *Raw Meaty Bones* is treated as an attempted intervention in a self-protecting system. The warning had to pass through institutions whose habits, income, prestige, curricula and commercial relationships were implicated by it. Each could refer one part

elsewhere. Nutrition could omit oral mechanics; dentistry could treat established lesions; veterinary medicine could defer to formulated products; regulators could defer to professional consensus; publishers could classify the dispute as controversy. No institution owned the whole problem.

The observable harm also lacked the dramatic event that forces attention. Periodontal disease develops in millions of individual mouths, often without an obvious moment of injury. Owners are taught that bad breath, dental cleaning and chronic illness are ordinary features of pet ownership. The animal cannot testify, the consumer cannot easily reconstruct causation and treatment can convert preventable disease into professional activity.

Silent Spring entered an expanding environmental movement and was followed by hearings, a presidential scientific review, public campaigning and eventually new regulatory capacity. Raw Meaty Bones encountered no comparable independent structure. The contrast does not prove Carson's evidence was stronger or the pet-health evidence weaker. It shows that public impact depends upon social carriers as well as the quality of the book.

This is itself a cybernetic problem. The institutions receiving the warning did not transmit corrective information in a form capable of changing the system. They damped, divided or redirected it. The campaign has therefore faced two linked tasks: establishing the biological case and exposing the failure of correction. The first is about food, mouths and health. The second is about the human arrangements that determine which evidence counts and which suffering remains invisible.

6 The human evolutionary problem

The whole-prey diet of wolves, wildcats and polecats supplies a comparatively clear natural comparator. Human beings present a harder case. Hominins occupied changing environments and exploited different combinations of fruits, leaves, stems, seeds, nuts, tubers, insects, meat, marrow and other foods. Stone tools are documented by about 3.3 million years ago, and subsequent use of implements, vessels and fire progressively altered what could be eaten and how food reached the mouth.

There was probably no single human evolutionary menu with fixed proportions of animal and plant foods. Dietary flexibility became part of the human adaptation. This variation does not make evolutionary inquiry futile. It redirects attention from a universal menu to the range of physical, chemical, microbial and temporal conditions within which the mouth developed.

Before extensive technological processing, ancestral teeth and jaws performed far more of the work of food reduction. The foods varied, but they generally arrived as uncultivated biological materials with their structure substantially intact. Teeth grasped, stripped, tore, fractured and ground them. The periodontium was loaded repeatedly; mastication stimulated saliva; food structure influenced retention, clearance and microbial substrate; and the rate of oral processing helped govern delivery to the rest of the digestive system.

Cooking and tool use are not aberrations that can simply be removed from human history. Industrial processing is nevertheless different in scale and kind. It can fractionate, concentrate, pulverise, liquefy and reconstitute ingredients while preserving an apparently adequate nutrient list. Chemical equivalence does not demonstrate functional equivalence.

7 Food acts through chemistry and physical form

Modern nutrition commonly describes food through protein, fat, carbohydrate, vitamins, minerals and energy. Those measurements are necessary. They do not describe everything the ingesta do to the receiving organism.

Food also has size, toughness, hardness, fibrousness, viscosity, adhesiveness, cellular structure, connective tissue, water content and resistance to fracture. Those properties influence chewing effort, salivary flow, eating rate, oral clearance, microbial habitat and the speed at which nutrients become available. Experimental work confirms that food processing alters human masticatory effort, and controlled feeding studies show that ultra-processed and minimally processed diets can produce different intake and weight responses even when their presented nutrient profiles are broadly matched.

The relevant human proposition is therefore wider than the claim that firm food scrapes teeth clean. An apple, for example, should not be treated as a toothbrush; experimental evidence does not show reliable plaque removal. The more important possibility is that natural food structure supplied patterned mechanical, chemical, sensory and microbial information to the oral interface and the whole organism.

Food is simultaneously matter, energy, information and work. A nutritional analysis confined to matter and energy leaves much of the biological encounter unexamined.

8 The periodontium belongs to the developmental arc

The mouth should not enter public concern only when an adult develops pain, bleeding, pockets, recession or loose teeth. Regulation begins before disease is named. Microbial communities become established early; deciduous teeth erupt during rapid growth; habits form while children depend upon caregivers; permanent teeth emerge during another period of structural and immunological change; and adolescence brings dietary independence and new exposures.

These transitions may be developmental pinch points. The Cybernetic Hypothesis predicts that disturbance during periods of rapid change can have effects that differ from the same exposure in a stable adult system. That prediction requires longitudinal study in both animals and humans. Cross-sectional surveys taken after disease is established cannot reconstruct the sequence adequately.

The dental appointment is therefore one component of prevention, not its beginning. By the time professional treatment is required, the diet, microbial ecology, cleaning practices, tissue responses and explanatory habits may have interacted for years.

9 Culture must replace lost natural regulation

Modern societies cannot reproduce a single prehistoric diet, and no formulated diet can be assumed to reproduce the full ecological setting in which the human mouth evolved. Where natural regulation has been removed or weakened, informed culture must supply compensatory regulation.

Daily tooth and gum care should be understood in that context. Careful disruption of deposits at the tooth-gum margin and between teeth supplies deliberate negative feedback against accumulating biofilm and inflammation. It is not merely cosmetic cleaning. Nor should gum care be reduced to vigorous rubbing of visible tissue. The aim is gentle, accurate cleaning and stimulation at the living interface without causing trauma.

This interpretation does not displace established preventive measures or professional treatment. It supplies the biological understanding that can make those measures coherent. A person who understands the system is better placed to notice change, interpret bleeding as information, seek assistance early and sustain competent daily care.

10 Oral biological literacy from the beginning

Education should begin with parents before tooth eruption and become intelligible to children as soon as language and imitation permit. The object is not to turn toddlers into miniature dental students. It is to establish a truthful mental model before commercial messages, fear of treatment and habitual neglect take its place.

Life stage	Understanding to establish	Practice to establish
Before eruption	Caregivers understand that the mouth is a living biological system and that habits begin before disease.	Caregiver-led cleaning and age-appropriate professional guidance.
Toddler years	The mouth is alive; food changes it; teeth meet living gums.	A calm daily routine led and completed by the caregiver.
School years	Plaque, saliva, microbes, inflammation and bleeding are connected feedback signals.	Competent brushing develops; interdental cleaning is introduced when appropriate.
Adolescence	Food frequency, refined carbohydrates, smoking and vaping can disturb oral and systemic regulation.	Increasing autonomy with continued instruction and periodic assessment.
Adulthood	Oral and systemic conditions interact over time and in both directions.	Skilled self-care, attention to warning signs and timely professional support.

The central lessons are simple enough for gradual enlargement:

- The mouth is alive. Teeth are supported by living tissues, circulation, nerves, immune cells and microbial communities.
- Food affects the mouth before it nourishes the rest of the body. Its form, composition, adhesiveness and frequency all matter.
- The tooth-gum junction is a vulnerable biological interface that requires accurate daily attention.
- Repeated bleeding during gentle cleaning is information about inflammation and should not be normalised.
- Cleaning restores control by disrupting deposits before feedback becomes pathological amplification.
- Oral and systemic health communicate in both directions.

The fuller concept can then be introduced: in biological contexts, cybernetics concerns co-evolved communication, control and feedback within and between living systems and their environments. The mouth offers children a visible and personally experienced entrance to that understanding.

11 What brevity can do

Brevity is necessary, but it cannot replace the book. A short statement cannot carry the clinical history, scientific evidence, natural comparator, institutional record and Cybernetic Hypothesis without losing the relations that give them meaning. Repeated attempts to compress the whole case into a few paragraphs risk producing assertions that appear larger than their visible support.

Brevity should instead provide entrances to the evidence. The communication structure should have four levels:

- One sentence states the governing question and creates curiosity.
- One page gives the minimum case, the principal evidence, the boundary of the claim and the action requested.
- A short foundation paper explains one part of the argument and routes the reader to the relevant evidence.
- Raw Meaty Bones remains the book-length case and historical record.

The test of a brief document is therefore not whether it reproduces the book. It succeeds if a busy reader can understand what is alleged, why it matters, what would test it and where the evidence can be examined. Brevity is a doorway, not a substitute foundation.

12 The research programme

The human question should be converted into propositions that can be corroborated, qualified or refuted. Priority studies should preserve species differences and distinguish nutritional composition from physical function.

Research strand	Question or task
Evolutionary comparator	Reconstruct the range of food structures, oral work, wear, pathology and microbial exposures encountered before agriculture and industrial processing.
Matched composition and different form	Compare foods with similar measured nutrients but different structure, particle size, viscosity, adhesiveness and chewing requirements.
Developmental sequence	Follow microbiome establishment, deciduous eruption, mixed dentition, permanent eruption and adolescence with repeated oral, immune and behavioural measures.
Periodontal mechanics	Measure chewing, salivary response, periodontal loading, gingival circulation, clearance and recovery without assuming that abrasion alone is protective.
Reciprocal oral and systemic effects	Test how oral disturbance changes systemic trajectories and how metabolic, immune and other systemic changes feed back into the mouth.
Perturbation and recovery	Observe responses to changes in food form, food frequency, refined carbohydrate exposure, cleaning practice and periodontal treatment over time.
Education and behaviour	Test whether early oral biological literacy produces better skill, earlier recognition of inflammation and more durable self-care than procedural instruction alone.
Comparative mammalian modelling	Use carnivore observations to generate human questions, then test those questions directly rather than assuming transfer across species.

13 Responsibilities of the professions and government

The human extension places no single profession in command. Dentistry sees the accessible lesion; medicine encounters systemic associations and consequences; nutrition studies ingesta; anthropology and evolutionary biology reconstruct the comparator; education establishes understanding and habits; government determines curricula, research priorities and public-health settings. Cybernetic inquiry asks how these responsibilities connect and where fragmentation prevents learning.

The following measures fall within the competence of the responsible institutions:

- Introduce oral biological literacy into antenatal and parental education, childcare and school curricula.
- Teach practical tooth-gum margin and interdental cleaning repeatedly through childhood, with age-appropriate supervision and attention to avoiding trauma.
- Join nutrition education to oral biology so that food form, adhesiveness, frequency and microbial effects are considered alongside nutrient composition.
- Fund longitudinal developmental research rather than relying predominantly on adult cross-sectional associations and late-stage treatment studies.
- Require food and health claims to distinguish chemical adequacy from physical function and whole-system outcomes.
- Teach reciprocal oral-systemic regulation across dental, medical, veterinary, nutrition and public-health education.
- Measure prevention through biological understanding, competent self-care, reduced inflammation and disease avoided, as well as treatments delivered.
- Examine how commercial sponsorship and disciplinary boundaries influence which questions, comparators and preventive options enter education and research.

These are public-interest recommendations. They do not depend upon accepting every element of the Cybernetic Hypothesis. Existing evidence already supports early caregiver involvement, regular plaque disruption, reduced exposure to free sugars and prompt attention to inflammation. The hypothesis adds a broader biological explanation and identifies neglected tests.

14 Claims and limits

Forceful communication must not outrun the record. The following propositions should remain distinct:

- Established fact: Raw Meaty Bones placed a possible human application of the Cybernetic Hypothesis on the published record in 2001.
- Supported principle: food form and processing influence chewing, saliva, eating behaviour and the oral microbial environment; diet and oral inflammation are related.

- Reasonable inference: the physical and ecological functions of prehistoric ingesta cannot be captured fully by a modern nutrient formulation.
- Cybernetic hypothesis: loss or distortion of those functions may disturb oral and systemic regulation through reciprocal, nonlinear feedback.
- Practical recommendation: children should acquire biological understanding and evidence-based oral-care skills from the beginning of life.
- Open question: whether restoring particular patterns of food structure, oral work and early self-care changes lifelong periodontal and systemic trajectories.

The document does not claim that prehistoric people were free of periodontal disease, that hard food automatically cleans teeth, that human beings should copy a carnivore diet, or that cleaning alone can correct every microbial, immune, developmental or systemic disturbance. It requires those assumptions to be tested rather than silently made.

15 The public task

The human question has stood in print for twenty-five years. During that period, research has expanded around oral microbiomes, periodontal-systemic associations, diet-related inflammation, ultra-processed food and developmental health. Much of that work remains divided among specialties and framed through one-directional causal questions. The larger Silent Spring ambition also remains unmet: the public warning has not yet become organised research, teaching, policy and prevention.

Raw Meaty Bones offers a comparative starting point. In carnivores, the relation among natural food structure, oral function and periodontal condition is unusually visible and open to practical testing. Humans present a more complex history, but complexity is not a reason to exclude the mouth from the study of whole-system regulation.

A veterinarian need not prescribe human treatment to identify the warning, establish its provenance and ask the responsible professions to investigate. Medicine, dentistry, periodontology, evolutionary biology, education and government must decide whether to test the proposition or leave the omission on the record. After twenty-five years, the predicament cannot reasonably be described as a shortage of words. It is a shortage of institutional curiosity, responsibility and corrective action.

We cannot recreate the prehistoric human diet. We can investigate the functions that have been lost, teach every child that the mouth is a living regulatory interface, and build a practical culture capable of protecting it.

Selected sources and links

1. Lonsdale T. Raw Meaty Bones: Promote Health. First published 2001. Chapters 13 and 14, especially page 315. <https://www.thepetfoodcon.com/RMB>
2. Lonsdale T. Suggested reading and the wider intellectual setting of the Raw Meaty Bones campaign. <https://rawmeatybones.com/suggestedreading.php>
3. Lonsdale T. Work Wonders: Feed Your Dog Raw Meaty Bones. First published 2005. <https://www.thepetfoodcon.com/VWcolour>
4. Lonsdale T. Multi-Billion-Dollar Pet Food Fraud: Hiding in Plain Sight. <https://www.thepetfoodcon.com/MBDPFF>
5. Lonsdale T. Spin Doctors: Junk Pet Food Partners in Crime. 2026. <https://www.thepetfoodcon.com/SD>
6. Carson R. Silent Spring. First published 1962. Chapter 13 of Raw Meaty Bones discusses its method and public importance. <https://www.acs.org/education/whatischemistry/landmarks/rachel-carson-silent-spring.html>
7. Lonsdale T. Cybernetic hypothesis of periodontal disease in mammalian carnivores. Journal of Veterinary Dentistry. 1994. <https://rawmeatybones.com/pdf/periodontal-cyber.pdf>
8. Lonsdale T. Periodontal Medicine and the Limitations of Linear Causality. Journal of Periodontal Research. 2026. <https://onlinelibrary.wiley.com/doi/full/10.1111/jre.70118>
9. Teaford MF, Ungar PS. Changing perspectives on early hominin diets. Proceedings of the National Academy of Sciences. 2023. <https://doi.org/10.1073/pnas.2201421120>
10. Zink KD, Lieberman DE. Impact of meat and Lower Palaeolithic food processing techniques on chewing in humans. Nature. 2016. <https://doi.org/10.1038/nature16990>
11. Adler CJ et al. Ancient dental plaque and oral microbiota across the Neolithic and Industrial revolutions. Nature Genetics. 2013. <https://doi.org/10.1038/ng.2536>
12. Hall KD et al. Ultra-Processed Diets Cause Excess Calorie Intake and Weight Gain. Cell Metabolism. 2019. <https://doi.org/10.1016/j.cmet.2019.05.008>

13. Woelber JP et al. An oral health optimised diet can reduce gingival and periodontal inflammation in humans. BMC Oral Health. 2016. <https://doi.org/10.1186/s12903-016-0257-1>
14. Australian Dental Association. Policy Statement 2.2.3 Oral Hygiene. <https://ada.org.au/policy-statement-2-2-3-oral-hygiene>
15. European Federation of Periodontology. Prevention of gum disease and interdental cleaning. <https://www.efp.org/for-patients/gum-diseases/gum-disease-prevention/>

12 September 2026