

CYBERNETICS PAGE | PUBLIC-INTEREST WORKING PAPER

When a System Cannot Correct Itself

Manufactured normality, animal suffering and the warning from big junk food

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Core proposition: A commercially organised system becomes dangerous when the harms it produces no longer correct it. If pain, disease, consumer expense and contrary evidence are absorbed as normal - or converted into further sales, treatment and institutional authority - negative feedback has failed. The PIAS/Mars record offers a worked example: normalise pet ownership, normalise industrial feeding, then normalise the resulting disease and treatment. The warning for human health is not that the two systems are identical, but that big junk-food systems can likewise shape childhood norms, institutions and the meaning of ordinary life.

1. Start with the cybernetic conception

In biological contexts, cybernetics concerns co-evolved communication, control and feedback within and between living systems and their environments. Health and disease emerge from those relationships - not from isolated components acting alone.

The first task is therefore system identification. What organisms, institutions, products, messages and environments interact? What information travels between them? What is rewarded, suppressed or delayed? Which signals should correct error? Who controls the channels? Only after that architecture is identified should individual causal relationships be isolated and measured. Causal inference remains indispensable, but it answers questions formulated within the prior system model. [37-38]

This formulation prevents a common mistake. A painful tooth, a commercial advertisement, a veterinary consultation, a school lesson and a food formulation may each look like separate events. Cybernetic inquiry asks whether they form a self-reinforcing system through time.

2. The PIAS/Mars case as a feedback problem

The Petcare Information and Advisory Service was funded by Mars, described itself as autonomous and non-commercial, and included encouraging pet ownership among its published purposes. Its communications reached media, schools, veterinarians, government and the public. Current AVA PetPEP

material still describes children as future pet owners and publicises measurable household acquisition following school participation. [2-4,12-13]

The public-interest allegation is that this architecture produced three linked normalisations:

1. Acquisition: pet ownership became expected, socially desirable and institutionally endorsed.
2. Consumption: industrially formulated food became the responsible default, supported by commercial familiarity and veterinary authority.
3. Consequence: dental disease, foul breath, chronic illness, repeated treatment and expense became ordinary features of pet life rather than evidence demanding correction of the feeding system.

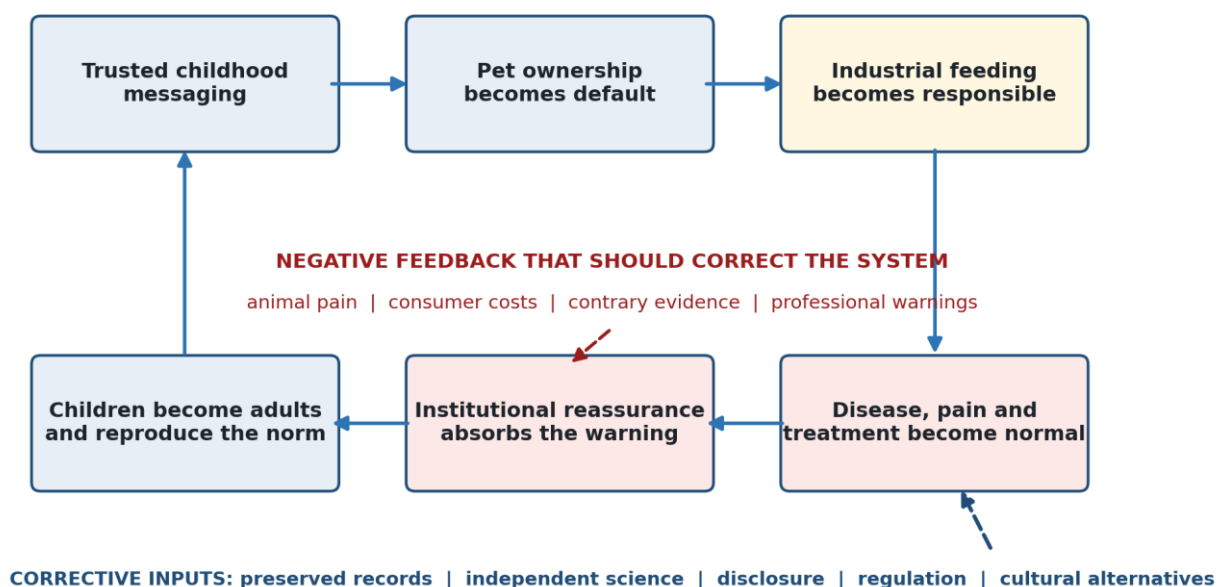


Figure 1. Conceptual feedback model. It identifies an investigative hypothesis, not a proved causal or criminal finding.

3. How a corrective signal becomes reinforcement

In an adaptive system, repeated animal disease should challenge the governing assumptions. Diets should be compared, preventive alternatives tested, conflicts disclosed and advice corrected. The alleged industrial system can instead reverse the sign of the signal:

- animal pain and disease generate consultations, procedures, medicines and specialised products;
- those interventions strengthen the authority of the institutions associated with the prevailing feeding advice;

- professional reassurance converts the recurring disease from an indictment of the system into confirmation that continuing professional management is necessary;
- consumer expenditure deepens emotional and financial commitment rather than prompting examination of the original premise; and
- the next generation encounters the same products, institutions and explanations as settled reality.

Positive feedback from harm: The system does not merely survive adverse outcomes. It may grow through them. Disease creates revenue and professional contact; contact renews the authority that preserves the feeding norm; the preserved norm produces the next round of disease and treatment.

4. The moral output: animal cruelty and consumer deception

The moral endpoint is a dependent animal, not an abstract purchase. The animal cannot consent, investigate nutritional claims or leave the household system. Humans exercise complete control over what it is fed and whether preventable disease is allowed to develop. The AVA itself states that untreated oral disease is painful, can contribute to local or systemic disease and may involve irreversible destruction. Waltham's review describes canine periodontal disease as frequent, with prevalence far higher under detailed anaesthetised examination than routine records suggest. [26-27]

If corporate or professional decision-makers knew or should have known that their normalised feeding system foreseeably exposed animals to preventable pain, yet continued to promote acquisition and suppress or marginalise effective prevention, the moral character of the conduct is cruelty. The question is no longer whether the marketing was tasteful. It is whether dependent beings were knowingly channelled into avoidable suffering.

The parallel consumer-fraud theory concerns the human household. A family acquires an animal and enters years of recurring expenditure. If the sponsor, material health risks, preventive alternatives, conflicts of interest and foreseeable treatment costs were hidden or displaced by trusted reassurance, the resulting 'choice' may have been materially misinformed. Whether particular facts establish fraud or legally unconscionable conduct is a legal question. The moral deception can be stated more directly: responsibility was demanded from consumers while information necessary to exercise that responsibility was withheld or culturally erased. [30-31]

5. Childhood conditioning makes the loop intergenerational

A child does not receive only a product preference. The child receives a model of reality: what a good family does, what responsible feeding looks like, which authority to trust and which harms count as normal. The model is reinforced through repetition across school, home, media, retail, veterinary practice and public policy.

When that child becomes an adult and parent, the earlier model becomes the unexamined starting point for the next household. The parent's legal act of acquisition remains real, but 'parental responsibility' is a poor explanation of the system. It describes the final signature while ignoring the decades of upstream construction that made the decision feel natural, safe and morally approved.

The behavioural principle is not confined to pets. WHO's guideline on unhealthy-food marketing states that such marketing affects children's choices, dietary intake, purchase requests to adults and developing norms about food consumption. [33] Children are therefore not merely small consumers. They are carriers through which a commercial norm can become family culture and persist after any particular campaign disappears.

6. What 'corrupt system' should mean

There are two distinct claims, and they should not be blurred.

- Functional corruption: the system's communication and feedback channels are degraded, captured or inverted, so evidence of harm no longer produces timely correction. This can be demonstrated by mapping incentives, information flows, conflicts, responses to warnings and outcomes.
- Legal or criminal corruption: particular people or organisations committed identified offences or entered unlawful agreements. That requires actor-specific proof of conduct, knowledge, intention and the applicable legal elements.

The first proposition can be powerfully advanced now as a systems analysis. It does not depend upon proving bribery or conspiracy. The second remains a demand for investigation. Keeping the two registers separate prevents lack of criminal discovery from being used to deny the visible cybernetic failure.

7. The warning for human health and big junk food

The veterinary example is a warning, not a one-to-one proof about human food. Species, diets, disease pathways, regulation and evidence differ. The common question is architectural: can a commercial

system shape products, childhood preferences, research priorities, professional advice, policy and cultural expectations so extensively that preventable harm is treated as normal life?

WHO calls these influences the commercial determinants of health. Its framework includes product design, pricing, targeted marketing, research funding, lobbying and preference shaping, and says young people are especially at risk. The Lancet's commercial-determinants framework likewise directs attention to interacting systems, practices and pathways rather than isolated corporate acts. [32,36]

The human-health evidence already supplies serious warning signals. In a small randomised inpatient crossover trial, participants offered an ultra-processed diet ate more and gained weight compared with a nutrient-matched unprocessed diet. A 2024 umbrella review found higher ultra-processed-food exposure associated with numerous adverse health outcomes, while also grading important limitations in the underlying evidence. These findings do not prove that every processed product is harmful or establish one universal mechanism. They do defeat complacency and justify system-level prevention and independent research. [34-35]

The cross-species warning: When commercial food becomes the cultural default, individual consumers are asked to regulate themselves inside an environment engineered to shape preference, availability, expertise and belief. If disease is then treated downstream while the upstream food system remains protected, human health may reproduce the same defective feedback architecture visible in the pet-food case.

8. The mouth is an early warning interface

The Cybernetic Hypothesis of Periodontal Disease begins with the mouth as an ecological and regulatory interface. Food structure, chewing, teeth, gingivae, microbes, immunity, behaviour and the wider organism communicate through time. The regulator is itself regulated. Periodontal disease is therefore not merely a local bacterial accident; it may be a visible expression of disrupted relationships with consequences extending through the organism and, in evolutionary terms, into populations. [37-38]

For carnivores, the substitution of natural feeding functions by industrial formulations supplies an unusually stark system perturbation. For humans, the precise pathways require their own evidence, but the methodological warning holds: identify the food-mouth-microbe-immune-environment system before reducing disease to isolated nutrients, organisms or treatments.

This is why prevention matters conceptually as well as clinically. Treating the downstream lesion without correcting the system that repeatedly generates it can preserve the feedback error. The same caution

applies when chronic human disease is managed predominantly after emergence while the commercial and cultural drivers of diet remain outside the clinical frame.

9. Restoring negative feedback

There is a way out, but not through appeals to consumer responsibility alone. Corrective feedback must be designed back into the system.

Failed signal	How it is absorbed	Corrective feedback required
Animal or human disease	Redefined as ordinary and managed downstream	Compare upstream exposures and preventive alternatives
Professional warning	Marginalised, delayed or treated as reputational threat	Protected reporting, dated responses and independent review
Industry-funded research	Positive findings publicised; full portfolio unseen	Registers, protocols, data, null findings and conflict disclosure
Consumer cost	Interpreted as proof that more products and treatment are needed	Lifetime-cost disclosure and outcome-based surveillance
Institutional memory	Websites close and records disappear	Permanent archives, correction histories and legal preservation
Childhood influence	Assigned to parental choice at the final step	Restrict conflicted marketing and disclose system design

The essential principle is independence. A feedback channel cannot reliably correct a system when the institutions receiving, interpreting and acting on the signal share the incentives or assumptions under challenge.

10. Questions for research, governance and public health

1. Which adverse outcomes should have triggered reconsideration of the prevailing food and treatment model, and why did they not?
2. Who controlled the production, interpretation and distribution of evidence?
3. Which institutions benefited economically, professionally or reputationally from treating the downstream consequences?
4. How were children used to carry commercial norms into households and later generations?
5. What information about risks, conflicts, alternatives and lifetime costs was unavailable at the point of choice?
6. Which archives, datasets and internal communications are needed to distinguish error, negligence, reckless indifference, deception and coordinated wrongdoing?
7. What independent mechanisms can ensure that pain, disease and contrary evidence produce correction rather than more of the same intervention?

Conclusion

The deepest allegation against the PIAS/Mars system is not that it sold pet food too cleverly. It is that trusted institutions helped construct a social reality in which pet acquisition, industrial feeding and preventable disease formed one self-reproducing order. The animals bore the pain. Households bore the expense. The system interpreted both as normal and continued.

Cybernetics makes that failure visible. A living or social system that cannot receive and act upon evidence of harm is not merely mistaken; it is dangerously unregulated. Where the harm is converted into revenue, authority and renewed cultural conformity, the feedback architecture is corrupt in the functional sense. Whether particular actors also committed fraud, conspiracy or other offences must be determined from records and law.

The warning for human health is immediate but disciplined. Big junk-food systems operate through products, availability, childhood norms, research, professional advice and policy. The scientific questions remain open and specific. The systems question cannot be postponed: who will restore the negative feedback before manufactured normality becomes another generation's inheritance?

Suggested Cybernetics Page introduction: What happens when a food system becomes unable to learn from the disease it helps create? This paper uses the Mars-funded PIAS campaign as a worked example of manufactured normality and failed negative feedback, then asks what the same architecture may warn us about in human health. It distinguishes functional corruption of a system from proved criminal conduct and shows why independent evidence, preserved records and prevention are essential to restoring control.

Status, corrections and further evidence

This is a public-interest systems analysis, not a judicial finding and not a claim that pet and human food systems are biologically identical. Documented facts, attributed allegations and investigative inferences should remain distinguishable. Mars, PIAS's former officeholders, veterinary and medical institutions, researchers, regulators and readers are invited to identify errors, supply records and propose tests capable of confirming or falsifying the model.

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