

John Coleman: Comparative Anatomy & Taxonomy

Aus Tierversuchsgegner

(Weitergeleitet von Taxonomy)

Comparative anatomy works on the simple and demonstrable fact that the biological form usually defines function. Human is closest to frugivore animals (fruit eaters), from the anatomic and taxonomic point of view.

Comparative Anatomy & Taxonomy

Comparative anatomy works on the simple and demonstrable fact that the biological form usually defines function. Individual features, or species may break the rules, but a look at many factors will reveal a species true biological role. Certainly science does not really validate the typical vegan diet, as this serves cultural imperitives. Science provides us with an indicator of *human nutrition* which was not established by culture, but is certainly that of a herbivore or frugivore and not a carnivore or omnivore.

Feature	Carnivore	Herbivore	Omnivore	Human
Facial Muscles	Reduced to allow wide mouth gape	Well-developed	Reduced	Well-developed
Jaw Type	Angle not expanded	Expanded angle	Angle not expanded	Expanded angle
Jaw Joint Location	On same plane as molar teeth	Above the plane of the molars	On same plane as molar teeth	Above the plane of the molars
Jaw Motion	Shearing; minimal side-to-side motion	No shear; good side-to-side, front-to-back	Shearing; minimal side-to-side	No shear; good side-to-side, front-to-back

Major Jaw Muscles	Temporalis	Masseter and pterygoids	Temporalis	Masseter and pterygoids
Mouth Opening vs. Head Size	Large	Small	Large	Small
Teeth: Incisors	Short and pointed	Broad, flattened and spade shaped	Short and pointed	Broad, flattened and spade shaped
Teeth: Canines	Long, sharp and curved	Dull and short or long (for defense), or none	Long, sharp and curved	Short and blunted
Teeth: Molars	Sharp, jagged and blade shaped	Flattened with cusps vs complex surface	Sharp blades and/or flattened	Flattened with nodular cusps
Chewing	None; swallows food whole	Extensive chewing necessary	Swallows food whole and/or simple crushing	Extensive chewing necessary
Saliva	No digestive enzymes	Carbohydrate digesting enzymes	No digestive enzymes	Carbohydrate digesting enzymes
Stomach Type	Simple	Simple or multiple chambers	Simple	Simple
Stomach Acidity	Less than or equal to pH 1 with food in stomach	pH 4 to 5 with food in stomach	Less than or equal to pH 1 with food in stomach	pH 4 to 5 with food in stomach
Stomach Capacity	60% to 70% of total volume of digestive tract	Less than 30% of total volume of digestive tract	60% to 70% of total volume of digestive tract	21% to 27% of total volume of digestive tract
Length of Small Intestine	3 to 6 times body length	10 to more than 12 times body length	4 to 6 times body length	10 to 11 times body length

Colon	Simple, short and smooth, no fermentation	Long, complex; may be sacculated, may ferment	Simple, short and smooth, no fermentation	Long, sacculated, may ferment
Liver	Can detoxify vitamin A	Cannot detoxify vitamin A	Can detoxify vitamin A	Cannot detoxify vitamin A
Kidney	Extremely concentrated urine	Moderately concentrated urine	Extremely concentrated urine	Moderately concentrated urine
Nails	Sharp claws	Flattened nails or blunt hooves	Sharp claws	Flattened nails
Thermostasis	Hyperventilation	Perspiration	Hyperventilation	Perspiration

Adapted from *The Comparative Anatomy of Eating* by Milton R. Mills, M.D., formerly at <http://www.newveg.av.org/anatomy.htm> (broken link)

The Opportunistic Feeder Theory

Various folk promote the *opportunistic feeder theory* which suggests that because man **can** or **has** fed on meat, eggs, insects and other animal matter, then man is an opportunistic *omnivore*. This theory also counters the conclusions of taxonomy presented above, suggesting it is misleading and that species have individual feeding habits and cannot be pigeonholed as taxonomy suggests. The basis of this argument is that animal behaviour and adaptability indicates dietary suitability.

This theory is false and unscientific. Of course *tradition* is not scientific, and the practice of humans eating meat is old, but has nothing to do with what we are biologically equipped to feed upon. We ate meat to survive, now we eat it out of habit and not need.

Another quasi-scientific theory is associated with the opportunistic feeder theory. This can be called the *biochemical individuality theory* which is often seen in far eastern "medicines" such as Traditional Chinese Medicine, and the Ayurvedic systems. This theory suggests that since we are biochemically individual we should all eat individual diets suited to our moods, illnesses and other contrived indicators.

The logic behind biochemical individuality theory is fallacious, for although we are all unique biochemical beings, we are predominantly the same biochemical system, with low level variations. At the molecular level we differ, at the system level we are alike. If anyone imagines they can adjust their diet according to these individual metabolic variations, they are fooling themselves.

By picking **only** the low level system differences to indicate information about dietary choices, or moods, yin and yang and so forth, and extrapolating to the whole, we produce a gross misrepresentation of the facts. As far as we know, all cattle graze, all lions eat raw flesh, all chimps eat a diet of mainly raw fruit and vegetation and all chickens peck for grubs and grains. No animal on earth, that we know of, cooks its food before eating it, except humans. Only human behaviour breaks the taxonomic definition that that

science defines for it. Humans prefer culture and technology over nature, and since our natural role is as a raw food herbivore, and because our bodies are only suited to that role, any significant perversion of it must, and does, lead to ill health. One cannot choose what to eat healthily, based on cultural imperitives since one will most likely present the wrong kind and quantity of precursor molecules, as well as introducing poisons to the body. A healthy human body cannot be operated on the wrong chemical inputs. "Garbage in equals garbage out"!

Our anatomy is clearly unsuited to deal with animal matter in the diet, however our digestive chemistry can deal with animal tissues and obtain some nutrition. But this does not indicate biological suitability or desirability. Cattle, which are herbivorous ruminants may eat many insects while they feed, chimps may occasionally kill and eat a small monkey. A pet cat may eat bread and margarine. So what? Are cattle to be defined as insectivores or omnivores, or opportunistic feeders? Is the pet cat an opportunistic feeder? Certainly, and the chimp an opportunistic feeder? Why not. None of this distorts taxonomy or supprises the biologist. All herbivores will be able to process animal protein to some degree or other since all protein is biochemically related. It is possible with modern processing methods to produce a "cat food" derived solely from plant material and non-animal matter that will keep a cat alive. Is this a herbivorous cat? No, it is a domestic animal eating an industrial diet. Higher lifeforms display a broader range of behaviours, and feeding behaviour simply reflects this, but does not reflect our true biological feeding requirements.

The opportunistic feeder theory is based on **circular logic**, "I do therefore I am" and is hard to **falsify***, since at a molecular level, food is chemically similar, because all animal tissues are made up of broken down plant tissues.

The fact that opportunistic feeding theory is circular and hard to falsify make it unscientific, and useless in any discussion of **what humans should eat**. Taxonomy is accurate, logical but not exact. Since there are exceptions it is falsifiable.

* a statement that cannot be falsified is unscientific, eg. the statement: "The sun will extinguish in 1000 years time" is unscientific because nobody can demonstrate that this cannot happen.

This page is a mirror of <http://www.vegan-straight-edge.org.uk/taxonomy.htm> (slightly adapted)!

Links

- Zack Klukkert: Dental Morphology as an Adaptation to Environment (<http://www.geocities.com/laraleac/page5.htm>)

Von "http://www.tierversuchsgegner.org/wiki/index.php?title=John_Coleman:_Comparative_Anatomy_%26_Taxonomy"