The chicken and the egg

Introduction

My purpose here is not to answer the question of who was first the chicken or the egg, but to address people's experiential data on matters related to chickens and eggs. For this purpose I have three examples that will be elaborated on. The first example is about a French scientist Louis Kervran who discovered that without the presence of a lot of calcium his chickens still produced beautiful eggs with a firm shell. He tried to solve this riddle. The second example is about the Dutch Hendrik ter Beest who raised chickens and was confronted with the fact that his chickens were pecking out the feathers of the other chickens and he set out to find a solution.

The third example is about the Limburg chicken farmer Jos Nelissen who is trying to improve the taste and quality of the egg through the nutrition of the chickens and even so that eye problems can be improved.

Example 1 on calcium, silicon and carbon

We sometimes find that when we take an egg out of an egg carton, it breaks in our hand and makes a mess.

My first thought is: not enough calcium and the second thought is that the chickens should be fed more calcium. A kind of logical reasoning.

Now there is this Frenchman Louis Kervran who made the following observation:

Kervran lived in a part of England where the soil contained practically no calcium, but on the other hand, there was plenty of silicon, or silica. He wondered how it was that despite the lack of calcium, his chickens could lay such beautiful eggs with strong shells. Kervran then gave his chickens no calcium. Yet good, firm eggs still came out. When he then decided to omit the silicon from the feed, the eggs remained soft because the shell would not harden.

Later, a theory came out of his pen to explain this phenomenon. His idea was that Silicon and Carbon, could produce calcium. And he called this transformation a "cold" nuclear fusion. The chicken could provide this transformation. Many objections have been raised about this theory.

The problem that often arises is, that in this case one undermines the cold nuclear fusion idea and with it the observation that silicon provides a solid eggshell. That, of course, is not correct. The observation of something and the theory of how it comes about are two separate worlds.

Can the observation remain and then the theory must be modified? Critics claim that nuclear fusion releases a lot of energy and when in the chicken silicon and carbon fuse to calcium, so much energy is released that the chicken is roasted from the inside out. It almost seems like a joke. I myself was always taught that nuclear fission or nuclear division releases energy, so doesn't it make more sense that nuclear fusion costs energy? And is that what Kervran means by "cold" nuclear fusion? But according to current scientific understanding, it cannot be like that. The observation that good eggs can still be produced without calcium still stands, and there is still no explanation of how it is possible for chickens to lay eggs without enough calcium. Could it not be that cold fusion requires another substance that plays a role in the fusion process, but that substance is not yet known? One can think of noble gases as mediating substances. For example, in our air that we breathe and that chickens also breathe, we find the noble gas Argon.

Example 2 about chickens pecking out chicken feathers

A second observation was made by farmer's son and chicken breeder Hendrik ter Beest from Haaksbergen. He was confronted with chickens pecking out each other's feathers. A common method was to cut off the top of the beak. Chickens were also given blinkers. But this Hendrik did not like any of that.

The magazine “Nieuwe Oogst” announced the ban on beak clipping in 2007 and suggested that supplementary feeding with oats might be a solution.

Hendrik took this advice and experimented with oats, but the oats were poorly absorbed by the chickens. After peeled oats and ground oats, the oats were eaten better by the chickens, but the diet was still not palatable enough. His wife recommended adding sunflower oil to the mixture. It turned out to be "the egg of Columbus," the animals loved it and the pecking stopped. Favorable side effects were faster growth and faster laying maturity of the young chickens. The young hens began laying eggs one month earlier.

Eventually, Hendrik as well as Kervran came upon silica or silicon as the active ingredient. Silica is also plentiful in chicken feathers and since chickens need silica to produce an egg, it is logical that if they are deficient in silica, they will look for it themselves and find it in the chicken feathers of other chickens. The oats which are themselves high in silica replenish the silica and stop feather pecking.

Nettles, millet, oats and bamboo are examples of products high in silica.

If we bring in Elmer McCollum's research3 he would not recommend sunflower oil to go with the hulled and ground oats but whole milk or butterfat or buttercream. Why? Because while vegetable oil is a good energy provider, but it does not absorb the vitamins A,D,E and K and milk via the fat it contains does. And probably the silicon is also better absorbed by the addition of good fats and the chickens come out even healthier.

 McCollum also probably would not have hulled the oats if they are milled anyway, as there are many good substances in and under the outer husk of the oats. Palm oil and coconut oil are also better than sunflower oil because they contain saturated fats.

It should be investigated by McCollum's method or by chemical analysis whether that silicon is also better absorbed by milk or butterfat or palm oil or coconut oil.

Example 3 on chicken nutrition and our eyes

Another development with chicken eggs related to health is of interest: In Oirle1 in Limburg, there is a chicken company Nelissen, which is experimenting with chicken nutrition in cooperation with the university in Wageningen and the Academic hospital in Maastricht.

The chickens are given standard chicken feed that is supplemented with the flowers of marigolds. The flowers of marigolds contain substances2 that are good for human eyes, for example, lutein2. And these substances are found in the egg yolks of chickens fed the flowers of the marigolds.

McCollum3 sees the chicken egg as an essential nutrient because the yolk contains saturated fats that in turn make a variety of substances including vitamins A, D, E and K more accessible for absorption in the body.

Research has shown that eating the eggs that get flowers of marigolds in the diet are tastier and healthier for the eyes and reduce eye diseases in humans. It would be good to have access to these studies4.

The egg is now marketed under the name "Marigold."

Considerations

There are many interesting things to report about chickens and eggs and as we can see, establishing something, is very different from explaining the established phenomenon through a theory5. What does become clear from Elmer McCollum's work is that one fat is not the other fat. Vitamins, for example, do not dissolve in vegetable margarines. Taking vitamins to supplement the diet only makes sense in conjunction with good fats.

So if we eat a sandwich with real butter and a boiled egg in the morning, we are doing our health a good service.

Furthermore, open research is important. In the case of Nelissen's chickens, it is necessary that the studies that have been done, as claimed, also become public. Otherwise, the case does not become credible.

And does none of this refer to the wisdom of the nursery rhyme:

1 egg is not an egg

Two egg is half an egg

Three egg is an Easter egg

and converted to research and science it sounds like this:

1. A single research is not a research, doesn't say much yet

2. Two studies whose results agree, that evokes the feeling: it might be

right.

3. Three or more independent studies with the same results confirm our

confidence in what is stated in the first study.

In this way, science becomes the building of trust and thus forms the basis of our health.

References

1. Chicken farm of Jos Nelissen

<https://marigoldculinair.com/a-family-affair/>

2. About Lutein

<https://nl.wikipedia.org/wiki/Lute%C3%AFne>

3. Book by Elmer McCollum in English and Dutch translation.

<https://gezondheid-info.jouwweb.nl/voeding-en-gezondheid/mccollum-boek>

4. Via Dr. Chris Knobbe reference to eye examination: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4785134/>

5. Publications on nutrition and health.

<https://gezondheid-info.jouwweb.nl/voeding-en-gezondheid>

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Glossary

Noble gas

A noble gas is a substance that basically does not connects with other substances because its outer shell contains all the electrons. The role of noble gases is in my opinion not really clear yet, but there are indications that noble gases may play a mediating role in the formation and cleavage of compounds.

https://nl.wikipedia.org/wiki/Edelgas

Nuclear fusion

Two substances are fused together and a third substance is created.

in physics is the fusion of atomic nuclei, forming a heavier atomic nucleus with a higher atomic number (and thus a different chemical element).

Nuclear division

in physics is a process in which a heavy unstable atomic nucleus divides or splits into two or more lighter nuclei, releasing significant amounts of energy.

Silica

What is silica good for?

Silicon or silica is an important nutrient for the human body. For plants and animals, silicon is essential for building cell walls. In our bodies, this trace element is an important part of our connective tissue.

Carbon

Applications: The free element carbon has many different applications. Among other things, it is a component of diamond decoration and printer ink. Graphite is used as dry-cell and light electrodes, as pencil tips and as lubricating oil, among others.

Observation

That which is observed.

Saturated fatty acids and unsaturated fatty acids.

Which fatty acids are saturated?

Saturated fatty acids are fatty acids without double bonds, unlike unsaturated fatty acids, which have one or more double bonds in the chain.

Unsaturated fats are found, for example, in spreadable margarine, liquid baking products and vegetable oils, such as rapeseed oil, linseed oil and sesame oil. Nuts and fish also contain a lot of unsaturated fat. The well-known omega-3 and omega-6 fatty acids also fall under unsaturated fats.

Now it seems that in discussions about nutrition, saturated fats are in the damned corner and unsaturated fats are portrayed as good and healthy and that is mi a big misunderstanding. It would be good to take a closer look at it based on McCollum's findings.

We know that there are vitamins that dissolve in fat e.g. A, D,E and K and other vitamins dissolve in water e.g. the B vitamins.

Only that does not apply to all fats. There are lots of different fats. And all water is not water, water also exists in many compositions. McCollum speaks, for example, of "fat-soluble A" and "water-soluble B." Two mechanisms active in diets.

Now it is of utmost importance to find out which substances dissolve in fat and in which fat and which substances dissolve in water and in which water- composition, because this has great implications for the quality of the diet.

Fusion and division example

Starting from “another mathematics” based on the work of Frans Coppelmans[[1]](#footnote-1), we show what fusion means.

Note: this is a theoretical approach.

We assume two elements:



 Number of points 4

  Number of points 2

  Total number of points

 ` 6

Both elements merge



 5

Elements separate, split, divide

 Total number of points



 6

Why not like this after merger? Or so? Or like this?



Here the action of the noble gas or of the final structure comes into play.

In the primal image the cube consisting of 8 points.

The noble gas or the final structure gives the individual elements a directedness and through the directedness the elements can be joined . Only the points are connection points.

In this example, the noble gases are represented two-dimensionally as a dotted square. YouTube shows an example of fusion in 3-D[[2]](#footnote-2) .

The orientation of individual elements is important when it comes to fusion. This is why scars are created during surgery because when the wound is sutured, the cells at the cut surface are not oriented and thus the original connection is not restored. A new connection must be created.

Now the fusion and division with the noble gas designation.

Two elements



Elements oriented

Y-axis

 X-axis

Elements joined, fusion

Y-axis

 X-axis

Elements without noble gas after fusion

 

What does this element look like when you look at it through a microscope?

Something like this:



Through the microscope you always look at the outside, the contour of an object. The external appearance.

You want to look inside the object but you can't. The inside is only unlocked by knowing how things are put together.

 

 The inside, or inner structure.

This awareness was brought into the world and available to all of us through the work of Frans Coppelmans.

Back to practice

The above story is based on theory and the next step is now to see if we can use it in practice. We see in theory that in a merger the number of points decreases. In practice, we see this reflected in making connections. If we hang a kitchen cabinet we have to make connections with the wall otherwise the cabinet falls to the floor and gets damaged. Demolishing things produces energy because the existing connections are broken up and the bonding energy is released. Perhaps that is why politicians like to tear down laboriously built facilities? And then when things have to be rebuilt no one gives in?

 In humans and animals, and probably plants as well, there is a constant process of building up and breaking down and these two movements must remain in balance then it is called healthy but when the balance is disturbed there is disease. Disease can lead to better control of that balance, becoming stronger. So wanting to prevent or even eradicate disease with all one's might is not desirable. For people who believe in eliminating disease, the question has probably never occurred to them: what will come back in return? Perhaps something much more worse? In nature, there is consistency and stability, if you take something away, something will automatically come in return.

 Similarly, there are people who think there are too many people and that we need to clean up a lot of it. These people do not realize that there is a coherence in this area as well, those people are there for a reason and if you take away large groups, the very idea, something will come in return and that is usually even more people.

 The big and simple solutions are often not the best solutions, so in all modesty let's work for a better future for all of us.

Jan Sterenborg

1. <https://frans-coppelmans.jouwweb.nl/wiskunde> [↑](#footnote-ref-1)
2. <https://youtu.be/fqaCHrjj_co> [↑](#footnote-ref-2)