## Germ-terrain duality of sickness, equivalent of wave-particle duality of light for the biological sciences? Bechamp revisited

Seun Ayoade

Ayoade S. Germ-terrain duality of sickness, equivalent of wave-particle<br/>duality of light for the biological sciences? Bechamp revisited. Int J Anat<br/>Var. 2017;10(1):010-11.catch malaria'. We all hated the bitter tasting chloroquine tablets and dreaded<br/>the painful chloroquine injection and so most times we would transfer our<br/>frolicking to under some shade of trees.Growing up in Ibadan, West Africa as we children played soccer, catch,<br/>skipping rope and many other games and sports in the hot sun our parents<br/>and adult passersby would shout at us to play under the trees 'or we wouldAt the age of six I was totally convinced that strenuous exercise under the hot<br/>sun caused malaria fever.<br/>Key Words: chloroquine; malaria fever; mosquito

Fast forward to when I was nine years of age my teacher told the class a bite from a female mosquito called anopheles caused malaria. Then why did everyone tell us to leave the sun and go under the trees? I wondered. Wouldn't the shady trees be a prime spot for mosquitoes what with the stagnant water in broken bottles etc.?

I challenged my teacher and my teacher said the sun and strenuous activity had nothing to do with malaria. 'Why do you think we use mosquito nets?' she retorted. 'To save us from the infernal buzzing and painful bite of those hated mosquitoes' I replied, 'just like we set rat traps to prevent our shoes and food from being eaten by rats, not that we expect to catch any sickness from rats'. The teacher laughed. She had to be right, I thought- teacher knows best.

When I was aged 12 my science teacher said it was what the mosquito put in you when it bit you which actually caused the malaria. It was this microbe that was called plasmodium.

Later, in my first year in university I found out about the different types of the protozoa plasmodium and the different types of malaria as well.

Yet, from time to time things would happen to me and others around me that would make me wonder if it was just plasmodium alone causing malaria or plasmodium in conjunction with physical strain and exhaustion, especially under the sun.

A family friend once accidentally left their few months old baby under the hot sun while doing farm work. The baby broke down with malaria but recovered when treated with anti-malaria medicine.

There is a well-known belief in Nigeria that intensive chain smoking in a short period of time can cause malaria. On a dare, a medical student said that it was impossible. In my presence he chain smoked a pack in less than an hour. He said all that would happen to him would be that he would reek of tobacco and have shortness of breath for a while. He said all those who said smoking caused malaria were uneducated fools who knew nothing about microbiology and medicine. He awoke in the middle of that very night shivering with severe malaria. A few anti malaria tablets, later, he recovered.

My instincts and common sense told me Plasmodium had to have been in his body already, but that when his cells and tissues became damaged from the tobacco overload, the plasmodium began to scavenge, like a vulture.

A few years ago I myself did some intensive manual labour under the sun and came down with malaria less than 48 hours later. I took malaria medicine and recovered.

Professor Pierre Jacques Antoine Bechamp (1816-1908), a pioneer of germ theory and mentor of Louis Pasteur caused a stir in the medical world over

100 years ago when he said germs could sometimes only cause sickness under certain terrain conditions. Otherwise germs were mostly harmless, and so medicine should focus more on keeping the body terrain resistant to germs, not just on killing germs.

Pasteur on the other hand said no terrain could resist germs, so ALL focus should be on killing germs.

In a nutshell Professor Bechamp said germs were scavengers of dead and damaged tissue or waste.

I have wracked my brain and have no other logical conclusion why my doing of manual labour under the hot sun three years ago, or that fellow smoking 20 cigarettes in less than an hour resulted in severe bouts of malaria.

My conclusion is this: plasmodium was in my red blood cells already and did me NO HARM. Doing the manual labor weakened my tissues and then the hitherto harmless plasmodium moved in for the kill, attacking my damaged cells and tissues.

The chain smoking skeptic too had plasmodium in his red blood cells already, tobacco damaged his tissues, and smelling blood so to speak, the plasmodium moved in, like sharks on a bleeding man.

If there is a better explanation other than this I do certainly want to know it, and would be highly appreciative if you would enlighten me.

Bottom line-things are not always black and white, neither are they grey. Often it's a continuum of black, white, zebra like stripes of black and white and a polka dot mosaic of black, white, grey and all shades in between.

BOTH Bechamp and Pasteur were right. Germs cause diseases but terrain is also very important.

So to what end do I write this letter? I propose a germ/terrain duality theory of disease. This will one day imply a change in medical literature. For example in a nursing or medical textbook or dictionary instead of merely stating plasmodium causes malaria it should be stated that plasmodium causes malaria especially when cells and tissues are weakened by strenuous activity under the hot sun.

Just like light are both a wave and a particle at the same time.

As I write this I sit under the stream of a rechargeable fan with both AC and DC buttons. What George Westinghouse and Thomas Edison would have thought of it when they dueled brutally over alternating current and direct current over 100 years ago!!

I close with the famous words of that famous nurse, the mother of all nurses, Florence nightingale:

University of Ibadan, of State, Nigeria

Correspondence: Seun Ayoade, Department oif Geography, Faculty of the Social Sciences, University of Ibadan, Oyo State, Nigeria. Telephone +234 08038209162, e-mail: thenigeriansuperman@yahoo.com

 This open-access article is distributed under the terms of the Creative Commons Attribution Non-Commercial License (CC BY-NC) (http:// creativecommons.org/licenses/by-nc/4.0/), which permits reuse, distribution and reproduction of the article, provided that the original work is properly cited and the reuse is restricted to noncommercial purposes. For commercial reuse, contact reprints@pulsus.com

## Ayoade

"The specific disease doctrine is the grand refuge of weak, uncultured, unstable minds, such as now rule in the medical profession. There are no specific diseases; there are specific disease conditions."

- Florence Nightingale

I also quote another great scientist:

"If I could live my life over again, I would devote it to proving that germs seek their natural habitat, diseased tissue-rather than being the cause of the diseased tissue."

- Rudolph Virchow