《生物科学杂志(ISSN 2958-4035)》
Journal of Biological Sciences (ISSN 2958-4035)

ChengZhu Science™

Serial in November, 2022

ChengZhu Science Research Center Limited

(Hong Kong Registration NO. 80561228)

Journal article DOI is registered via JiangXi Province ChengZhu Environmental Engineering Company Ltd, with Crossref membership (DOI prefix 10.58473)

出版人： 刘焕 香江出版社有限公司

Publisher: Liu Huan, Xiangjiang Publishing Company Ltd.

ISSN 2958-4035



Copyrights Statements

Copying and Transferring is Forbidden!

版权申明

禁止复制、转载！

All the intellectual property (mainly including the original academic knowledges and brand logo) are prohibited to copy or transfer into other publications or websites. To cite this article, only short quote is acceptable, but copying or transferring any substantial part of this article is NOT allowed (Defined in <Copyright Ordinance> in Hong Kong). The original academic knowledge is the substantial part of an article as academic journal. For learning purpose, it is allowed to read our website in online video class only. This journal is published by Hong Kong Publisher, and the copyrights is regulated and protected by <Copyright Ordinance> in Hong Kong, China. This PDF document is accessible to public only through Hong Kong domain websites (natural-foundation-science.org), and its printed version is the formally published journal. Without permission, it is NOT allowed to print, issue and sale.

所有形式知识产权（主要包括原创型学术知识和品牌标识）禁止复制、转载到其他出版物和网站。如果需要引用这篇论文，仅仅允许简短引述，但是禁止复制、转载这篇论文中任何实质性部分（香港《版权条例》中定义）。作为学术杂志，这篇论文中的原创型学术知识即为作品的实质性部分。仅仅允许以学习为目的在线视频课堂阅读本公司网站。本杂志由香港出版社出版，其版权受中国香港《版权条例》监管和保护。此PDF文档仅仅通过香港主机网站向公众公开 (natural-foundation-science.org)，并且其印刷版本杂志为正式出版物。未经许可，不得印刷、发行、销售。

Article 9. Biophysics/生物物理学

Author: Liu Huan (1983-), Master of Science (First Class Honours, 2009), The University of Auckland.

DOI: https://doi.org/10.58473/JBS0017

Formally published on 30/11/2022; Latest revised on 28/03/2026.

Abstract

This article has originally discussed the biophysics theory from the aspect of Taoist philosophy, mainly including biological magnetic field, bio-electromagnetism, biomechanics.

Key words: Biophysics, Biological magnetic field, Bio-electromagnetism, Biomechanics, Qigong.

Text

1.Biological magnetic field and Bio-electromagnetism

In this paper, biophysics academy focus on the biological magnetic field. Biological magnetic field is defined as the indicator of life nature, rather than the material body of creatures. Biological magnetic field utilizes biological energy to express as biological magnetic pole which gives Yin pole and Yang pole, and the polarity of biological magnetic pole is the indicator of biological activity. When biological organs utilize materials to carry out a series of life activities (such as synthesizing DNA molecules), the biological magnetic poles make cutting motion against the material's own magnetic poles, thus generating biological electromagnetic waves (biological signal waves). Therefore, whether or not they release life signals is the principal indicator to judge if they are alive. For example, for a multi-cellular intelligent individual organ, after the death of the individual, the body cell still has the characteristics of life and still releases the life signal wave. Creatures releases bio-electromagnetic waves in the bio-energy utilization process. Life signal waves are the biological electromagnetic waves released by organisms, which possess the characteristics of wave particle duality. However, this paper supplements the following viewpoints: the biological electromagnetic wave released by soft organism is longitudinal wave, which is that the vibration direction is the same as the wave transmission direction; the light wave (including ultraviolet light wave) is shear wave, which is that the vibration direction is perpendicular to the wave propagation direction. The key characters of biological wave (mainly including acoustic wave and bioelectromagnetic wave / life signal wave) is different from abiotic mechanical wave

or electromagnetic wave: for biological wave, the conversion between different frequencies must be continuous in its wave frequency range; for abiotic mechanical wave or electromagnetic wave, the conversion between different wave frequencies can be the ‘jumping points’ and in-continuous type. For biological waves, in their own frequency range, if the probability of occurrence at each frequency is closer to the normal distribution rate, it is expected to give the purer and higher quality (for example, the singer's tone is superior; or the Qigong life signal wave is better, or the bloodlines is purer). For different species, there are distinct differences in the frequency of life signal waves, which can be used to classify different species. In the metabolic process of soft organism, bioenergy is converted between different frequencies, thus creating new energy, which does not obey the energy conservation law (the previous energy conservation theorem is based on the conclusion of the conversion of abiotic energy). In the theory of ‘biological clock’, double cell magnetic poles will be inverted from positive to negative (or from Yang to Yin) once in a life cycle. Therefore, the coordinate of biological waves equation should be defined as three coordinate axes, X axis as frequency, Y axis as amplitude and Z axis as life cycle. Positive value of Z axis is defined as "Yang Qi" time, while negative value of Z axis is defined as "Yin Qi" time.

In my article on Taoist’ Qigong [2], I have proposed that the Taiji Yin-Yang totem serves as one of the fundamental principles for Qigong practice. Scientifically speaking, only when Qigong practice is conceptualized through the Taiji Yin-Yang totem, it is to enable the bioelectromagnetic waves (primordial energy) released during practice to form the closed-loop magnetic field lines that conform to natural Laws in magnetic field. Failure to achieve closed-magnetic field lines indicates the consumptive and wasteful characteristics. Whether in biotic or abiotic magnetic fields, open (non-closed) magnetic field lines invariably signify energy dissipation, and thus can never be cultivated into advanced Qigong practice. Further more, during qigong practice, the biomagnetic field must exhibit a highly symmetrical state between yin and yang poles (as shown in Figure 1), which is consistent with the natural Law of magnetic field parity.



Figure 1. Taiji Yin-Yang totem.

2. Biomechanics

Arbors (tree) are the first species to settle in the earth's ecosystem. The survival of other higher multicellular organisms in both terrestrial ecosystem and marine ecosystem on the earth must rely on the large and sufficient amount of oxygen production by trees after the establishment of large-scale tree population. Therefore, this paper first discusses the physiological evolution characteristics of trees.

For an adult tree, the ratio of the maximum wind force of resistance that the windward side of the crown is capable of bearing to the weight of the main trunk branches is the primary criterion of measuring the physiological evolution of the adult tree. For Qigong practitioners, the first criterion of strong internal force is that the air pressure in the body cavity which can bear. The cultivation of this internal force can be achieved through controlling respiring. This is also one of the main criteria of the acquired physiological evolution of the human body.

译文：

1. 生物磁场与生物电磁波

本文中生物物理学研究论述的主要范围是生物波的特性，其中把生物磁场定义为生命的本质特性，并非以物质生命体定义为生命的本质特性。生物磁场利用生物能，表现为生物磁极，生物磁极具有阴阳二极，磁极强弱为生物活性的衡量指标。生物利用物质进行一系列生命活动（比如合成 DNA 分子），生物磁极与物质自身磁极进行了切割型运动，从而产生了生物电磁波（生物信号波），因此是否具备生命特性是以是否具备生物信号波作为表现特性。比如，一个多细胞高等智慧生

物个体，在个体死亡之后，细胞仍然具备有生命特性，仍然释放生命信号波。生物在利用生物能过程中释放生物电磁波；生物释放的生物电磁波为生命信号波，具备电磁波的波粒二象性特点。但是本文增加以下论点：软体生物释放的生物电磁波为纵波，即振动方向与波的传播方向相同；光波（包括紫外光波）为横波，即振动方向与波的传播方向相垂直。对于生物波（主要是声波和生物电磁波/生命信号波），与无生命机械波或是电磁波区别：对于生物波而言，在其所在频率范围内，生物波的在不同频率之间的转换必须是连续型；对于无生命机械波或是电磁波而言，在不同的频率之间的转换可以是跳跃、断点型。对于生物波而言，在其所在频率范围内，生物波在各频率上所出现概率越接近正态分布率，越为纯正、品质越高（比如歌唱家声调纯正；或是气功生命信号波更上乘，血统更为纯正）。对于不同物种之间，生命信号波在频率上有鲜明区别，可用于不同物种之间的划分依据。软体生物新陈代谢过程生物能在不同频率之间相互转换，从而创造了新能量，并不适用于能量守恒定理（之前的能量守恒定理是基于无生命能量之间转换得出的结论）。本文在生物钟理论中，细胞磁极在一个周期内会阴阳两极转换倒置一次，因此生物波坐标方程应定义为三个坐标轴，x 轴为频率；y 轴为波幅；z 轴为生命周期。z 轴为正值定义为“阳气”时间；z 轴为负值定义为“阴气”时间。

本人在论述道教气功一文中[2]，提出了太极阴阳图腾（图形 1）为道教气功修炼的首要原理之一，其科学含义为气功招式必须以太极阴阳图为意型，才能使得气功修炼过程中释放的生物电磁波（元气）形成一种闭合环形的磁力线，符合磁场的自然规律。若是磁力线未能闭合，则是一种消耗性的体征。不管是生物磁场还是非生物磁场，开放型（非闭合）磁力线肯定是一种能量的损耗特征，所以一定无法修炼成上乘气功绝学。进一步而言，气功修炼过程中生物磁场必须呈现阴阳两极高度对称状态（如图形 1 所示），这与磁场的宇称性自然规律是一致的。

2. 生物力学

乔木（树）是地球生态系统中首先来到的物种，地球上不管是陆地生态系统，还是海洋生态系统，都必须在大规模树种群的建群之后，产生大量充足的氧气，才能有其它高等多细胞生物的生存前提。因此本文首先探讨树的生理进化特性。

对于一株成年乔木而言，树冠迎风面所能承受的最大风阻力与树主干枝的重量的比值，成为这棵成年乔木的生理进化的首要衡量指标。对于气功修炼者而言，内力雄厚的标志则为体腔内可承受气压压强作为第一衡量指标。这种内力的修炼可以通过运气来实现。这亦是人体后天生理进化的主要标志之一。

References:

[1].搜狗百科，共享百科全书/Sogou Baike, Creative Commons.
[2]. Liu Huan (2023). 论道教三魂七魄学说与生命起源哲学. Journal of Biological Sciences (ISSN 2958-4035).2023(11). https://doi.org/10.58473/JBS0023