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Editorial

Reflected Light Modulated by Biofields

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In this issue, is an article by Sargsyan, Karamyan, and Avagyan (pp. **1137–1144**) describing an experimental technique leading to a simple device for the noninvasive assessment of physiologic states of living systems in general. Yet, there is much more to it than that. To cover the underlying fundamentals, the authors cite one of their publications[1] on the physics of quantum-mechanical interactions between living macroscopic systems. This in turn draws on Bohm's interpretation of the Schrödinger equation in terms of "hidden" variables[2] and extends its applicability from nuclear particles to macroscopic systems, thereby in principle offering the possibility that the properties of living systems can be determined precisely given sufficient information, in effect bypassing the "uncertainty principle."

Referring to their article in this issue (pp. **1137–1144**), the reader will see that the device shown in their Figure 1 is based on the modulation of light reflected from a glass plate by the aura or field of a biological object placed 10–15 mm behind it. The result is a statistically significant change in the reflected light. They have developed a practical device from this, which they name the BIOSCOPE.

In this Editorial, I shall attempt to explain the underlying physics as simply as I can. The authors give me an opening for this by citing my work[3] on coherent frequencies in macroscopic quantum systems such as water and living systems by suggesting that "[i]t would be interesting to compare frequencies measured by Smith with those obtained by means of the BIOSCOPE."

In their Figure 12, there is a recording of the BIOSCOPE signal obtained from a hand when *Arsenicum* alb. 30C had been placed on the palm of the other hand. In it, there is a periodicity of 14 cycles in 10 seconds (1.4 Hz) with a modulation of about half a cycle (0.05 Hz). My specimen of *Arsenicum* alb. 30C had five frequencies, two of which were 1.371 Hz and 0.04125 Hz. So, it looks as though we are both measuring the same physical quantity.

Before I could start writing this Editorial, I had to do some experiments to understand in simple terms what physics might be involved in the BIOSCOPE. The authors investigated the BIOSCOPE response to various objects. These included a metal plate, fruits, an anesthetized rat, a human presence at 2–3 m, a person's conscious intention transmitted from another room, and a human hand placed a few centimeters from the detector on which acupuncture meridians could be detected. A common feature is the possibility that the BIOSCOPE detects endogenous frequencies in the aura of living systems.

In physics, any "action at a distance" effect is very important since one can determine what will transmit and what will block an interaction. I set up the basic arrangement as shown in the authors' Figure 1. I used a light-emitting diode (LED) flashlight as the light source and an optically polished glass plate backed by a black card. I replaced their "biological system" by a glass tube of frequency-imprinted water at 10-mm distance from the glass plate as a source. The effects in the reflected light were detected using a glass tube of water imprinted with the same frequency placed in the position of their "photo-detector."

This water would not take up any frequency imprint from the reflected light until it was potentized with a magnet; then it took up the frequency of the source. This only happened when the light was turned on, confirming that the information was in the light beam and not radiation from the source. The information was still in the reflected light if the glass plate was replaced by a plate of fused silica, polystyrene, or polymethyl methacrylate. Optical glass color filters showed this effect but an ultraviolet (UV) filter only showed the effect when UV light was used, which means that the plate must not be completely absorbing at all wavelengths used. The effect in the reflected light is polarized. It is still in the light after further reflection from a mirror. There was no effect in light reflected from an open water surface.

The effect was transmitted through aluminium foil or a brass plate placed between the source and the glass plate. If the glass plate was sealed in a plastic bag containing silica gel desiccant, there was no effect. This implies that the interaction between the light and the frequency field of the source takes place at a surface film of moisture on the glass. This moisture film also can take a frequency imprint using the succussed ferrite ring potentizing method.[4]

There is a critical separation between the source and the glass plate of about 12.5 cm, at which distance the interaction disappears abruptly, so the effect must be associated with reflection at the surface of the glass plate and not scattering in the surrounding air. Although light is reflected from the glass plate at all angles of incidence, it only contains the information at angles of incidence less than $\sim 60^\circ$, the Brewster angle, beyond which reflection from the glass increases and may obscure measurements.

A coherence domain disappears when the magnetic energy ordering it becomes equal to dissipative thermal energy. To detect this point, the experiment was carried out in a mu-metal box containing a coil so fields below the ambient

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geomagnetic field could be measured. The information disappears from the reflected light when the magnetic field is between 40 and 50 nT, which makes a coherence domain in the water film on the glass plate about 166 μm ($\pm$10%) diameter the same as a coherence domain in humid air; a coherence domain in liquid water is 53 μm diameter.

In their article[1] on quantum-mechanical interactions in macroscopic systems in general and BIOSCOPE in particular, the authors remark that "[a]ny change of entropy or action in one subsystem must result in a change of entropy and action in other subsystems. … The simplest method of alteration of the action of a macroscopic system is to transfer it from the rest state into the rotation state." They confirmed this by using the BIOSCOPE with rotating systems as the source. An electric motor, laser light passed through a coiled fiberoptic waveguide and water flowing through a helical tube all gave an effect.

I was able to confirm rotation effects using a watch as the source. This gave a frequency of 16.7 mHz (the 1 rpm of the second hand) in the reflected light and interestingly, turning the watch over changed the phase from stimulatory to depressive of biological activity. This effect relates to the geomagnetic field, which acts as a reference vector. Frequency-imprinted water flowing in a helical tube at the source will give the light reflected from the glass plate potentizing properties but only if flowing; this is in effect potentization by vortexing.

In the past, I had not been able to potentize water rotating in a centrifuge. With the black card and glass plate on the top of a centrifuge, the frequency of its rotation and the frequencies imprinted into tubes of water placed in the centrifuge appeared in the reflected light. With various types of coils connected to an oscillator in the source position, the reflected light only carried the frequency when a Caduceus coil was used. The solenoid and toroid gave no effect. The Caduceus is a noninductive winding pattern for which the **B**-fields cancel but rotational **A**-fields are still present. This both confirms the significance of rotation and shows why it was possible for me to replace their "biological system" source with frequency-imprinted water. The interaction with light involves the **A**-field component of a magnetic field, which can affect the phase of a macroscopic wave function and is consistent with my model for "water memory" based on the coherent precession of the critical number of protons necessary to enable any frequency to be remembered.[5]

Any object having an aura or chemical frequency signature with its characteristic frequency in the magnetic vector potential field (**A**-field) can imprint its frequency pattern onto a beam of light reflected at a glass surface on which there is a film of moisture and alter the reflection properties sufficiently to be of use as a measuring instrument. There is now no excuse for not doing "quality control" on homeopathic potencies to confirm that the imprint is actually still in the verum and that the placebo has not become potentized.

References

1. Gevorkyan AS, Karamyan GG, Sargsyan RS. Quantum-mechanical channel of interactions between macroscopic systems. In: Quantum Theory—Reconsideration of Foundations—5, Vaxjo, Sweden, June 14–16, 2009. American Institute of Physics Conference Publications, vol. 1232, 2009:267–275.
2. Bohm D. Suggested interpretation of the quantum theory in terms of 'hidden' variables, I and II. Phys Rev 1952;85:166–193.
3. Smith CW. Quanta and coherence effects in water and living systems. J Altern Complement Med 2004;10:69–78.
4. Smith CW. Homeopathy—How It Works and How It's Done: Part 5—Methods of Potentisation. Online document at: www.hpathy.com Accessed September 25, 2010.
5. Smith CW. Fröhlich's interpretation of biology through theoretical physics. In: Hyland GJ, Rowlands P, eds. Herbert Fröhlich FRS: A Physicist Ahead of His Time. 2nd ed. Liverpool: University of Liverpool, 2008:107–154.

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