Sound Healing

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Abstract

Following Hafstein's chromotherapy affecting the electromagnetic field around every human being, we present a hypothesis that sound frequencies can be as effective in healing the illnesses of humanity as color vibrations. In earlier studies of how particular sound frequencies can affect the blood cells of cancer patients, we have concluded that we can convert light waves to sound frequencies and use them with the same results as light in healing.

Background

For centuries, man has used music and sound to create well-being. Walker[1] gives Roland Hunt, from the early part of the twentieth century, the credit for pioneering the use of combined music and light to heal people suffering from neurotic and mental diseases.

As a death-related counselor in Florida, USA, Helen Baker[2], a light therapist, collaborates with people in grief. She integrates music and light into the counseling of bereaved persons. She says that light waves in the form of colors correspond to the tonal frequencies of sound; also, using light and sound as pure vibrations has enormous potential in psychotherapy, physical healing, and personal and cultural consciousness changes. Baker says that using music and light helps troubled people work through grief or a recovery resulting from a difficult diagnosis. However, this area has yet to be explored to its full potential. Baker relates the seven colors of the spectrum to the seven tones on the diatonic scale and then to the seven large glands in the physical body. She explains that the body is functioning as a receiving station for energy. When incoming vibrations are similar to the related vibration of a body part, they resonate. When this is not the case, disharmony is the result. When powerful, non-productive thoughts or emotions are experienced, such as in the case of a bereaved person, the vibrations cannot flow freely throughout the body, resulting in blockages. The disease occurs from the vibrational activity of a specific organ when departing from its reasonable condition, either by being blocked or overstimulated.

Halpen & Savary[3] present a system of correlation of the spectral colors and tones of the major musical scale. They say that the effects of combined colors and tones are remarkable.
The listeners will come down from their excitement if you show overly stimulated people colors while playing music based on the corresponding keynotes. They experience substituted states of relaxation and physiological balance. Their breathing becomes more profound and more regular. Their pulse slows down, and the hemispheres of their brain become synchronized.

Isaac Newton[4] made several observations on light in the early eighteenth century. In In one of his observations, he says that the seven colors (red, orange, yellow, green, blue, indigo, and violet) of light correlate to the seven musical tones or intervals of the eight tones (sol, la, fa, sol, la mi, fa, and sol).

Anderson[5] means seven colors correspond with the seven chakras and the musical scale. Her correlation of tones and colors are as follows: D flat = red, D = blue, E flat = green, E = deep red, F sharp = yellow, F = purple, G sharp = silver, G = black, A sharp = gold, A = blue, C = brown, B = violet.

Retallack[6] presents a combination of tones and colors. In her system, she refers to A as red-orange, B as yellow, C as yellow-green, D as green-blue, E as blue-violet, F as violet, and G as deep-red.

Ghadiali[7] presents yet another combination of tones and colors. He bases his correlations on the equivalence of base sound frequency to each color. For example, he says that the fundamental frequency for his Spectro-Chrome red is 436,803,079,680,000 cycles per second, and to arrive at a frequency in the audible range, he divides the figure by two 40 times. In other words, Ghadiali scales the tone's frequency by 40 octaves. This operation gives him the frequency in sound for red as 397.27Hz. Ghadiali says this frequency is the closest to the tone G (g' in the one-line octave).

The musician and acupuncturist Fabian Maman and the biologist Helene Grimal introduced sound therapy at the Cancer Help Centre in Bristol, England. The treatment originated in ancient Japan and has been practiced there for centuries. At the Center, Maman and Grimal worked with cancer patients, observing the effects of the therapy.

Maman experimented with imparting precise sound frequencies instead of needles when treating his patients with acupuncture. He found that the results were just as effective. It gave him a reason to start experimenting scientifically. Together with Grimal, he examined sound effects on the blood cells in the body microscopically. They photographed the cells with Kirlian photography while they struck the notes from the chromatic scale. To their surprise, the photographs showed color suffused into the examining blood cells when they hit a particular musical note. They noticed that the shape of the cells changed according to the note struck. Maman and Grimal deduced that they observed a direct affinity between the cell’s form and color, the power of its biofield, and the frequency of the note struck. They also noticed that the effects could be reproduced, though never precisely, so each living cell had its individual quality.

The reproduction results depended on several factors, such as the vitality and the state of the human being whose blood cells they examined. For example, when they experimented with blood cells from cancer patients, they had different results from those without cancer. In these patients noticed systematic disorganization of cellular material as they progressed

up the scale until they reached between a' (440Hz) and b' (494Hz) when the cells frequently exploded[8].

Sound frequencies can be used with the same results as light, restoring the individual's health [2][3]. These low "beat frequencies" have the same therapeutic effects as light[9]. When one or more chosen sound vibrations are projected onto an individual's physical body, it creates reactions inside the body's cells, thus destroying the diseased blood cells[8].

Using Kirlian technology, an Indian researcher, J. M. Shah, took pictures of the electromagnetic energy glow around the human body. He discovered that actual disease appears first in the aura and is then transferred to the physical body. The time it takes for the illness to reach the physical body can take six to eight months. Thus, he established that color therapy could be used preventively[10].

Hypothesis

Hafstein[11] claims that all manifestations in the universe and human beings vibrate in their frequency. Man's vibrating energy generates energy in an electromagnetic field surrounding the physical body, often called the aura. Man has the frequency of the visible part of the electromagnetic field or the same wavelengths as the colors of the spectrum. If a man's frequency changes, it results in disharmony or imbalance in a human being, called disease. Disease results when the vibrational activity of a particular organ departs from its reasonable condition.

Hafstein presents chromotherapy, where he uses six colors to treat people. These colors are magenta, blue, cyan, green, yellow, and red. The colors range in the electromagnetic spectrum from 380nm to 660nm. Furthermore, Hafstein presents a list of over 150 illnesses for which his chromotherapy can be helpful. From the beginning, chromotherapy has proved reliable and has been used by many medical doctors and laypeople.

Electromagnetic radiation is a form of energy. For example, the light that we see is a type of electromagnetic radiation. However, light is only a tiny part of the entire electromagnetic spectrum. Sound, another form of energy, is not part of this spectrum. Electromagnetic radiation differs from sound in that it can travel in space and does not need a medium like air or water.

Electromagnetic radiation is made when an atom absorbs energy. The absorbed energy causes one or more electrons to change their location within the atom. An electromagnetic wave is produced when the electron returns to its original position. This electromagnetic radiation can take the form of light depending on the kind of atom and the amount of energy. The electrons in these atoms are then in a high-energy state. However, the electrons are unstable in the high-energy state and will fall back into their low-energy state, giving off radiation (photons), which we see as light. Light is a mixture of the colors of the spectrum. For example, if we place sunlight or light from a bright lightbulb through a prism, we see the following spectrum shown in Figure 1.

Figure 1: The colors of the visible electromagnetic spectrum.

The atoms are heated to a very high temperature in a light bulb and on the Sun's surface. This temperature is hot enough to excite atoms into giving off light. This light given off is in a continuous color spectrum.

Can sound vibrations affect the electromagnetic field? Can Hafstein's six colors be converted into sounds that are equally effective in healing as the colors?

Yes, electromagnetic waves can be affected by sound. This phenomenon is known as the acousto-optic effect. When a sound wave passes through a medium, it can cause changes in the refractive index of the medium, which can affect the propagation of light waves passing through the same medium. This effect has practical applications in various fields, such as acousto-optic modulators and devices for controlling light with sound. Overall, the acousto-optic effect provides a means to control and manipulate light waves using sound waves, enabling various applications in optics and photonics[14].

Yes, color energy can be converted into sound frequencies. We can convert color vibrations in nanometers (nm) into sound frequencies measured in Terahertz (THz). These frequencies are humanly impossible to hear. Using audible sounds in therapy would mean we must scale down the Terahertz frequencies. The range for human hearing is from 20 Hertz to 20,000 Hertz, and the converted sound frequencies would have to be in that range. In other words, we would have to scale down the Terahertz frequencies to Hertz frequencies. We decided to scale down the sound frequencies and arrive at a frequency in the mid-range of many musical instruments. We scaled down the Terahertz frequencies by 10^{12} and arrived at the one-line and the two-line octaves.

Fortunately, Hafstein[11] gives us the wavelength values for his healing colors. However, the color magenta does not represent a wavelength value. Therefore, we had to find an equal mixture of red and blue representing a wavelength value. A combination of RGB of 97-0-97 gives us a wavelength of 380 nanometers we can use. This color is usually called violet. Table 1 provides us with the wavelength of the six colors of Hafstein's treatment colors. It also shows us the conversion from color to sound and the stepping down of sound from Terahertz frequencies to Hertz frequencies. The OMNI frequency to wavelength energy calculator[13] was used to convert color to sound, and we found the wavelength of the violet color using a convertor from Academo.org[12].

Table 1: The RGB values of the six colors, the wavelength of the colors, the visible colors, the frequencies of the converted colors to Terahertz and stepped-down sound by 10^{12}.

RGB values	Wavelength in nm	Visible Colors	Frequency in Terahertz	Frequency in Hertz
97, 0, 97	380	Violet	788.69	789
0, 0, 255	440	Blue	681.14	681
0, 255, 255	490	Cyan	611.64	612
0, 255, 0	510	Green	587.65	588
255, 255, 0	580	Yellow	516.73	517
255, 0, 0	660	Red	454.09	454

We need to see if the six converted and stepped-down sound frequencies have the same therapeutic effects as the six colors.

If this is the case, we can use the audible frequencies in the same healing manner as the six colors. Nevertheless, we can still combine the six sound frequencies into a single sound. Then, we could use this specific sound to prevent illness from reaching humankind.

To use the tone as preventive medicine, Hafstein recommends using the treatment daily or at least three times a week[11]. The combined sound frequencies would then "clean" the individual's electromagnetic glow - the aura - and prevent disharmony or imbalance in man's electromagnetic field[10].

References

[1] Walker, M. 1991: *The Power of Color.* New York, USA: Avery Publishing Group.

[2] Baker, H.E. 1991: *Music and Color in the Holistic Healing of Grief.* Journal of the American Holistic Nurses, 9:3, 32-34.

[3] Halpern, S. & Savary, L. 1985: *Sound Health: The Music and Sounds that Make Us Whole.* San Francisco, USA: Harper & Row.

[4] Newton, I. 1952: *Opticks, or a Treatise of the Reflections, Refractions, Inflections & Colours of Light.* A facsimile of the 4th Ed., 1730. 1st Ed. 1704. New York, USA: Dover, UK: Dover Publications.

[5] Anderson, M. 1990: *Colour Therapy. The Application of Colour for Healing, Diagnosis, and Well-Being.* Northamptonshire, U.K.: Aquarian Press. 1st Ed 1975 (As Colour Healing).

[6] Retallack, D. 1973: *The Sound and Music of Plants.* Marina del Ray, Calif., USA: DeVorss & Co.

[7] Dinshah, D. 2021: *Let there be Light.* 13th Ed. Malaga N.J. USA: Dinshah Health Society.

[8] Collings, J. 1988: *On the Right Wavelength.* Guardian, 1988-03-03, 21. England.

[9] Ludwig, W. 1986: *A New Method of Color Acupuncture Therapy.* American Journal of Acupuncture, 14, 1, 35-38.

[10] Yousuf Azeemi, S.T, and Raza, M. *A Critical Analysis of Chromotherapy and Its Scientific Evolution*, Department of Physics, University of Balochistan, Quetta, Pakistan, 2005, downloads.hindawi.com/journals/ecam/2005/ 254639. pdf.

[11] Hafstein, E.P. 2021: *The Therapy of Light – Chromotherapy*, accessed 7th April 2022, <https://www.hafstein.org/data/documents/The-Therapy-of-Light.pdf>

[12] Academo calculator 2015, accessed 20th July 2020, <https://academo.org/demos/wavelength-to-colour-relationship/>

[13] OMNI Calculator 2018, OMNI Calculator, accessed 8th September 2019, <https://www.omnicalculator.com/physics/wavelength-to-frequency>

[14] Wikipedia. *Acousto-optics*, accessed 9th February 2024, <https://en.wikipedia.org/wiki/Acousto-optics>