Tadeja Jere Jakulin¹

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MEASURING THE IMPACT OF COLOURED OILS ON THE HUMAN BODY AND THEIR POTENTIAL IN WELLNESS AND SPA TOURISM

Abstract: The paper explores how colours can underpin critical research in people's well-being and life. Following a brief introduction to the principles of colours and Colour Mirrors system, the paper elaborates on how the coloured oils and essences' principles can drive healing and well-being in a spa, wellness, and life. We used EMADEL (emission-absorption near-electric field detection of biofield) in the experiments. This method measures the organisms' response to near-field exposure markedly different from the expected behaviour. As the second method, we used Bio-resonance, where the researcher uses a device to analyse the person's electromagnetic waves and alter them before returning them to the body.

Keywords: Colours, Colour Mirrors System, EMADEL, Bio-resonance, Wellness & Spa Tourism.

1. Introduction

Colour has been millennials present in human life in the context of well-being. It has been defined in myriad ways, it pervades our visual sensory world (Sincich et al.2016), and it is fair to state that a definitive definition has yet to emerge (Kuehne, 2012). Heliopolis in old Egypt was a temple of colours, which pharaohs and nobles used as a spa and a centre. In ancient Empedokles proved that four colours were a basis for creating additional colours by mixture. Demokritos conceived of colours as many quantities of energy (light), ranging from a pure form to a total lack of it (black). 19th-century scientists researched colours as extensions of one colour to another. Briicke (in Rood, 1880) supposed that the white light was, to a considerable extent, red and that the mixture of this reddish-white light with the blue caused it to change to violet; Aubert followed the suggestion of Helmholtz (Helmholtz, 1867), concluded that violet was only a lighter shade of ultramarine-blue. 19th-century scientists researched colours as extensions of one colour to another. (Rood, 1880).

Nowadays, colours are essential in health, spa and wellness centres as integral parts of the tourism industry. system. Usually, when we speak of health, we have physical health in mind. Swiss psychologist from the 20th century, Max Lüscher, claims (Lüscher, 1972) that the physiological sensations associated with colours influence people's decisions when they are in the role of a consumer. Light and colour are food for the eye, like food and drink for the body (Trstenjak, 1978). However, physical health cannot be in balance unless we have emotional and intellectual balance. An exciting approach arises as a description of a colour system supported by dual-coloured oils and essences from the Colour Mirrors system of bottles. We did several experiments

Corresponding author: Tadeja Jere Jakulin Email: tadeja.jerejakulin@upr.si

with the above-mentioned dual-coloured oils in our research on colours. We tried to present a step forward in colour theory, developing into the dimensions that colours become healing and wellness products enwrapped in a beautiful oil and essence system called Colour Mirrors (short: CM). The results we noticed were that avocado oil and natural essences, which compose the system, and the information placed in the harmoniously influence the human body and physical. energies _ emotional. intellectual, and spiritual (Jere Jakulin, Jolly, 2015). The paper will introduce the research. the steps of the dual coloured-oils experiments and the results of the effects of the Colour Mirrors system on the well-being and moods of researched groups and two research methods: EMADEL (emissionabsorption near-electric field detection of biofield) experiment and the Bio-resonance method, which we conducted at BION Institute in Ljubljana.

2. Dual-Coloured Oils from Colour Mirrors System of Bottles and Essence

Heliopolis was an ancient Egyptian city of light where people practised colour wellbeing and healing. India and China have manuscripts describing the healer priests, who had a complete system of colour science based on the nature of man and the solar spectrum (Anderson, 1978). Some of the earliest attempts to scientifically analyse colour were made by those who wanted to find out what caused the rainbow (Walker, 1991; Bonds, 2000). Even though physicists argue that there are no colours (Ronchi, 1974), these lengths of light named colours physical, physiological, psychological effects on humans (Trstenjak, 1978), and Loe explores the human response to light and colour concerning the environment design (Loe, 2017). Currently is expanding in recognition by leaps and bounds (Corvo and Verner-Bonds, 1998). Irlen discovered "the reading by the colours"

method, which helps people overcome dyslexia and other reading disabilities (Irlen, 2005). Goethe in the past wrote that colours open human's view to chromatic harmony, they are acts of light, and they belong to nature, for "it is nature as a whole which manifests itself by their means in an especial manner to the sense of sight" (Goethe, 1840). Today's basic understanding of colours is attributed to Newton and dates from the 17th century (Klotsche, 1992). However. Newton deals only with the physical side colours, Goethe, of experientially. Newton does not find a place scarlet colour. Heimendahl systematically associates colours with the biological function of man by obtaining an elemental ontological arrangement of colours as functions of light (Trstenjak, 1996).

Moreover, as written (Connolly, Jolly 2019), colour is relevant to everyone because it is not bound to language. Colour has a strong psychological effect. The stimulation of red colour tends to increase blood pressure, pulse, respiration, and brain activity. The blue colour tends to have relaxed physiological and psychological effects. The body function rate may decrease, and there may be a more remarkable ability to focus inwardly (Gerard, 1958, Birren, 2016). Colour awakens human emotions, and the feelings are in psychology, age, sex, geographical location, climate, race, and cultural influences (Kobayashi, 1981). According to Klotsche (Klotsche 1992), colours represent the power of the subconscious mind. Steiner was very poetic regarding colours when he wrote that yellow is the lustre of the spirit, blue is the lustre of the soul, and red is the lustre of the living (Steiner, 1921 in Steiner 2012). In the 20th century, Swiss psychologist Max Lüscher defined four colours of a person's self-esteem: blue as inner satisfaction, yellow as inner freedom, red as self-confidence and green as self-respect (Lüscher, 2005). It is no coincidence, but an insight that he dedicates one of his works to the harmony law in humans. (Lüscher, 2009).

3. Dual-Coloured Oils From Colour Mirrors System of Bottles and Essence

In the experiments, we used coloured oils and essences from the system called Colour Mirrors. The dual-coloured oil system derives from South Africa as a healing and wellness system. The system is based on the research of Japanese researcher Masaru Emoto, who concluded his investigation in a book, "The Healing Power of Water" (Emoto, 2004). He "hat "a new understanding of the planet and science, which face the beginnings of a full new understanding of the world and life on it, going far beyond the limitations of the current materialistic scientific era" (Emoto, 2004). Avocado oil and its natural essences and the information in the purified water harmoniously influence the human body and its physical, emotional, intellectual, and spiritual energies. Colour Mirrors is a colour system that uses the psychology of colour to help a person reach them potentially. It allows her to identify, analyse, and transform obstacles and offer guidance on how to raise a person's self-awareness and consciousness. It enables empowerment to change or develop any aspect of human life.

The system contains dual-coloured bottles: oils (Figure 1) and essences (Figure 2), which we use for physical purposes such as bath oils, demonstrative purposes anytime one feels the need to find dig the emotions with the beautiful smell of essences, as well as spiritual and intellectual pursuits such as — meditation, to experience the state joy, wellbeing and concentration for academic work and study.

The dual-coloured oils consist of purified coloured water below and coloured avocado oil on the top. The combinations have special meanings since the lower part denotes the human subconscious, and the top defines the conscious mind. Colour combinations reveal information about mental patterns on a psychological level. On an intellectual level, one can add generic details from one colour

to another and see what they could mean together.

Figure 1 shows the 87 flavoured colour bottles mixed with oils. By combining the same amount of two primary colours, the system's founder, M. Jolly (Merivale, 2007), obtained secondary colours (orange, purple, green). By mixing primary and secondary colours, however, she received tertiary colours. Example: She mixed two-thirds of the closest primary colour with one-third of the outermost primary colour. Magenta is, e.g., 2/3 red mixed with 1/3 blue. The coral is 2/3 red mixed with 1/3 yellow. She enriched the colours with light because she knew that the light was sowing problem was getting stronger. The effect of pastel colours is much stronger than the deeper colours. Recognising this, one can "push" light and hue, using contrasts, away from their first appearance toward the opposite qualities (Albers, 2013).



Figure 1. Dual-coloured oils

Figure 2 shows a range of coloured essences, which can be used independently or combined with Colour Mirrors oils. The

essences support the oils and conclude the Colour Mirrors bottles' system. The coloured bottles help balance the human biofield, emotions and well-being. This help describes research published in the book The Wisdom of Colour Mirrors (Connolly &Jolly, 2019), where two hundred users describe their experiences on a psychological and emotional level when using these coloured bottles.



Figure 2. The essences

We wanted to test physiological levels at groups and conducted experiments to determine the effects of the Colour Mirrors bottles and essences. We used experimental method **EMADEL** (emission-absorption near-electric field detection of biofield) and bio-resonance method BICOM in Ljubljana at the Institute for New Biology BION. From the CM system, we took two coloured oils, and along with these, we used two placebos (control flasks), which contained identical yellow and pink colours. Instead of avocado oils, we used food colours. The testing Various scientists and researchers found that people already perceive colours physiologically differently because their visual cells (cones) react differently with sensitivity (Sinich et al., 2016). The archetypal colour sensation, which is the same for everyone, is also superimposed by the personal feeling of being individually sympathetic, indifferent, or unsympathetic (Lüscher, The 2010). researcher of the BION Institute in Ljubljana, Metod Škarja, has developed EMADEL. The method (emission-absorption near-electric field detection of biofield) measures the response of the organisms to the near field. The same type of measurements in a free space reveals the subtle state of the environment. The application of EMADEL is in the detection of more subtle levels of reality such as (Škarja et al., 2009)

- Various electrical and electromagnetic types of measurements (Kirlian photography, conductivity measurements, electroacupuncture, Voll method)
- Proposition: EM (endogenous) state serves more as an interface between the physical and more subtle levels, susceptible to the influences from and in the interaction with both sides.
- A more subtle level of existence, next to the physical one and most relevant for these investigations biofield level, subtle field level.

Tests with EMADEL are tests of various products, objects, and materials for well-being, against subtle harmful conditions, for improvement of health via the effect on a biofield and tests of different physiological conditions and environmental measurements (e.g., passages of a weather front).

Figure 3 shows the EMADEL model and the influences of near-field, called "contact influence", and the influence from the environmental electromagnetic (EM) field. Following the previous research response of the organisms to the near field exposure markedly differs from the expected behaviour (Škarja, 2009). Some unknown factors influence the emission, absorption, and transmission of the near EM field through the organisms and, finally, its absorption by the sensors. These factors are presumably the state of the biofield of the organism. The same type of measurements in a free space reveals the subtle form of the environment.

Figure 4 presents the basic principles of the EMADEL method and measurement scheme. The near field measurement system consisted of applying the near electric field to the measuring objects, the sensory part with different sensors whereby we measured the

induced electric signal in them (they work as antennae), and the measuring part for the signals from the sensors.

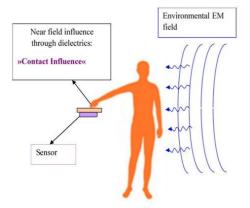


Figure 3. EMADEL emission-absorption near-electric field detection of the biofield

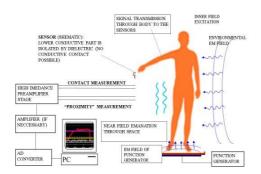


Figure 4. Short description of EMADEL

4. EMADEL Method Physiological effects of Colour Mirrors oils on the human biofield

The sensors were made of conductive material inside and a nonconductive outer part. Only a nonconductive influence on the sensors is possible. The signal from the sensor is fed through a high impedance stage, amplified as necessary (but wh usually not needed in our conditions) and measured electronically with an appropriate PC-controlled integrated circuit with the software, enabling real-time measurements

(Škarja et al. 2009).

4.1. EMADEL – Experiment with Coloured Oils

In the experiment with coloured oils Colour Mirrors (CM), 11 volunteers participated in 2 groups. We chose two coloured oils from the CM system, pink and yellow, and two bottles with placebos coloured oils (control flask), as shown in figure 5.



Figure 5. Original CM oils pink and yellow Left) and control flasks (placebos-right)

Volunteers had to place pink oil on the upper body (heart) and yellow oil on the middle part of the body (solar plexus). The control flasks contained similar coloured fluids. For the experiment, we used the letter B as a sign for the original CM oil and the letter A as a sign for the control flask (placebo). The procedure was that people rested for 20 minutes with CM oils (or control flasks). Another 20 minutes of resting followed, and then 20 minutes with control flasks (or CM oils). We repeated these experiments daily for another fourteen days with a switched order of oil/control. Altogether, we made 44 tests. Altogether, we made 44 tests.

Figure 6 and 7 show normalised values on the sensors in time. The pink line presents the contact sensor, the black line presents the vicinity sensor, and the yellow line presents the absorption sensor.

The phases of the measurement, as shown in table 1a, were:

Z - first measurement.

P1 - measurement after 20 min of rest.

T1 - measurement with a P1 rest sample,

P2-measurement after 20 min rest after T1,

T2 measurement with a P2 rest sample.

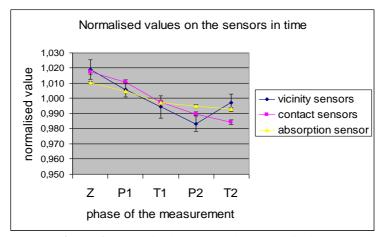


Figure 6. Normalised values on the sensors in time

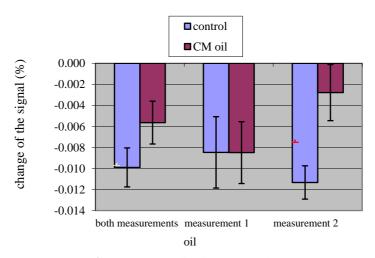


Figure 7. Normalised average value

Figure 6 presents normalised average values where B-P gives treatment-free, and A-P presents control-free.

In zero-series tests, one considers that B-P and A-P would differ from zero (if one is significant and the other is not). Comparison of pink CM oil versus the pink control flask (placebo) shows a substantial difference between the CM oil and placebo (p <5%) in contact sensors. It is also essential to the different behaviour of A-P and B-P against the zero series (AP is significantly different from the zero series. B-P is not, which means that A-P has a noticeable temporal influence

elsewhere, and B-P does not follow it. The values on the sensors generally decrease with time - probably due to rest. The initial values without a person on the absorption sensor (the only one that allows such a measurement) (completely show different uniform) dynamics of the differences between successive measurements. The change in the signal drop dynamics can be attributed to the general calm of the subjects - this is the largest at the beginning). Therefore, the pink sample was a stimulus because it did not follow the time trend mentioned.

Figure 8 and figure 9 show a significant difference in contact sensors between the sample and control (p <5%). The different behaviour of A-P and B-P against the zero series is also vital. A-P is significantly different from the zero series, but B-P is not, which means that A-P has a noticeable temporal influence elsewhere, and BP does not follow it. The values on the sensors generally decrease with time - probably due to rest. The initial values without a person on

the absorption sensor (the only one that allows such a measurement) show different dynamics between successive measurements. When looking at the 1st measurement, as shown in both groups and especially the 2nd measurement of both groups, as shown in Figure 9, we did not obtain a significant outcome for the 1st measurement. The 2nd measurement has a substantial effect on the contact sensors.

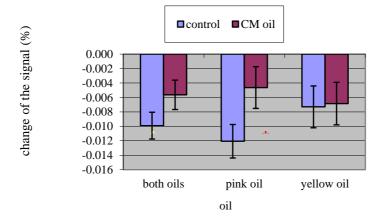


Figure 8. Change of the signal on the contact sensor after the influence of CM oils and after regarding measurements of both oils.

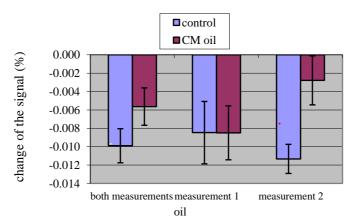


Figure 9. Change of the signal on the contact sensor after the influence of CM oils and fter regardin measurements of both oils.

It means that at measurement 2, all pinks started with the original CM pink oil and all

yellows with placebo (the opposite order at measurement one did not produce a result).

Figure 10 shows that the accurate comparison (of the two samples) against the control flasks did not produce any significant result excerpt partially (p <13%) on the contact sensors. Further processing indicates that this is a contribution of the pink sample. There is a double-time interval between P2-P1 (since

there is also a sample measurement); among others, there is a single interval (approx. 20 min). The values on the sensors generally decrease with time - probably due to rest. Significant differences between the different phases of the measurement indicate that the signal dropped differently rapidly there.

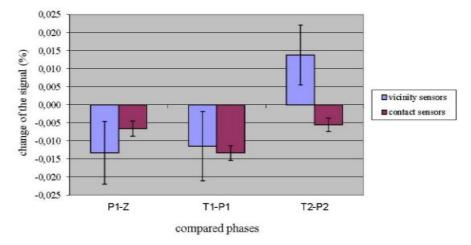


Figure 10. Change of the signal on the contact and the vicinity sensors in time between different phases.

4.2. Findings of the EMADEL Experiment

There are significant effects of pink oil on the human biofield. Relaxation, evident after 4x 20 minutes of resting, is seen on the signals that decrease. The influence of pink oil opposes this trend — it stimulates. This positive influence usually reflects on the heart in the same way. The effect on the heart is more rust, influencing people's moods and sense of well-being. There are nonsignificant results, the yellow oil. A possible explanation is that the tested persons have already worked with CM oils but do not respond strongly enough.

5. Bio-Resonance Method

Bio-resonance is a holistic physical method which uses the electromagnetic waves it receives from the human being. This biophysical treatment method alters the affected organism's energy field, increasing the effectiveness of the autoimmune system, thus improving the person's overall health (Karakos et al., 2019)

The method appeared in the 19th century when Russian scientists Vvedensky and Uhtomsky (Fulder, Mizrahi, & Sheinman, 1997) started researching the electric rhythmic impact on the living systems of organisms. Later at the beginning of the 20th century, the idea of bio-resonance was developed by Raymond Royal Rife. He successfully used generator a electromagnetic waves to treat cancer in its final stage. Due to historical moments and the pharmaceutical war towards Rife, the method has been suppressed but still needs to be remembered. In the late '70s of the 20th century, Popp proved that all biological processes in organisms took place because of the electromagnetic interaction of cells. It means that a highly developed system of exchange composed of electromagnetic waves and photons acts in the organism; simultaneously, the discussion takes place faster than influence through nerve fibres and hormones. In 1977, German scientist Franz Morell and engineer Erich Rasche invented MORA therapy (Danze, 2010). The first channel and transmitter of electromagnetic oscillations were "Acutest-BRT", used to heal people. The bio-resonance method is a proven and recognised technique all over the medical and scientific world. It means balance in biological systems such as the human body. The scientific base of bio-resonance is scientific findings quantum of biophysics, research, and natural and physical laws. The bottom of the bio-resonance is the assumption that a healthy cell oscillates at a specific frequency that differs from the unhealthy cell's. Bio-resonance directly affects the source of the problem and informs unhealthy cells about the healthy frequency of oscillations; thus, the cells begin to function in balance again.

5.1. A Run of the Experiment

We connected everyone from the test group to a BICOM device. We installed inlet and outlet applicators connected to the BICOM device on the body. The applicators have the task of accepting the body's oscillations from specific tissues or organs, bringing them into the apparatus via a cable, or returning the altered therapeutic changes from the device to particular body tissues and organs.

Figure 11 shows the process of the bioresonance experiment. We put the test dualcoloured CM oil bottles in the body of every test person. The bio-resonance method is since each substance, in addition to its chemical or material composition, also has physical information. The information is in the form of electromagnetic action. It can be recorded with an instrument and used for diagnostic and healing purposes.

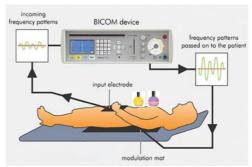


Figure 11. BICOM device with CM dual-coloured oils (Picture adapted from: https://bioresonance.com/

5.2. Findings or The Bio-resonance method

We conducted the same number of repetitions as with the EMADEL method, and the results were the following.

- the bio-resonance method shows no significant results.
- the direct action of CM oils is on the emotional levels, and then it precipitates down to subtle and dense physical levels.

We argue that this is a consequence of the excellent health of the testing groups, individuals' lifestyles, and overall quality of life: intellectual, emotional, physical and spiritual — awareness of a broader understanding of the world.

6. Conclusion

The world around us is a glorious kaleidoscope of colour (McLeod, 2006), and research on colour is not new; many authors have written books and papers on colours, colour science or in a different style. For centuries people have used colours in rituals, for well-being and for self-help with disturbing emotions, and scientists have studied the relationship between colours and human life (Edwards, 2020). The human body absorbs colour vibration through the subtle fields of energy around the human body, through the skin, eyes, and body parts

connected to the endocrine system. (Sun & Sun, 2014). We followed this statement and did the research, where we wanted to evaluate the physiological effects of coloured oils on the human body. The EMADEL and bioexperiments showed resonance physiological impact of chosen pink and yellow CM oils with two test groups. Pink colour had a significant manifestation on a heart level, a soothing effect. In contrast, the yellow colour and bio-resonance methods did not significantly affect test groups, which we noticed with EMADEL and pink CM oil. We argue that this is a consequence of the maturity of the groups, who previously worked with CM bottles and took care of their broader understanding of the world. We claim that the more profound and comprehensive knowledge of colours, in this case, the Colour Mirrors system, brings balance and wellbeing to those who use it in everyday life. It has excellent potential for use in wellness and spa tourism.

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Tadeja Jere Jakulin University of Primorska, Faculty of Tourism Studies -TURISTICA, Portorož, Slovenia tadeja.jerejakulin@upr.si ORCID 0000-0003-1849-8444