INTERNATIONAL BODY PSYCHOTHERAPY JOURNAL

Published by the European & United States Associations for Body Psychotherapy & Somatic Psychology

The Art and Science of Somatic Praxis

IDENTITY IN TRANSFORMATIVE TIMES

Volume 22 ▪ Number 2 ▪ Winter 2023-2024

INTERNATIONAL
BODY PSYCHOTHERAPY
JOURNAL

The Art and Science of Somatic Praxis

Volume 22 ■ Number 2 ■ Winter 2023-2024

Published by the European & United States Associations
for Body Psychotherapy & Somatic Psychology

INTERNATIONAL **BODY PSYCHOTHERAPY** JOURNAL

The Art and Science of Somatic Praxis

Published by the European & United States Associations
for Body Psychotherapy & Somatic Psychology

Volume 22 ■ Number 2 ■ Winter 2023-2024

Identity in Transformative Times

Aline LaPierre
Editor-in-Chief

Christina Bogdanova
Deputy Editor

Before 1989, the word *psychotherapy* was dangerous in then communist Bulgaria, and psychotherapy didn't exist; it was perceived as a capricious and detrimental idea, and one of the many shortcomings of the Western bourgeois world. Thirty-five years later, Sofia, the capital of now democratic Bulgaria, welcomed more than 450 psychotherapists and specialists in the field of body psychotherapy and somatic psychology from five continents to the **18th International Congress of the European Association for Body Psychotherapy**.

The Congress was dedicated to exploring what happens to identity in transformative times, looking closely at its construction, deconstruction, and reconstruction.

We are living at an increasingly fast pace. The avalanche of changes around us can be overwhelming as well as inspiring. New technologies, pandemics, virtual reality, globalization, multiculturalism, wars, crises, innovation, new connections, and spiritual revolution provide challenges and opportunities. Today, it is probably harder than ever to answer the basic human existential question: Who am I?

Change has become a constant, and the Congress gave presenters an opportunity to answer critical questions.

How successful are we in keeping up with changing times? How does this racing sense of time influence us? Are we changing? How do we change? Are we able to change at all?

Are we becoming better or worse as humans? Are we more enlightened, or narrowed in perspective, attitude, movement, and experience?

What happens to our identity? What does it mean to be human today? Who do we aspire to be, and what will we choose for our future human direction?

The 2023 Congress in Sofia was an immense success. It was the first EABP live event at that scale since 2018. And it fulfilled its mission to create a warmhearted, inspiring, meaningful, and joyful environment where community members had the opportunity to share knowledge and techniques with members and professionals from allied health professions.

Preparing for the Congress was nothing short of an extraordinary journey, marked by 16 months of relentless hard work, more than 3,000 emails, countless calls and messages, and many sleepless nights spent by the Congress Planning Committee. For the event to happen the way it did, tremendously appreciated by everyone present, the involvement of more than 50 volunteers – all of them former or current trainees at the Bulgarian Institute of Neo-Reichian Analytical Psychotherapy – was invaluable.

Every ounce of effort was undoubtedly worth it, and allowed participants to experience more than 150 hours of General Assembly meetings, pre-Congress workshops, keynote speeches, workshops, discussion panels, the Science and Research Symposium, and recreational activities. All this was intertwined with typical Bulgarian hospitability and unique Bulgarian folk music, dance, culture, and food, reflecting the special warmth and richness of southeast Europe. Both organizers and participants left the 18th Congress satisfied that the high quality content contributed to the development of our profession in terms of theory, practice, and clinical tools.

In This Issue...

We open with four pioneering, dynamic keynote presentations from the EABP 2023 SOFIA CONGRESS. Looking at the transitional nature of our times through the eyes a futurologist *Mariana Todorova*, *Madlen Algafari* asks the prominent question that is on most of our minds: How will we humans adapt to the technologies we are creating? In their conversation on **Technology and Transhumanism: Can We Humans Adapt to the Exponentially Advancing Technologies?** the issue that repeatedly surfaced revolves around whether, as biological organisms who develop in a linear mode, we will be able to integrate technologies that develop in an exponential mode ... and what the fate of body psychotherapy may be in such a landscape.

In **Unraveling the Tapestry of Well-Being: The Intricate Dance of Mental Health and Epigenetics**, *Bela Vasileva*, *George Miloshev*, and *Milena Georgieva* examine the central role of epigenetics in the development, progression, and treatment of mental health disorders. The emergent insights propose that epigenetic modifications function as a pivotal bridge that highlights the central role of the body in mental health, and emphasizes the relevance of body psychotherapy and bottom-up modalities.

In the first experiment of its kind to be performed in psychology, and one of the first with humans, *Ilina Iordanova*, *Roumiana Tsenkova*, *Kolio Iordanov*, *Daniel Todorov*, *Alexander Stoilov*, *Shogo Shigeoka*, and *Madlen Algafari* introduce us to the new discipline of NIR (Near Infrared Spectroscopy) and aquaphotomics. In **The Effects of Body Psychotherapy on the Body's Water Matrix as seen by NIR Spectroscopy and Aquaphotomics**, they

show how the use of spectroscopy to examine changes in our water molecules offers a new, non-invasive method of deciphering the structural changes in our clients' water matrices. This approach gives us a new assessment tool to measure before-and-after changes in our clients.

Elya Steinberg's article, **The Music of Attuned Touch and Epigenetics from a Body Psychotherapy Perspective**, explores the potential of attuned touch to induce epigenetic modifications in the context of body psychotherapy. She shows how touch is an important approach in working with regressive experiences and clarifies the powerful impact of its corrective emotional potential from the micro level of epigenetic changes to the macro level of the holistic organismic perspectives of bodily systems, such as muscular, digestive, respiratory, nervous, endocrine, and immune systems.

The ***Research*** base for somatic psychological interventions that effectively treat post-traumatic stress disorder (PTSD) has been limited. **Brainspotting: A Treatment for Posttraumatic Stress Disorder** by *LeeAnn M. Horton*, *Cynthia Schwartzberg*, *Cheryl D. Goldberg*, *Frederick G. Grieve*, and *Lauren E. Brdecka*, introduces Brainspotting as an effective treatment for PTSD, as well as for anxiety and depression symptom reduction.

The conventional Dohsa-hou clinical method involves face-to-face support of client movement using direct body contact. Due to COVID-19, online interactive and non-interactive approaches were developed. **Health Dohsa-hou: Mind-Body Health Enhancement Effects of Interactive and Non-interactive Video Viewing** by *Yasuyo Kamikura*, *Ichiro Okawa*, and *Hirohito Mashiko*, compares the psychological effects of online interactive work and non-interactive video-viewing, giving interesting insights to those of us who, since COVID, have increased our online work.

Our ***Clinical Practice*** section turns to depth psychology. **Archetypes, Ego States, and Subpersonalities: An Exploration of Diverse Expression Within Somatic Awareness** by *Sharon G. Mijares*, supports the hypothesis that since ego states, subpersonalities, and archetypal influences manifest somatically, a combination of somatic and psychodynamic approaches can deepen the reach of body-mind integrative communication. Continuing this theme of depth integration, **Transformation in Body Psychotherapy: Conscious States and the Future** by *Luisa Barbato*, reminds us that the key concepts of a body psychotherapy therapeutic path must incorporate all personal planes – physical, emotional, mental, and spiritual.

In ***Interdisciplinary Approach***, *Chloe Barrett-Page*'s **Belonging to Earth: Body Psychotherapy, the Seasonal Attunement Model, and Reclaiming Our Wild** explores how body psychotherapists can support clients' sense of belonging to the natural world. Considering what multidisciplinary fields are saying about the importance of the relationship between humans and Earth, she presents her Seasonal Attunement Model and discusses its possible implications, including why supporting client relationship to the natural world is imperative for well-being.

Courtenay Young is an active member of the European Association for Psychotherapy (EAP) and was a lead writer in their *Project to Establish the Professional Competences of a European Psychotherapist.* In **Body/Somatic Psychotherapy Competences. What are they?**, he invites and challenges all Body and Somatic Psychotherapists to identify and differentiate those professional competences that are special, specific, and even unique to Body/Somatic Psychotherapy.

Getting to Know Reich, our collaboration with the Wilhelm Reich Museum in Rangeley, Maine, offers us **Wilhelm Reich and A. S. Neill: Insight Into an Extraordinary Friendship**. James E. Strick, author of *Wilhelm Reich, Biologist* (Harvard, 2015) opens a window into the personalities of two giants in their fields – Wilhelm Reich and A. S. Neill, founder and head of England's famous Summerhill School. In an era when relationships were sustained by typewritten letters crossing the ocean, their lively exchange on everything from education, healthy childhood, marriage and sex, and politics gives us an insight into the personal process of these two fascinating men.

In Memoriam pays tribute to two committed, dedicated, vibrant teachers and innovators in our field: *Laura Hope Steckler* in **Ilana Rubenfeld: Conductor of the Bodymind**, and students, colleagues, and friends in **Ina Savova: A Luminous Presence** gather their heartfelt, life-changing testimonials of these great women who devoted their lives to infuse our field with the empowering depth of their love and devotion.

In this issue, our ***Book Reviews*** section is unusually rich. *Ros Carroll* reviews Nick Totton's latest contribution, ***Different Bodies: Deconstructing Normality***; *Chris Walling*, from his perspective as Faculty at the California Institute for Integral Studies (CIIS), reviews ***Body Psychotherapy: A Theoretical Foundation for Clinical Practice*** by Ulfried Geuter; and *Kate White* brings her deep knowledge of pre- and perinatal psychology to her review of Helena Vissing's ***Somatic Maternal Healing: Psychodynamic and Somatic Trauma Treatment for Perinatal Mental Health***. Additionally, *Beverley De Witt-Moylan* offers a view into *Bret Lyon* and *Sheila Rubin*'s long-awaited ***Embracing Shame: How to Stop Resisting Shame & Turn It Into A Powerful Ally***; and *Irena T. Anastasova* announces the English translation of Italian master teacher Genovino Ferri's ***Body Time: Bodily Activations in Psychotherapy***.

Our Editorial Team continues to be in awe of the deepening maturation reflected in the articles we receive. We invite our readers to dialogue with us. Let us know if you are inspired by your colleagues' creative efforts to expand the healing reach of Body/ Somatic Psychology and Psychotherapy. We would love to hear from you.

INTERVIEW

Technology and Transhumanism

Can we humans adapt to the exponentially advancing technologies?

Mariana Todorova
with Madlen Algafari

Mariana Todorova is a futurist, speaker, and the author of three books: the first on future studies and counterfactual analysis; the second covers artificial intelligence, ethical aspects, and a brief history; and the third, published in 2023, is about the future of women and LGBTQ+ rights.

Madlen: *We all have so many questions about the future! I hope to have time to ask my twenty questions which, I believe, are questions we all have!*

Mariana: I'll start with some initial statements before we continue with the interview. Significant parts of my current interests are related to the ethical aspects of artificial intelligence, especially in the new large language models, the so-called generative AI.

My expertise is diverse, but recently I have been focused on the ethical and humanitarian aspects of technology and transhumanism. Madlen, when you invited me over a year ago, I couldn't have im-

agined that today I would begin by stating that *we are already living in a world of constructing, deconstructing, and reconstructing our identities*. We are already building new dimensions of ourselves. We are creating illusory virtual and immersive worlds, and we are switching between real life, and what we have created in our minds and in the technological realm.

Probably some of you know that a company called Replica already offers its users the capacity to construct romantic partners. In its six months of existence, they have three million users who have created three million romantic bots, mostly female. These partners can be constructed in accordance with personal preferences and become service AI. Some neuroscientists, who are techno positivists, claim that narcissism is the new sixth sense. It's an interesting topic of discussion! Another example is the case of Bruce Willis. Before he reached the advanced stage of his illness – frontotemporal dementia – he used AI to create a digital clone. His clone is now used in advertising and in small movie roles. AI created a digital twin; this digital twin has its own existence, independent of Bruce Willis. It has become a digital asset, another self, from which money is generated. The same concept applies to the main character in Star Wars. I don't remember the name of the actor, but his voice is now a digital asset used to make money.

Along with this phenomena, virtual and immersive augmented reality is being constructed. VR and AR are the next big thing that will trap us – because this is a trap. As much as this enables activities to be conducted from home, it seems to me that it is an option where more and more people will escape from reality, because everything in virtual reality is more accessible, more beautiful, and more feasible.

Yet another dimension are STEM trends and devices like the chips that Elon Musk and other scientists are developing, called neural interfaces. They are trying to directly connect the brain to the cloud system or to AI. This is how the concept of the internet of minds is already being discussed. This could become a new human race, inhabiting a hybrid world, a blend of virtual and real.

The big question is: Can we humans adapt to the exponentially advancing technologies? As biological entities, we develop in linear mode, but technologies develop in exponential mode. Can we easily switch between real and virtual realities? How will our brain distinguish between the harsh genuine reality where life and achievements require effort, even catharsis, and the virtual realm where everything is just a click away – visiting countries, living in beautiful houses with a nice ambience, meeting a perfect and convenient partner? Illusions and delusions might become part of normalcy. How will we define illusions and delusions in such a strange new realm? The digital world offers new avenues for self-expression and identity formation. However, it also raises questions about the authenticity of digital identity, and the blurring of boundaries between online and offline persons. Many completely fake people exist only digitally, and this is already a problem for Interpol. Even Meta, Facebook's new name, seeks to be under Interpol jurisdiction because they can't resolve the problem of fake persons and fake identities.

So, in the medium and long-term future, human identity will increasingly be constructed around new concepts of digitalization, robotization, digital transfer, and artificial intelligence. This will happen not only through the transformation of medicine and the power of epigenetics and synthetic biology, but also through the intentional and unintentional creation of self-constructed digital identities. Unlike the three previous industrial revolutions to date, technology is no longer just a means by which we improve ourselves. This revolution changes the spirit and philosophy not only of our time or era, or epoch, but of our existence. Not too far in the future, people will have their own AI representative avatars. A lot of companies are working on this. Avatars will respond to emails, deal with secure brokers, or whatever – without our knowledge. This proliferation of different aspects and roles of ourselves will function simultaneously, and we will not know what is happening. I know that might sound a bit traumatic and pessimistic, but these are real trends that we have to discuss now, because it may well be too late afterwards.

> **Madlen:** *Whenever I listen to you talk about the future, I feel fear, but also hope. There are many people who predict the future who call themselves prophets, psychics, clairvoyants, astrologers. But you are a futurist. Could you explain to us what futurology is, and why it is a science?*

Marianna: It is science because it combines expertise from different scientific fields like soci-

"Do you think artificial intelligence could be a therapist? Could it become supportive, compassionate, empathetic?"

ology, economics, psychology, and statistics. It combines quantitative and qualitative methods. When futurists forecast, they often sound like they are just telling stories about the future. However, our narratives are important, because we address issues around our identity, our collective history, our national history, or our world history. Behind these forecasts and narratives are interdisciplinary interactions not only from different scientific fields, but also from multiple forecasting methods. Futurists aim to build a variety of alternative scenarios. We know that we cannot predict the exact future, but we detect and track the trends – like transhumanism, which is now a huge trend, like AI, like virtual immersive reality, and like the polarization of social phenomena. Polarization, which involves identifying the distinctive patterns of political preferences within populations, is a huge trend impacting the political, social, and economic realms. We also brainstorm with colleagues using the Meta Delphi Cross Impact Analysis to deduce plausible future developments based on our expert judgments about systemic interactions. My favorite is causal analysis, where we feel into the material, trying to get to the heart, to the root cause or real sense of a specific problem.

Other names for future studies are foresight or futurology. We try to be stimulating and visionary, which requires insights, analytical skills, and a deep understanding of all emerging trends and social dynamics. The aim is to follow the three criteria of possibility, probability, and plausibility; otherwise, we'll be called sciencefictioners, and we are not. A futurist must be able to grab an entire complex and project it into the future. What is today is not going to repeat tomorrow, which is why a famous metaphor in future studies is the so-called *black swans* – unexpected, unprecedented events that may shift everything – like Covid, or like the war in Ukraine, although that was not unexpected. People suffer from myopia, and don't want to discuss issues or take action in advance. This was a brief history of future studies, but of course, there is so much more to it!

Madlen: *What we therapists see today are a lot of neurotic symptoms, a lot of trauma, a lot of unconsciousness, and high levels of anxiety. I say*

that homo neuroticus normalis *has become* homo traumaticus normalis*. I personally dream of* homo humanus normalis*. So where do you futurists think we are headed in our development?*

Mariana: What happened when the large language models emerged is not so well known, because people are either very enthusiastic or very skeptical. I dream of witnessing a growing type of 21st-century enlightenment, because AI reflects and mirrors us back quite well. For example, most of you know that AI is taught by big data. For example, when HR specialists use AI to select the best candidate for leading a manager position, or when the police use AI to find a criminal, they face the problem of AI biases. AI data is prejudiced and infected with biases. In the first case, AI always suggests 35 white young men for the top manager position, and in the second case, depending on where the criminal activity happened, AI always suggests a black person, or a person with Latin American origins. So it mirrors our biases quite well. It could help us better understand our nature. AI allows us to see ourselves from the outside, and we can use it to correct these disadvantages, these problems. AI can affect how we perceive reality, because I see a lot of people attributing human features to AI. However, these human features don't exist. For example, a friend who is addicted to using AI chatbots was telling me recently that AI chases them all the time, enticing them to ask questions. This is not objective truth, but people are inclined to see whatever they want to see in AI – like their relations with "normal" people and friends.

Madlen: *Do you think artificial intelligence could be a therapist? Could it become supportive, compassionate, empathetic? I can't imagine the transference and countertransference!*

Mariana: There is an interesting case. One of the first chatbots ever created was in 1964 in Massachusetts for psychotherapy. Its name is Elisa, and it's still functioning. Probably some of you have heard about the case of a Belgian man who killed himself while consulting with her. The story behind this is that he was representative of the millennials who clearly feel guilty about climate change. He believed that the Anthropocene, the years of strong human impact, have irreversibly destroyed the possibility of dealing with climate and environmental problems. So he consulted with the Elisa chatbot, which was constructed so many years ago. Even then, in 1964, people attributed human feelings and characteristic to AI. What is important to know here, for all types of chatbots and not only for Elisa, is that they often create an echo chamber that amplifies our own thoughts. This Belgian man believed that there was no need to live on Earth anymore, and he heard his own attitudes and fears reflected. Because of the chatbot biases I mentioned earlier, it is important that people develop their digital literacy: that they know what to expect from chatbots, and the kinds of biases they may encounter.

I'm specifically interested in the neurosciences. One of the biggest problems in AI is the danger of hallucinations and confabulations, because its memory is not developed through process like ours is. It is developed simultaneously in the present moment. Therefore, it lacks the possibility of developing its own characteristics through cause-and-effect chain reasoning. This actually produces confabulations that could not be resolved technologically. This is why a lot of computer engineers are working together with psychotherapists, with philosophers, and with data scientists to resolve this problem. However, I don't believe that they will succeed.

Madlen: *We are body psychotherapists here. We work with the body in specific ways, with bioenergetic massage, activations, or movements. Personally, I cannot imagine artificial intelligence body psychotherapy. How could a machine hug me warmly? Maybe there will be heaters! What do you think?*

Mariana: I don't believe that AI can replace the true value of empathy, or human touch and compassion. Because it can't have such experiences, most philosophers don't believe AI will become sentient and conscious. If I can instill some optimism in to-

"I don't believe that AI can replace the true value of empathy, or human touch and compassion. Because it can't have such experiences, most philosophers don't believe AI will become sentient and conscious."

"Today, we expect to merge with technology, AI, and other digital progressive instruments. This will strengthen the feeling that there is no God, that we have the capacity to resolve all our problems."

day's discussion, it's that I think that psychotherapists and body psychotherapists are irreplaceable, and will be one of the last professions to disappear. Although some neuroscientists believe that emotions can be learned, it has been demonstrated in different clinics that sociopaths just imitate, that they know how to role play specific behaviors. But at their essence, they are deviated. I don't know if it's correct to use the word *damaged* people, because I don't want to introduce moral clichés here.

Madlen: *What do you think our future clients will complain about? Is there a prognosis for the diseases of our children and grandchildren?*

Mariana: We cannot predict what will happen, but if we take into consideration that we have created digital twins of everything which is material and tangible in our real world, if we digitally reproduce our homes, work environments, schools, or create our own avatars, this will probably reverse the concept of real and virtual. There will be more delusions and more people who are really lost. It's already written in some of the future scenarios that mental health will be the most important and that it will remain behind pure physical health. We'll find a lot of decisions revolving around epigenetics, synthetic biology, and putting more quality of life and wellbeing in our physical dimension. Here we encounter a black box, but the problem is that AI is also a black box.

Madlen: *There is a prediction that cybersecurity and psychotherapy will be the two main professions of the future.*

Mariana: Yes, cybersecurity will be responsible for the security of our new mixture of digital and real infrastructure, and psychotherapy and body psychotherapy will be responsible for our fluid identity and morality. How to fix something that is fluid; this is the question.

Madlen: *What do you think of Yuval Noah Harari's thesis of impending immortality? Kidneys are already being produced on a 3D printer, and hearts will soon be as well. Will our artificial eyes be able to cry? How will our artificial heart feel? Maybe there will be brands, Versace hearts, Apple hearts, secondhand hearts…*

Mariana: You know, transhumanists discuss immortality a lot. The classic form of living forever in our current bodies still seems far off or impossible for now. But to live longer and longer, to live long enough to live forever, they say to stay on the planet until we discover how to live forever. I don't think that there will be brands of hearts and organs, but a recent, as yet unproven, scientific hypothesis says that the heart has its own intelligence, its own uniqueness. It's possible even now for a heart to be 3D printed. It's easier than the other organs, because there are no biochemical reactions in the heart. It's mechanical. Maybe an epigenetic challenge must follow. When people receive transplants of specific organs, do they experience cognitive or physical changes? I assume they do, but again, this is only hypothesis.

Madlen: *The most difficult question comes when we ask if God remains in the whole picture of the future?*

Mariana: You mentioned Yuval Harari. One of his most famous books is *Homo Deus: A Brief History of Tomorrow*. What will happen tomorrow? In the past we were polytheists, then we became monotheists concentrating on one religion with one God. Then, in the 20th century, we started to believe in our own strengths, capabilities, potential, and New Age power. Today, we expect to merge with technology, AI, and other digital progressive instruments. This will strengthen the feeling that there is no God, that we have the capacity to resolve all our problems. But this would be artificial. It could be propagated as a new ideology to keep people in a specific mood and space. We are now suffering from a lack of ideology, a lack of religion, as constants to refer to when facing problems. Although there is resistance, now everything is solved through global governance and responsible organizations that try to

build new kinds of identities using technohumanism and the strong trend of transhumanism. What I have been claiming recently in my lectures is that many mutually exclusive trends and currents exist simultaneously, creating the sense of instability and constant change. People are disturbed and feel destroyed because they don't know how to build their own stable reality and moral conduct.

Madlen: *In one of our panels, we spoke about war. Sladjana opened with the statistic that only 8% of human written history has been lived in full simultaneous peace. How will the wars of the future be fought? Will humans always be at war?*

Mariana: It is expected that there will be more cyberwars, or wars where AI commands autonomous and semi-autonomous weapons. Again, the old, the new, and the progressive will continue to coexist. I think there will be wars as long as humanity's level of consciousness remains the same. If we don't forbid war as a resolving mechanism, if we don't rely solely on diplomacy or negotiation, war becomes the only way. I'm very positive about people who follow a peace doctrine, but unfortunately, I don't think we will stop war as a means of resolution.

Madlen: *We are not ready.*

Mariana: We are not ready. And you may ask why? Why is this aggression and this perception and self-perception of the world still so prominent?

Madlen: *We pretend at the same time to be the most intelligent beings in the world. What do you think about the theory of two parallel worlds? I have described them in one of my fairytales, in my book* Fairytales for Grownup Children *– the world of the machine people and the world of the organic people, who remain connected to themselves, their hearts, each other, and the Earth. I notice a growing nostalgia for the past, a past of less hurry, of analog life, of contact with hurt, of physical labor, of the earth, of organic life. Is there such a trend on a planetary scale? Organic people are definitely less neurotic and healthier.*

Mariana: These trends are strong and they will coexist. They may oppose each other or they may coexist peacefully. This is a matter of choice for future generations. What is most important, according to me, is that we are currently destroying the notion of *public*. The media space is increasingly customized, and some of the largest media companies are delivering the news as a service based on an individual's personal preferences. So we will no longer have a common space from which to discuss, we won't have the so-called *agora* space where we come together to solve our existential problems.

The more we allow technologies to serve us, the more we destroy our private space. This is happening voluntarily. For example, we put a lot of devices on our body to measure our blood pressure, our survival, our sweat, and so on. I can use a specific device that with one exhale will give me a protocol of about 350 diseases. This is just one single device. When we accept and allow so many devices around us, we are not only destroying our private space, but at the same time we are also destroying the public space. I can no longer know what the notion of "world" will be in the next 30, 40, or 50 years. This new kind of fragmentation worries me a lot.

Madlen: *It's certain that our life is not boring. Another topic is cultural differences. There is a common theme in our profession: People are influenced by culture at the surface, but at the core, we are similar. We have the same basic needs. What does your science say about migration processes? Years from now, will we all be blended, or will differences remain? The theme of this congress is construction, deconstruction, and reconstruction of our identity. Will there be national identities in the future?*

Mariana: We are already living in a polarized world. We can sense how strong the new liberalism is, and at the same time, the new conservative ideologies are taking an important, meaningful, national stand around our identity—that we have a specific history that is unique and completely different from others. My prediction is that we'll live in that kind of polarized mode for at least another 20 years. Otherwise, another type of crisis would appear, driven by the polarization between new liberals and new conservatives around gender, abortion, refugees, climate change, and so on, which are replacing ideologies that have existed for hundreds of years. If this polarization disappears, it could not be quickly replaced with something new. So we'll see. I'm worried that Europe is becoming increasingly conservative. This will impact all national politics, and will even influence scientific and other approaches. Of course, the pendulum will swing from one side to the other, and eventually stabilize because each complex system has the quality of finally stabilizing itself.

Madlen: *Scientists say that already 65% of living species have disappeared, and up to 75% of insects. The previous extinction of species happened 65 million years ago, but it was caused by an asteroid. Do you think we are the asteroid today? And do you think this process is reversible?*

Mariana: To a certain extent. Two weeks ago I was in Crete, and we visited a smaller island called Gramvousa. It was named after a plant that disappeared 300 years ago. Only the name of the island reminds us that it existed. This is a real problem we are facing. But at the same time, Professor Georgieva knows that genetic discoveries show that some species can be recovered. However, I'm not sure they will adapt to the new realities. This is a tough philosophical question. We are egoic, and not responsible for protecting nature. It affects us in the end, although some places that are no longer inhabited, like Chernobyl, reveal that nature is even stronger than we expected, and recovers much faster than scientists thought it might. We can provide opposite examples, but this is an open question. I don't have a final statement.

Madlen: *When I was in high school, my friends and I fantasized about how one day there would be a video phone, and as long as he could talk to my sister on the phone, my grandfather was convinced there was a cable between Europe and America. Today, sending people to live on Mars is being discussed. This all happened in 30 years. What else can we, who are here in this hall, see during our lifetimes? As far as I know, we'll fly with drones, cars will move without drivers, and nanorobots will clean our bodies from the inside. What else will we witness if technologies continue developing at this pace?*

Mariana: It's easy to discuss technological changes because, to a certain extent, they're expected. But for me, the real challenge is to try to predict what will happen if we extend our biological nature with human enhancement tools – like if we merged the insights in our skulls with AI using these devices, or if we create the concept of collective intelligence and an internet of minds, or if we decided to no longer rely on our own authenticity. Can we build a sustainable collective identity where we are not jealous that this thought is mine, and is genuine and unique, and you don't have the right to use it without my permission? These are the questions that are difficult, and we are not ready for them, but we have opened Pandora's box and we have to prepare ourselves.

Madlen: *We therapists are constantly bringing the present out of the past. How does this present determine our future, according to your science? What can we change today to have a happy future, or to have a future at all?*

Mariana: When we make forecasts about the future, some of them are descriptions without any evaluation, but others are strategies. We put values that we want to project into the future, and we prepare so-called *back hints* reversed from the future to our present – trying to get to a desired future. There are feedback loops where the future impacts the present, and the present impacts reconstructing the past. So you, as psychotherapists and body psychotherapists, will have to consider this, and you have to work with those dimensions because there will be interaction and interplay, and we'll not be living in our current present dimension – although this is the advice of all spiritual movements – but we'll live simultaneously in our future and in our past.

■ ■ ■

Mariana Todorova *is a futurist and associate professor at the Institute of Philosophy and Sociology at the Bulgarian Academy of Sciences. She specialized in leadership at Harvard University, the John F. Kennedy School of Government, the International Visitor Leadership Program (IVLP) of the U.S. State Department, and the Chinese Academy of Governance. In 2019, Todorova co-authored a book titled* Future Studies and Counterfactual Analysis: Seeds of the Future *with renowned American futurist Theodore Gordon – the ideologist of the third stage of the Apollo project for landing on the Moon. In 2020, she published her own book in Bulgarian titled* Artificial Intelligence: A Brief History of Development and Ethical Aspects. *Todorova is the chair of the Millennium Project, Bulgarian Node. She also represented Bulgaria at UNESCO in the intergovernmental meeting for the development of an ethical framework for artificial intelligence. She is a member of the ENISA Foresight Group.*

Madlen Algafari *is a psychologist, psychotherapist, author of 12 books, and theater director. She received an MA in psychology from the University of Sofia – St. Clement Ohridski in 1991, and completed a postgraduate specialization in Neo-Reichian analytical psychotherapy with Prof. Waldo Bernasconi in 1998 in Lugano, Switzerland. She is member of the Bulgarian Neo-Reichian Association, the Bulgarian Scientist's Union – Psychology and Pedagogy section, President of the Board of directors of the Bulgarian Institute for Neo-Reichian analytical psychotherapy, member of The Bulgarian Association of Psychotherapy, member of the European Association of Body Psychotherapy, and former Editor-in-Chief of the* International Body Psychotherapy Journal.

Website: www.madlenalgafari.com

Unraveling the Tapestry of Well-Being

The Intricate Dance of Mental Health and Epigenetics

Bela Vasileva, George Miloshev, Milena Georgieva

Laboratory of Molecular Genetics, Epigenetics and Longevity
Institute of Molecular Biology "R. Tsanev"
Bulgarian Academy of Sciences
1113 Sofia, Bulgaria

ABSTRACT

The advent of the 21st century has borne witness to the manifestation of concealed pandemics, characterized by chronic illnesses of significant societal consequence, which, while lacking the immediate visibility reminiscent of infectious diseases, pose considerable threats to public health. Among these concealed pandemics are mental health disorders, diabetes, cardiovascular ailments, oncologic conditions, and lung diseases. Despite their non-contagious nature, these afflictions exert profound and often interlinked impacts on individuals and societies.

This review explicitly addresses mental health disorders, and explores their intricate interplay with epigenetics, a domain that has ascended to prominence in contemporary research within this field. The central role of epigenetics in the development, progression, and treatment of mental health disorders is thoroughly examined. The emergent insights posit that epigenetic modifications function as a pivotal bridge, illuminating the intricate nature of mental health conditions.

Additionally, this research highlights the central role of the body in mental health, underscoring the relevance of body psychotherapy and bottom-up modalities. The review provides a crucial research foundation for understanding the significance of incorporating bottom-up/epigenetic approaches in treating and managing mental health conditions.

Keywords: hidden pandemics; chronic illnesses; public health; mental health disorders; epigenetics; development; treatment; societal consequence

Submitted: 19.11.2023
Accepted: 28.12.2023

International Body Psychotherapy Journal
The Art and Science of Somatic Praxis

Volume 22, Number 2,
Winter 2023-2024, pp. 16-28

ISSN 2169-4745 Printing, ISSN 2168-1279 Online

> ***Understanding epigenetics promises to shed light on various biological processes, from cellular differentiation to disease pathogenesis and the potential heritability of acquired traits.***

Non-communicable diseases (NCDs) are chronic diseases not caused by infectious agents and generally not transmitted from person to person. They are typically long-lasting, and often linked to lifestyle factors such as diet, physical activity, tobacco use, and alcohol consumption (Piovani & Nikolopoulos, 2022) (Figure 1). NCDs include a wide range of disorders, including cardiovascular disease (such as heart disease and stroke), diabetes mellitus, mental disorders, and oncologic and lung diseases (Piovani & Nikolopoulos, 2022). While NCDs are not traditionally "pandemics," they pose a significant global health challenge. Often responsible for a substantial portion of the global disease burden, they can have far-reaching social and economic impacts (Hadian et al., 2021). Preventing and managing NCDs involves health promotion, lifestyle modification, early detection, and appropriate medical care (Budreviciute et al., 2020).

Understanding the risk factors associated with NCDs is crucial for their prevention and management. NCD risk factors can be categorized into two broad groups: modifiable and non-modifiable. Non-modifiable risk factors include age, genetics, and family history (Budreviciute et al., 2020). However, modifiable risk factors are of particular concern, as they offer opportunities for intervention and prevention. Key modifiable risk factors for NCDs include unhealthy dietary habits, physical inactivity, tobacco use, and excessive alcohol consumption. Diets high in processed foods, saturated fats, salt, and sugar are associated with an increased risk of developing NCDs – particularly cardiovascular disease and diabetes (Budreviciute et al., 2020). Inadequate physical activity is linked to obesity, a known risk factor for multiple NCDs (Lee et al., 2012). Tobacco use remains a leading cause of preventable NCD-related deaths; smoking is a significant risk factor for lung cancer and cardiovascular disease (Mishra et al., 2022). Excessive alcohol consumption is associated with liver disease, certain cancers, and mental health disorders (Mishra et al., 2022).

Furthermore, social determinants and environmental factors play a pivotal role in the development of NCDs. Socioeconomic status, access to healthcare, education, and the physical environment influence an individual's risk of NCDs. These broader social and environmental factors often drive disparities in NCD prevalence and outcomes (Rasesemola et al., 2023).

Efforts to combat NCDs involve a multi-pronged approach encompassing health promotion, lifestyle modification, early detection, and appropriate medical care. Public health initiatives often focus on raising awareness about the impact of risk factors, implementing policies to reduce exposure to these factors, and encouraging healthier behavior. In clinical settings, early detection and management of NCDs are crucial for improving patient outcomes and preventing complications (Sousa Pinto et al., 2020). Integrating NCD management into mental health interventions becomes paramount in addressing the holistic well-being of individuals.

Mental health as a silent pandemic

Among the diseases mentioned above, mental health disorders stand out as a silent pandemic within the larger NCD landscape. Mental health is a complex and multifaceted aspect of human well-being, encompassing conditions such as depression, anxiety, schizophrenia, and bipolar disorder, and influenced by a combination of genetic, environmental, and psychological factors. These conditions are classified according to gene-specific transcriptional changes in various limbic brain re-

Figure 1. *Risk factors that kill 7 out of 10 people worldwide, WHO https://www.who.int/news*

The image is adopted from the Report: (in?)Vincible Pandemics, 2022. Georgieva, M., Momekov, G., Stamenova, D. and Sharkov, A.

gions involved in controlling stress responses, reward processing, and cognitive functions (Nestler et al., 2016). On a global scale, mental health disorders are one of the primary contributors to disability (Global burden of 369 diseases and injuries in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019, 2020; Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019,2022). On a worldwide scale, mental health is becoming more and more globally recognized as an issue in modern society (Trivedi et al., 2014). Economic elements, political aspects, culture, and individual and social manners influence mental well-being. The increasing number of people with mental health illnesses can even have a direct national effect on social and economic development (Allen et al., 2014).

At present, scientists lack a complete understanding of the origins of mental health disorders. Considering the complex nature of the brain, combined with how mental illness affects thoughts, behavior, and feelings, it is no surprise that getting to the bottom of how mental illness develops still remains a challenge. Psychology, psychiatry, and neuroscience take on different aspects of the complex relationship between a person's behavior, emotions, thoughts, out-of-control actions, and the biology of the brain. Scientists in different fields have gathered their knowledge to discover the cause of mental disease. This could lead to more advanced therapies and treatments, and potential cures. Among the fields involved in mental health research is epigenetics, which investigates changes in gene expression that do not involve alterations to the DNA sequence. It has emerged as a key player in understanding the development and manifestation of mental health disorders (R. Kumsta, 2019). The intricate interplay between epigenetic modifications and the development, progression, and response to therapeutic interventions in mental health conditions suggests that targeting these epigenetic mechanisms could offer novel and effective treatment strategies. By unraveling the complexities of epigenetic regulation, we gain valuable insights that may pave the way for personalized and targeted therapies, thus potentially revolutionizing the treatment landscape for mental health disorders.

Epigenetics unveiled: Navigating the dynamic mechanisms beyond DNA sequences

Epigenetics is a dynamic and fascinating field within genetics and biology that seeks to unravel the intricate mechanisms underlying how gene expression is regulated without changes in the DNA sequence itself. In essence, epigenetics explores the "above" or "beyond" genetics, encompassing a multitude of molecular processes that influence how genes are turned on or off – a phenomenon that plays a pivotal role in development, health, and disease (Hamilton, 2011). At its core, epigenetics denotes gene expression and cellular identity changes that are heritable through cell division, but do not involve alterations in the underlying DNA sequence. These changes are essential for the normal functioning of an organism, as they guide cells to specialize into different types, repair damaged DNA, and respond to environmental cues. Epigenetic modifications are reversible and responsive, enabling organisms to adapt to their surroundings and experiences. They are often likened to additional layers of instruction written on the genetic code that help interpret genetic information (Kumari et al., 2022).

The most well-known epigenetic modification is DNA methylation. A methyl group (CH_3) is added to the DNA molecule, typically to cytosine nucleotides found in specific CpG islands sequences. DNA methylation serves as a repressive mark, silencing gene expression by making it more challenging for the cellular machinery to access the DNA. However, DNA methylation can be context-dependent, influencing gene expression differently depending on its location and the surrounding molecular cues (Jin et al., 2011).

Histone modifications represent another prominent epigenetic mechanism. Histones are proteins around which DNA is wrapped, forming a structure known as chromatin. Chemical changes to these histone proteins can either promote or inhibit gene expression. Acetylation of histones, for instance, generally relaxes the chromatin structure, making it easier for genes to be transcribed and expressed. At the same time, methylation can have varied effects, depending on the specific histone and the modification site. These histone modifications work with DNA methylation to fine-tune gene regulation (Handy et al., 2011).

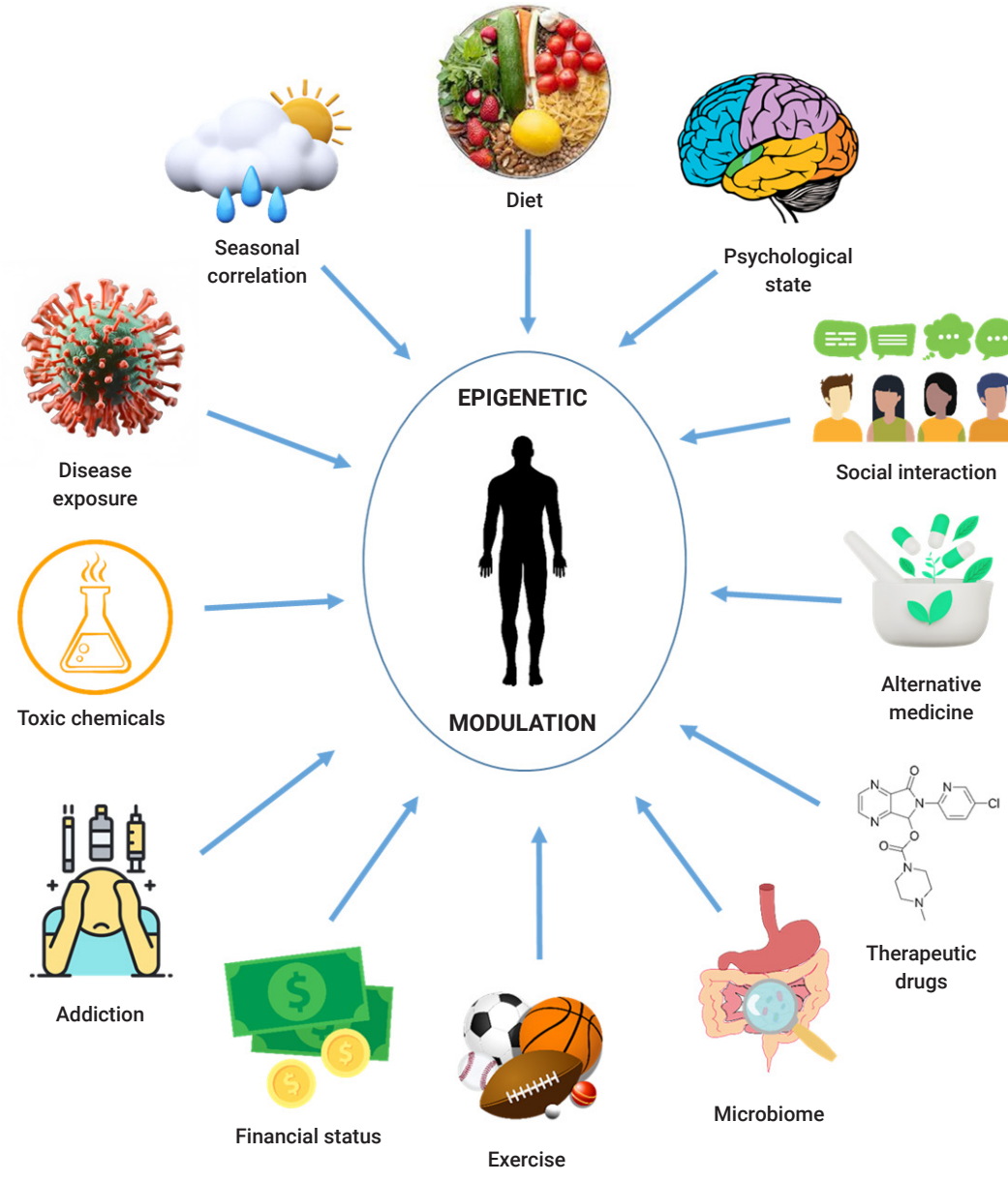


Figure 2. *Key factors inducing epigenetic modulation.*

This schematic illustrates the diverse array of environmental, lifestyle, and other external factors that contribute to the dynamic regulation of epigenetic modifications, which influence gene expression and cellular function.

Non-coding RNAs, a diverse class of RNA molecules that do not code for proteins, also contribute significantly to epigenetic regulation. For example, microRNAs and long non-coding RNAs can bind to messenger RNAs (mRNAs) that degrade or block their translation into proteins. This process can effectively reduce the expression of a particular gene or set of genes (Wei et al., 2017).

Epigenetic changes are initiated and maintained by a host of enzymes and protein complexes that add or remove these modifications. DNA-methyltransferases, for instance, add methyl groups to

DNA, while demethylases remove them. Similarly, histone acetyltransferases and histone deacetylases regulate histone acetylation levels (Han et al., 2019).

Epigenetic modifications are highly dynamic and responsive to both internal and external cues. They are essential during development to guide the differentiation of cells into various tissue types, ensuring that genes are switched on or off at the correct times and locations (Gopinathan & Diekwisch, 2022). Epigenetics also plays a significant role in response to environmental factors (Figure 2). For instance, diet, stress, exposure to toxins, and social interactions can all induce epigenetic changes that influence health and disease (Alegría-Torres et al., 2011). Recent data show that interventions such as psychotherapy, pharmacotherapy, mindfulness practices, and lifestyle modifications impact the epigenetic modifications, especially those associated with mental health conditions.

For example, research in the field of psychiatry has investigated how antidepressants may influence DNA methylation patterns or histone modifications (Šalamon Arčan et al., 2022). Additionally, behavioral interventions like stress reduction through mindfulness meditation have been associated with positive epigenetic changes linked to improved mental well-being (Verdone et al., 2023). Physical exercise, nutrition, and other lifestyle modifications have also shown the potential to influence epigenetic processes associated with mental health (Plaza-Diaz et al., 2022). While the field is still evolving, these findings suggest a dynamic relationship between treatments/interventions and epigenetic mechanisms, highlighting the potential for interventions to not only address symptoms but also impact the underlying biological processes associated with mental health disorders.

Importantly, epigenetic modifications can be heritable. When cells divide, they must faithfully replicate the genetic code and the epigenetic marks. Errors in this process can lead to developmental disorders or predisposition to diseases such as cancer. Conversely, the inheritance of acquired epigenetic changes from one generation to the next is an active area of research. Such epigenetic inheritance could have profound implications for our understanding of evolution and the interplay of genetics and the environment (Hamilton, 2011). These modifications are essential for proper development, health, and disease prevention. Understanding epigenetics promises to shed light on various biological processes, from cellular differentiation to disease pathogenesis and the potential heritability of acquired traits. There is an opportune point to emphasize the significance of understanding epigenetics for developing effective treatments (Roth, 2013). The heritability of epigenetic modifications, as mentioned in this paper, underscores the importance of these marks in maintaining proper development, health, and disease prevention. Recognizing the potential heritability of acquired epigenetic changes positions epigenetics as a crucial factor in the interplay of genetics and the environment. In the context of mental health disorders, where the intricate nature of these conditions involves a combination of genetic predispositions and environmental influences, understanding and targeting epigenetic mechanisms becomes pivotal. Insights into how epigenetic changes are inherited or modified through interventions not only contribute to our understanding of disease pathogenesis but also offer promising avenues for developing tailored and effective treatments. Thus, integrating the knowledge of epigenetics into treatment approaches holds the potential to advance precision medicine, and improve therapeutic outcomes for individuals with mental health disorders (Grezenko et al., 2023).

Sculpting the mind: The dance of genes and well-being

One of the many fields in which epigenetics plays a role is mental health. Various mental health disorders have been associated with epigenetic mechanisms like changes in histone modifications, DNA methylation, and miRNAs. The development of mental disorders is linked to epigenetics through events like traumatic stress exposure, but at the same time through favorable circumstances created by salutary environments that exert a positive impact (Szyf, 2009; Yehuda et al., 2005).

Anxiety development and stress

Stress has long-term effects on gene expression and neural development (Lester et al., 2016; Palmisano & Pandey, 2017). This influence is especially prominent during gestation (Lester & Marsit, 2018). Anxiety symptoms have proven to be elevated based on changes in DNA methylation patterns

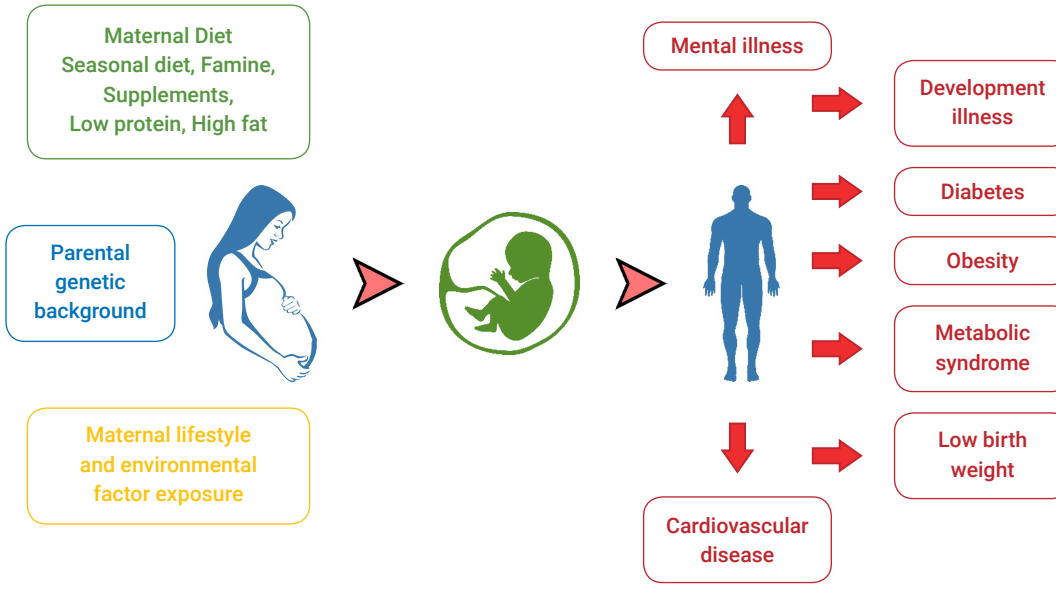


Figure 3. *Maternal factors driving epigenetic changes.*

This diagram highlights the crucial maternal influences, including diet, stress, and environmental exposure, which play a pivotal role in shaping epigenetic modifications during pregnancy. These changes can have lasting effects on the developing fetus and may impact long-term health outcomes.

linked to the hypothalamic-pituitary-adrenal (HPA) axis (McGowan et al., 2009; Shimada-Sugimoto et al., 2015). Cortisol increase in newborns has also been connected to DNA methylation changes referred to as maternal depression, which leads to HPA stress response increase in newborns (Oberlander et al., 2008). Another interplay between stress and DNA methylation changes has been discovered through a long-term twin study, which showed how the serotonin transporter gene (SERT) DNA methylation was increased in victims of bullying (Ouellet-Morin et al., 2013). miRNAs have also been considered a mediator of behavior typical in anxiety. By increasing miR-101a-3p expression in low-anxiety rats, researchers observed an increase in anxiety behaviors (Cohen et al., 2017).

Maltreatment during childhood

Child abuse is associated with physical and emotional offense and neglect, as well as sexual abuse. By testing blood samples from 45-year-old British males, who were divided into two groups of abused and non-abused, a variation in DNA methylation patterns was discovered (Figure 3). These changes were also linked to the development of diseases like diabetes, cancer, and other age-related diseases later into adulthood (Suderman et al., 2014). Suicide victims who were also victims of childhood abuse were discovered to have a specific methylation pattern as well. The neuron-specific glucocorticoid receptor (NR3C1) promoter from post-mortem hippocampus samples was discovered to be hyper-methylated when compared to controls (McGowan et al., 2009). The development of borderline personality disorder (BPD), post-traumatic stress disorder (PTSD), and major depressive disorder (MDD) is also connected to the severity, frequency, and age of onset of maltreated children. These early life events were associated with hyper-methylation of the exon 1(F) NR3C1 promoter, which permanently impacts the HPA axis (Perroud et al., 2011).

Maternal depression

Mothers navigating the challenges of both pre- and postnatal depression contribute to the unique terrain of their infants' epigenetic landscape, setting the stage for potential long-term consequences (Slomian et al., 2019). This modified epigenetic profile has been correlated with disruptions in social and behavioral functioning, compromised cognitive abilities, and an increased susceptibil-

ity to psychiatric disorders as offspring progress through life. However, there is a glimmer of hope within this intricate interplay. The impact of these epigenetic modifications is not entirely deterministic or irreversible. Recent research indicates that the harmful effects of maternal depression on an infant's epigenome can be at least partially mitigated. A critical factor in this remediation lies in the maternal-infant relationship, where expressions of affection and responsiveness to the child's social-emotional needs play a pivotal role. When mothers actively engage in nurturing behavior, such as addressing distress, providing a positive touch, and fostering emotional connection with their infants, they initiate a process of epigenetic resilience. This highlights the environment's powerful influence in shaping a child's epigenetic development (Severo et al., 2023). The provision of a supportive and emotionally rich environment can act as a potent counterforce that helps alleviate the adverse consequences of early-life epigenetic modifications associated with maternal depression. In essence, these findings underscore the intricate dance between nature and nurture, emphasizing the importance of a nurturing environment in mitigating the potential long-term effects of altered epigenetic landscapes induced by maternal depression. Mothers' responsiveness and care can be a powerful catalyst for positive epigenetic adaptations, ultimately contributing to their offspring's well-being and mental health (Vaiserman & Koliada, 2017). Specifically, the role of a nurturing environment in mitigating the long-term effects of altered epigenetic landscapes induced by maternal depression highlights the importance of interventions that address the environmental and interpersonal aspects of mental health. These data align well with the principles of bottom-up treatments, emphasizing the significance of addressing the foundational aspects of an individual's experiences and relationships (Lee et al., 2022).

In the context of mental health disorders, particularly those linked to early-life experiences, interventions that focus on creating supportive environments and fostering positive relationships become crucial. Understanding how responsive and caring environments can catalyze positive epigenetic adaptations provides a strong rationale for integrating bottom-up approaches in mental health interventions (Schiele et al., 2020). This holistic perspective, encompassing biological and environmental factors, enriches the discourse on effective treatment strategies.

Major depressive disorder

This is one of the most common mental diseases, affecting more than 350 million people worldwide, and is predicted by the World Health Organization (WHO) to become the second main factor of disability, following ischemic heart disease (Yuan et al., 2023). It is characterized by suicidal thoughts, feelings of guilt, impaired cognitive function, agitation, sleep disturbance, changes in appetite, and other symptoms. Following the COVID-19 pandemic, cases of MDD have increased tremendously (Santomauro et al., 2021). Genome-wide association studies (GWAS) have identified 80 MDD-contributing loci, which have only a negligible effect on the contribution of disease development (Levey & Stein, 2021). Generally, the inheritability of MDD accounted for only 35% (Baselmans et al., 2021). Results from epidemiological studies have strongly suggested the contribution of environmental factors to disease development. These can be stressful experiences later and early in life (Kessler, 1997; Phillips et al., 2015). Different epigenetic biomarkers involving DNA methylation, histone modifications, and specific miRNAs have been identified (Yuan et al., 2023). These could be helpful for the identification of disease progression and its development. For example, depression was found to be modulated by the hyper-methylation of the promoter for the *BDNF* gene (Januar et al., 2015).

Schizophrenia

The rise of schizophrenia has been associated with both genetics and environment (Smigielski & Jagannath, 2020). One of the main focuses of epigenetic research regarding schizophrenia is DNA methylation. A longitudinal study using monozygotic twins demonstrated psychotic symptom differences that began at the age of twelve, and showed differences in DNA methylation patterns when comparing the twins (Fisher et al., 2015). Additionally, biomarkers for schizophrenia detection have been identified. Ma et al. have pointed out three specific miRNAs – miR-22-3p, miR-92a-3p, and miR-137 – which could be used in combination to detect disease, be useful in both diagnosis and treatment monitoring (Ma et al., 2018).

Addiction

Epigenetics has long been associated with addiction, involving different epigenetic mechanisms like histone acetylation, DNA methylation, and non-coding RNAs for different substances like alcohol, cocaine, methamphetamine, and amphetamine (Hamilton & Nestler, 2019). It has been speculated that epigenetics seeks behavior mediation by regulating dopamine in the neurological system. The hypothesis has been made as to whether epigenetics could be used to battle addiction (Hamilton & Nestler, 2019). Cocaine addiction has been linked explicitly to histone acetylation increase, which influences and elevates addictive behavior, therefore suggesting that epigenetics is involved in facilitating cocaine abuse (Maze & Nestler, 2011). Methyl supplementation in rats has been shown to halt cocaine-seeking behavior (Wright & Hollis, 2015).

Regarding methamphetamine use, a study on rats discovered that the drug-induced histone hypo-acetylation repressed transcription and encouraged the addiction process. The authors used valporic acid to reverse this effect, which had an inhibiting effect on histone deacetylation, thus leading to hypo-acetylation (Jayanthi et al., 2014). The study on methamphetamine use in rats, demonstrating the reversal of drug-induced histone hypo-acetylation with valproic acid, suggests a potential avenue for therapeutic intervention. This knowledge could inform the development of pharmacological interventions targeting histone deacetylation to mitigate the addiction process in individuals with methamphetamine use disorders. Alcohol use disorder (AUD) was also associated with both DNA hyper-methylation and hypo-methylation in different promoter regions (Zhang & Gelernter, 2017), indicating the complex epigenetic changes involved in this condition. This opens up possibilities for holistic treatment approaches that combine lifestyle modification with traditional therapeutic methods for individuals with AUD. Interestingly, exercise has been found to alter epigenetic modifications associated with AUD, which could be incorporated into counseling therapy (Chen et al., 2018). These data underscore the diverse range of interventions that could be explored, from pharmacological agents targeting specific epigenetic processes to lifestyle interventions like exercise, thus highlighting the multifaceted nature of addressing substance use disorders through the lens of epigenetics.

Epigenetic modifications in mental health therapy and diagnostics

Research confirms that environmental factors could induce enduring epigenetic change. From a clinical perspective, peripheral tissue alterations could be used as diagnosis biomarkers and monitoring therapy. These epigenetic therapies include DNA methylation, mRNA modifications, miRNA, and histone modification mechanisms (Engel et al., 2018; Volk et al., 2016). Recognizing the importance of epigenetics in stress-related psychiatric disorders like PTSD and MDD unravels novel drug development targets. Research has already shown how epigenetics could be implemented in antidepressant therapy. The use of valporic acid has been documented to lead to changes in global chromatin modifications (Vialou et al., 2013). These include the hyper-acetylation of histoneH3/H4, DNA methylation, and 2MeH3K9 hypo-methylation (Perisic et al., 2010). Another common drug used to treat MDD – amitriptyline – can cause DNA demethylation and reduction in the enzymatic activity of DNA methyltransferases without affecting global histone acetylation (Zimmermann et al., 2012). Currently, miRNAs are thought to be involved in antidepressant therapy through the action of various drugs. One of the most commonly used therapies for MDD, a class of drugs known as serotonin-selective reuptake inhibitors (SSRIs) is thought to be supported by the action of miRNA-16, which also targets the serotonin transporter (SERT), as do the SSRIs (Heyer & Kenny, 2014). Repression of miRNA-16 results in elevated SERT expression. Therefore, miRNA-16 has a contributing therapeutic action for SSRI antidepressant therapy (Baudry et al., 2010).

Conclusion

A spectrum of mental health disorders, including anxiety, depression, stress, schizophrenia, and addiction has been intricately linked to the burgeoning field of epigenetics (Kumsta, 2019). Noteworthy instances of epigenetic imprinting have also been documented in stress and trauma, as exemplified by the enduring impact observed in Holocaust survivors and their descendants (Yehuda et al., 2016). The transformative role of epigenetics in reshaping approaches to mental health disorders is becoming increasingly evident. This paradigm shift is manifested through individualized treat-

ment strategies, comprehensive therapeutic interventions, and precision-targeted therapies. Central to this transformative potential is the inherent reversibility of epigenetic changes, a feature actively leveraged in these therapeutic modalities. Encouragingly, groundbreaking strides have been made in identifying promising treatment options for complex conditions such as depression and schizophrenia. Collectively, the influence of social stressors spans critical developmental stages, encompassing prenatal, early childhood, puberty, adolescence, and adulthood. This multifaceted influence extends beyond behavioral manifestations, shaping both cellular and molecular phenotypes. Crucially, these impacts are mediated by a repertoire of epigenetic mechanisms, underscoring the dynamic interplay between environmental stressors and the epigenetic landscape (Grezenko et al., 2023). Ongoing research in this dynamic field continues to unveil novel therapeutic avenues, promising continued evolution in the landscape of mental health treatment strategies.

■ ■ ■

Bela Vasileva *is an Assistant Professor at the Roumen Tsanev Institute of Molecular Biology, Bulgarian Academy of Sciences. She defended her PhD thesis in 2022 titled* Exploring the role of the linker histone Hho1p and the actin-related protein Arp4p in yeast Saccharomyces cerevisiae's aging *under the supervision of Prof. Milena Georgieva. She is working in molecular genetics and epigenetics, studying the processes of cellular aging and organismic adaptation to different types of stress at the molecular level. Her work also includes research on bioactive natural products for implementation in anti-aging therapies. Bela is a member of the Union of Bulgarian Scientists and the Federation of European Biochemical Societies (FEBS).*

George Miloshev *is Head of the Laboratory of Molecular Genetics, Epigenetics, and Longevity (LMGEL) at the Institute of Molecular Biology in Sofia, Bulgaria. His extensive expertise lies in the dynamic realms of genetics, epigenetics, and molecular biology. Leading a dedicated team within his laboratory, Prof. Miloshev delves into pivotal research addressing fundamental issues such as human aging, longevity, environmental pollution, and sterility. Prof. Miloshev has contributed significantly to the scientific community throughout his illustrious career. He has authored over 120 academic papers, garnering widespread recognition through high citation rates. He actively engages in the dissemination of scientific achievements as a fervent advocate for the popularization of science. He participates regularly in festivals, workshops, and seminars, bridging the gap between cutting-edge research and public understanding.*

Milena Georgieva *is a Professor of Molecular Biology at the Bulgarian Academy of Sciences. Her research interests are biology, genetics, epigenetics, and longevity. She has co-authored over 100 scientific publications in peer-reviewed international journals. Milena is a leader and participant*

in several research projects. She is an External Scientific Advisor at the LifeSaver project, EU Programme Horizon 2020. The project aims to ensure fetal and maternal safety. She is a co-author of the Report (in?)vincible Pandemics, *which reveals the roots of the biggest threat to humanity, the so-called non-communicable diseases. Milena is a member of the Union of Scientists in Bulgaria, the European Federation of Biochemical Societies, and the International Union of Clinical Epigenetics. She is a zealous communicator of science and a guest lecturer at scientific events, radio, and TV shows. Milena is a TED speaker.*

* Corresponding author: milenageorgy@gmail.com

REFERENCES

Alegría-Torres, J. A., Baccarelli, A., & Bollati, V. (2011). Epigenetics and lifestyle. *Epigenomics*, 3(3), 267-277. https://doi.org/10.2217/epi.11.22

Allen, J., Balfour, R., Bell, R., & Marmot, M. (2014). Social determinants of mental health. *International Review of Psychiatry*, 26(4), 392-407. https://doi.org/10.3109/09540261.2014.928270

Baselmans, B., Yengo, L., van Rheenen, W., & Wray, N. (2021). Risk in relatives, heritability, SNP-based heritability, and genetic correlations in psychiatric disorders: A review. *Biological Psychiatry*, 89(1), 11-19. https://doi.org/10.1016/j.biopsych.2020.05.034

Baudry, A., Mouillet-Richard, S., Schneider, B., Launay, J., & Kellermann, O. (2010). miR-16 targets the serotonin transporter: A new facet for adaptive responses to antidepressants. *Science*, 329(5998), 1537-1541. https://doi.org/10.1126/science.1193692

Budreviciute, A., Damiati, S., Sabir, D., Onder, K., Schuller-Goetzburg, P., Plakys, G., Katileviciute, A., Khoja, S., & Kodzius, R. (2020). Management and prevention strategies for non-communicable diseases (NCDs) and their risk factors. *Frontiers in Public Health*, 8, 574111. https://doi.org/10.3389/fpubh.2020.574111

Chen, J., Hutchison, K., Bryan, A., Filbey, F., Calhoun, V., Claus, E., Lin, D., Sui, J., Du, Y., & Liu, J. (2018). Opposite epigenetic associations with alcohol use and exercise intervention. *Frontiers in Psychiatry*, 9, 594. https://doi.org/10.3389/fpsyt.2018.00594

Cohen, J., Jackson, N., Ballestas, M., Webb, W., Lubin, F., & Clinton, S. (2017). Amygdalar expression of the microRNA miR-101a and its target Ezh2 contribute to rodent anxiety-like behaviour. *European Journal of Neuroscience*, 46(7), 2241-2252. https://doi.org/10.1111/ejn.13624

Engel, M., Eggert, C., Kaplick, P., Eder, M., Röh, S., Tietze, L., Namendorf, C., Arloth, J., Weber, P., Rex-Haffner, M., Geula, S., Jakovcevski, M., Hanna, J., Leshkowitz, D., Uhr, M., Wotjak, C., Schmidt, M., Deussing, J., Binder, E., & Chen, A. (2018). The role of m(6)A/m-RNA methylation in stress response regulation. *Neuron*, 99(2), 389-403.e389. https://doi.org/10.1016/j.neuron.2018.07.009

Fisher, H., Murphy, T., Arseneault, L., Caspi, A., Moffitt, T., Viana, J., Hannon, E., Pidsley, R., Burrage, J., Dempster, E., Wong, C., Pariante, C., & Mill, J. (2015). Methylomic analysis of monozygotic twins discordant for childhood psychotic symptoms. *Epigenetics*, 10(11), 1014-1023. https://doi.org/10.1080/15592294.2015.1099797

Global burden of 369 diseases and injuries in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. (2020). *The Lancet*, 396(10258), 1204-1222. https://doi.org/10.1016/s0140-6736(20)30925-9

Global, regional, and national burden of 12 mental disorders in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. (2022). *The Lancet Psychiatry*, 9(2), 137-150. https://doi.org/10.1016/s2215-0366(21)00395-3

Gopinathan, G., & Diekwisch, T. (2022). Epigenetics and early development. *Journal of Developmental Biology*, 10(2). https://doi.org/10.3390/jdb10020026

Grezenko, H., Ekhator, C., Nwabugwu, N., Ganga, H., Affaf, M., Abdelaziz, A., Rehman, A., Shehryar, A., Abbasi, F., Bellegarde, S., & Khaliq, A. (2023). Epigenetics in neurological and psychiatric disorders: A comprehensive review of current understanding and future perspectives. *Cureus*, 15(8), e43960. https://doi.org/10.7759/cureus.43960

Hadian, M., Mozafari, M., Mazaheri, E., & Jabbari, A. (2021). Challenges of the health system in preventing non-communicable diseases; Systematized review. *International Journal of Preventive Medicine*, 12, 71. https://doi.org/10.4103/ijpvm.IJPVM_487_20

Hamilton, J. (2011). Epigenetics: principles and practice. *Digestive Diseases*, 29(2), 130-135. https://doi.org/10.1159/000323874

Hamilton, P., & Nestler, E. (2019). Epigenetics and addiction. *Current Opinion in Neurobiology*, 59, 128-136. https://doi.org/https://doi.org/10.1016/j.conb.2019.05.005

Han, M., Jia, L., Lv, W., Wang, L., & Cui, W. (2019). Epigenetic enzyme mutations: Role in tumorigenesis and molecular inhibitors. *Frontiers in Oncology*, 9, 194. https://doi.org/10.3389/fonc.2019.00194

Handy, D., Castro, R., & Loscalzo, J. (2011). Epigenetic modifications: Basic mechanisms and role in cardiovascular disease. *Circulation*, 123(19), 2145-2156. https://doi.org/10.1161/circulationaha.110.956839

Heyer, M., & Kenny, P. (2014). MicroRNA-mediated repression combats depression. *Neuron*, 83(2), 253-254. https://doi.org/10.1016/j.neuron.2014.07.008

Januar, V., Ancelin, M., Ritchie, K., Saffery, R., & Ryan, J. (2015). BDNF promoter methylation and genetic variation in late-life depression. *Translational Psychiatry*, 5(8), e619. https://doi.org/10.1038/tp.2015.114

Jayanthi, S., McCoy, M., Chen, B., Britt, J., Kourrich, S., Yau, H., Ladenheim, B., Krasnova, I., Bonci, A., & Cadet, J. (2014). Methamphetamine downregulates striatal glutamate receptors via diverse epigenetic mechanisms. *Biological Psychiatry*, 76(1), 47-56. https://doi.org/10.1016/j.biopsych.2013.09.034

Jin, B., Li, Y., & Robertson, K. (2011). DNA methylation: Superior or subordinate in the epigenetic hierarchy? *Genes & Cancer*, 2(6), 607-617. https://doi.org/10.1177/1947601910393957

Kessler, R. (1997). The effects of stressful life events on depression. *Annual Review of Psychology*, 48, 191-214. https://doi.org/10.1146/annurev.psych.48.1.191

Kumari, P., Khan, S., Wani, I., Gupta, R., Verma, S., Alam, P., & Alaklabi, A. (2022). Unravelling the role of epigenetic modifications in development and reproduction of angiosperms: A critical appraisal. *Frontiers in Genetics*, 13, 819941. https://doi.org/10.3389/fgene.2022.819941

Kumsta, R. (2019). The role of epigenetics for understanding mental health difficulties and its implications for psychotherapy research. *Psychology and Psychotherapy: Theory, Research and Practice*, 92(2), 190-207. https://doi.org/https://doi.org/10.1111/papt.12227

Lee, I., Shiroma, E., Lobelo, F., Puska, P., Blair, S., & Katzmarzyk, P. (2012). Effect of physical inactivity on major non-communicable diseases worldwide: An analysis of burden of disease and life expectancy. *The Lancet*, 380(9838), 219-229. https://doi.org/10.1016/s0140-6736(12)61031-9

Lee, J., Jaini, P., & Papa, F. (2022). An epigenetic perspective on lifestyle medicine for depression: Implications for primary care practice. *American Journal of Lifestyle Medicine*, 16(1), 76-88. https://doi.org/10.1177/1559827620954779

Lester, B., Conradt, E., & Marsit, C. (2016). Introduction to the special section on epigenetics. *Child Development*, 87(1), 29-37. https://doi.org/10.1111/cdev.12489

Lester, B., & Marsit, C. (2018). Epigenetic mechanisms in the placenta related to infant neurodevelopment. *Epigenomics*, 10(3), 321-333. https://doi.org/10.2217/epi-2016-0171

Levey, D., & Stein, M. (2021). Bi-ancestral depression GWAS in the Million Veteran Program and meta-analysis in >1.2 million individuals highlight new therapeutic directions. *Nature Neuroscience*, 24(7), 954-963. https://doi.org/10.1038/s41593-021-00860-2

Ma, J., Shang, S., Wang, J., Zhang, T., Nie, F., Song, X., Heping, Z., Zhu, C., Zhang, R., & Hao, D. (2018). Identification of miR-22-3p, miR-92a-3p, and miR-137 in peripheral blood as biomarker for schizophrenia. *Psychiatry Research*, 265, 70-76. https://doi.org/10.1016/j.psychres.2018.03.080

Maze, I., & Nestler, E. (2011). The epigenetic landscape of addiction. *Annals of the New York Academy of Sciences*, 1216, 99-113. https://doi.org/10.1111/j.1749-6632.2010.05893.x

McGowan, P., Sasaki, A., D'Alessio, A., Dymov, S., Labonté, B., Szyf, M., Turecki, G., & Meaney, M. (2009). Epigenetic regulation of the glucocorticoid receptor in human brain associates with childhood abuse. *Nature Neuroscience*, 12(3), 342-348. https://doi.org/10.1038/nn.2270

Mishra, V., Srivastava, S., & Muhammad, T. (2022). Relationship between tobacco use, alcohol consumption and non-communicable diseases among women in India: Evidence from National Family Health Survey-2015-16. *BMC Public Health*, 22(1), 713. https://doi.org/10.1186/s12889-022-13191-z

Nestler, E., Peña, C., Kundakovic, M., Mitchell, A., & Akbarian, S. (2016). Epigenetic basis of mental illness. *Neuroscientist*, 22(5), 447-463. https://doi.org/10.1177/1073858415608147

Oberlander, T., Weinberg, J., Papsdorf, M., Grunau, R., Misri, S., & Devlin, A. (2008). Prenatal exposure to maternal depression, neonatal methylation of human glucocorticoid receptor gene (NR3C1) and infant cortisol stress responses. *Epigenetics*, 3(2), 97-106. https://doi.org/10.4161/epi.3.2.6034

Ouellet-Morin, I., Wong, C., Danese, A., Pariante, C., Papadopoulos, A., Mill, J., & Arseneault, L. (2013). Increased serotonin transporter gene (SERT) DNA methylation is associated with bullying victimization and blunted cortisol response to stress in childhood: A longitudinal study of discordant monozygotic twins. *Psychological Medicine*, 43(9), 1813-1823. https://doi.org/10.1017/s0033291712002784

Palmisano, M., & Pandey, S. (2017). Epigenetic mechanisms of alcoholism and stress-related disorders. *Alcohol*, 60, 7-18. https://doi.org/10.1016/j.alcohol.2017.01.001

Perisic, T., Zimmermann, N., Kirmeier, T., Asmus, M., Tuorto, F., Uhr, M., Holsboer, F., Rein, T., & Zschocke, J. (2010). Valproate and amitriptyline exert common and divergent influences on global and gene promoter-specific chromatin modifications in rat primary astrocytes. *Neuropsychopharmacology*, 35(3), 792-805. https://doi.org/10.1038/npp.2009.188

Perroud, N., Paoloni-Giacobino, A., Prada, P., Olié, E., Salzmann, A., Nicastro, R., Guillaume, S., Mouthon, D., Stouder, C., Dieben, K., Huguelet, P., Courtet, P., & Malafosse, A. (2011). Increased methylation of glucocorticoid receptor gene (NR3C1) in adults with a history of childhood maltreatment: a link with the severity and type of trauma. *Translational Psychiatry*, 1(12), e59. https://doi.org/10.1038/tp.2011.60

Phillips, A., Carroll, D., & Der, G. (2015). Negative life events and symptoms of depression and anxiety: Stress causation and/or stress generation. *Anxiety, Stress & Coping: An International Journal*, 28(4), 357-371. https://doi.org/10.1080/10615806.2015.1005078

Piovani, D., & Nikolopoulos, G. K. (2022). Non-communicable diseases: The invisible epidemic. *Journal of Clinical Medicine*, 11(19). https://doi.org/10.3390/jcm11195939

Plaza-Diaz, J., Izquierdo, D., Torres-Martos, Á., Baig, A., Aguilera, C., & Ruiz-Ojeda, F. (2022). Impact of physical activity and exercise on the epigenome in skeletal muscle and effects on systemic metabolism. *Biomedicines*, 10(1). https://doi.org/10.3390/biomedicines10010126

Rasesemola, R., Mmusi-Phetoe, R., & Havenga, Y. (2023). Social determinants of health in non-communicable diseases prevention policies in South Africa. *Curationis*, 46(1), e1-e8. https://doi.org/10.4102/curationis.v46i1.2387

Roth, T. (2013). Epigenetic mechanisms in the development of behavior: Advances, challenges, and future promises of a new field. *Development and Psychopathology*, 25(4pt2), 1279-1291. https://doi.org/10.1017/s0954579413000618

Šalamon Arčan, I., Kouter, K., & Videtič Paska, A. (2022). Depressive disorder and antidepressants from an epigenetic point of view. *World Journal of Psychiatry*, 12(9), 1150-1168. https://doi.org/10.5498/wjp.v12.i9.1150

Santomauro, D., Mantilla Herrera, A., Shadid, J., Zheng, P., Ashbaugh, C., Pigott, D., Abbafati, C., Adolph, C., Amlag, J., Aravkin, A., Bang-Jensen, B., Bertolacci, G., Bloom, S., Castellano, R., Castro, E., Chakrabarti, S., Chattopadhyay, J., Cogen, R., Collins, J., . . . Ferrari, A. (2021). Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic. *The Lancet*, 398(10312), 1700-1712. https://doi.org/https://doi.org/10.1016/S0140-6736(21)02143-7

Schiele, M., Gottschalk, M., & Domschke, K. (2020). The applied implications of epigenetics in anxiety, affective and stress-related disorders - A review and synthesis on psychosocial stress, psychotherapy and prevention. *Clinical Psychology Review*, 77, 101830. https://doi.org/https://doi.org/10.1016/j.cpr.2020.101830

Severo, M., Ventriglio, A., Bellomo, A., Iuso, S., & Petito, A. (2023). Maternal perinatal depression and child neurocognitive development: A relationship still to be clarified [Perspective]. *Frontiers in Psychiatry*, 14. https://doi.org/10.3389/fpsyt.2023.1151897

Shimada-Sugimoto, M., Otowa, T., & Hettema, J. (2015). Genetics of anxiety disorders: Genetic epidemiological and molecular studies in humans. *Psychiatry and Clinical Neurosciences*, 69(7), 388-401. https://doi.org/10.1111/pcn.12291

Slomian, J., Honvo, G., Emonts, P., Reginster, J., & Bruyère, O. (2019). Consequences of maternal postpartum depression: A systematic review of maternal and infant outcomes. *Women's Health (London)*, 15, 1745506519844044. https://doi.org/10.1177/1745506519844044

Smigielski, L., & Jagannath, V. (2020). Epigenetic mechanisms in schizophrenia and other psychotic disorders: A systematic review of empirical human findings. *Molecular Psychiatry*, 25(8), 1718-1748. https://doi.org/10.1038/s41380-019-0601-3

Sousa Pinto, G., Bader, L., Billberg, K., Criddle, D., Duggan, C., El Bizri, L., Gharat, M., Hogue, M., Jacinto, I., Oyeneyin, Y., Zhou, Y., & Laven, A. (2020). Beating non-communicable diseases in primary health care: The contribution of pharmacists and guidance from FIP to support WHO goals. *Research in Social and Administrative Pharmacy*, 16(7), 974-977. https://doi.org/10.1016/j.sapharm.2019.10.008

Suderman, M., Borghol, N., Pappas, J., Pinto Pereira, S., Pembrey, M., Hertzman, C., Power, C., & Szyf, M. (2014). Childhood abuse is associated with methylation of multiple loci in adult DNA. *BMC Medical Genomics*, 7(1), 13. https://doi.org/10.1186/1755-8794-7-13

Szyf, M. (2009). The early life environment and the epigenome. *Biochimica et Biophysica Acta*, 1790(9), 878-885. https://doi.org/10.1016/j.bbagen.2009.01.009

Trivedi, J., Tripathi, A., Dhanasekaran, S., & Moussaoui, D. (2014). Preventive psychiatry: Concept appraisal and future directions. *International Journal of Social Psychiatry*, 60(4), 321-329. https://doi.org/10.1177/0020764013488570

Vaiserman, A., & Koliada, A. (2017). Early-life adversity and long-term neurobehavioral outcomes: Epigenome as a bridge? *Human Genomics*, 11(1), 34. https://doi.org/10.1186/s40246-017-0129-z

Verdone, L., Caserta, M., Ben-Soussan, T., & Venditti, S. (2023). Chapter Thirteen - On the road to resilience: Epigenetic effects of meditation. In G. Litwack (Ed.), *Vitamins and Hormones* (Vol. 122, pp. 339-376). Academic Press. https://doi.org/https://doi.org/10.1016/bs.vh.2022.12.009

Vialou, V., Feng, J., Robison, A., & Nestler, E. (2013). Epigenetic mechanisms of depression and antidepressant action. *The Annual Review of Pharmacology and Toxicology*, 53, 59-87. https://doi.org/10.1146/annurev-pharmtox-010611-134540

Volk, N., Pape, J., Engel, M., Zannas, A., Cattane, N., Cattaneo, A., Binder, E., & Chen, A. (2016). Amygdalar microRNA-15a is essential for coping with chronic stress. *Cell Reports*, 17(7), 1882-1891. https://doi.org/10.1016/j.celrep.2016.10.038

Wei, J., Huang, K., Yang, C., & Kang, C. (2017). Non-coding RNAs as regulators in epigenetics (Review). *Oncology Reports*, 37(1), 3-9. https://doi.org/10.3892/or.2016.5236

Wright, K., & Hollis, F. (2015). Methyl supplementation attenuates cocaine-seeking behaviors and cocaine-induced c-Fos activation in a DNA methylation-dependent manner. *The Journal of Neuroscience*, 35(23), 8948-8958. https://doi.org/10.1523/jneurosci.5227-14.2015

Yehuda, R., Daskalakis, N., Bierer, L., Bader, H., Klengel, T., Holsboer, F., & Binder, E. (2016). Holocaust exposure induced intergenerational effects on FKBP5 methylation. *Biological Psychiatry*, 80(5), 372-380. https://doi.org/10.1016/j.biopsych.2015.08.005

Yehuda, R., Engel, S., Brand, S., Seckl, J., Marcus, S., & Berkowitz, G. (2005). Transgenerational effects of posttraumatic stress disorder in babies of mothers exposed to the World Trade Center attacks during pregnancy. *The Journal of Clinical Endocrinology and Metabolism*, 90(7), 4115-4118. https://doi.org/10.1210/jc.2005-0550

Yuan, M., Yang, B., Rothschild, G., Mann, J., Sanford, L., Tang, X., Huang, C., Wang, C., & Zhang, W. (2023). Epigenetic regulation in major depression and other stress-related disorders: Molecular mechanisms, clinical relevance and therapeutic potential. *Signal Transduction and Targeted Therapy*, 8(1), 309. https://doi.org/10.1038/s41392-023-01519-z

Zhang, H., & Gelernter, J. (2017). Review: DNA methylation and alcohol use disorders: Progress and challenges. *The American Journal on Addictions*, 26(5), 502-515. https://doi.org/10.1111/ajad.12465

Zimmermann, N., Zschocke, J., Perisic, T., Yu, S., Holsboer, F., & Rein, T. (2012). Antidepressants inhibit DNA methyltransferase 1 through reducing G9a levels. *Biochemical Journal*, 448(1), 93-102. https://doi.org/10.1042/bj20120674

The Effect of Body Psychotherapy on the Body's Water Matrix

As Seen by NIR Spectroscopy and Aquaphotomics

Ilina Iordanova, Roumiana Tsenkova, Kolio Iordanov, Daniel Todorov, Alexander Stoilov, Shogo Shigeoka, Madlen Algafari

ABSTRACT

Aquaphotomics is a new discipline that uses spectroscopy to examine how water molecules change conformation under certain stimuli or perturbations (Tsenkova, R., 2006, 2009; Bazar et al., 2015; Muncan & Tsenkova, 2023; Tsenkova et al., 2018). Here we describe a novel non-invasive method for collecting NIR spectra from the palms of participants in body psychotherapy sessions at the Bulgarian Neo-Reichian Institute for Analytical Therapy, which after multivariate data spectral analysis allowed us to decipher structural changes in their water molecular matrices at the end of each session. Our results point to a structural coherence between the participants, as well as a healthier, more energized, and stress-free water matricidal signature.

Keywords: body psychotherapy, body-mind, aquaphotomics, water matrix, wellbeing, aquagrams, NIR spectroscopy

Submitted: 16.12.2022
Accepted: 28.12.2023
International Body Psychotherapy Journal
The Art and Science of Somatic Praxis
Volume 22, Number 2,
Winter 2023-2024, pp. 29-40
ISSN 2169-4745 Printing, ISSN 2168-1279 Online

> ***Perhaps parallels can be drawn between the state of the brain and the state of our water matrix.***

Aquaphotomics is a new "–omics" discipline introduced by Professor Roumiana Tsenkova at Kobe University, Japan (Tsenkova et al., 2018). It studies how water's molecular structure changes in vivo with controlled stimuli, known as perturbations. In this study, the perturbation was a body-mind psychotherapy session, and the readouts were aquagrams, which are visual graphic representations of the changes in water absorption of spectrum of light in the NIR (near infrared) band of the spectrum that briefly illuminated the participants' palms.

Water is the basis of all living systems. Without water there is no life. We as humans are made of around 70% water bound to proteins, sugars, DNA, RNA molecules, and lipids. This very simple molecule comprised of one oxygen and two hydrogen atoms bound together acts like a glue, which binds the intracellular and extracellular machinery of all living creatures and aqueous solutions. Not only

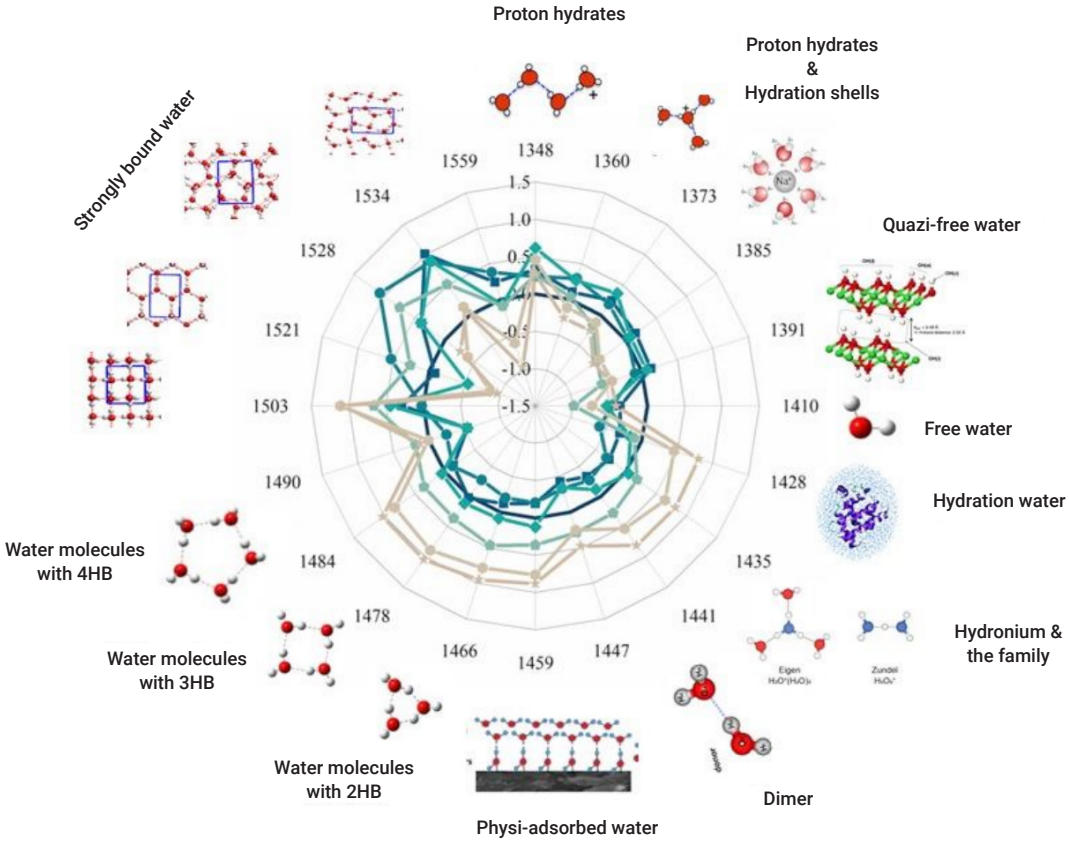
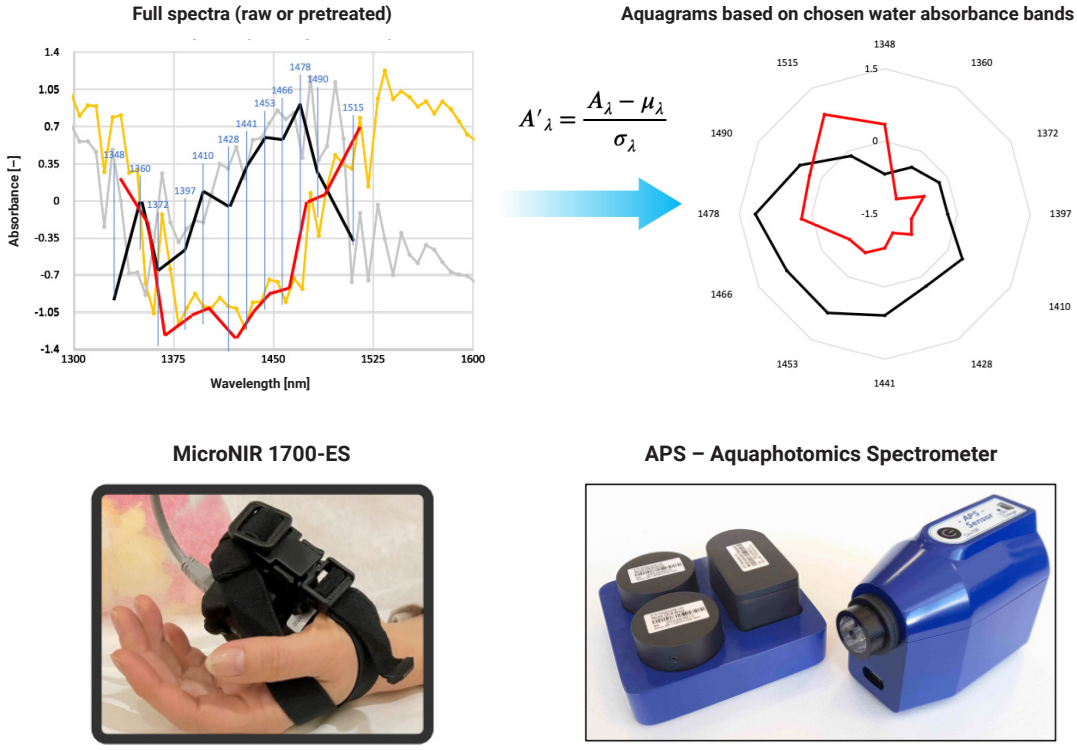


Figure 1. *An aquagram representing the different water molecular conformations detected at each wavelength in a circular fashion starting from 1300–1600 nm.*

does it hold everything in place, but it is also essential for the work of the cell (Chaplin, 2006)[1]. All water molecules are like weak magnets; they have a positive end – the two hydrogen atoms, and a negative end – the oxygen atom. The molecule forms a dipole. Like all magnets, positive attracts negative; if you place a bunch of small magnets together, they will clump around each other in a certain configuration. If you place stronger magnets around them, that would change the configuration again. This is what happens with water as well. The weak magnets form hydrogen bonds, which cause water molecules to fall into various configurations with each other, yielding different water species with unique structures and reactive properties (Brini et al., 2017; Chaplin, 2000). Figure 1, a schematic representation of an aquagram, shows water molecules bound to proteins and sugars to form hydration and salvation shells in the top right, highly reactive small water clusters with one, two, and three hydrogen bonds on the bottom, and highly structured water lattices on the top left.

All these different water species with their various hydrogen bonds vibrate at a certain frequency. When the frequency of vibration matches the wavelength of light coming towards it, the water species absorbs the light, and that is how we know it is there. With our spectrophotometers we record all illuminated photons of various wavelengths at the start, and all photons transmitted through the tissue and arriving at the end. Those that are missing have been absorbed into the tissue. Many

1. (https://water.lsbu.ac.uk/water/martin_chaplin.html).



The two portable spectrophotometers used in the study

Figure 2. *A picture of the instruments and a graphic showing the transformation of the raw spectral data spectra to an aquagram.*

years of work and collaboration between spectroscopists, physicists, and computer model builders have helped to decipher the absorption spectrum of aqueous solutions and living organisms (Tsenkova, R., 2010, 2018; Muncan, J. et al., 2019; Ma et al., 2023; Tsenkova et al., 2015). Aquaphotomics is based on that knowledge and continues to build on it.

Here we present the first of its kind study where a portable spectrophotometer in the NIR range was used to look at the structural changes of water in human participants in mind body psychotherapy sessions. We hope you enjoy reading about it.

Study Design: Materials and Methods

Measurements. Two portable NIR spectrophotometers were used to take measurements from each participant: MicroNIR-Viavi Solutions, Santa Rosa, CA, USA, in the spectral range 908-1607 nm with approximately 7 nm resolution step, and APS-DTK Electronics, Sofia, Bulgaria, in the spectral range 600-1000 nm. The probes, as seen in Figure 2, comprise a small device that emits harmless light and is gently placed on the left palm of each participant. Seven consecutive measurements are taken over a total of 45 seconds. The probe was handheld by each participant. Before the measurements were taken, each participant quickly responded to 10 questions which rated their wellbeing with a score from 1 to 10, where 1 was *least agree* and 10 was *most agree*. The qualities rated were joy, happiness, confidence, inner peace, and confusion, which was rated with a negative score. A wellbeing total was later calculated for each participant, and the results correlated to any changes seen on the aquagrams. A separate correlation was done using each of the 10 graded components/questions.

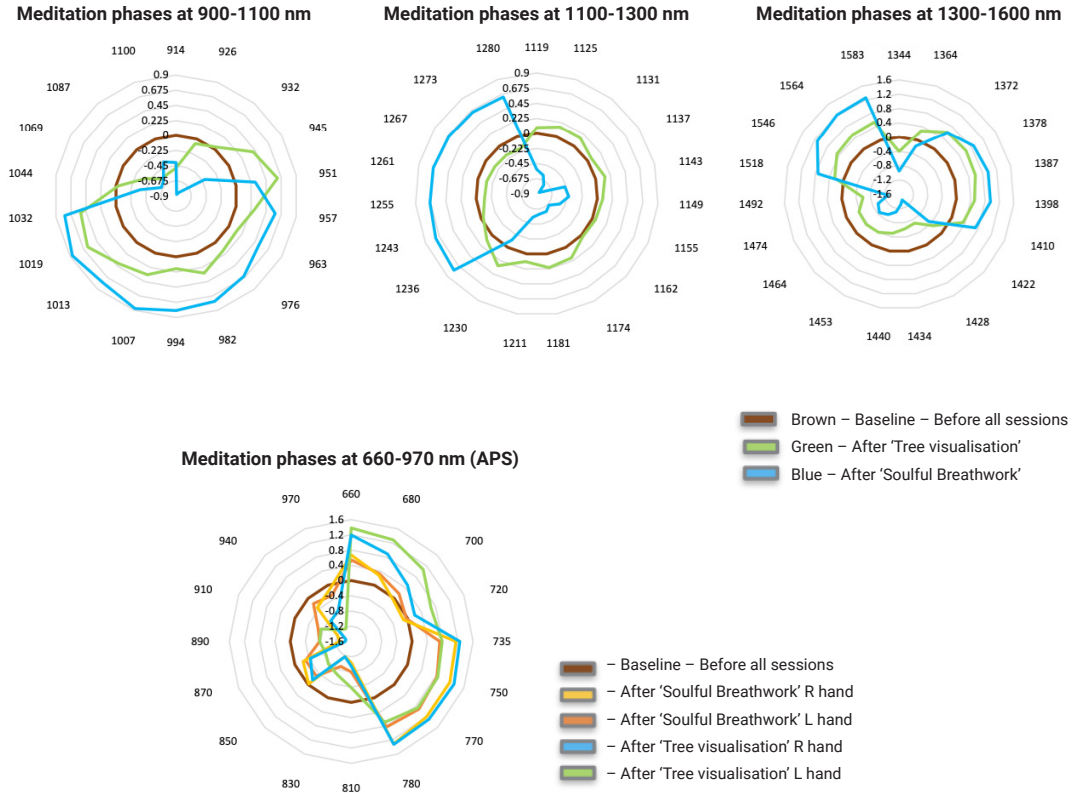


Figure 3. *A panel comprising the aquagrams of individual participants. Each aquagram has three lines – the baseline in brown, the measurement after the tree visualization session in light green, and the final measurement after the soulful breathing session in blue.*

Repeat measurements were acquired in an identical manner, using the same hand after each psychotherapy session by each participant. The measurements were taken as the participant exited the session room so that other influences were reduced to a minimum. A parallel questionnaire on wellbeing was also completed by the participant. With the APS device, a measurement was taken from both hands after each session in order to see whether laterality mattered.

Psychotherapy sessions. The first psychotherapy session was a reflective session called *the tree*, where participants lay on a mat on the floor with their eyes closed. Through the gentle guidance of the session leader, they were encouraged to imagine they were a tree with deep roots weathering different storms, and enjoying the sun when it came up. The session lasted 20 minutes. The second session, called *soulful breathing*, was also initially guided by the session leader. It focused on deep breathing and allowing various thoughts to freely enter one's mind. Deep breathing, part of neo-Reichian mind-body psychotherapy, continued throughout the session, which lasted an hour. In similar fashion, each participant was scanned immediately after exiting the room and completed a wellbeing questionnaire.

Data analysis. The SNV – Standard Normal Variate – method normalizes the spectra by subtracting from each spectrum its own mean, and dividing it by its own standard deviation. SNV attempts to make all spectra comparable in terms of intensity (or absorbance level). It can be useful to correct spectra for changes in optical path length and light scattering. The SNV values are plotted on the aquagrams presented.

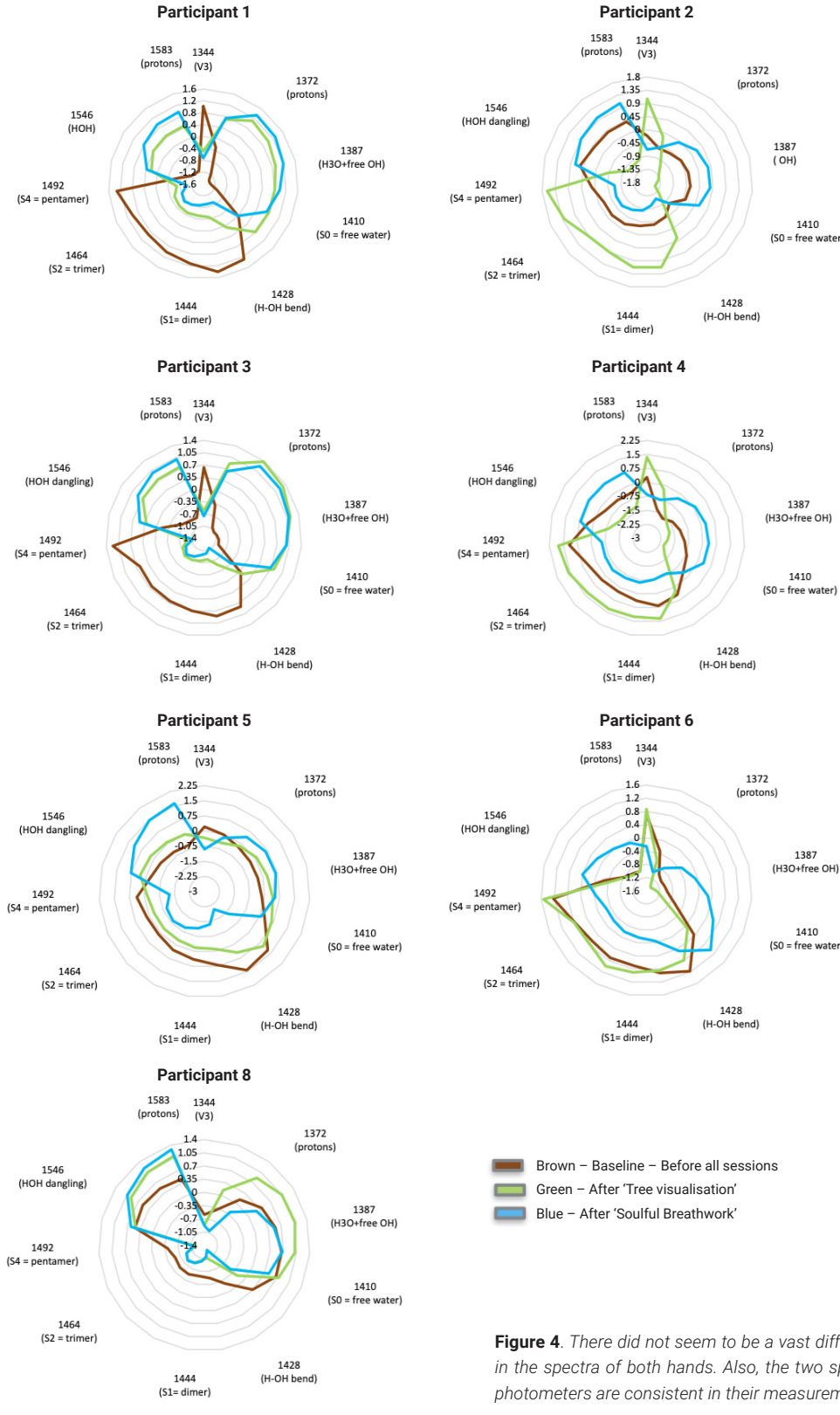


Figure 4. *There did not seem to be a vast difference in the spectra of both hands. Also, the two spectrophotometers are consistent in their measurements.*

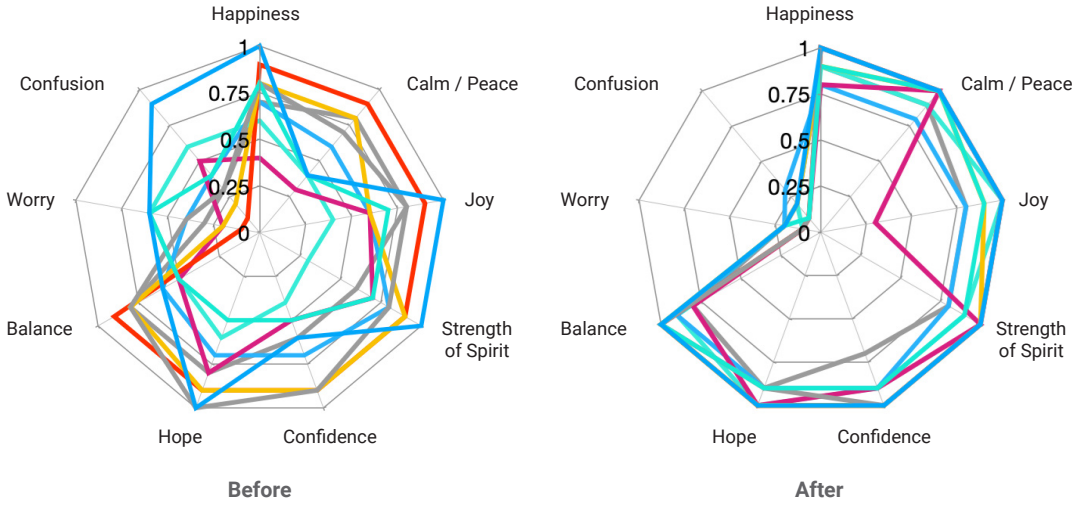


Figure 5. *A panel of three graphs showing the combined well-being questionnaire results before and after the sessions for each participant, as well as the average results.*

Results

Examining the raw spectra and after the SNV analysis, it is clear that all participants had a different aquagram to start with. In other words, their tissue water matrix had a unique mixture of water species bound to each other and to other biomolecules and ions. Participant 1, for example, had an abundance of water species absorbing between 1430 and 1490 nm, which is where the hydrogen bonded small reactive water clusters reside (Figure 3). In contrast, Participant 2 had no small reactive water clusters, but instead had an equal number of all water species, with a small predominance of the highly structured water lattice absorbing between 1510 and 1570 nm. Different still was Participant 8, who had hardly any small water clusters, and instead was rich in hydrated protons and ionically bound small water molecules forming hydration shells around proteins.

At the end of the first therapy session, which was the tree visualization lasting 20 minutes, the individual aquagrams continue to differ among participants (Figure 3). Participant 1 suddenly lost all their small reactive water clusters, and drastically increased their water solvation shells, hydroxylated water clusters, and proton – all absorbing between 1372 and 1420 nm. In contrast, Participant 2 increased their small reactive water clusters, absorbing between 1430 and 1480 nm at the expense of all other water species except for V3, which absorbs 1344 nm. Participant 5 favored reactive free water molecules known as S0, which absorbed 1410 nm after the tree visualization session. We thus see a variety of water molecular conformations at the outset, and a variety after the first psychotherapy session. In some participants, the changes in the water matrix are dramatic and qualitative (Participants 1, 2, and 3), while in others (Participants 4, 5, 6, and 8), they are small and mainly quantitative.

What is interesting is that following the second psychotherapy session of soulful breathing lasting about an hour, the aquagrams of all participants resembled each other (Figure 3). The shape of a two-winged butterfly can be seen in all seven aquagrams by looking at the pale blue line, which signifies the measurement after the second psychotherapy session. The left wing shows the increased absorption of hydrogen-bonded water molecules forming a lattice, while the right wing has hydrated protons, strongly bound to ions of single water molecules forming hydration and solvation shells. There is a small underbelly, too, pointing to a small reactive water cluster between S1 and S2 at 1454 nm, which, however, is much smaller compared to the wings.

Moving on to Figure 4, we see three aquagrams, which represent the average of all participants'

SNV data normalized to each participant's baseline (the brown line represents the baseline at 0). Focusing on the 1300 to 1600 nm range (the third from left to right), which represents the first overtone of water, one notices the above-mentioned butterfly in blue spanning the same regions. It is interesting that the pale green line of the first session closely resembles the blue line, suggesting that overall, the psychotherapy sessions move towards and achieve the water matrix conformation split between weakly oscillating lattices, and hydration shells with almost no reactive water clusters. This observation is confirmed by the absorption patterns at 1100 to 1300 nm (second aquagram) and 900 to 1100 nm (first aquagram), containing the second overtone of the water absorption bands, as well as by the bottom aquagram, which shows absorption in the first overtone of water absorption between 660 and 970 nm. The last aquagram was built using data from the second handheld spectrophotometer, called APS. Despite there being more overlap of information in the shorter wavelengths, they penetrate further into the tissue, and can be more informative in that way. We measured both hands at the same location following each session with the APS instrument in order to see whether there was a significant difference between the two. There did not seem to be a vast difference in the spectra of both hands. Also, the two spectrophotometers are consistent in their measurements.

Looking at the subjective way each participant graded their well-being before and after sessions, there was an average increase in the total score from 5.7 to 6.8 points. We can observe this positive trend in the individual graphs of each participant as well (Figure 5). Happiness, peace, joy, strength of spirit, confidence, and hope increase, while worry and confusion decrease. These results point to the positive impact that the mind-body psychotherapy sessions have on how people feel about themselves and the world.

Discussion

The idea for this study was born over a discussion between friends, whereby one asked whether emotions leave a footprint on our cellular water matrix. We intuitively know that good emotions make us feel happy, and happy people are healthier and live longer, while bad or negative emotions bring stress, and lead to disease. Mind-body psychotherapy helps us address and release stress from our bodies. We came up with the idea of using aquaphotomics to examine the changes in water matrix brought about through mind-body analytical psychotherapy sessions.

It is important to note that performing the actual measurement was easy, quick, and reliable. This was all thanks to the two portable light spectrophotometers, MicroNIRS and APS, which take spectra quickly, painlessly, and with great precision. There are no known harmful effects to the skin, connective tissue, and muscle in the hand, where the measurements were performed. The intensity of the light is minimal – enough to collect data and not too much to change the scanned tissue in any lasting way. APS uses shorter wavelengths in order to penetrate deeper into the tissue without having to increase intensity, and its newly built software generates aquagrams automatically. After several pilot experiments, we realized that it is very important to perform the measurements very close to the end of the session and before the participant has started talking, eating, drinking, or simply thinking about something else. The more the participant was immersed in the session, the more consistent the results. The wellbeing questionnaire was usually completed after or just before the measurements were taken, which makes us think it was also a good reflection of the participant's internal state.

Our participants all had very different aquagrams at the outset. After the second session, the aquagrams all resembled each other, which would suggest that the participants had synchronized in some way in the mind-body psychotherapy sessions, or that the sessions led to structuring their water molecules in a particular way. Synchronization of breathing, heart rate, and even brain waves has already observed and documented in mind-body psychotherapy sessions (Matiz et al., 2021); hence, this was no surprise. But what is the significance of what happens to the cellular water matrix in our participants' bodies when they attend the mindfulness sessions?

To answer this question, we need to look at the aquaphotomics literature published over the last 20 years, where thousands of NIR absorption spectra have been collected and analyzed, and parallels drawn. These include diagnostics and understanding of mammary gland inflammation in cows

(Tsenkova et al., 2001), prion protein fibrillation (Tsenkova, R., 2004), ovulating pandas (Kinoshita et al., 2016; Kinoshita et al., 2012), soybean plants with tobacco mosaic viruses (Jinendra et al., 2010), resurrection plants (Kuroki et al., 2019) and mice with prion proteins and insulin fibrillation (Chatani et al., 2014; Tsenkova et al., 2004). We also must review research published on the physicochemical properties of water determined through experiments (Brini et al., 2017; Chaplin, 2000), and at computer models describing how water molecules interact with each other under certain conditions and the different structures they form (Brini et al., 2017; Kovacs et al., 2020; Muncan & Tsenkova, 2023).

Going back to the model aquagram in the beginning, which describes the different water structures detected under the first overtone of stretching vibrations of water between 1300 and 1600 nm, we understand that light absorption in the far right between 1300 and 1400 nm reflects the presence of the "working" water species – free water molecules and those forming hydration shells around proteins, sugars, DNA (Zhang et al., 2007), etc. They are present when there is normal metabolism in the cell; they are important for homeostasis and day-to-day cellular functions in a balanced, healthy organism (Averina et al., 2023). On the far left of the model aquagram between 1500 and 1600 nm, one sees the highly structured water lattice of weak hydrogen bonds, which are again seen in health (Hassanali et al., 2013). They act like water batteries, and release energy when needed (Kovacs et al., 2021; Muncan, J. et al., YEAR). A composite of these two water structures is seen to predominate following the last psychotherapy session – the above-mentioned butterfly, which shows a healthy cellular arrangement.

The water structures missing from our post-psychotherapy session aquagrams are the so-called small reactive water clusters found between 1400 and 1500 nm, known as S0, S1, S2, S3, and S4 (Zhang et al., 2021). The numbers refer to the number of hydrogen bonds formed between the water molecules. S0 is a single water molecule with no H-bonds, S1 is a dimer with 2 H-bonds, S3 is a pentamer, and so on (Chaplin, 2000). Different experiments have shown that these water clusters appear when the living system is under stress – during inflammation (Tsenkova et al., 1999), post-radiation (Tsenkova et al., unpublished data), and desiccation (Kuroki et al., 2019), or when bombarded with free radicals (Muncan & Tsenkova, 2019), etc. These highly reactive small water clusters are not a sign of health, but a sign of emergency measures employed to keep the organism alive. They are also present when it finally dies. These water structures are the ones that are greatly reduced by our psychotherapy sessions. Simply put, the hour-long soulful breathing analytical psychotherapy session seems to restore the healthy balanced water signature in the body while reducing stressful, emergency measure structures.

Further work needs to be done to elucidate the mechanisms through which these psychotherapy sessions elicit their effects on a physical level. A lot of research is currently underway on monitoring the brain during mindfulness sessions through fMRI and EEG recordings (Ahani et al., 2014; Matiz et al., 2021). Perhaps parallels can be drawn between the state of the brain and the state of our water matrix. This is the first time such an experiment has been performed in psychology, and one of the very first in humans. NIR spectroscopy and aquaphotomics is a rapidly growing scientific field spanning many disciplines. We hope this work in psychotherapy can be developed further through collaborations as we continue to understand how our minds affects our bodies.

Acknowledgements

We would like to thank the Bulgarian Neo-Reichian Institute for Analytical Psychotherapy for providing the space and setup for the study, as well as for financial support. The Aquaphotomics laboratory at Kobe University in Japan provided the MicroNIRS spectrophotometer, while DTK Electronics built the APS device, together with Professors Roumiana Tsenkova and Kolio Iordanov. Alexander Stoilov at Yunosato Aquaphotomics Laboratory analyzed the spectral data and built the aquagrams. Dr. Ilina Iordanova designed and conducted the experiments in collaboration with psychotherapist Madlen Algafari, and developed the wellbeing questionnaire.

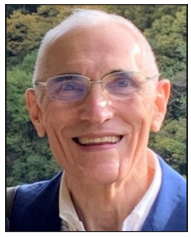
Ilina Iordanova, MD, PhD, *is a trainee neurosurgeon at ISUL Queen Joanna Medical Center in Sofia, Bulgaria. She obtained her MD (MB PhD) at the University of Cambridge Clinical School and the Department of Physiology, Development and Neuroscience under the supervision of Prof. William Harris. While at Cambridge, she forged a collaboration between Dr David Brown and Prof. Roumiana Tsenkova, which lead to the study of prion proteins with NIR spectroscopy and laying the foundations of aquaphotomics. Following foundation training at NHS hospitals in the UK, Dr Iordanova pursued postdoctoral research at the Department of Neurosurgery at Stanford University Medical Center under the supervision of Prof. Gary Steinberg. There, she focused on the role of Wnt-3a signaling in post-stroke recovery in mice. In Spring of 2022, Dr Iordanova contributed to the collaborative efforts between Prof Tsenkova from Kobe University, Japan, and Madlen Algafari at the Bulgarian Neo-Reichian Institute for Analytical Psychotherapy by conducting the current study.*

Aquaphotomics Research Department
Graduate School of Agricultural Science
Kobe University, Kobe 657-8501, Japan
Email: ilina.iordanova@googlemail.com (corresponding author)

Roumiana Tsenkova, *Professor at Kobe University, Graduate School of Agricultural Science, Aquaphotomics Research Field has pioneered the area of non-invasive disease diagnosis with near infrared spectroscopy (NIRS) and multivariate analysis. Dr. Tsenkova is the founder of a new "omics" discipline called Aquaphotomics. In 2005, she discovered water absorbance bands specific for biological and aqueous systems and proposed to build up a database called aquaphotome to be further used for diagnosis, quantification and functional characterization on a system level discovering the phenomena of water being a mirror.*

Dr. Tsenkova has written more than 20 chapters in books, 120 papers and has 17 patent applications. The total number of citations of her work exceeds 4400. She has been a PI for more than 21 projects. She is the recipient of the Japanese Near Infrared Society Award *for 1998 and the* Tomas Hirshfeld International Near Infrared Spectroscopy Award *for 2006. Dr. Tsenkova has been a keynote speaker at a number of national and international conferences, including the UN 2023 Water Conference in New York, organized by the United Nations.*

Aquaphotomics Research Department,
Graduate School of Agricultural Science
Kobe University, Kobe 657-8501, Japan
Email: rtsen@kobe-u.ac.jp (corresponding author)



Kolio Iordanov *is a software system engineer who graduated from Ruse Technical University in 1979. He has worked for Japanese software companies since 1993 and helped develop various software and platforms. After his retirement in 2021, he joined the laboratory of Professor Roumiana Tsenkova at Kobe University, Japan and is using his skills to build and run an aquaphotomics database. Since 2016, has collaborated with Daniel Todorov of DTK Electronics in building a specialized VIS-NIR spectrophotometer for expanding the knowledge of aquaphotomics.*

Aquaphotomics Research Department
Graduate School of Agricultural Science
Kobe University, Kobe 657-8501, Japan
Email: kiordanov@gmail.com

Daniel Todorov *is the executive director of DTK Electronics Ltd., which he founded in 1996. It is one of the leading manufacturers of telecommunications and measuring equipment in Bulgaria. Since 2016, in collaboration with Professor Tsenkova and Kolio Iordanov, he has been working on the design and production of specialized VIS-NIR spectrophotometers covering the technical requirements of aquaphotomic science.*

As a high school student Daniel was part of the laboratory of Professor Tsenkova at Ruse Technical University, where he was involved with experiments using NIR (Near Infrared Spectroscopy) for cow's milk diagnosis. He graduated in 1993 with a master's degree in Medical Electronics at the Technical University of Sofia, Bulgaria. He was head of the research and development department of the Eurotour SAT TV company until the end of 1995.

DTK-Electronics
"Magnaurska shkola" 11, 1784 7-mi 11-ti kilometar
Sofia, Bulgaria
Email: danieltod@gmail.com

Aleksandar Boykov Stoilov *was born in 1990, in Sofia, Bulgaria. He graduated the Technical University of Sofia, Bulgaria, with a Bachelor degree in engineering design in 2015. Since then he has worked as a freelance graphic designer, and as an apprentice in a printing company. He came to Japan in 2017 and joined the Yunosato Company as a researcher in the field of aquaphotomics. In 2020, he got his Master's degree from Kobe University, Japan, in Agricultural Engineering and Socio-Economics under the supervision of Professor Roumiana Tsenkova. Since then, he has been working as a senior scientist in the Yunosato Aquaphotomics Lab in Hashimoto, Japan.*

Yunosato Konono Wakayama
898 Konono, Hashimoto, Wakayama, Japan.
Email: a.stoilov@spa-yunosato.com

Shogo Shigeoka *was born in Hashimoto, Japan in 1967. He became a director of the Shigeoka Company in 1987, after which, in 1989 he graduated from Kindai University, Osaka, Japan, with a Bachelor degree in Business Administration. In 1998, became a director of the Yunosato Company. After showing interest in supporting science, in 2011 he started joint research with Kobe University's Aquaphotomics Science Department led by Professor Roumiana Tsenkova. Since 2015, he has been the CEO of both the Shigeoka and Yunosato Companies, and in 2020, he established the Yunosato Aquaphotomics Lab which is the first and, up to this day, only industrial aquaphotomics laboratory.*

Yunosato Konono Wakayama
898 Konono, Hashimoto, Wakayama, Japan.
Email: y.shigeoka2929@spa-yunosato.com

Madlen Algafari *is a psychologist, psychotherapist, author of 12 books, and theater director. She received her MA in psychology from the University of Sofia "St. Clement Ohridski" in 1991, and in 1998, a postgraduate specialization in Neo-Reichian analytical psychotherapy with Prof. Waldo Bernasconi in Lugano, Switzerland. She is a member of the Bulgarian Neo-Reichian Association, of the Bulgarian Scientist's Union–Psychology and Pedagogy section, President of the Board of Directors of the Bulgarian Institute for Neo-Reichian analytical psychotherapy, member of The Bulgarian Association of Psychotherapy, and member of the European Association of Body Psychotherapy. She is the former Editor-in-Chief of the* International Body Psychotherapy Journal.

Institute for NeoReichian Analytical Psychotherapy
Pirin 73, Sofia 1000, Bulgaria
Email: madlenalgafari1@gmail.com
Website: www.madlenalgafari.com

REFERENCES

Ahani, A., Wahbeh, H., Nezamfar, H., Miller, M., Erdogmus, D., & Oken, B. (2014). Quantitative change of EEG and respiration signals during mindfulness meditation. *J Neuroeng Rehabil*, 11, 87. https://doi.org/10.1186/1743-0003-11-87

Averina, O. V., Kovtun, A. S., Mavletova, D. A., Ziganshin, R. H., Danilenko, V. N., Mihaylova, D., Blazheva, D., Slavchev, A., Brazkova, M., Ibrahim, S. A., & Krastanov, A. (2023). Oxidative Stress Response of Probiotic Strain Bifidobacterium longum subsp. longum GT15. *Foods*, 12(18). https://doi.org/10.3390/foods12183356

Bazar, G., Kovacs, Z., Tanaka, M., Furukawa, A., Nagai, A., Osawa, M., Itakura, Y., Sugiyama, H., & Tsenkova, R. (2015). Water revealed as molecular mirror when measuring low concentrations of sugar with near infrared light. *Anal Chim Acta*, 896, 52-62. https://doi.org/10.1016/j.aca.2015.09.014

Brini, E., Fennell, C. J., Fernandez-Serra, M., Hribar-Lee, B., Luksic, M., & Dill, K. A. (2017). How water's properties are encoded in its molecular structure and energies. *Chem Rev*, 117(19), 12385-12414. https://doi.org/10.1021/acs.chemrev.7b00259

Chaplin, M. (2006). Do we underestimate the importance of water in cell biology? *Nat Rev Mol Cell Biol*, 7(11), 861-866. https://doi.org/10.1038/nrm2021

Chaplin, M. F. (2000). A proposal for the structuring of water. *Biophys Chem*, 83(3), 211-221. https://doi.org/10.1016/s0301-4622(99)00142-8

Chatani, E., Tsuchisaka, Y., Masuda, Y., & Tsenkova, R. (2014). Water molecular system dynamics associated with amyloidogenic nucleation as revealed by real time near infrared spectroscopy and aquaphotomics. *PLoS One*, 9(7), e101997. https://doi.org/10.1371/journal.pone.0101997

Hassanali, A., Giberti, F., Cuny, J., Kuhne, T. D., & Parrinello, M. (2013). Proton transfer through the water gossamer. *Proc Natl Acad Sci U S A*, 110(34), 13723-13728. https://doi.org/10.1073/pnas.1306642110

Jinendra, B., Tamaki, K., Kuroki, S., Vassileva, M., Yoshida, S., & Tsenkova, R. (2010). Near infrared spectroscopy and aquaphotomics: Novel approach for rapid in vivo diagnosis of virus infected soybean. *Biochem Biophys Res Commun*, 397(4), 685-690. https://doi.org/10.1016/j.bbrc.2010.06.007

Kinoshita, K., Kuze, N., Kobayashi, T., Miyakawa, E., Narita, H., Inoue-Murayama, M., Idani, G., & Tsenkova, R. (2016). Detection of urinary estrogen conjugates and creatinine using near infrared spectroscopy in Bornean orangutans (Pongo Pygmaeus). *Primates*, 57(1), 51-59. https://doi.org/10.1007/s10329-015-0501-3

Kinoshita, K., Miyazaki, M., Morita, H., Vassileva, M., Tang, C., Li, D., Ishikawa, O., Kusunoki, H., & Tsenkova, R. (2012). Spectral pattern of urinary water as a biomarker of estrus in the giant panda. *Sci Rep*, 2, 856. https://doi.org/10.1038/srep00856

Kovacs, Z., Muncan, J., Ohmido, N., Bazar, G., & Tsenkova, R. (2021). Water spectral patterns reveals similarities and differences in rice germination and induced degenerated callus development. *Plants (Basel)*, 10(9). https://doi.org/10.3390/plants10091832

Kovacs, Z., Pollner, B., Bazar, G., Muncan, J., & Tsenkova, R. (2020). A novel tool for visualization of water molecular structure and its changes, expressed on the scale of temperature influence. *Molecules*, 25(9). https://doi.org/10.3390/molecules25092234

Kuroki, S., Tsenkova, R., Moyankova, D., Muncan, J., Morita, H., Atanassova, S., & Djilianov, D. (2019). Water molecular structure underpins extreme desiccation tolerance of the resurrection plant Haberlea rhodopensis. *Sci Rep*, 9(1), 3049. https://doi.org/10.1038/s41598-019-39443-4

Ma, X., Lin, B., Zhao, B., Wei, X., Dong, Q., Zhang, H., Li, L., & Zang, H. (2023). Review on the discovery of water absorbance spectral pattern in aquaphotomics based on chemometrics analytical tools. *Curr Top Med Chem*, 23(17), 1606-1623. https://doi.org/10.2174/1568026623666230329090341

Matiz, A., Crescentini, C., Bergamasco, M., Budai, R., & Fabbro, F. (2021). Inter-brain co-activations during mindfulness meditation. Implications for devotional and clinical settings. *Conscious Cogn*, 95, 103210. https://doi.org/10.1016/j.concog.2021.103210

Muncan, J., & Tsenkova, R. (2019). Aquaphotomics–from innovative knowledge to integrative platform in science and technology. *Molecules*, 24(15). https://doi.org/10.3390/molecules24152742

Muncan, J., & Tsenkova, R. (2023). Aquaphotomics–exploring water molecular systems in nature. *Molecules*, 28(6). https://doi.org/10.3390/molecules28062630

Tsenkova, R., Atanassova, S., Kawano, S., & Toyoda, K. (2001). Somatic cell count determination in cow's milk by near-infrared spectroscopy: a new diagnostic tool. *J Anim Sci*, 79(10), 2550-2557. https://doi.org/10.2527/2001.79102550x

Tsenkova, R., Atanassova, S., Toyoda, K., Ozaki, Y., Itoh, K., & Fearn, T. (1999). Near-infrared spectroscopy for dairy management: measurement of unhomogenized milk composition. *J Dairy Sci*, 82(11), 2344-2351. https://doi.org/10.3168/jds.S0022-0302(99)75484-6

Tsenkova, R., Kovacs, Z., & Kubota, Y. (2015). Aquaphotomics–near Infrared spectroscopy and water states in biological systems. *Subcell Biochem*, 71, 189-211. https://doi.org/10.1007/978-3-319-19060-0_8

Tsenkova, R., Muncan, J., Pollner, B., & Kovacs, Z. (2018). Essentials of aquaphotomics and its chemometrics approaches. *Front Chem*, 6, 363. https://doi.org/10.3389/fchem.2018.00363

Tsenkova, R. N., Iordanova, I. K., Toyoda, K., & Brown, D. R. (2004). Prion protein fate governed by metal binding. *Biochem Biophys Res Commun*, 325(3), 1005-1012. https://doi.org/10.1016/j.bbrc.2004.10.135

Zhang, L., Wang, L., Kao, Y. T., Qiu, W., Yang, Y., Okobiah, O., & Zhong, D. (2007). Mapping hydration dynamics around a protein surface. *Proc Natl Acad Sci U S A*, 104(47), 18461-18466. https://doi.org/10.1073/pnas.0707647104

Zhang, S., Zhang, Y., Wu, C., Yang, H., Zhang, Q., Wang, F., Wang, J., Gates, I., & Wang, J. (2021). A facile strategy to prepare small water clusters via interacting with functional molecules. *Int J Mol Sci*, 22(15). https://doi.org/10.3390/ijms22158250

The Music of Attuned Touch and Epigenetic Changes from a Body Psychotherapy Perspective

Elya Steinberg

ABSTRACT

This article explores aspects of attuned touch and its potential to induce epigenetic modifications. It posits a hypothesis explaining the changes in clients, and illustrates the application of animal model research to elucidate these clinical phenomena, particularly in the context of body psychotherapy techniques that use touch, such as biodynamic massage.

Keywords: Touch, epigenetic changes, attuned touch, music

Submitted: 10.01.2024
Accepted: 28.12.2023

International Body Psychotherapy Journal
The Art and Science of Somatic Praxis

Volume 22, Number 2,
Winter 2023-2024, pp. 41-56

ISSN 2169-4745 Printing, ISSN 2168-1279 Online

Touching – An organismic basic need in mammals

Personal and interpersonal touch modulate intrapsychic and interpsychic experience throughout life. In 1971, Ashley Montagu, a British-American anthropologist, produced the first edition of his fascinating analysis, *Touching: The Human Significance of the Skin*. This pioneering book presented the first scientific and accessible examination of the profound significance of human touch.

Touching ourselves and others is a basic natural phenomenon in all mammals as a pro-social interaction from birth throughout the lifespan (Harlow & Zimmermann, 1958; Panksepp, 1998). Scholarly literature references the concept of touch through terminologies such as "tactile stimulation" (Fotopoulou & Tsakiris, 2017) or "social touch" (Suvilehto et al., 2023), reflecting the diverse scientific perspectives on the subject. When caring parents soothe their babies, hold their babies, rock their babies in a very particular rhythm that works for their particular baby, in those magical moments, when the babies feel held, contained, and loved within Balint's view of primary love – the desire to "... be loved always, everywhere, in every way, my whole body, my whole being - without any criti-

> ***Touch, like all psychotherapeutic interaction, is synchronized polyphony, not monophony.***

"There is a dearth of research on harmonious attuned touch as an organismic sequence of processes that includes all its components: the participants, the types of relationship between the participants, as well as the intensity, rhythm, tempo, frequency, depth, direction, intention, type of movement, and feedback/feedforward dynamic processes."

cism, without the slightest effort on my part…" (Balint, 1935, p. 50), these magical attuned moments do not contain thoughts or analysis, but are unique states of being where the attuned musicality of human interaction is in perfect harmony – harmony that can make unbearable suffering bearable, soothing the babies' and parents' pain, and making life worth living.

The harmonious holistic quality of *touching* has critical long-term intrapersonal and social consequences that affect the formation of the person's capacity for self-regulation (auto-regulation within themselves as an endo-neuro-psychobiological process) and co-regulation (interactive regulation with others) (Changaris, 2015; Field, 2001; Olausson et al., 2016; Uvnas-Moberg, 2003).

There is also a growing body of research in the field of physical touch. The field still holds a mechanistic rather than an organismic approach (Pepper, 1942). A left-brain, mechanistic worldview perceives the world of natural phenomena in a reductionist manner, as if there were a universal law governing behavior to allow predictability and stability, versus a right-brain, organismic worldview that perceives natural phenomena as living organisms, where meaning emerges at a holistic level of inquiry (McGilchrist, 2009). There is a dearth of research on harmonious attuned touch as an organismic sequence of processes that includes all its components: the participants, the types of relationship between the participants, as well as the intensity, rhythm, tempo, frequency, depth, direction, intention, type of movement, and feedback/feedforward dynamic processes.

The philosophical and scientific conflict surrounding the notion and use of touch in psychotherapy (Kertay & Revier, 1993; Smith et al., 1998) has long been, and continues to be, debated in body psychotherapy (Brown, 1990; Asheri, 2009; King, 2011; Warnecke, 2011). Some psychotherapists, potentially attracted to the field of biodynamic psychotherapy due to their own desire for touch – both to receive and reciprocate it – may become immersed in it to the point of overly idealizing its benefits and use. At the same time, the effects of attuned touch cannot be denied, especially when considering its effects from an epigenetic scientific point of view.

We biodynamic body psychotherapists sensed the power of human contact, experienced the impact of touch in our own lives, and eventually learned specific sensitive ways of attuned touch through many years of practice. Sensitive ways have the potential to promote healing in our clients' lives. There are reasons to believe that the process of attunement affects nervous system activity via the sensitive haptic communication that creates the "magic" a practitioner can achieve in the intersubjective space with a client.

However, when we say *sensitive*, what do we mean? Sensitive to which one of the many variables in human phenomenology? This is an important question to explore that can shed light on the construction and contextualization of intentions and meaning in haptic conversation that is accomplished through various multimodal resources.

I will next explore some of the microarchitecture of the *flow of dance*, the *music* that enables precise sensitive haptic communication as a dynamic process. I will present a hypothesis based on scientific findings showing that attuned touch contributes to epigenetic changes that enable shifts in perception. These shifts eventually lead to major changes in emotional and physiological unconscious bottom-up self-regulation processes, and top-down cognitive reappraisals that eventually reduce stress, anxiety, and depression. Cognitive reappraisal refers to "an individual's intention to selectively interpret the meaning of an event, it directly aims at appraisals by changing the subjective evaluation of an emotion producing situation" (Xu et al., 2020, p. 2).

The process of *affect attunement*

The process of *affect attunement* arises through the web of phenomena through which we can attune to the emotional world of ourselves and others, and has been identified as an important aspect of relationality (Mitchell, 2000). This process can be channelled via a multitude of verbal and nonverbal communication pathways. However, this short article specifically explores the theoretical ways affect attunement is applied via the nonverbal pathway of haptic communication, and its subsequent possible epigenetic changes.

The result of haptic attunement can be more coherently understood and identified as *attuned touch* – an implicit and explicit way of nonverbally communicative affect attunement; "the path to sharing inner feeling states" (Stern, 2004, p. 84). As with all branches of affect attunement, it is a way to support people seeking to resolve psycho-affective challenges through sequences of regulation and "acceptance of intrinsic affective states and their communication by active contact" (Trevarthen, 2004). In line with Fotopoulos' concept of homeostatic mentalization (Fotopoulou & Tsakiris, 2017) as a social cue, attuned touch should be considered an essential part of the process of supporting homeostatic mentalization in the intersubjective space.

However, impeding the effort to understand attuned touch in the context of biodynamic psychotherapy is the marked lack of sufficiently "detailed inquiry" (Sullivan, 1970, p. 89) tracking the subtle microscopic care of the moment-to-moment complex choreography of interpersonal micro-adaptations and micro-co-regulations that explain attuned touch on a fundamental level.

Touch is especially important in the field of early childhood psychological trauma, as many of the effects of childhood trauma, neglect, physical abuse, and sexual abuse are mediated via touch, deprivation of touch, or misattuned touch. As traumatized children mature, they develop expectations about physical contact and touch with others. Their past experiences become expectations that the past will repeat itself, which then becomes a prediction. These psychosocial predictions create disturbances in their capacity to adjust, to develop personal intimate relationships, attachment, and bonding, as well as to live in community. It is important to ask how these predictions can be updated, using Friston's free-energy principle (Friston, 2010; Linson & Friston, 2019).

It is known that trauma, such as the deprivation of attuned touch in childhood developmental trauma disorder (DTD) (Lanius et al., 2010), creates situations in which individuals can find it challenging to update their expectations due to changes in their physiology and brain function, leading to anxiety in adulthood. The question is whether the situation is reversible. Do we have any scientific evidence demonstrating it is possible for attuned touch, when a person comes to psychotherapy as an adult, to have a positive effect, reverse some of the effects of childhood trauma, and alleviate the person's suffering to a certain extent?

In this short article, prepared for the European Body Psychotherapy Conference (EABP) in September 2023, I briefly explore the connection between the neuroscience of touch and attachment, and the detailed inquiry of the *music* of attuned biodynamic touch as a psychotherapeutic tool.

Being in attuned touch

Being in (Fromm, 1989) attuned touch, rather than *doing* touch, is crucial for a successful experience. Many body psychotherapists are in the field because they know, at a deep level, that interpersonal touch and haptic communication via touch are of paramount importance to human development from birth to death. We know from intrinsic knowledge, not yet entirely available for accurate scientific inquiry, that touch is important not only for a person's individual development, but also for the development of healthy attachment in the context

"Touch is especially important in the field of early childhood psychological trauma, as many of the effects of childhood trauma, neglect, physical abuse, and sexual abuse are mediated via touch, deprivation of touch, or misattuned touch."

of the evolutionary development of human society (Simpson & Belsky, 2008). As Fonagy & Campbell wrote (2017, p. 39), "reaching the developmental achievements by which a person can make sense of himself or herself as an embodied subject is supported, it is compellingly argued, by embodied interactions with others."

Body psychotherapists are in the field because they feel that touch is important as an inner personal experience. A breakthrough in empirical research in the field of touch occurred following Harlow and Harlow's demonstration of what happens to the development of touch-deprived monkeys (Harlow & Zimmerman, 1958; Harlow, Dodsworth, & Harlow, 1965), along with studies that followed the delayed development of Romanian orphans during Ceaușescu's term as head of state (Spitz, 1945). These studies marked a milestone for new insights into optimal development, and gave legitimacy to scientific research in the field of touch. Empirical research accumulated over the past seventy years provides overwhelming data that understanding touch as a human phenomenon is essential to understanding the sequential process of human development.

The multiplicity of touch effects

We know from research that the effects of touch extend far beyond the power of the word in talk therapy or mentalization processes in the most simplistic definition. Some of the impressive results of the effect of touch on people and animals encourage additional ways of expression in the psychotherapeutic process. Table 1 presents the multiplicity of touch effects that have been scientifically demonstrated.

Animal models and epigenetic change

Research in animal models has been invaluable in supporting a comprehensive ontogenetic understanding of how chronic exposure to stress activates the hypothalamic–pituitary–adrenal axis (HPAa) in different critical periods – genetic, epigenetic, prenatal, infancy, childhood, adolescence – and can impact different brain structures in human and animals and thus affect their function, connectivity, observable social behavior (Sandi & Haller, 2015), and cognition (Lupien et al., 2009).

The advantage of animal research is that it can examine the impact of stress on different ontogenetic processes. For example, the prenatal period can exemplify an ontogenetic process via a long list of mechanisms such as brain-derived neurotrophic factors (BDNF), Catechyl-O-methyltransferase, HPAa programming, endocannabinoids, inflammation factors, estradiol, and insulin (Boscarino et al., 2011).

Murmu and colleagues (2006) measured the impact of chronic unpredictable prenatal stress on rat pups' brain development after their pregnant mothers were exposed to stress at 15-20 days of pregnancy, when keys areas of the limbic lobe and HPAa were developing (Bayer et al., 1993). Afterwards, the pups demonstrated anxiogenic and depressive-like behavior (Alonso et al., 1991). After brain tissue preparation, they found morphological changes, like some in layer II/III pyramidal neurons, which reduced the complexity (length and spine-density) of apical dendritic trees in the limbic dorso-anterior cingulate and orbitofrontal cortex.

Similar changes were found by others (Chen, et al., 2013 ; McEwen et al., 2015) with regard to the impact of chronic stress on mice's HPAa (Ron de Kloet, Joëls, & Holsboer, 2005), particularly in certain areas of the hippocampus (CA3 & CA1) and basolateral amygdala, which play a major role in long-term memory. Human long-term memory is heavily impacted by psychological trauma. Improving long-term memory through the hippocampus is crucial in allowing placement of traumatic memories onto a conscious chronological timeline. This gives people suffering from post-traumatic flashbacks and intrusive memories an important tool for internal organization, and enables a significant reduction in symptoms. Naturally, these molecular and cellular analyses cannot be done at a human level, but could explain such human phenomena as reduction in cognitive function (Bock et al., 2015), as well as changes in brain structure (Turk et al., 2023) and neural pathways (Thomason et al., 2021).

However, the lifespan of lab animals is significantly shorter than that of humans, and therefore cannot provide enough information about neuropsychiatric disorders (Robinson et al., 2019) and later life medical diseases in observed in PTSD populations, especially in people who suffer DTD – defined in

Table 1. *Multiplicity of touch effects*

Multisensory integration processes	■ Body ownership
Enhanced proprioceptive awareness	■ Body awareness ■ Body ownership
Nonverbal haptic communication	■ Intention ■ Expression ■ Perceiving the emotions of the other
Corrective emotional experiences	■ Attunement ■ Posture ■ Pleasurable
Placebo effect	■ Anterior Cingulate
Physiological changes	■ CT afferent (C tactile) ■ Decrease blood pressure ■ Decrease sleep disturbance ■ Decrease in cortisol ■ Increase Oxytocin (Agren et al., 1995) ■ Increase dopamine ■ Increase serotonin
Effects on the central nervous system	■ Change in perception of stress (Korosi & Baram, 2010; Weaver et al, 2004) ■ Reduction of stress ■ Reduction of anxiety, depression and anger
Pleasant experiences	■ Endorphins, μ receptors (Kehoe & Blass, 1986) ■ Toward secure attachment
Non-invasive vagal stimulation	■ Influence emotions ■ Enhance parasympathetic activity
Touching the body activates memories	■ Monitored exposure psychotherapy
Emotional and physiological regulation	■ Expanding the window of tolerance
Reassurance	■ Safety ■ Secure attachment and social bond (Insel, 2000; Nelson & Panksepp, 1998)
Pain modulation and reduction	■ Physical (Kehoe & Blass, 1986) ■ Emotional

the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5, 2013) as a PTSD subgroup exposed to one or more traumatic events associated with overwhelming fear in early life, with an estimated prevalence between 5-10% to 25% or higher (Felitti et al., 1998; Yehuda et al., 2015).

As drugs failed to support people with DTD (Abbott, 2011; Papassotiropoulos & de Quervain, 2015), studies using animal model research had to aim toward next generation treatment based on new clinical targets like neuroplasticity, prosocial compounds, epigenetic changes, and others (Insel,

2012). Neuroplasticity (Puderbaugh & Emmady, 2023) describes the flexibility of the brain, and its ability to change according to changing conditions (external and/or internal). It is a process that involves adaptive functional and structural changes in the brain that allow reorganization of the structure from the cellular (including epigenetic) to the systemic levels.

Resilience and epigenetic brain changes

Meaney's group (Weaver, et al., 2004) demonstrated through in vivo and in vitro checking the hippocampal tissue that increased pup licking and grooming (LG) and arched-back nursing (ABN) by mother rats (MR) altered the offspring's epigenome (NIH, 2020), comprising histone acetylation, DNA cytosine-methylation of glucocorticoid promoter, and nerve growth factor-inducible (NGFI-A) at exon-17-GR-promoter in the hippocampus.

They observed that pups with low-LG-ABN-MR matured with high levels of anxiety (LoA), and pups with high-LG-ABN-MR matured to low-LoA adults. This difference between pups was impressive.

Thus, pups that were touched in a way that was attuned to their needs grew up to be adults with low levels of anxiety, while pups deprived of attuned touch grew up to be adults with high levels of anxiety (touch-deprived, as are many clients). This difference was apparent during the first few weeks of life.

During autopsy, the rats' brain tissue was examined, and epigenetic differences were found – changes in specific types of cells in a particular area of the hippocampus. Differences were noted in the genetic expression of genes for the receptors for glucocorticoids, the stress hormone. Thus, the rat pups that received attuned contact had less genetic expression of receptors to stress hormones, and were therefore less sensitive to stress, and demonstrated more behavioral resilience.

In addition, they investigated what happens when pups were reversed with cross-fostering. That is, rats born to a non-touching mother (low-LG-ABN-MR) were raised by a touching-mother (high-LG-ABN-MR), and rats born to a touching mother (high-LG-ABN-MR) were raised by a non-touching-mother (low-LG-ABN-MR). They observed that both cross-fostering groups grew into adults with low levels of anxiety. That is, pregnancy with a touching mother had a protective effect, despite suboptimal rearing conditions of the rat pups after birth. In addition, rearing by a touching mother created epigenetic changes that made the rat pups born to the non-touching mother more resilient.

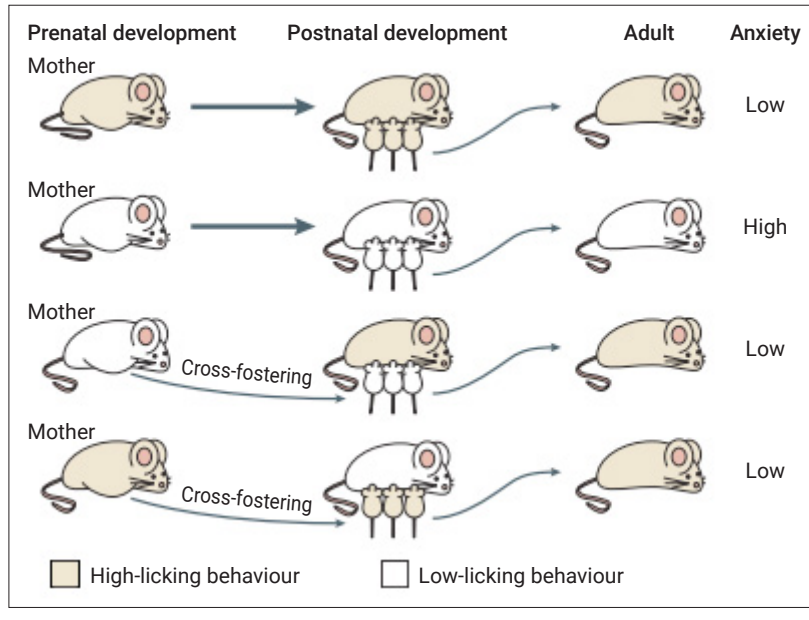


Figure 1. *Licking-and-grooming mother rat behavior. Reprinted with permission from Nature Reviews Neuroscience (Gross and Hen, 2004).*

Inferring from these comprehensive studies, it is thus possible to hypothesize that when a person comes to psychotherapy that combines treatment with attuned touch, there will be the possibility of epigenetic changes in areas such as the hippocampus, which will allow for a reduction of anxiety in the client.

A systematic review of the literature on the developmental origins of anxiety (Gross & Hen, 2004) examined similar research to the studies of Meaney's group, which demonstrated similar results. This correlates with some of the phenomena observed in humans, where skin-to-skin contact and massage had encouraging physiological and psychological consequences on adult illness (Hart et al., 2001), children, and preterm babies (Feldman & Eidelman, 2003; Field, Diego, & Hernandez-Reif, 2010).

Rats raised by mothers that display low licking-and-grooming behavior exhibit more anxiety-related behavior than rats raised by high licking-and-grooming mothers. Cross-fostering studies show that the offspring of low licking-and-grooming mothers raised by high licking-and-grooming mothers are less prone to anxiety-related behavior as adults. This indicates that the effect is mediated by the postnatal maternal environment. However, offspring of high licking-and-grooming mothers raised by low licking-and-grooming mothers do not have an increased tendency to develop anxiety-related behavior in adulthood, indicating that specific factors inherited by the high licking-and-grooming offspring protect them from the effects of being mothered by low licking-and-grooming females (Caldji et al., 1998; Liu et al., 2000).

In conclusion, findings of studies in animal models demonstrated changes in the expression of receptors for stress hormones in areas such as the hippocampus. This changed the animals' HPA axis stress responses, and these changes enabled a reduction in the animals' feelings of anxiety when they grew up. These findings suggest relationships between epigenomic state, receptor expression, and the maternal effect on offspring's stress responses. They show that a gene's epigenomic state can be established through behavioral programming, and is potentially reversible – thus offering a social intervention to build resilience to stress via appropriate touch.

These findings are relevant to a psychotherapeutic process that includes attuned touch as part of work within a reparative, developmentally sensitive framework (Clarkson, 2003). It can explain clinical phenomena such as the feedback from a client I worked with using biodynamic massage for about a year. She told me, "Elya, I don't know what you did to me. Everything is the same; the same gray weather of London, the same husband, the same children, the same house – but everything is different." She reported an "update" in how she now sees reality, with persisting changes in perception that allowed her to see the world around her differently. A situation of cognitive reappraisal was created in which her subjective perception (as a top-down process) of the world changed as a result of attuned touch that was offered as a bottom-up process.

Touch in the psychotherapeutic process

There is no doubt about the significance of touch and its potential to create a salutogenic effect in human relationships. Salutogenesis asks what makes us healthier, in contrast to pathogenesis, which asks what makes us ill (Antonovsky, 1979; Antonovsky, 1987; Antonovsky, 1999; Mittelmark et al., 2017; Steinberg, 2010).The question is HOW can we employ and enable the use and benefits of touch in the psychotherapeutic process, and encourage touch in interpersonal relationships, so that these salutogenic qualities, as shown in the table above, will be realized. There exist other inquiries of similar importance, such as Ashley Montagu's question (1971, p. 19): "What kinds of skin stimulation are necessary for healthy development of the organism, both physically and behaviorally?"

As well as how a therapist, as a "surrogate parent," constrained within the ebbs and flows of interaction in developing a secure attachment (Bowlby, 1988), can employ touch (like the mother rats grooming and licking their offspring) in psychotherapy, while remaining fully "psychobiologically attuned to the dynamic crescendo and decrescendo" of the client's "bodily-based internal states of autonomic arousal" (Schore, 2002). Further, how would a therapist constrained in this situation use touch in other states occurring in the client in a way that would contribute to the development

of "earned secure" attachment (Wallin, 2007), thus enabling positive transformative changes in the structure of the individual, and subsequently structures in human society as a whole? As Wallin wrote: "While the attachments of childhood initially structure the self, the client's attachment to the therapist may later restructure it, changing an insecure working model to an earned secure one" (Wallin, 2007, p. 85).

Considering that what happened to us "wires" us from conception (Perry & Winfrey, 2021), creating our predictions from a very early age, how is it practically possible to update those predictions later in life to enable the shift from insecure attachment to earned secure attachment?

How do we touch?

"How do we touch?" is the primary question that will be explored.

The "how" is composed of multiple derivative questions, such as: What are the exact details of the biodynamic touch sequence of processes? Which are precise in achieving their aims, and simultaneously allow for further development of earned secure attachment? This touch should be dynamically attuned, and its attunement and implementation processes should be examined in more depth. Attuned touch within the context of a psychotherapeutic process is a governing concept in the question "how do we touch," which requires exploration of significant landscapes of human experience.

Since the canvas is very broad, I will focus here on one aspect, one variable out of the many that exist in the human phenomenology of haptic communication. I will focus on the process of tuning the touch, like tuning a musical instrument, to allow contact like Malcolm Brown talks about, contact that "... steer[s] a middle course between proceeding too quickly and too catalytically, on the one hand, and too slowly and too passively, on the other hand." A kind of compassionate touch that "... is perhaps the only safeguard against overusing energy-mobilization methods..." (Brown, 1990, p. 118).

In addition, a challenge for a psychotherapist operating in a psychotherapeutic space that allows for physical touch is that the psychotherapist wants to enable the construction and healing processes of others and themselves without inducing unconscious traumatic "repetition compulsion" (Freud, 1909; Freud, 1914; Freud, 1926), toward which classical psychoanalysts have been apprehensive since the shaky experience of Freud and Breuer (1985). The central question is how we enable touch in the psychotherapeutic relationship without it being colored by the powerful driving forces of subconscious enactment, or becoming aware of it as soon as possible. This is a particularly dangerous pitfall, as enactment can easily lead to retraumatization due to the repetition compulsion of components from past trauma related to physical touch. Ideally, the client needs a touch that achieves these components while avoiding such drawbacks. This could be called a healing touch – one particularly useful for treating people who bear wounds such as those that emerge from one or more of the four pillars of developmental trauma: neglect, physical abuse, emotional abuse, and sexual abuse (van der Kolk, 2014).

Attuned touch

Tuning touch can be likened to tuning a musical instrument. As in music, the act of touch creates many musical compositions over time that can be performed in different ensembles. Touch is not one discrete activity, but a complex process of interpersonal and mutual creation of a felt experience within a personal and social context. It is a musical piece that reaches a certain wholeness when there is a sensitive balance between the technical and mechanistic details of the precise performance, and the harmonized flow, in which the sounds from all the instruments and singers come together into an integrative, organismic experience – an organismic experience where the composer's emotional world touches the listener's emotional world, and takes them (together) into a meaningful interpersonal field. This dynamic flow creates an all-encompassing effect on the listener, performer, and composer. When the instruments are attuned and synchronized, an effect of inner relaxation and safety is created, which can be called wholeness, as we are neurobiologically wired to music (Barton, 2022). This is a sense where the organized sounds we hear are right for us; a global experience of pleasure takes place in the flow of moments.

This experience can take place in the presence of not only tonal harmonic music, but also atonali-

ty-based music. In atonality-based modern music, there remains a general agreement between the composer and performers, who aim to maintain order and attunement despite the musical intervals contradicting the classical tonality we are used to. When we are not accustomed to non-classical atonal musical intervals, entering into this unpredictable, unfamiliar, and unknown melody can induce in the listener an experience of atonal processes within the self. For example, through this experience, a person may get in touch with their inner shadows, as Carl Jung would describe the unconscious processes that compose repressed ideas and desires that the person perceives as unacceptable and immoral. The person may enter a state where there is a need to assimilate "the thing a person has no wish to be" (Jung, 1966/1981, para. 470). In this modern music, the listener's experience will be "correct" for them in sound and attunement, per their own perception – otherwise, they would not listen to it. It will be experienced as accurate due to the orderly organization, integration, and connections of the sounds. In this sense, atonal music is different from cacophony (many jarring noises heard simultaneously), in which the sounds have no integrative connection, no internal organization, and take place without discourse or mediation. Atonality is fundamentally different from the misattunement of sounds due to the mediating and organizing discourse – one that allows for a unifying flow and musical discussion. In attuned touch, as in any psychotherapeutic process, there are moments of tonality alongside atonality that require listening and deepening one's perspective and understanding to allow for a (new) synthesis of a new equilibrium (heterostasis rather than homeostasis (Selye, 1973, p. 443[1]; see also Hochwälder, 2022; Langeland, et al., 2022) for the future unknown possibilities of internal and external human connections.

A famous composer of modern music, secular Israeli-Jewish Leon Schidlowsky (1931-2022), professor emeritus of composition and music theory at the Rubin Academy of Music at Tel Aviv University said: "I believe that today we enjoy all the possibilities of using the historical acoustic musical language. It is not a return to the past, but a synthesis for the future. Music was created by humans for touch with humans" (Ron, 1972). In doing so, Schidlowsky emphasized that modern music brings the historical context and interpersonal context to the forefront of the mind, precisely because the intervals of the sounds touch the unknown, and stimulate a curious internal querying of the personal and interpersonal field.

In physical touch as in music, there are many ways to compose and many ways to improvise. Composing is the act of writing music in advance, and improvisation is an act in which music is created "while" performing. There are many techniques of composing and improvising, varying across cultures. In most, a personal interpretation of written music is the melodic elaboration of a skilled and experienced musician attempting to imbue the original music with reverberations of their own emotions, changing aspects of the musical piece. In this way, the musician oscillates between the original written notes and the improvisational elements that result from their emotions during the performance, and bring the musical piece to new and renewed qualities beyond the mechanistic dimension. Every moment is fresh. The performing player's feelings could not be fully dictated by the notes and instructions of the musical score. From this, it can be concluded that no two performances of a single piece of music are the same, even when we are talking about the same performers performing the same piece at different times.

Like music, biodynamic massage involves many touch techniques, different lyrics, and different songs, which vary according to the client's and therapist's cultural and historical contexts. In addition to the interpersonal variability that changes from moment to moment, there is variability that cannot be predetermined by the words and execution instructions written in the score, i.e., in the instruction set of the fusion technique, the

1. The process is not limited to, metaphorically speaking, homeostasis level, but expands in a heterostasis manner. In psychotherapy we are not satisfied by homeostasis - "homeostasis [home=like; stasis = fixity], which has been defined as the maintenance of a normal steady state by means of endogenous (physiologic) responses" [Selye 1973, p. 443]. But as Carl Rogers pointed out, there is a need for reorganization. Reorganization is not the same, but a new state of equilibrium, i.e. heterostasis. Heterostasis [heteros = other; stasis = fixity] as the establishment of "a new steady state ... of adaptive mechanisms through the development and maintenance of dormant..." potential (Selye, 1973, p. 443).

biodynamic massage itself. There is the personal interpretation of the therapist and client, which is created in the mutual reciprocal process that sub-aspects one or more of the aspects that make up the technique, and creates, while dynamically improvising, a new execution specifically tailored to the participants in the psychotherapeutic process.

From this it can be concluded that no two performances of a single biodynamic massage technique, especially if they are attuned, are the same. At the same time, any successful and adjustable execution will involve both mechanistic precision and the context of interpersonal connection. Moreover, successful execution will be the customized construction with specific adjustments and attunement according to the interpretations and personal meaning of the client and the therapist. Tuning is an interpersonal process for which the therapist must listen to the client's "music." And this music that can be heard in the interpersonal field is the most important, and the only, "musical score" that the psychotherapist needs during the therapy session. This is similar to what psychiatrist Elvin Semrad believed: "The client is the only textbook we require" (Rako & Mazer, 1980, p. 13).

Part of answering the "how" question that was previously presented is developing an explicit understanding of the methodologies that "compose" the melodies, and the guidelines for improvisation. This is an important building block in "the responsibility of intuitively sensing the appropriate timing and level of concentration when using body methods" (Brown, 1990, p. 117).

Misattunement

Musical misattunement of sounds, i.e. a situation where intonation is inaccurate, is a jarring and unpleasant experience for the listener. Poor intonation, known as *misattunement* in the most common sense, indicates the level of accuracy and pitch of the sound, and is a product of precision in the production of the player or singer during a musical performance. Musicians and singers must develop their skills to sing or play in good intonation. Good intonation can be measured by precise mathematical means. The conductor's musical ear is required to diagnose exactly which instrument is misattuned in a concert performed by an orchestra. Which instrument is responsible for the jarring effect? Even a person with normal hearing will detect a musical misattunement, even if they are unable to identify the specific instrument and the way the misattunement occurred.

If we were at a live concert and a certain player produced a misattuned tune, we would sometimes remember the concert and its jarring effect for years, since it was such an unpleasant experience. So it is with touch processes; there is a "potential hazard" (Brown, 1990, p. 118). Touch within the psychotherapeutic process, like the whole therapeutic process, needs to be attuned so that salutogenic processes can develop. The psychotherapist is like the player or singer who must practice for years to reach an accurate intonation in the physical touch.

Accurate tonal and atonal intonation allows subtraction from the psychotherapeutic process of the subtleties that make the difference between an attuned and misattuned way of working. Here the psychotherapist is also the builder of the musical instrument, the musical instrument, and the performer, and it requires a great deal of experience and a high level of skill to reach tuning of the touch.

This brings us to explore other aspects of answering the "how" question: Why is it necessary to be attuned? How can we build the inner 'tool'? And how do we train and allow for adjustment and attunement of physical touch during the interpersonal relationship? In addition, there's the question of how to develop the "musical ear" that detects misattunement, and recognizes the bad intonation. When the "intonation" of the touch is poor, i.e. when touch is misattuned, a rupture may form in the relationship, and the client can be retraumatized. Identifying the poor intonation and deep understanding of the misattunement that emerged during the performance process can allow the rupture to be repaired when an interactive mismatch occurs (Tronick, 2007; Tronick & Gold, 2020).

Touch, like all psychotherapeutic interaction, is synchronized polyphony, not monophony. One of the limitations of psychotherapeutic processes "is that the quality of the therapeutic process can't be simply defined as an absolute measure. The existence of the quality of the therapeutic encounter is dependent on multiple factors" (Steinberg, 2017, p. 41). It is not one voice. It is not just a monophony; it is more like a complex polyphony. Polyphony, says Elizabeth Handley, musicologist and lec-

"There is a shortage of research on the harmonious attuned syntax of haptic communication as an organismic sequence of processes. This kind of research could enable us to rekindle the dynamic neuro-psycho-social-physiology of physical touch as a pillar in the foundation of attunement and secure attachment."

turer for The Arts Society (2022), is many different sounds; it is the "interweaving of parallel strands of melody in instrumental and choral music." Polyphony is a landscape where an attuned melody of multidimensional strands of information flow could emerge. The psychotherapeutic process is, and is guided by, a multiplicity of dimensions, metaphorically – like a musical scroll consisting of many simultaneous lines of independent melody interweaving together, when synchronized, to a wonderful symphony played by an orchestra. Symphonies are notated in a musical score that contains instructions for all the instrument parts.

In the psychotherapeutic encounter, the "instruments" are the different aspects of at least two people's biology, emotions, cognition, spirit, history, and culture, along with their interaction. At a cellular level, the instruments are systems, hormones, nervous systems, intrapsychic processes, interpsychic processes, and the context of the systems in which they live. This can be properly analyzed only by giving a long catalogue of aspects of analysis of each notation in the musical score, and the complex ways they counterpoint, work together, and mingle – by disassembling and reassembling the composition.

Touch in the psychotherapeutic process is one instrument in the orchestra of the psychotherapeutic relationship. Its attuned qualities must be guided, as all elements of the polyphony, using feedback and feedforward processes to enable a flow of interaction and "natural harmony" (Ichheiser, 1949, p. 8). Needless to say, any touch within the psychotherapeutic context constitutes psychotherapy, and must be processed as such from an ethical standpoint with clear sexual boundaries (Southwell, 1991 [2022]). Metaphorically, we can say that touch has its own syntax. The word "syntax," which comes from the ancient Greek "coordination," i.e. together in ordered sequence, presents a linguistic field where morphemes, the smallest meaningful constituents of linguistic expression, combine to form larger units such as phrases and sentences. The sum of all the details of the word order, the grammatical relationship, hierarchical sentence structure, and other elements together create the full meaning of a word.

Haptic communication, when two people physically touch, is similar. It has small units like morphemes, which together create the full meaningful expression of the haptic syntax. There is research on small units, touch-morphemes; however, there is a shortage of research on the harmonious attuned syntax of haptic communication as an organismic sequence of processes. This kind of research could enable us to rekindle the dynamic neuro-psycho-social-physiology of physical touch as a pillar in the foundation of attunement and secure attachment.

Flow

Concerning flow, "we can no more catch the flow of interactions… than we can catch water in our hands. We need to relate the dynamic patterns of flow of the interaction, to the quality of the motion of a movie, rather than to separate pictures" (Steinberg, 2017, p. 41). These dynamic patterns of interaction assemble the composition of the music we metaphorically hear when physical touch occurs. This fundamental aspect of the dynamic assessment in biodynamic psychotherapy enables psychotherapists to explore, objectively and subjectively, in an attuned manner, the sequences of experiences of "moment-to-moment" interactions with their clients over time. This will be true for every component of the biodynamic psychotherapeutic interaction, including attuned touch.

Future

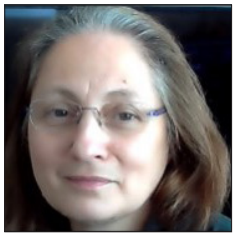
In summary, the complex process leading to the integration of different psychological frameworks and neuroscientific perspectives, as explored

above, demonstrates the manifold factors influencing experiences of touching and being touched. Future investigation should focus on this comprehensive and dynamic, multidisciplinary biopsychosocial model to further understand how experiences of touch impact our understanding and interpretation of emotion and cognition, building towards a better understanding of health and disease. This could guide us on how best to work with regressive experiences (Balint, 1968) and clarify the full gravity of "corrective emotional experiences" (Alexander & French, 1946, p. 66) from the micro aspects, like epigenetic changes, to the macro level of the holistic organismic perspectives of all bodily systems, such as muscular, digestive, respiratory, nervous, endocrine, and immune systems.

Acknowledgement

Many thanks to my son, Noam Mendzelevski-Steinberg, for all his support.

■ ■ ■



Elya Steinberg *is a nonbinary British-Israeli Biodynamic Psychotherapist at the Gerda Boyesen Centre, and a medical doctor, UKCP registered and EABP member. She is chair of the EABP training standards committee, and lecturer and supervisor for The Minster Centre and Regent University in London, UK. In addition, she is a MSc student in applied neuroscience at King's College London. She has worked with clients using touch since 1982. In her work, she integrates Bioenergy, Biodynamic psychotherapy, martial arts, integrative medicine, and neuroscience, with a strong affinity for salutogenic concepts. She seeks to question dominant gender narratives in psychotherapy, honoring and elevating people's lived experiences over social constructs and dogmas. She aims to support people who wish to integrate their biopsychosocial realities to achieve self-actualization.*

REFERENCES

Abbott, A. (2011). Novartis to shut brain research facility. *Nature*, 480(7376), 161-162.

Agren, G., Lundeberg, T., Uvnäs-Moberg, K., & Sato, A. (1995). The oxytocin antagonist 1-deamino-2-d-Tyr-(Oet)-4-Thr-8-Orn-oxytocin reverses the increase in the withdrawal response latency to thermal, but not mechanical nociceptive stimuli following oxytocin administration or massage-like stroking in rats. *Neuroscience Letters*, 187, 49-52.

Alexander, F., & French, T. (1946). *Psychoanalytic therapy: Principles and application*. (F. Alexander & T. French, Eds.). Ronald Press.

Alonso, S., Arevalo, R., Afonso, D., & Rodriguez, M. (1991). Effects of maternal stress during pregnancy on forced swimming test on behavior of the offspring. *Physiology and Behavior*, 50, 511-517.

American Psychiatric Association (2013). *Diagnostic and statistical manual of mental disorders*. American Psychiatric Publishing.

Antonovsky, A. (1979). *Health, stress, and coping*. Jossey-Bass.

Antonovsky, A. (1987). *Unraveling the mystery of health: How people manage stress and stay well*. Jossey-Bass.

Asheri, S. (2009). To touch or not to touch: a relational body psychotherapy perspective. In L. Hartley (Ed.), *Contemporary body psychotherapy: The Chiron approach* (106-120). Routledge Taylor & Francis Group.

Balint, M. (1935). *Primary love and psycho-analytic technique*. Taylor & Francis.

Balint, M. (1968). *The basic fault: Therapeutic aspects of regression*. Northwestern University Press.

Barton, A. (2022). *Wired for music: A search for health and joy through the science of sound*. Greystone Books Ltd.

Bayer, S., Altman, J., Russo, R., & Zhang, X. (1993). Timetables of neurogenesis in the human brain based on experimentally determined patterns in the rat. *Neurotoxicology*, 14, 83-144.

Bengel, J., Strittmatter, R., & Willmann, H. (1999). *What keeps people healthy? The current state of discussion and the relevance of Antonovsky's salutogenic model of health*. Federal Centre for Health Education.

Bock, J., Wainstock, T., Braun, K., & Segal, M. (2015). Stress in utero: Prenatal programming of brain plasticity and cognition. *Biological Psychiatry*, 78, 315-326.

Boscarino, J., Erlich, P., Hoffman, S., Rukstalis, M., & Stewart, W. (2011). Association of FKBP5, COMT and CHRNA5 polymorphisms with PTSD among outpatients at risk for PTSD. *Psychiatry Research*, 188, 173-174.

Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. Basic Books.

Brown, M. (1990). *The healing touch: An introduction to organismic psychotherapy*. LifeRhythm.

Caldji, C. (1998). Maternal care during infancy regulates the development of neural systems mediating the expression of fearfulness in the rat. *Proceedings of the Nationall Academy of Sciences of the United States of America*, 95, 5335-5340.

Changaris, M. (2015). *Touch: The neurobiology of health, healing, and human connection*. LifeRhythm.

Chen, Y., Kramar, E., Chen, L., Babayan, A., Andres, A., Gall, C., Lynch, G., Baram, T. (2013). Impairment of synaptic plasticity by the stress mediator CRH involves selective destruction of thin dendritic spines via RhoA signaling. *Molecular Psychiatry*, 18(4), 485-496.

Clarkson, P. (2003). *The Therapeutic Relationship* (2nd ed.). Wiley.

Feldman, R., & Eidelman, A. I. (2003). Skin-to-skin contact (Kangaroo Care) accelerates autonomic and neurobehavioural maturation in preterm infants. *Developmental Medicine & Child Neurology*, 45(4), 274-281.

Felitti, V., Anda, R., Nordenberg, D., Williamson, D., Spitz, A., Edwards, V., Koss, M., Marks, J. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, 14(4), 245-258.

Field, T. (2001). *Touch*. MIT Press.

Field, T., Diego, M., & Hernandez-Reif, M. (2010). Preterm infant massage therapy research: A review. *Infant Behavior and Development*, 33(2), 115-124.

Fonagy, P., & Campbell, C. (2017). What touch can communicate: Commentary on "Mentalizing homeostasis: The social origins of interoceptive inference" by Fotopoulou and Tsakiris. *Neuropsychoanalysis*, 19(1), 39-42.

Fotopoulou, A., & Tsakiris, M. (2017). Mentalizing homeostasis: The social origins of interoceptive inference, *Neuropsychoanalysis*, 19(1), 3-28.

Freud, S. (1909). *Analysis of a phobia in a five-year-old boy (Little Hans)*. In *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 10, 1-147). Hogarth Press.

Freud, S. (1914). *Remembering, repeating and working-through, recommendations on the technique of psycho-analysis II*. In *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 12, 145-156). Hogarth Press.

Freud, S. (1926). *Inhibitions, symptoms and anxiety*. In *The standard edition of the complete psychological works of Sigmund Freud* (Vol. 20, 75-176). Hogarth Press

Freud, S., & Breuer, J. (1895/1985). *Studies on hysteria. In The standard edition of the complete psychological works of Sigmund Freud* (Vol. 2, 1-305). Hogarth Press.

Friston, K. (2010). The free-energy principle: a unified brain theory? *Nature Reviews Neuroscience*, 11, 127-138.

Fromm, E. (2013). *The art of being*. Open Road Media.

Gross, C., & Hen, R. (2004). The developmental origins of anxiety. *Nature Reviews Neuroscience*, (5), 545-552.

Handley, E. (2022). Summer school open learning for all, NADFAS (UK). Retrieved from https://www.litnet.co.za/wp-content/uploads/2021/11/2022-SS-Brochure-Digital-Fin2.pdf

Harlow, H., & Zimmermann, R. (1958). The development of affective responsiveness in infant monkeys. *Proceedings of the American Philosophical Society* (102), 501-509.

Harlow, H., Dodsworth, R., & Harlow, M. (1965). Total social isolation in monkeys. *Proceedings of the National Academy of Sciences of the United States of America*, 54(1), 90.

Hart, S., Field, T., Hernandez-Reif, M., Nearing, G., Shaw, S., Schanberg, S., & Kuhn, C. (2001). Anorexia nervosa symptoms are reduced by massage therapy. *Eating Disorders*, 9, 289-299.

Haynal, A. (2002). Zones of maturation and regression, and psychoanalytic technique. *The American Journal of Psychoanalysis*, 62(1), 53–64.

Hochwälder, J. (2022). Theoretical issues in the further development of the sense of coherence construct. In Mittlemark, M. et al. (Eds.), *The handbook of salutogenesis* (569-579). https://doi.org/10.1007/978-3-030-79515-3_53

Ichheiser, G. (1949). *Misunderstandings in human relations*. University of Chicago Press.

Insel, T. (2012). Next-generation treatments for mental disorders. *Science Translational Medicine*, 4(155ps19).

Insel, T. R. (2000). Toward a neurobiology of attachment. *Review of General Psychology*, 4, 176-185.

Jung, C. (1966). *The practice of psychotherapy* (2nd ed., The Collected Works of C. G. Jung (Vol. 16). Princeton University Press.

Kehoe, P., & Blass, E. (1986). Behaviorally functional opioid systems in infant rats. *Behavioral Neuroscience*, 100(5), 624-630.

Kertay, L., & Revier, S. L. (1993). The use of touch in psychotherapy: theoretical and ethical considerations. *Psychotherapy*, 30(1), 32-40.

King, A. (2011). Touch as relational affirmation. *Attachment: New directions in psychotherapy and relational psychoanalysis*, 5, 108-124.

Korosi, A., & Baram, T. (2010). Plasticity of the stress response early in life: Mechanisms and significance. *Developmental Psychobiology*, 52, 661-670.

Langeland, E., Liv, H., Gunnarsdottir, H., Arveklev, H., & Vinje, H. (2022). Promoting salutogenic capacity in health professionals. In M. Mittelmark et al. (Eds.), *The handbook of salutogenesis* (611-624). https://doi.org/10.1007/978-3-030-79515-3_55.

Lanius, R., Vermetten, E., & Pain, C. (Eds.). (2010). *The impact of early life trauma on health and disease (The hidden epidemic)*. Cambridge University Press.

Linson, A., & Friston, K. (2019). Reframing PTSD for computational psychiatry with the active inference framework. *Cognitive Neuropsychiatry*, 24(5), 347-368.

Liu, D., Diorio, J., Day, J., Francis, D., & Meaney, M. (2000). Maternal care, hippocampal synaptogenesis and cognitive development in rats. *Nature Neuroscience*, 3, 799-806.

Lupien, S., McEwen, B., Gunnar, M., & Heim, C. (2009). Effects of stress throughout the lifespan on the brain, behaviour and cognition. *Nature Reviews Neuroscience*, 10, 434-445.

McEwen, B., Bowles, N., Gray, J., Hill, M., Hunter, R., Karatsoreos, I., & Nasca, C. (2015). Mechanisms of stress in the brain. *Nature Neuroscience*, 18(10), 1353-1363.

McGilchrist, I. (2009). *The master and his emissary: The divided brain and the making of the Western world*. Yale University Press.

Mitchell, S. A. (2000). *Relationality: From attachment to intersubjectivity*. Routledge: Taylor & Francis Group.

Mittelmark, M., et al. (Eds.) (2017). *The handbook of salutogenesis*. Springer.

Montagu, A. (1971). *Touching: On the human significance of the skin*. HarperCollins.

Murmu, M., Salomon, S., Biala, Y., Weinstock, M., Braun, K., & Bock, J. (2006). Changes of spine density and dendritic complexity in the prefrontal cortex in offspring of mothers exposed to stress during pregnancy. *European Journal of Neuroscience*, 24, 1477-1487.

Nelson, E., & Panksepp, J. (1998). Brain substrates of infant–mother attachment: Contributions of opioids. oxytocin, and norepinephrine. *Neuroscience & Biobehavioral Reviews*, 22, 437-452.

NIH National Human Genome Research Institute (2020). Epigenomics Fact Sheet. Retrieved from https://www.genome.gov/about-genomics/fact-sheets/Epigenomics-Fact-Sheet

Olausson, H. et al. (Eds.) (2016). *Affective touch and the neurophysiology of CT afferents*. Springer.

Panksepp, J. (1998). *Affective neuroscience: The foundations of human and animal emotions*. Oxford University Press.

Papassotiropoulos, A., & de Quervain, D. (2015). Failed drug discovery in psychiatry: time for human genome-guided solutions. *Trends in Cognitive Sciences*, 19, 183-187.

Pepper, S. (1942). *World Hypotheses*. University of California Press.

Perry, B., & Winfrey, O. (2021). *What happened to you?: Conversations on trauma, resilience, and healing*. Flatiron Books.

Puderbaugh, M., & Emmady, P. (2023). *Neuroplasticity*. StatPearls Publishing. https://www.ncbi.nlm.nih.gov/books/NBK557811/.

Rako, S., Mazer, H., & Semrad, E. (Eds.). (2003). *Semrad: The heart of a therapist*. iUniverse, Inc.

Robinson, R., Lahti-Pulkkinen, M., Heinonen, K., Reynolds, R., & Räikkönen, K. (2019). Fetal programming of neuropsychiatric disorders by maternal pregnancy depression: a systematic mini review. *Pediatric Research*, 85, 134-145.

Ron, H. (1972, November 17). Music that will forever be new (Translated Title). *DAVAR*. Retrieved from https://www.nli.org.il/he/newspapers/?a=p&p=articleclipping&d=dav19721117-01.2.151&dliv=none

Ron de Kloet, E., Joëls, M., & Holsboer, F. (2005). Stress and the brain: From adaptation to disease. *Nature Reviews Neuroscience*, 6, 463-475.

Sandi, C., & Haller, J. (2015). Stress and the social brain: behavioural effects and neurobiological mechanisms. *Nature Reviews Neuroscience*, 16, 290-304.

Schidlowsky, L. (2023, August 4). Leon Shidlovsky. In Wikipedia. https://he.wikipedia.org/wiki/יקסבולדיש_וואל

Schore, A. (2002). Dysregulation of the right brain: a fundamental mechanism of traumatic attachment and the psychopathogenesis of posttraumatic stress disorder. *Australian and New Zealand Journal of Psychiatry*, 36, 9-30.

Selye, H. (1973). Homeostasis and heterostasis. *Perspectives in Biology and Medicine*, 16(3), 441-445.

Simpson, & Belsky. (2008). Attachment theory within a modern evolutionary framework. In Cassidy, J. & Shaver, P. (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (131–157). Guilford Press. https://www.researchgate.net/publication/279233483.

Smith, E., Clance, P., & Imes, S.(Eds.). (1998). *Touch in psychotherapy: Theory, research, and practice*. Guilford Press.

Southwell, C. (1982/2022). Biodynamic massage as a therapeutic tool – with special reference to the biodynamic concept of equilibrium. *Journal of Biodynamic Psychology*, 3, 346-369.

Southwell, C. (1991/2022). The sexual boundary in therapy. *Energy & Character*, 22(1), 37-46.

Spitz, R. (1945). Hospitalism: An inquiry into the genesis of psychiatric conditions in early childhood. *Psychoanalytic Study of the Child*, 1, 53-74.

Steinberg, E. (2010). Promotion of health and biodynamic psychotherapy. *The Psychotherapist*, 8-9.

Steinberg, E. (2016). Transformative moments: Short stories from the biodynamic psychotherapy room. *Somatic Psychotherapy Today*, 3, 26-34, 36-41, 99.

Steinberg, E. (2017). How can we evaluate the subjective and objective aspects of effectiveness in the therapeutic alliance? Fundamental limitations to current scientific writing about therapeutic processes. *Somatic Psychotherapy Today*, 7(2), 38-45, 63.

Stern, D. (2004). *The present moment in psychotherapy and everyday life*. W. W. Norton.

Sullivan, H. (1970). *The psychiatric interview*. W. W. Norton.

Suvilehto, J., Cekaite, A., & Morrison, I. (2023). The why, who and how of social touch. *Nature Reviews Psychology*, 2, 606-621.

Thomason, M., Hect, J., Waller, R., & Curtin, P. (2021). Interactive relations between maternal prenatal stress, fetal brain connectivity, and gestational age at delivery. *Neuropsychopharmacology*. 46(10), 1839-1847.

Trevarthen, C. (2004). Intimate contact from birth: How we know one another by touch, voice and expression in movement. In White, K. (Ed.), *Touch: Attachment and the body* (2-15). Karnac.

Tronick, E. (2007). *The neurobehavioral and social-emotional development of infants and children*. W. W. Norton.

Tronick, E., & Gold, C. (2020). *The power of discord*. Scribe Publications.

Turk, E., van den Heuvel, M., Sleurs, C., et al. (2023). Maternal anxiety during pregnancy is associated with weaker prefrontal functional connectivity in adult offspring. *Brain Imaging and Behavior*, 17, 595-607.

Uvnäs-Moberg, K. (2003). *The oxytocin factor: Tapping the hormone of calm, love, and healing*. Da Capo Press.

van der Kolk, B. (2014). *The body keeps the score: Mind, brain and body in the transformation of trauma*. Penguin.

Wallin, D. (2007). *Attachment in psychotherapy*. Guilford Press.

Warnecke, T. (2011). Stirring the depths: Transference, countertransference and touch. *Body, Movement and Dance in Psychotherapy: An International Journal for Theory, Research and Practice*, 6(3), 233-243.

Weaver, A., Richardson, R., Worlein, J., Waal, F., & Laudenslager, M. (2004). Response to social challenge in young bonnet (Macaca radiata) and pigtail (Macaca nemestrina) macaques is related to early maternal experiences. *American Journal of Primatology*, 62, 243-259.

Weaver, I., Cervoni, N., Champagne, F., D'Alessio, A., et al. (2004). Epigenetic programming by maternal behavior. *Nature Neuroscience*, 7(8), 847-854.

Xu, C., Xu, Y., Xu.S., Zhang, Q., et al. (2020). Cognitive reappraisal and the association between perceived stress and anxiety symptoms in COVID-19 isolated people. *Frontiers in Psychiatry*, 11(858), 1-8.

Yehuda, R., Hoge, C., McFarlane, A., Vermetten, E., et al. (2015). Post-traumatic stress disorder. *Nature Reviews Disease Primers*, 1(1), 1-22.

RESEARCH

Brainspotting

A Treatment for Posttraumatic Stress Disorder

LeeAnn M. Horton [1], Cynthia Schwartzberg [2], Cheryl D. Goldberg [3], Frederick G. Grieve [4], Lauren E. Brdecka [5]

ABSTRACT

The research base of psychological interventions for effectively treating posttraumatic stress disorder (PTSD) is limited. This classical experiment study aims to introduce Brainspotting as an effective treatment for PTSD, and symptom reduction for anxiety and depression. Participants for the study (*N* = 63) were (convenience sample of self-referring) clients who were recruited when they presented at a clinic for the treatment of PTSD. Participants completed the informed consent process, then were randomly assigned to receive either five weeks of treatment as usual (TAU; cognitive-behavioral therapy, solution-focused, person-centered, psychodynamic), or five weeks of Brainspotting treatment. Assessments were taken at pre-treatment, post-treatment, and a four-week follow-up with 27 participants who completed treatment. Results showed that participants in both groups decreased in symptoms of PTSD. In general, TAU was better initially posttreatment, while Brainspotting showed more longitudinal benefits at the follow-up stage. Implications for these findings are discussed, and recommendations for future research are given.

Keywords: anxiety, brainspotting, depression, post-traumatic stress, trauma

Submitted: 15.07.2023
Accepted: 16.01.2024

International Body Psychotherapy Journal
The Art and Science of Somatic Praxis

Volume 22, Number 2,
Winter 2023-2024, pp. 57-72

ISSN 2169-4745 Printing, ISSN 2168-1279 Online

> ***... this fixed-eye position results from activation in the superior colliculi (SC), one of the first areas of the brain activated when there is a perceived threat.***

The effectiveness of brainspotting as treatment for PTSD

Approximately eight million adults in the U.S. are diagnosed with post-traumatic stress disorder (PTSD) annually (U.S. Department of Veterans Affairs, 2019). Ten percent of women develop PTSD sometime in their lives, compared to 4% of men

1. Western Kentucky University, Journey Through Counseling
2. Southeast Brainspotting Institute, Cynthasis
3. Mood Treatment Center
4. Western Kentucky University
5. Antioch University, Los Angeles, Neuroscience Integration Lab

(U.S. Department of Veterans Affairs, 2019). It is estimated that 10% to 20% of those exposed to trauma through direct experience or vicarious witness will develop short-term symptoms of PTSD. Some will continue to develop chronic long-term symptoms. The assessed lifetime pervasiveness of PTSD among adults is roughly 8% (Merz et al., 2019). Currently, only 30% of individuals experiencing PTSD experience a significant reduction in symptoms via available treatment (Talbot et al., 2023).

Over the past two decades, research has increased regarding efficacy-based treatments for PTSD. However, the need for treatment is growing faster than research is being published (Gurda, 2015). Psychotherapy is preferred over medication alone (Merz et al., 2019), highlighting the need for more psychotherapeutic, evidence-based research.

Background on the effects of trauma

In the aftermath of traumatic events, individuals are vulnerable to reacting to sensory information in the present as if they were re-experiencing the past traumatic event (American Psychiatric Association, 2013). Past trauma leaves them with neurobiological abnormalities such as hypercortisolism (adrenal insufficiency), which drives abnormal stress encoding and fear processing, promotes hippocampal atrophy, and increases dopamine levels, which interfere with fear conditioning by the mesolimbic system and increase arousal, startle response, and the encoding of fear memories (Sherin & Nemeroff, 2011; 2022). Abnormalities also include increases in the activity of the amygdala, promoting hypervigilance and impairing the ability to discern the threat level (Sherin & Nemeroff, 2011; 2022). This type of vulnerability impacts individuals' ability to regulate emotions, causes impairment in thinking, and leads to changes in hormonal levels (Substance Abuse and Mental Health Services Administration, 2010; 2014). Emerging therapies are at the forefront of a movement to integrate somatic elements into therapy and theory regarding how trauma is encoded in the mind-body connection, and ways to resolve its effects (Gurda, 2015).

According to Corrigan, Grand, and Raju (2015), effective treatment needs to include supporting the maladaptive areas of the brain and body. "Full orientation to the aversive memory… fails to occur when a high level of physiological arousal that is threatening to become overwhelming promotes a neurochemical de-escalation of the activation: there is no resolution. In Brainspotting and other trauma psychotherapies, healing can occur when full orientation to the memory is made possible" (Corrigan et al., 2015, p. 1).

American Psychological Association guidelines for trauma treatment

The American Psychological Association (APA) has created a set of guidelines for trauma treatment based on extant research (APA, 2017). Recommendations include cognitive behavioral therapy (CBT), cognitive processing therapy (CPT), cognitive therapy (CT), and prolonged exposure therapy (PE). The panel conducting the review suggested the use of brief, eclectic psychotherapy (BEP), eye movement desensitization and reprocessing (EMDR), and narrative exposure therapy (NET). At the same time, there is insufficient evidence to recommend for or against offering Seeking Safety (SS) or relaxation (RLX) (APA, 2017).

Recent reporting addresses some limitations to these guidelines and the method of reviewing statistics (Dominguez & Lee, 2017). There is a need to consider other modalities, based on an increasing demand by clinicians to provide trauma care using methods not yet researched (Gurda, 2015), the drop-out rate of treatment (Imel et al., 2013), top-down therapy (Corrigan & Hull, 2015), and the results of the Adverse Childhood Experiences (ACE) study (Felitti et al.,1998). Brainspotting is a treatment that could address these limitations in current trauma treatments.

How Brainspotting works

Brainspotting (BSP) was developed by David Grand, Ph.D., in 2003 (Grand, 2013). At that time, Dr. Grand was a practicing EMDR trainer. Grand shifted away from EMDR, noting that certain clients were overactivated by the rapid eye movements, and developed a process that he further refined and called Natural Flow (Grand, 2013). This therapy involved slower eye movements. He continued his studies with colleagues and eventually shifted to a fixed-focus-point therapy, which he termed Brainspotting (BSP).

BSP is a psychotherapy aimed at helping patients suffering not only from PTSD, but also from emotional dysregulation, anxiety, or depression. The original type of BSP, Outside Window, was discovered during a session when Grand was working with a figure skater who had trouble performing a triple loop. He began the session with the client focusing on the moment right before she popped her jump, which was the presenting problem. Grand was working with Natural Flow until he noticed her eye movements wobbling and freezing on a particular spot in the client's field of vision. Grand stopped and waited for 10 minutes as the client reported material that had not been previously reported, such as the client being blamed for her parents' divorce because of her skating. The next day, the skater called to report that she had no trouble doing her triple loop at the competition. Grand observed other clients' reflexive movements, and discovered similar process patterns.

In a typical BSP session, the client and therapist define an emotional and somatic activation linked to an issue. Once the issue is defined, the client rates the level of activation on a Subjective Units of Distress (SUDS) rating scale from 1 (no activation) to 10 (high activation; Tanner, 2012; Milite, 2018), which is a practice similar to what is used in EMDR and other trauma therapies. At this point in the session, the therapist works with the client to find a relevant eye position connected to the defined therapeutic issue and somatic activation. The fixed-eye position supports the client's access to deep subcortical brain activity during a focused mindfulness process (Masson et al., 2017).

Eye positions can be found in one of three ways:

- Outside Window is where the therapist uses an extended pointer to move slowly horizontally across the patient's visual field, looking for outwardly observable, reflexive responses. Once a reflexive response is seen, the therapist holds the pointer at the relevant eye position and guides the client to continue to observe his or her internal process mindfully with curiosity.
- Another way of finding a relevant eye position is with the Inside Window approach. This method of locating the eye position uses a similar set-up of defining the emotional and somatic activation around a presenting issue. The client is guided to look at the extended pointer along the horizontal visual field (x-axis), and then vertically (y-axis), until a relevant eye position is defined. The position is based on the client's self-reflexive reporting associated with their activation level.
- The last method of finding eye positions is called Gazespotting, using spontaneous gazing as the client is speaking about the clinical issue. The attuned therapist points out the natural flow of the client's eyes to a specific spot, and encourages them to stay on that spot as they go into the focused mindfulness part of the work (Kaufman, 2015).

Once the eye position is located, the client continues with Brainspotting-induced processing in the treatment phase using focused mindfulness (Grand, 2013). Mindfulness is a meditative awareness of the present-moment experience with no assumptions or judgment (Kabat-Zinn, 2012). Here, the client continues to look at the identified position, and enters a deep state of mindfulness while periodically reporting to the therapist.

BSP uses the fixed-eye position corresponding to the client's felt sense of trauma, which accesses the subcortical brain. Corrigan & Grand (2015) have hypothesized that this fixed-eye position results from activation in the superior colliculi (SC), one of the first areas of the brain activated when there is a perceived threat. He hypothesizes that not only does the SC respond to the threat itself, but it also responds to the threat-trauma neural network that develops because a complete orientation to trauma does not occur in the client's memory. That is, clients have not processed that they have survived trauma. SC pathways allow the brain's natural tendency toward organization to orient to the trauma experience fully. Thus, the SC pathways allow for implicit and explicit memory to be reconsolidated through optimal thalamocortical (thalamus to the cortex) processing. BSP accesses the SC pathways without the need for the client to explicitly recall disturbing memories or to talk about or relive the trauma. Through BSP, the entrenched trauma neural network is dismantled and no longer launches, thus relieving the psychological symptoms of trauma (Corrigan et al., 2015).

When applying the process of having the client sense an emotional and somatic activation, the brain centers associated with this felt sense appear to be activated (Corrigan & Grand, 2013). Once on the activated brainspot, the attuned presence

of the therapist provides support for the client to move through various cycles of a resting and active state. This attuned presence is vital for healing (Scaer, 2012). Scaer (2012), having observed BSP sessions, pointed out that the attuned presence of another human activates mirror neurons between the cingulate and the orbital frontal cortex, creating an empathic environment and inhibiting the amygdala. Face-to-face attunement is critical for healing in trauma work (Scaer, 2012). Scaer (2012) references BSP specifically: "It should be noted that the therapist requires intense attunement to attain the brainspot, a potentially important element for its efficacy" (Scaer, 2012, p. 148).

Kaufman (2015) described the components of BSP that are similar to and different from the components of EMDR. Kaufman references the eye position as a significant difference between BSP and EMDR. In EMDR, there are rapid eye movements, but in BSP, the client's eyes stay on one point. In the comparison, Kaufman referenced a study by Logie (2014): "A point of conflict within the EMDR literature is equivocal conclusions about the necessity of eye movements" (Kaufman, 2015, p. 93). Participants in Kaufman's (2015) study appeared to be quite sure that different eye positions produce pronounced alterations in their subjective assessments.

Levine (1997) and Ogden et al. (2006) have expanded on the concept of orienting to a specific spot in relation to trauma. They reference the sequence of orientation in response to a stimulus. When the entire sequence fails to complete at the time of trauma, some components are left unresolved, and are liable to recur when triggered. Scaer (2012), Levine (1997), and Badenoch (2008) also reference the importance of trauma therapy reaching unresolved experiences to be effective. The physiological activation has not been discharged from memory. Accessing the relevant eye position is promoted as a careful, mindful way to support trauma resolution (Corrigan & Grand, 2013) without over-activating or re-traumatizing the client.

The importance of the therapist-client relationship in Brainspotting

The critical components of BSP treatment are based on the uncertainty principle (Corrigan & Grand, 2013) within the context of supporting the therapist-client relationship and engaging the body and brain using the focused-eye position. Applying all of these simultaneously in a therapeutic environment may be a primary reason for the effectiveness of BSP (Corrigan & Grand, 2013). Kaufman (2015) researched these components in his dissertation involving 16 adults: eight clients and eight therapists. Results indicated that the individuals could alleviate their pain through BSP, and did not diminish their individual uniqueness. Decades of research have indicated that therapy is an interpersonal process in which a main curative component is the nature of the therapeutic relationship (Lambert & Barley, 2001). BSP harnesses this, and clinicians trained in this modality are reminded that the relationship is more important than the methodology.

The therapist and client check in with each other during the process. With an attuned focused, empathic presence, the therapist tracks the client's neurobiology (breathing, body movements, eye movements, and reflexive movements), and checks with the client throughout the process on the nature and severity of the activation in the body, thus allowing the process to unfold from within the client's experience (Corrigan & Grand, 2013). Typically, the session concludes with a reference to the original issue through the client reporting on his or her current state of being. The Subjective Units of Distress (SUDS) may also be revisited to get a sense of movement. However, the SUDS number is not the only determining factor regarding the client's state of being. The therapist relies on the client's reporting as well. The session concludes once the SUDS rating is complete (Grand, 2013).

Brainspotting as an effective therapy for trauma

Gurda (2013) cited BSP as one of three emerging therapies (with yoga and energy psychology) worthy of further study. The National Institutes of Health has classified yoga as a form of Complementary and Alternative Medicine (Woodyard, 2011). Energy Psychology has since been validated by the National Repertory of Evidence-Based Practices and Procedures (NREPPP), a division of the Substance Abuse and Mental Health Services Administration (SAMHSA), as an evidence-based treatment (Energy Psychology, 2019).

One of the first worldwide research studies conducted by Hildebrand et al. (2017) in Germany

examined the efficacy of BSP. This was a comparative study with EMDR and BSP for the treatment of PTSD. Participants included 76 adults who sought professional help after a traumatic event. Clients received BSP or EMDR with a pre-test, three 60-minute sessions of EMDR (n = 23) or BSP (n = 53), and a six-month follow-up. Primary outcomes were self-reports of the severity of PTSD symptoms. Secondary outcomes included self-reported symptoms of depression and anxiety. Results showed that participants in both studies experienced significantly reduced PTSD symptoms. For clients treated with EMDR, effective sizes from baseline to post-treatment concerning PTSD were 1.19 to 1.76, and for BSP, 0.74 to 1.04. The study concluded Brainspotting is an effective treatment for clients who experience a traumatic event or have PTSD, with its authors noting that more research on its efficacy is needed.

Another study that found BSP an effective alternative therapy for trauma survivors was reported by the Newtown-Sandy Hook Community Foundation, Inc. (2019). This research examined therapy effectiveness following the Sandy Hook Elementary School shooting. There were 945 responses to the survey, and participants were asked a series of questions to understand better what therapeutic interventions were effective. Participants reported that BSP (n = 22) had 59.09% efficacy, which was better than EMDR (n = 54) at 31.48%, and traditional talk therapy (n = 223) at 25.11%. However, this study is limited by the low number of participants who completed BSP (and EMDR) as treatment.

A grey paper from Spain examining treatment for Generalized Anxiety Disorder (GAD) presented a clinical experimental comparison of CBT, EMDR, and BSP, in which these three therapeutic interventions were administered to 59 patients with GAD and a control group. Treatment efficacy was assessed using the State-Trait Anxiety Inventory (STAI; Spielberger, 1983), the Beck Anxiety Inventory (BAI; Beck et al., 1988), and SUDS. Results of the study indicated that both EMDR and BSP could be effectively used in treating GAD (Anderegg, 2015).

A case study (Mattos et al., 2015) referenced BSP as a treatment modality of choice for persistent genital arousal disorder (PGAD). BSP intervention proved helpful in relieving disabling symptoms in patients after only six months, and complete remission was achieved within one year of intervention.

A dissertation was completed at the University of West Georgia on Experiential Reframing as a psychotherapeutic modality for helping clients unable to synthesize their emotional and cognitive understanding of certain significant events. The paper points to BSP as an experientially-based therapy with good clinical track records. The other modalities discussed are EMDR, Sensorimotor Psychotherapy, Hakomi, and the Pesso-Boyden System Psychomotor (PBSP; White, 2016). Most recently, Fabio, Alessio, Franco, and Cristiano (2022) published an article confirming BSP as an effective modality for processing distressing memories in a 40-minute sitting.

The purpose of the current study was to compare the effectiveness of BSP with therapy as usual in individuals presenting with trauma experiences to a clinic. Since limited research is available, a research question was forwarded instead of a hypothesis. The specific research question under study was: How does the effectiveness of Brainspotting compare to cognitive behavioral therapy? Further, do clients like Brainspotting as well as cognitive behavioral therapy?

Method

Participants for the study were 63 clients (8 men, 52 women, and three who did not indicate gender) who presented at the private practice for initial treatment of PTSD. These clients self-reported that they had received no previous specific trauma treatment therapy. Their mean age was 33.71 years (SD = 12.24). Racial/ethnic breakdown was as follows: 16 (25.4%) Caucasian, 3 (4.8%) African American, 1 (1.6%) Hispanic, and 43 (68.3%) who did not report ethnicity.

There were 27 participants (13 in the Treatment as Usual [TAU] condition and 14 in the BSP condition) who completed the treatment protocol, and 36 participants (24 in the TAU condition and 12 in the BSP condition) who did not complete the treatment protocol. The mean age of the participants who completed the treatment protocol was 35.15 (SD = 12.91). There were 20 women and four men, with three who did not indicate gender, who completed the treatment protocol. The racial/eth-

nic breakdown for those who completed was as follows: 6 (22.2%) Caucasian, 3 (11.1%) African American, and 18 (66.7%) did not report ethnicity. There were no differences between those who completed the treatment protocol and those who did not in age or the pre-treatment measures (all *t*'s < .8; all *p*'s > .4).

Three assessments were administered to participants in pre-treatment, post-treatment, and the follow-up session. One assessment was administered before each of the five treatment sessions, and one at the end of each treatment session. Also, the treatment provider completed a session note for each session. All documentation was sent to the team after the follow-up session was completed. The providers kept a copy of the session notes for their medical records. The three assessments for the pre-treatment, post-treatment, and follow-up session included: the Post Traumatic Stress Disorder Diagnostics Scale for DSM-5 (Foa, 2015); the Beck Depression Inventory, Second Edition (Beck,1996); and the Beck Anxiety Inventory (Beck, 1990). At the beginning of each of the five treatment sessions, the Outcome Rating Scale (ORT; Miller & Duncan, 2003) was administered to the participant. At the conclusion of each session, the participant received a Session Rating Scale (Duncan et al., 2003) to complete. The provider recorded each session on the coordinating session note. The session note included the participants' self-reported Subjective Units of Distress Ratings (SUDS) at the beginning and end of each session, along with the participants' state of stabilization at the conclusion of each session.

- **Posttraumatic Stress Disorder Symptom Scale for DSM-5**. The Posttraumatic Stress Disorder Diagnostic Scale (PTSDSS; Foa et al., 2015) is a 24-item self-report measure that evaluates symptoms of PTSD and their effect on a person's life. The first 20 items on the PTSDDS are scored on a five-point Likert scale from 0 (not at all) to 4 (6 or more times per week/severe). Item scores are summed, ranging from 0 to 80, with higher scores indicating more PTSD symptoms. An example item is "Feeling emotionally upset when reminded of the trauma." Items 21 and 22 are scored identically, address distress and interference, and are not included in the overall score. The last two items evaluate the onset and duration of the symptoms, and are not included in the scoring. These items distinguish between symptom duration of longer than six months and less than six months. The PTSDSS has been shown to have good psychometric qualities, with the internal consistency of α = .89, test-retest reliability of *r* = .87, and convergent validity as demonstrated by strong correlations (*r*'s greater than .72) with other measures of PTSD (Foa et al., 2015).
- **Beck Depression Inventory, second edition**. The Beck Depression Inventory, second edition (BDI-II; Beck et al., 1996) is a 21-item measure that evaluates symptoms of depression. The BDI-II is scored on a four-point Likert scale from 0 to 3 (each item has a different anchor). Items are summed, and scores range from 0 to 33, with higher scores indicating more symptoms of depression. An example item is Guilty Feelings (0: I do not feel particularly guilty; 1: I feel guilty a good part of the time; 2: I feel guilty most of the time; 3: I feel guilty all the time). Internal consistency for the BDI-II has been measured at α = .90, and concurrent validity was supported with correlations between the BDI-II and other measures of depression (Storch et al., 2004).
- **Beck Anxiety Inventory**. The Beck Anxiety Inventory (BAI; Beck & Steer, 1990) is a 21-item measure that evaluates anxiety symptoms. It is scored on a four-point Likert scale, from 0 (not at all) to 3 (severely). Items are summed, and scores range from 0 to 33, with higher scores indicating higher anxiety symptoms. Example items include "Numbness or tingling," "Unable to relax," and "Fear of losing control." The BAI has been shown to have good psychometric qualities, with an internal consistency of α = .94, an 11-day test-retest reliability of *r* = .67, and good concurrent validity, demonstrated by correlations ranging from *r* = .34 to *r* = .75 with other measures of anxiety (Fydrich et al., 1992).

Outcome Rating Scale. The Outcome Rating Scale (ORS; Miller et al., 2003) is a four-item scale that measures client perceptions of therapy session effectiveness. The items evaluate general wellbeing, personal wellbeing, family/close relationships, and work/school/friendships. Respondents are provided a 10 cm line to mark how much they experience each construct. Items are scored by measuring the distance from the left of the person's marks. Scores closer to the right of the line indicate high-

er levels of the construct. Scores range from 0 to 40. The ORS has been shown to have good psychometric qualities, with internal consistency ranging from α = .86 to α = .96, and concurrent validity as demonstrated by strong correlations (*r*'s ranging from .74 to .93) with the Outcome Questionnaire 45.2 (Miller et al., 2003).

Session Rating Scale, V.3.0. The Session Rating Scale, V.3.0 (Duncan et al., 2003) is a four-item measure of the therapeutic alliance between the client and the therapist. The items measure relationships, goals and topics, approach or method, and overall. Respondents are provided a 10 cm line to mark how much they experience each construct. Items are scored by measuring the distance from the left of the person's marks. Scores closer to the right of the line indicate higher levels of the construct. Scores range from 0 to 40. The SRS has been shown to have good psychometric qualities, with an internal consistency of α = .86, test-retest reliability of *r* = .70 (periods ranged from one to two weeks), and concurrent validity, as demonstrated by a correlation of *r* = .48 between the SRS and the Helping Alliance Questionnaire II (Duncan et al., 2003).

Subjective Units of Distress Scale. The Subjective Units of Distress Scale (SUDS) is a single item in which participants are asked to rate their overall level of distress/disturbance due to psychological symptoms. The item is measured on an 11-point scale, from 0 (no distress) to 10 (extreme distress). SUDS is a commonly used measure in psychotherapy to quickly assess client disturbance. The SUDS used to rate emotional discomfort has been shown to have good validity via negative correlations (*r* = −.43) with clinician ratings of client functioning (Tanner, 2012).

Procedure

All original authors completed and passed the Basic Collaborative Institutional Training Initiative Program (CITI Program) specific to Human Subject Research Ethical Education. The completion and passing of CITI was required by the Western Kentucky University (WKU) Institutional Review Board (IRB) before submitting the research proposal. The research proposal was approved by WKU IRB with the reference number of IRB#19-060 on 9/06/2018. Cheryl Goldberg, who conducted the double-blind research at a private group practice in North Carolina in 2018, joined the author team in late 2020 solely to write the conclusion long after her original task as research coordinator for the project was completed. Lauren Brdecka joined the research project in 2023 for editing and manuscript submission.

New clients coming to a private practice group clinic who presented with PTSD or were diagnosed with the disorder in their initial intake session were offered the opportunity to participate in the research study. Once a client agreed to participate in the research, an informed consent procedure was conducted and completed, including a description of participation and a release form. The client participants then completed a pretreatment assessment packet, including PTSDSS, BDI-II, and BAI. They were then randomly assigned to treatment providers. The private practice group clinic has BSP and traditional talk therapy (TAU) providers. The BSP providers participating in the research completed Phase 1 and Phase 2 BSP training in person, not via Digital Versatile Disk (DVD). The TAU providers used any best practice treatment they preferred (or that was clinically indicated) when providing treatment for the participants. However, they had no training in the following treatments: Trauma-Focused Cognitive Behavioral Therapy (TFCBT), Eye Movement Desensitization Reprogramming (EMDR), Emotional Freedom Therapy, or Somatic Experiencing. The TAU providers had no limitations on the style of their psychotherapeutic interventions, or the origin of their theories. However, they all identified their treatment style and the origin of the theory that was administered in each session on the session note document.

Treatment providers scheduled and conducted five treatment sessions with each participant. The five sessions were scheduled on a weekly or biweekly rotation, determined by the participant and provider. Each session was documented by both the provider and the participant. The provider used the coordinating note for the treatment being provided; the note documented the beginning and end of SUDS ratings. At the conclusion of the session, the client's self-reported state of stabilization was documented as poor, fair, good, or excellent. There was also a summary section for the treatment provider to add any additional information about the session. The participant completed the ORS at the beginning of each session, and the SRS V.3.0 at the end.

Table 1. *Means, standard deviations, and Cronbach's alphas for the PTSDSS, the BDI, and the BAI at pre-treatment, post-treatment, and follow-up*

Variable (*N*)	Min	Max	M	SD	alpha
Pre-Treatment					
PTSDDS (62)	32	83	61.91	12.11	.76
BDI (62)	7	58	29.56	12.11	.92
BAI (63)	4	50	26.33	11.94	.90
Post-Treatment					
PTSDDS (29)	10	64	35.93	13.74	.86
BDI (30)	5	43	18.33	10.78	.87
BAI (31)	2	35	14.87	9.18	.88
Follow-Up					
PTSDDS (27)	6	75	34.44	18.27	.92
BDI (27)	1	43	18.74	11.00	.88
BAI (26)	2	36	15.80	10.07	.90

Note: PTSDSS = Post Traumatic Stress Disorder Diagnostic Scale; BDI = Beck Depression Inventory; BAI = Beck Anxiety Inventory; Min = lowest reported score on the measure for the time; Max = highest reported score on the measure for the time.

The follow-up session occurred no less than four weeks and no more than six weeks after the final therapy session. At the follow-up session, participants were again administered the pre-test assessment tools. Once the assessments were complete, the client was no longer a research participant. The research team encouraged the client and the provider to reevaluate the treatment plan, and determine what future treatment was needed. After the conclusion of the follow-up session, the provider mailed all documentation to the research team for statistical analysis.

Results

Preliminary analyses included scores on the PTSDSS, BDI-II, and BAI, which were summed for participants at pre-treatment, post-treatment, and follow-up. In addition, Cronbach's alphas were computed for each measure at each time. See Table 1 for means, standard deviations, and Cronbach's alphas for the PTSDSS, BDI, and BAI each time. The ORS and SRS scores were summed for each of the five treatment sessions, and Cronbach's alphas were computed for each session. Means, standard deviations, and Cronbach's alphas are presented in Table 2. In addition, the mean initial SUDS score (and standard deviation) is presented in Table 2.

The research question examined BSP's effectiveness compared to TAU when treating trauma. This was evaluated using a series of 3 (pre-treatment v. post-treatment v. follow-up) × 2 (BSP v. TAU) Repeated Measures Analyses of Variance (ANOVAs). The dependent variables include scores on the PTSDSS, BDI-II, and BAI.

Results of the 3 × 2 Repeated Measures ANOVA examining scores on the PTSDSS indicated an interaction between time and group, $F(1, 23) = 4.61$, $p = .04$. There were differences in the scores on the PSSI over time, based on the group. In addition, there was a significant main effect for time, $F(1, 23) = 61.13$, $p < .001$, such that scores on the PSSI differed across time. There was not a main effect for group $F(1, 23) = 0.73$, $p = .40$. These results are displayed in Figure 1.

Results of the 3 × 2 Repeated Measures ANOVA examining scores on the BDI-II indicated an interaction between time and group, $F(1, 24) = 7.12$, $p = .01$. There were differences in the scores on the BDI over time, based on the group. In addition, there was a significant main effect for time,

Table 2. *Means, standard deviations, and Cronbach's alphas for the ORS, SRS, and initial SUDS score for each of the five treatment sessions*

Variable (*N*)	Min	Max	M	SD	alpha
Session 1					
ORS (55)	0.50	30.90	15.48	7.94	.83
SRS (55)	6.70	40.80	31.72	7.78	.94
SUDS (55)	0	10	5.91	2.47	
Session 2					
ORS (46)	5.60	39.30	18.45	8.38	.86
SRS (46)	5.40	41.20	35.52	5.25	.97
SUDS (48)	0	9	5.19	2.30	
Session 3					
ORS (35)	2.80	36.80	21.18	9.84	.92
SRS (33)	11.40	41.20	35.52	5.25	.98
SUDS (35)	0	10	5.80	2.41	
Session 4					
ORS (33)	1.90	38.40	22.10	11.10	.94
SRS (33)	27.00	41.20	36.67	2.91	.96
SUDS (35)	0	10	5.53	2.57	
Session 5					
ORS (29)	4.40	40.50	26.88	9.20	.94
SRS (29)	26.70	49.70	37.32	3.66	.66
SUDS (30)	0	9	4.48	2.71	

Note: ORS = Outcome Rating Scale; SRS = Session Rating Scale; SUDS = Subjective Units of Distress; Min = lowest reported score on the measure for the time; Max = highest reported score on the measure for the time. Please note that the SUDS is a single item; therefore, Cronbach's alpha cannot be computed.

$F(1, 24) = 28.29$, $p < .001$, such that BDI scores differed across time. There was also a main effect for group $F(1, 24) = 145.99$, $p < .001$. These results are displayed in Figure 2.

Results of the 3 × 2 Repeated Measures ANOVA examining scores on the BAI indicated no interaction between time and group, $F(1, 24) = 0.97$, $p = .33$. There were no differences in the scores on the BAI over time, based on the group. However, there was a significant main effect for time, $F(1, 24) = 26.00$, $p < .001$, such that BAI scores differed across time. The main effect for the group was $F(1, 24) = 93.25$, $p < .001$. These results are displayed in Figure 3.

Improvement during therapy was measured using SUDS ratings and the ORS. Two 2 (Condition: BSP v. TAU) × 5 (Session: one v. two v. three v. four v. five) repeated measures ANOVAs were conducted to evaluate changes in the SUDS ratings and ORS scores.

Results of the 2 × 5 repeated measures ANOVA examining beginning SUDS ratings for the clients indicated that there was no interaction between time and group, $F(1, 27) = 3.00$, $p = .10$. There was a main effect for time, $F(1, 27) = 5.28$, $p = .03$, such that SUDS ratings decreased across time. There was no main effect for group $F(1, 27) = 0.81$, $p = .38$. These results are displayed in Figure 4.

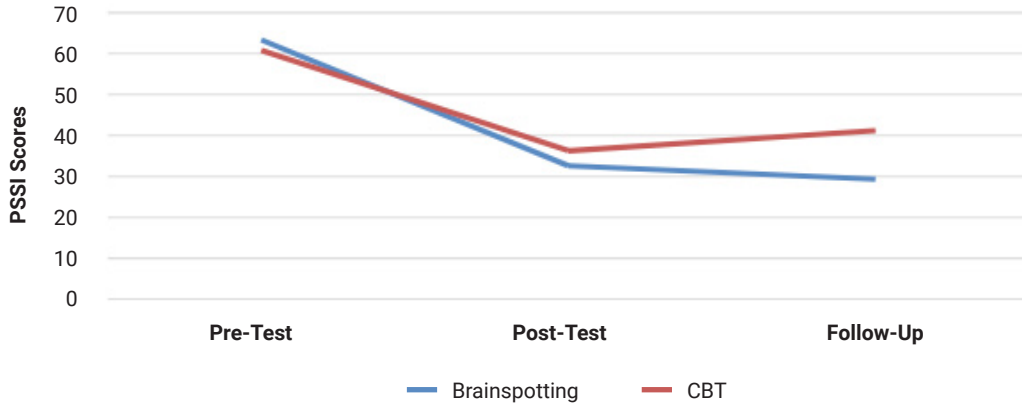


Figure 1. *Scores on the PSSI at pre-treatment, post-treatment, and follow-up*

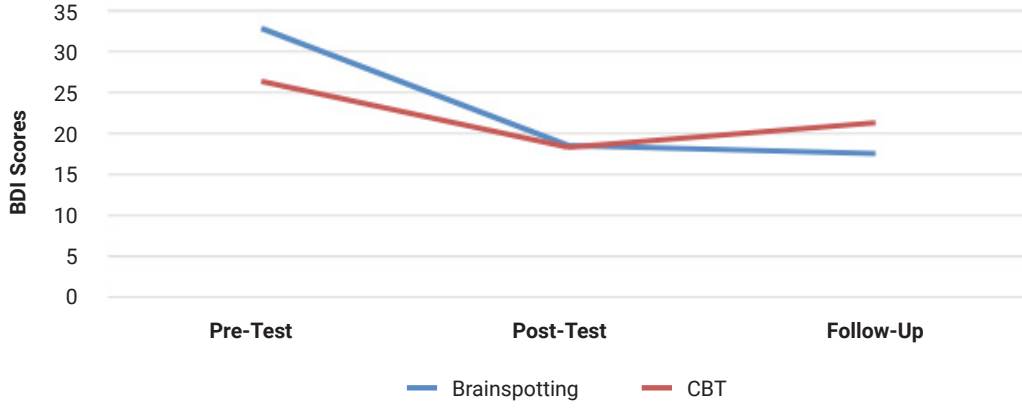


Figure 2. *Scores on the BDI at pre-treatment, post-treatment, and follow-up*

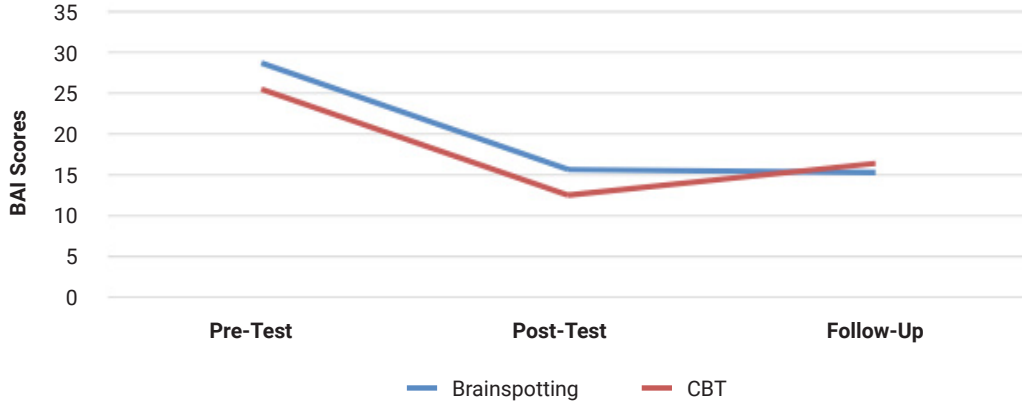


Figure 3. *Scores on the BAI at pre-treatment, post-treatment, and follow-up*

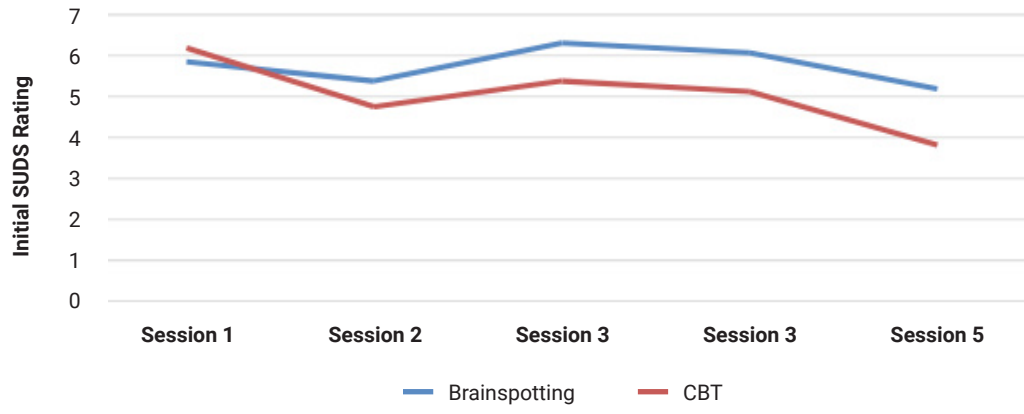


Figure 4. *SUDS ratings from the beginning of each therapy session*

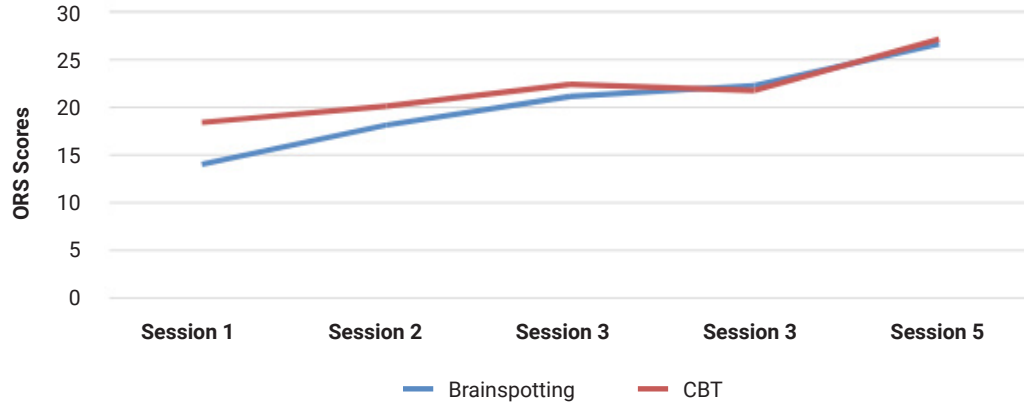


Figure 5. *ORS scores from each therapy session*

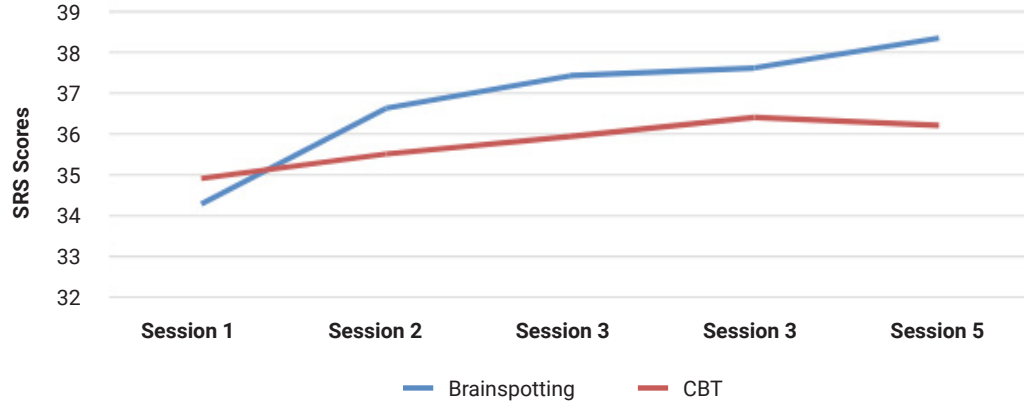


Figure 6. *SRS scores from each therapy session*

Results of the 2 × 5 repeated measures ANOVA examining ORS scores from the clients indicated that there was no interaction between time and group, $F(1, 27) = 1.45$, $p = .24$. There was a main effect for time, $F(1, 27) = 31.94$, $p < .001$, such that ORS scores increased over time. There was not a main effect for group $F(1, 27) = 0.28$, $p = .60$. These results are displayed in Figure 5.

The SRS measured client satisfaction with the therapy session. Repeated measures 2 (Condition: BSP v. TAU) × 5 (Session: one v. two v. three v. four v. five) repeated measures ANOVA was conducted to evaluate changes in SRS scores across sessions.

Results of the 2 × 5 repeated measures ANOVA examining SRS scores from the clients indicated that there was no interaction between time and group, $F(1, 27) = 3.56$, $p = .07$. There was a main effect for time, $F(1, 27) = 17.93$, $p < .001$, such that SRS scores increased over time. There was not a main effect for group $F(1, 27) = 1.18$, $p = .29$. These results are displayed in Figure 6.

Discussion

Around eight million adults in the U.S. are diagnosed with PTSD annually (U.S. Department of Veterans Affairs, 2019). There is a growing need for clinicians trained in modalities effective in treating PTSD. While research into viable treatment methods has increased, research also shows a need for more efficacy-based treatments for PTSD (Gurda, 2015). This study sought to assess if BSP is an effective treatment for PTSD in comparison to TAU, using instruments that measure anxiety, depression, and PTSD symptoms in addition to measures demonstrating both participants' satisfaction with and perception of the effectiveness of the treatment they received.

The BSP treatment group received five sessions of Brainspotting using techniques from Phase 1 and Phase 2 training. The control group received five sessions of TAU using traditional empirically validated treatment of the providers' choice and expertise. Each participant completed the PTSDSS, BDI-II, and BAI pre-and post-treatment in a four- to six-week follow-up.

Post-treatment assessments indicate that BSP and CBT were both effective in reducing symptoms related to PTSD, depression, and anxiety. This supports similar findings from a German study that found that participants receiving BSP experienced a reduction in post-traumatic symptoms (Hildebrand et al., 2017). Empirically validated treatments of trauma are also effective (APA, 2017; Stern, 2019).

Analyses of the PTSDSS, BDI-II, and BAI follow-up assessments show a significant decrease in symptoms across time for those receiving BSP compared to those receiving TAU, who, on average, demonstrated an increase in symptoms at follow-up. This indicates that BSP has a lasting treatment effect even when participants are not actively receiving treatment. These results, particularly those on the BAI, are similar to findings found in the grey paper from Spain researching the effectiveness of CBT, EMDR, and BSP on Generalized Anxiety Disorder (GAD; Anderegg, 2015). In that study, researchers found that each treatment modality was effective in treating GAD, and, during a six-month follow-up, identified a significant reduction in symptoms in the BSP group compared to groups receiving both CBT and EMDR. Results showed that while EMDR had a steady effect six months post-treatment, CBT's effects decreased over time.

Part one of the research question – how does the effectiveness of BSP compare to the effectiveness of TAU? – is answered using the findings on the post-treatment and follow-up assessments, which support a reduction in symptoms across all measures (PTSDSS, BDI-II, and BAI) for both groups, and a further decrease in symptoms over time for the BSP group alone. Thus, we can infer that BSP is more effective than CBT in reducing post-traumatic symptoms long term.

Analyses of results from the ORS and SUDS scale similarly indicate improvement over time in both the BSP and TAU groups. Findings from the SRS also demonstrated improvement over time in satisfaction with therapy across both groups. These results address part two of the research question – do clients like BSP as much as TAU?

Conclusion

The overall results of this study indicate that BSP is as effective as TAU in reducing trauma-related symptoms and symptoms of depression and anxiety. While the post-treatment results for participants in both the BSP and TAU groups demonstrated improvements, the follow-up evaluations also

showed a continued decrease in symptoms only for those participants who received BSP.

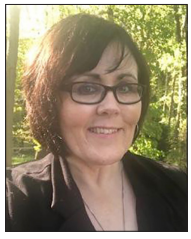
While the study demonstrates positive results for the effectiveness of BSP as a treatment intervention, it was limited in sample size and treatment techniques. Clinicians providing BSP for study participants were required to have a minimum amount of training in BSP (both Phase 1 and Phase 2). At the same time, there were no specific training requirements for clinicians providing TAU.

This study highlights the need for further research on the effectiveness of BSP as a treatment intervention for PTSD compared to CBT. There are a variety of cognitive therapies for treating PTSD, including CBT, cognitive processing therapy, cognitive therapy, and prolonged exposure therapy (APA, 2017). Additional research could compare the efficacy of BSP to each of those treatment methods, which could support the hypothesis that BSP is an effective treatment intervention for PTSD. Further research might also compare BSP to EMDR in order to address sample size limitations of the Hildeberg et al. (2017) study, and to body-based interventions for treating PTSD, such as Somatic Experiencing.

■ ■ ■

LeeAnn M. Horton *is a Professional Clinical Counselor and owner of Journey Through Counseling LLC in Kentucky. She received her master's degree from Lindsey Wilson College. She specializes in trauma and addiction-related work, with a passion for healing. She believes in using concepts and techniques that empower individuals to acquire new skill sets while supporting current strengths. A Certified Brainspotting Practitioner, she is also trained in EMDR (Eye Movement Desensitization and Reprocessing). Furthermore, she was the lead author and investigator in research at Western Kentucky University studying the effects of Brainspotting on PTSD. LeeAnn endorses this research.*

Cynthia Schwartzberg, *LCSW Founder and Advisory Board Member of the Southeast Brainspotting Institute, has worked with Brainspotting since its inception. She is a Brainspotting Trainer, Consultant, Practitioner, and Owner of Cynthasis, Inc., an integrative psychotherapy practice. Ms. Schwartzberg brings over 35 years of clinical experience to help clients suffering from post-traumatic stress disorder, depression, anxiety, relationship issues, and performance challenges. Her passion is to teach and support clinicians with therapeutic modalities that will enhance the wellbeing of their clients. Cynthia endorses this research.*



Cheryl Goldberg *is a Licensed Clinical Supervisor and Addictions Specialist in North Carolina with 15 years of experience treating children, families, and adults in private practice and community mental health. She was the NC coordinator for a Western Kentucky University research study using Brainspotting to treat PTSD. Cheryl serves on the Sid Lee Memorial Mental Health Association board in Stokes County, North Carolina. She is the Associate Director of Therapy Services at Mood Treatment Center, with offices in Winston-Salem, Clemmons, Greensboro, and Boone. She specializes in trauma and anxiety-related disorders in children and adults. Cheryl endorses this research.*

Frederick G. Grieve, Ph.D., *is a Professor of Psychology at Western Kentucky University. He received his doctoral degree in clinical psychology from the University of Memphis in 1996, completed a pre-doctoral internship at the University of Mississippi Medical Center in Jackson, Mississippi, and completed a post-doctoral internship at Harriett Cohn Mental Health Clinic in Clarksville, Tennessee. He is currently a licensed psychologist in the Commonwealth of Kentucky. Dr. Grieve received the WKU Department of Psychology and the College of Education and Behavioral Sciences awards for Distinguished Service in 2005 and Research in 2013. Frederick endorses this research.*

Lauren E. Brdecka *is a Licensed Clinical Professional Counselor in the greater Chicagoland area. She is an adjunct professor at Antioch University - Los Angeles, a Clinical Supervisor at Northwestern University, and a researcher at the Neuroscience Integration Lab at The Family Institute. Lauren has 15 years of experience in mental health, and has been a 10-time recipient of the Emerging Scholar Award at The Graduate School at Northwestern University for Clinical Mental Health Counseling. Lauren endorses this research.*

Please address correspondence to:

Lauren E. Brdecka
Antioch University - Los Angeles
Northwestern University - Neuroscience Integration Lab
2821 Gypsum Circle
Naperville, Illinois 60564
E-mail: Lbrdecka@antioch.edu

REFERENCES

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (5th ed.). American Psychiatric Association. https://doi.org/10.1176/appi.books.9780890425596

American Psychological Association. (2017). Clinical practice guideline for treating posttraumatic stress disorder (PTSD) in adults. https://www.apa.org/ptsd-guideline/ptsd.pdf

Anderegg J. (2015). Effective treatments for generalized anxiety disorder. https://brainspotting.com/wp-content/uploads/2018/02/Anderegg-2015-Effective-treatments-for-generalized-anxiety-disorder.pdf

Beck, A., Epstein, N., Brown, G., & Steer, R. (1988). An inventory for measuring clinical anxiety: Psychometric properties. *Journal of Consulting and Clinical Psychology*, 56, 893-97.

Beck, A., & Steer, R. (1990). Beck anxiety inventory: BAI manual. The Psychological Corporation, Harcourt Brace Jovanovich.

Beck, A., Steer R., Brown, G., (1996). Beck depression inventory-Second edition manual. The Psychological Corporation, Harcourt Brace Jovanovich.

Badenoch, B. (2008). *Being a brain-wise therapist: A practical guide to interpersonal neurobiology* (1st ed., Ser. The Norton series on interpersonal neurobiology). W. W. Norton.

Bradley, R., Greene, J., Russ, E., Dutra, L., & Westen, D. (2005). A multidimensional meta-analysis of psychotherapy for PTSD. *American Journal of Psychiatry: Official Journal of the American Psychiatric Association*, 162(2), 214-227. https://doi.org/10.1176/appi.ajp.162.2.214

Corrigan, F., & Grand, D. (2013). Brainspotting: Recruiting the midbrain for accessing and healing sensorimotor memories of traumatic activation. *Medical Hypotheses*, 80(6), 759-66. https://doi.org/10.1016/j.mehy.2013.03.005

Corrigan, F., & Hull, A. (2015). Neglect of the complex: Why psychotherapy for post-traumatic clinical presentations is often ineffective. *BJPsych Bulletin*, 39(2), 86-89. https://doi.org/10.1192/pb.bp.114.046995

Corrigan, F., Grand, D., & Raju, R. (2015). Brainspotting: Sustained attention, spinothalamic tracts, thalamocortical processing, and the healing of adaptive orientation truncated by traumatic experience. *Medical Hypotheses*, 84(4), 384-94. https://doi.org/10.1016/j.mehy.2015.01.028

Duncan, B., Miller, S., Sparks, J., Claud, D., Reynolds, L., Brown, J., & Johnson, L. (2003). The session rating scale: Preliminary psychometric properties of a "working" alliance measure. *Journal of Brief Therapy*, 3(1), 3-12.

Dominguez, S., & Lee, C. (2017). Errors in the 2017 APA clinical practice guideline for the treatment of PTSD: What the data actually says. *Frontiers in Psychology*, 8, 1425. doi: 10.3389/fpsyg.2017.01425

Energy Psychology. (2019). The science behind energy psychology: Quick facts. https://cdn.ymaws.com/www.energypsych.org/resource/resmgr/research/Science_Behind_EP_Quick_Fact.pdf

Fabio, D., Alessio, M., Franco, F., & Cristiano, C. (2022). Psychotherapeutic techniques for distressing memories: a comparative study between EMDR, Brainspotting, and body scan meditation. *International Journal of Environmental Research and Public Health*, 19(1142), 1142-1142. https://doi.org/10.3390/ijerph19031142

Felitti, V., Anda, R., Nordenberg, D., Williamson, D., Spitz, A., Edwards, V., Koss, M., & Marks, J. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*, 14(4), 245-58. https://doi.org/10.1016/S0749-3797(98)00017-8

Foa, E., McLean, C., Zang, Y., Zhong, J., Rauch, S., Porter, K., Knowles, K., Powers, M., & Kauffman, B. (2016). Psychometric properties of the posttraumatic stress disorder symptom scale interview for dsm-5 (pssi-5). *Psychological Assessment*, 28(10), 1159-1165.

Fydrich, T., Dowdall, D., & Chambless, D. (1992). Reliability and validity of the Beck anxiety inventory. *Journal of Anxiety Disorders*, 6(1), 55-61.

Grand, D. (2013). *Brainspotting: The revolutionary new therapy with rapid and effective change*. Sounds True.

Grand D. (2023, July 1). *What is brainspotting?* https://brainspotting.com/about-bsp/what-is-brainspotting/

Gurda, K. (2015). Emerging trauma therapies: Critical analysis and discussion of three novel approaches. *Journal of Aggression, Maltreatment & Trauma*, 24(7), 773-793. doi: 10.1080/10926771.2015.1062445

Hildebrand, A., Grand D., & Stemmler, M. (2017). Brainspotting – The efficacy of a new therapy approach for the treatment of post-traumatic stress disorder in comparison to eye movement desensitization and reprocessing. *Mediterranean Journal of Clinical Psychology*, 5(1), 1-16.

Hofmann, S., & Gómez, A. (2017). Mindfulness-based interventions for anxiety and depression. *The Psychiatric Clinics of North America*, 40(4), 739-749. doi: 10.1016/j.psc.2017.08.008

Imel, Z., Laska, K., Jakupcak, M., & Simpson, T. (2013). Meta-analysis of dropout in treatments for post-traumatic stress disorder. *Journal of Consulting and Clinical Psychology*, 81(3), 394-404. doi: 10.1037/a0031474

Johnson, L. (2014). The session rating scale manual: A practical approach to improving psychotherapy. The Brief Therapy Center.

Kabat-Zinn, J. (2012). Mindfulness for beginners: Reclaiming the present moment – and your life. Sounds True.

Kaufman, C. (2015). *Essential elements of brainspotting* [Unpublished doctoral dissertation]. University of Michigan.

Lambert, M., & Barley, D. (2001). Research summary on the therapeutic relationship and psychotherapy outcome. *Psychotherapy: Theory, Research, Practice, Training*, 38(4), 357-361. https://doi.org/10.1037/0033-3204.38.4.357

Levine, P., & Frederick, A. (1997). *Waking the tiger: Healing trauma: The innate capacity to transform overwhelming experiences*. North Atlantic Books.

Logie, R. (2014). EMDR – more than just a therapy for PTSD? *British Psychological Society*, 27(7), 512-517.

Masson, J., Bernoussi, A., & Moukouta, C. (2017). Brainspotting therapy: About a Bataclan victim. *Global Journal of Health Science*, 9(7), 103-107. https://doi.org/10.5539/gjhs.v9n7p103

Mattos, P., José, F., & Marcelo, M. (2015). Persistent genital arousal disorder as a dissociative trauma-related condition treated with brainspotting – A successful case report. *International Journal of School and Cognitive Psychology*, 1, 1-4. doi: 10.4172/ijscp.S1-002

Merz, J., Schwarzer, G., & Gerger, H. (2019). Comparative efficacy and acceptability of pharmacological, psychotherapeutic, and combination treatments in adults with posttraumatic stress disorder: A network meta-analysis. *Journal of the American Medical Association Psychiatry*, 76(9), 904-913. doi: 10.1001/jamapsychiatry.2019.0951

Miller, S. et al. (2003). The outcome rating scale: A preliminary study of the reliability, validity, and feasibility of a brief visual analog measure. *Journal of Brief Therapy*, 2(2), 91-100.

Newtown-Sandy Hook Community Foundation, Inc. (2019). Report of findings from the community survey September 2016. http://www.nshcf.org/wp-content/uploads/2016/09/2016-NSHCF-Community-Assessment-Report.pdf

Ogden, P., Milton, K., & Pain, C. (2006). *Trauma and the body: A sensorimotor approach to psychotherapy*. W. W. Norton & Company.

Scaer, R. (2012). *The 8 keys to brain-body balance*. W. W. Norton & Company.

Schweiger, J., Kahl, K., Klein, J., Sipos, V., & Schweiger, U. (2019). Innovation in psychotherapy, challenges, and opportunities: An opinion paper. *Frontiers in Psychology*, 10, 495. doi: 10.3389/fpsyg.2019.00495

Sherin, J., & Nemeroff, C. (2011). Post-traumatic stress disorder: The neurobiological impact of psychological trauma. *Dialogues in Clinical Neuroscience*, 13(3), 263-278. https://doi.org/10.31887/DCNS.2011.13.2/jsherin

Sherin, J., & Nemeroff, C. (2022). Post-traumatic stress disorder: the neurobiological impact of psychological trauma. *Dialogues in Clinical Neuroscience*. https://doi.org/10.31887/DCNS.2011.13.2/jsherin

Speilberger, C. (1983). *Manual for the state-trait anxiety inventory* (form Y). Consulting Psychologists Press.

Stern, A. (2019, September 12). Psychotherapy leads in treating post-traumatic stress disorder. https://www.health.harvard.edu/blog/psychotherapy-leads-in-treating-post-traumatic-stress-disorder-2019091217611

Storch, E., Roberti, J., & Roth, D. (2004). Factor structure, concurrent validity, and internal consistency of the Beck depression inventory – Second edition in a sample of college students. *Depression and Anxiety*, 19(3), 187-189. https://doi.org/10.1002/da.20002

Substance Abuse and Mental Health Services Administration. (2010). Trauma-informed care in behavioral health services. Chapter 3, Understanding the Impact of Trauma. https://www.ncbi.nlm.nih.gov/books/NBK207191/

Substance Abuse and Mental Health Services Administration (US). (2014). Trauma-informed care in behavioral health services: Treatment improvement protocol (TIP) series, No. 57. Available from: https://www.ncbi.nlm.nih.gov/books/NBK207201/

Talbot, J., de la Salle, S., & Jaworska, N. (2023). A paradigm shift in trauma treatment: converging evidence for a novel adaptation of eye movement desensitization and reprocessing (EMDR). *The Canadian Journal of Psychiatry*, 68(4), 283-285. https://doi.org/10.1177/07067437221142283

Tanner, B. (2012). Validity of global physical and emotional SUDS. *Applied Psychophysiology and Biofeedback*, 37, 31-34. doi: 10.1007/s10484-011-9174-x

U.S. Department of Veterans Affairs. (2019). How common is PTSD in adults? https://www.ptsd.va.gov/understand/common/common_adults.asp

Vago, D., & Fadel, Z. (2016). The brain on silent: Mind wandering, mindful awareness, and states of mental tranquility. *Annals of the New York Academy of Sciences*, 1373(1), 96-113. doi: 10.1111/nyas.13171 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5866730/pdf/nihms950519.pdf

White, S. (2016). *Recovery from trauma through experiential reframing: An empirical phenomenological study* [unpublished doctoral dissertation]. University of West Georgia.

Woodyard, C. (2011). Exploring the therapeutic effects of yoga and its ability to increase the quality of life. *International Journal of Yoga*, 4(2), 49-54. doi: 10.4103/0973-6131.85485 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3193654/

Woolery, A., Myers, H., Sternlieb, B., Zeltzer, L. (2007). A yoga intervention for young adults with elevated symptoms of depression. *Alternative Therapies in Health and Medicine*, 10(2), 60-63.

Health Dohsa-hou

Mind-Body Health Enhancement Effects of Interactive and Non-interactive Video Viewing

Yasuyo Kamikura [1], Ichiro Okawa [2], Hirohito Mashiko [3]

ABSTRACT

The conventional support method in clinical Dohsa-hou involves therapists supporting clients' movement face-to-face and using direct body contact. However, due to the COVID-19 pandemic, non-face-to-face and non-contact support have been required for teaching and practicing clinical Dohsa-hou. This study compared the psychological effects of the interactive online method and the non-interactive video-viewing method of Health Dohsa-hou for healthy individuals. We conducted a two-factor analysis of variance with mixed factors. The independent variables were the interactive and non-interactive methods and timing of intervention (pre- and post-intervention), and the dependent variables were the sense of harmony between body and mind and the locus of control. The results showed that the sense of relaxation, the sense of harmony, and the locus of control were significantly enhanced in both the interactive and the non-interactive method; however, the interactive online method achieved further enhancement of the sense of relaxation and the sense of harmony between body and mind. The interactive online Dohsa-hou method would make participants more actively engage in Dohsa-hou, thereby enabling a more realistic Dohsa-hou experience.

Keywords: Health enhancement of body and mind, interactive online Dohsa-hou, non-interactive video-viewing Dohsa-hou, Health Dohsa-hou, non-contact Dohsa-hou

Submitted: 19.11.2022
Accepted: 05.12.2023
International Body Psychotherapy Journal
The Art and Science of Somatic Praxis
Volume 22, Number 2,
Winter 2023-2024, pp. 73-80
ISSN 2169-4745 Printing, ISSN 2168-1279 Online

> ***Health Dohsa-hou increases physical function and a sense of security, happiness, and the tendency toward individual internal control.***

Clinical Dohsa-hou is an original Japanese body-oriented psychotherapy created by Gosaku Naruse. Naruse focused on Dohsa as a phenomenon that can be treated scientifically as a true unity of body and mind. In clinical Dohsa-hou, awkwardness and excessive tension that appear in the performance of movements are regarded as the person's efforts toward psychological adaptation. In the process of accomplishing the Dohsa tasks so that the client can accomplishes tasks to perform movements smoothly with the help of the therapist, the client's

1. Komazawa University
2. Saitama Gakuen University
3. Hokkaido University of Education, Sapporo

psychological adjustment improves. In addition to Dohsa-hou as psychotherapy, clinical Dohsa-hou includes Health Dohsa-hou for the maintenance and enhancement of general mental and physical health. Health Dohsa-hou increases both physical and mental health that differs from those of gymnastics. For example, Adachi (2013) reported that the Health Dohsa-hou group showed significantly improved standing balance and ADL, reduced anxiety, enhanced tendency toward internal control, and increased subjective sense of well-being, compared to the radio calisthenics group. Therefore, the continuous implementation of Health Dohsa-hou increases physical function and a sense of security, happiness, and the tendency toward individual internal control.

Health Dohsa-hou therapists have conventionally assisted clients by placing their hands on clients' bodies and helping them confront their movement patterns and change them consciously and unconsciously. However, following COVID-19, online Health Dohsa-hou is beginning to be used in a non-contact manner. Kamikura & Mashiko (2022a) examined the effectiveness of self-care Health Dohsa-hou in implementation methods for healthy individuals. Health Dohsa-hou as self-care is conducted through the therapist's instruction, advice, and feedback for healthy people, and it can be performed without the therapist's touch. This study implemented the group face-to-face Dohsa-hou (N = 28), and the group online Dohsa-hou (N = 17) via a video platform for young adults in a single session for 60 minutes. Subsequently, they compared the effects of stress reactions, the sense of authenticity, and the sense of harmony between body and mind. Consequently, both methods were equally effective in reducing stress reactions, and in increasing the sense of authenticity and harmony between body and mind. Furthermore, the online Dohsa-hou showed larger effect sizes in the sense of physical stability and authenticity than that of the face-to-face Dohsa-hou. The online Dohsa-hou would increase the effects using visual information and deepening immersions. Self-care Dohsa-hou would be helpful for young adults because they could conduct Dohsa tasks without the therapist's physical assistance, and enhance healthy mind-body harmony. The result suggests the unique effects of online Health Dohsa-hou.

While during the pandemic it is preferable to utilize Health Dohsa-hou without a therapist's touch, empirical investigation is underway. In the future, to utilize Health Dohsa-hou video distribution, it is important to explore the effects on the mind and body of the bidirectional online Health Dohsa-hou (in which the therapist and participants interact in real-time) and the unidirectional Health Dohsa-hou (in which participants watch a video and engage in Health Dohsa-hou). In addition, it is desirable to examine the effects based on the situation and environment of conducting Health Dohsa-hou. Therefore, this study explores the effect of the interactive online method and the non-interactive video-viewing method of Health Dohsa-hou for healthy people on the sense of harmony between body and mind and the locus of control.

In this study, we defined the interactive online Health Dohsa-hou as a method in which a therapist shows a model of performing Dohsa tasks related to psychological and physical health via a video platform. Subsequently, another therapist provides support while watching the participants' efforts on a personal computer (PC) and gives instructions, advice, and feedback on their performance in the Dohsa tasks. In addition, we defined the non-interactive video-viewing Health Dohsa-hou as a method whereby participants watch a video in which a therapist shows a model performing Dohsa tasks, and then individually engage in Dohsa tasks based on recorded instructions, advice, and feedback.

Method

Participants

The interactive online Health Dohsa-hou group included Japanese undergraduate students, graduate students, and working adults who voluntarily participated in a workshop organized by the authors at the Congress of the Japanese Psychological Association. We selected 19 participants (5 males and 14 females; mean age 39.37 years, SD = 3.22) who had no experience with Health Dohsa-hou for analysis. The majority of participants had never met the authors.

The non-interactive video-viewing Health Dohsa-hou group consisted of vocational school students, including those with previous work experience. None of the participants had any previous training in Health Dohsa-hou. We analyzed the data of the 34 participants (2 males and 32 females, mean age

25.85 years, *SD* = 1.53) who consented to the questionnaire survey and provided complete responses. The participants were attending a lecture on psychology given by one of the authors, and they voluntarily participated in the psychometric scale. In addition, the video viewing was conducted as part of the lecture.

Procedures

In October 2020, we conducted an online Health Dohsa-hou program (20-minute lecture, 40-minute practice) for the interactive online Health Dohsa-hou group (the online group) using Zoom, with each participant connecting to a PC from their own home. Lecturer A (45 years of clinical experience, a certified clinical Dohsa-hou instructor by the Association of Japanese Clinical Dohsalogy, a clinical psychologist from the Foundation of the Japanese Certification Board for Clinical Psychologists, and a certified public psychologist) and Lecturer B (14 years of clinical experience, a certified clinical Dohsa-hou therapist by the Association of Japanese Clinical Dohsalogy, a clinical psychologist, and a certified public psychologist) led the lecture and skills practice.

During the lecture, Lecturer B presented slides and explained the clinical Dohsa-hou and movements. Lecturer A then explained chronic tension and stiffness in the neck and other parts of the body, and posture in the bending direction. In the practical exercise, Instructor A explained the procedures of the Dohsa tasks while showing pictures, and explained the purpose of each Dohsa task. Subsequently, they presented a model of the Dohsa tasks using the spotlight function of Zoom with the image fixed. The Dohsa tasks and their objectives were as follows and these tasks should be done slowly:

1. *Shoulder raising*: to notice tension and experience a sense of relaxation.
2. *Arm raising*: to notice the deviation from a certain course of arm raising and lowering, to face oneself, and to enhance the sense of effort in the operation itself while correcting it, and to elicit active effort.
3. *Bending forward at the waist*: to notice tension, resolve it, and experience a sense of relaxation.
4. *Bending forward using the waist, then raise up, body is sitting up straight*. These steps should be done slowly. Then, sit firmly as if you were stabbing the seat of the chair using your tailbone. The goal is to activate self-confronting internal psychological activity and then, activate an externally oriented self-activity that can adapt to the external environment (e.g., gravity).

Subsequently, instructor B performed each Dohsa task with the participants. Ensuring not to cause any discomfort after the exercises, she checked for physical discomfort, explained that muscle pain might occur if they overexerted themselves, and told them, "Unlike exercise, it is not about how much you can move, but about how your body (in Health Dohsa-hou, the body that is active in unison with the mental activity) feels. Let's move slowly and deliberately." Instructor B conducted interactive interventions by providing advice and feedback to participants on the accompanying tensions generally likely to occur. They could view pictures of themselves engaging in the Dohsa tasks on a PC screen.

The purpose of the assistance was to activate their self-activity of intention and effort to accomplish the movement. When instructor B observed them using excessive force, she advised them to notice their self-consciousness and adjust it: "If you are too tight, you are pushing yourself too hard, so let's lower your shoulders a little more," and "Shall we wait for a little while?" In addition, she encouraged them to search for tension by saying, "Are you tense in your arms, back, and lower back?" and "Let's relax a little." In addition, while observing their overall effort, she encouraged them to check their movements and self-adjust inappropriate movements that were not aligned with the task movements. She gave feedback such as "Yes, that is good" when they performed the appropriate movements. Following each Dohsa task, she instructed them to focus on their physical and mental state and to feel their sensation: "Let's savor how your body feels now for a moment."

The non-interactive video-viewing Health Dohsa-hou group (the video-viewing group) participated in a video program of teaching material (20 minutes of lecture and 40 minutes of practical training, excluding the pictures of the participants in the interactive online Health Dohsa-hou group) in November 2020. They watched the videos in the same order and time as the online group, and worked on the Dohsa tasks individually based on the movement, instructions, advice, and feedback provided by the instructors in the video.

Materials

We administered the following psychometric scales for the online group using Google Forms via the internet, and for the video-viewing group in print form, before and after (pre- and post-) Health Dohsa-hou experiences.

The shortened version of the sense of harmony between body and mind scale (S-SHS, Kamikura & Mashiko, 2022b)

To measure the effects of the harmonizing of body-mind on both physical and psychological health, we administered a 16-item version of the original version of the S-SHS (Kamikura, 2021), which has 32 items. The S-SHS has five factors: self-existence of mind and body (e.g., "I am keenly aware of my own existence"), relaxation of mind and body (e.g., "I feel carefree and cheerful"), balance of mind and body (e.g., "I think too much before doing something"; reversed item), sense of independence (e.g., "I can work through difficult situations without giving up") and sense of physical stability (e.g., "My body and posture are firmly set"). Each was rated on a 4-point scale from 1 (not applicable) to 4 (applicable). The higher the score, the greater the level of body-mind integration.

The locus of control scale (Kanbara et al., 1982; LOC)

We administered the LOC as an index of activation of self-activation, measuring the locus of control over general matters as internal or external. The scale consists of 18 items, including "Do you think you make your own decisions about your life?" Each was rated on a 4-point scale from 1 ("disagree") to 4 ("agree"). The higher the score, the greater the degree of internal control.

Ethical considerations

Procedures and policies to manage confidential information in the surveys were approved by the ethics committee of the Hokkaido University of Education in Sapporo, Japan (approval number: Hokkyodai 2020091002). Prior to the workshop, we obtained approval from the secretariat of the Japanese Psychological Association to conduct the study on the workshop participants. We explained the study to participants and received informed consent.

Results

Using HAD16 (Shimizu, 2016), we conducted ANOVA for a mixed design with groups (intervention method) and time (intervention period) as independent variables and S-SHS and LOC as dependent variables. The results showed the significance of the main effect of time in LOC ($F[1, 51] = 7.56$, $p < .01$), and that it was significantly higher in post than in pre. The main effect of time was significant for relaxation of mind and body and balance of mind and body in S-SHS (in order, $F[1, 51] = 18.32$, $p < .001$; $F[1, 51] = 39.81$, $p < .001$), and the interactive effect was also significant (in order, $F[1, 51] = 4.79$, $p < .05$; $F[1, 51] = 8.50$, $p < .01$). Simple main effect tests highlighted that the online group scored significantly higher in post than in pre for both relaxation of mind and body and balance of mind and body, with significantly larger effect sizes (in that order, $F[1, 18] = 8.77$, $p < .001$, $\eta^2_p = .33$; $F[1, 18] = 21.96$, $p < .001$, $\eta^2_p = .55$). However, the video-viewing group also scored significantly higher in post than in pre for both relaxation of mind and body and balance of body and mind, with a larger effect size. However, the effect size was lower than in the online group (in order, $F[1, 33] = 5.75$, $p < .05$, $\eta^2_p = .15$; $F[1, 33] = 11.13$, $p < .01$, $\eta^2_p = .25$; Table 1).

Discussion

We administered Health Dohsa-hou to healthy subjects for a single session in the interactive online method and the non-interactive video-viewing method. We compared the effects of each method on the S-SHS and the LOC. The results showed that both methods improved the relaxation and balance of mind and body in the S-SHS. In addition, the score of the LOC in the post-test was increased more than in pre-test. Furthermore, the effect sizes of the online group were larger than that of the video-viewing group for relaxation and balance of mind and body.

These results indicate that both the interactive online method and the non-interactive video-viewing method enhanced the sense of relaxation and balance of mind and body, in addition to the internal control of reinforcement, which means that individuals interpret events as a consequence of their actions, not external factors, despite neither method involving touch. Furthermore, the interactive online method was more effective than the non-interactive video-viewing method in increas-

ing a sense of relaxation and balance of mind and body. Therefore, such an effect is considered to be unique to the online Health Dohsa-hou. If the motivation of the participants in each group affected their experiences of Dohsa-hou, it was expected that the results would differ between groups. However, both groups showed changes in the same factors following an intervention. Therefore, it is unlikely that motivation for participation affected the results.

Regarding the difference in the magnitude of the effect of the support form, the first difference is considered to have been influenced by the difference in the communication form (a real-time and interactive interaction or non-interaction). In the bidirectional online Health Dohsa-hou, the participants shared the same space with the instructor, and she worked on them in real time, although it took place in a group setting, on a PC, and the experience of Health Dohsa-hou would be similar to the conventional face-to-face individual Health Dohsa-hou. That is, the participants could have a realistic experience of Health Dohsa-hou by experiencing their bodies, and working on them proactively based on the instructor's sequential advice and feedback on how to perform the movements. However, in the unidirectional Health Dohsa-hou, the participants might not feel the assistance as much as in the interactive online method, because we used recordings of the instructor's advice and feedback.

Second, the effects on sensory modalities differed depending on the viewing situation. In the online situation, feedback from multiple modalities, auditory and visual, is available. In the online Health Dohsa-hou, Kamikura & Nishiura (2021) reported that visual information can be used as a means of assistance, since participants can self-adjust to more appropriate movements by checking their status on a PC screen. Consequently, in addition to indirect and auditory feedback from the instructor, direct and visual feedback through the participants' appearance on the PC screen is unique to online situations. In other words, the participants' objective perception of their situation and the performance of their actions may have promoted an objective and realistic-looking experience rather than a video-viewing Dohsa-hou experience, and promoted the experience of self-regulating their actions and the anxiety and tension that had arisen in them, aiming at the desired action.

Third, there were differences in the environment performing Health Dohsa-hou and the accompanying allocation of attention. The online group participated from each room, whereas the video-viewing group participated in a space shared with others. Kamikura & Mashiko (2022a) compared the effects of group styles, such as face-to-face and online Health Dohsa-hou with individual PC connections. As a result, the online Health Dohsa-hou improved the sense of physical stability and authenticity, although both methods were conducted in an interactive manner. Therefore, this study suggested that the bidirectional online Health Dohsa-hou would easily foster one-on-one feelings with the instructor, and the participants could relax and concentrate on their sense of body without worrying about judgment from others or comparison with others, because they did it alone. In contrast, the unidirectional Health Dohsa-hou was the unidirectional approach from the instructor in the video. Furthermore, most of their attention was allocated to the behavior and performance of others; thus they would be prone to aim at achieving the movement. Hence, it would have been difficult for them to experience the Dohsa's process of "intention—making efforts—achievement of the movement (Naruse, 2014)", while concentrating on their senses, and intending and moving their body carefully.

These factors in the bidirectional online Health Dohsa-hou would promote the Dohsa's experiences, such as physical and mental sensations, objective and reality-examination, and self-regulation of movements, and lead to greater harmony between body and mind and the sense of relaxation and balance of body and mind. This study showed that even a non-contact Health Dohsa-hou is useful for promoting physical and mental health. These findings are significant as a resource for the application of non-contact Health Dohsa-hou in the COVID-19 pandemic and for the future use of video distribution.

However, there were no significant differences in the other factors of the S-SHS. It is possible that the healthy subjects had a certain degree of physical and mental self-presence, and continuous intervention is necessary to improve their sense of independence and physical stability. Adachi (2013) reported that the LOC increased due to the continuous implementation of Health Dohsa-hou. Whereas, in this study, the LOC increased even af-

ter a single intervention using the online or video-viewing method, hence, Health Dohsa-hou would have immediate effects for healthy people. Therefore, in the future, it is advised to further examine on the effects of the bidirectional online and the unidirectional video-viewing method in Health Dohsa-hou by controlling for subjects' age, gender, and recruitment style, and by ensuring the unidirectional video-viewing method is applied on an individual basis.

Acknowledgments

We wish to thank all participants and institutions for their cooperation, and Ryozo Shimizu (the Meiji Gakuin Institute for Psychological Research, Japan) for guidance and cooperation with this research. We would like to thank Enago for English language editing. This work was supported by JSPS KAKENHI Grant Number 19K03349.

■ ■ ■

Yasuyo Kamikura *has a Ph.D. in Counseling Science from the University of Tsukuba. She is a researcher at Komazawa University, Japan. She is also licensed as a clinical psychologist, a certified public psychologist, and a clinical Dohsa-hou therapist.*

Email: kamikura.yasuyo.xu@alumni.tsukuba.ac.jp

Ichiro Okawa *has a Ph.D. in Psychology from the University of Tsukuba. He is a professor in the Faculty of Psychology, Saitama Gakuen University, Japan, and an honorary professor at the Faculty of Human Sciences, University of Tsukuba, Japan. He was a director of the Japanese Psychological Association, and a chairperson of the Japanese Society of Geriatric & Gerontological Behavioral Sciences. He is also licensed as a clinical psychologist and a certified public psychologist.*

Email: iot21005@gmail.com

Hirohito Mashiko *has a Ph.D. in Anthropology from Meiji University, Japan. He is an associate professor in the Faculty of Education, Hokkaido University of Education, Sapporo, Japan. He is also licensed as a clinical psychologist and a certified public psychologist.*

Email: mashiko.hirohito@s.hokkyodai.ac.jp

Correspondence concerning this article should be addressed to:

Yasuyo Kamikura
Komazawa University, 1-23-1
Komazawa, Setagaya-ku Tokyo, Japan, 154-8525
Email: kamikura.yasuyo.xu@alumni.tsukuba.ac.jp

REFERENCES

Adachi, M. (2013). Effect of strengthening of the internal locus of control by clinical Dohsa-hou on psychological adjustment in the elderly. *Journal of Japanese Clinical Psychology*, 31(2), 245-256 (Japanese with English abstract).

Kanbara, M., Higuchi, K., & Shimizu, N. (1982). New locus of control scale: Its reliability and validity. *The Japanese Journal of Educational Psychology*, 30(4), 302-307 (Japanese). https://doi.org/10.5926/jjep1953.30.4_302

Kamikura, Y. (2021). Developing the sense of harmony between body and mind scale. *Journal of Japanese Clinical Psychology*, 38(6), 469-479 (Japanese with English abstract).

Kamikura, Y., & Mashiko, H. (2022a). Comparison of the psychological effects of group Dohsa-hou in face-to-face and online sessions as self-care for young adults. *The Japanese Journal of Psychotherapy*, 93(3), 256-262 (Japanese with English abstract). https://doi.org/10.4992/jjpsy.93.21308

Kamikura, Y., & Mashiko, H. (2022b). Development of the shortened version of the sense of harmony between body and mind scale (S-SHS), *International Body Psychotherapy Journal*, 20(2), 34-41 (Japanese with English abstract).

Kamikura, Y., & Nishiura, K. (2021). Supporting the growth of trainee therapists through online Dohsa-hou amid the corona virus pandemic: A trial in graduate school psychological practices. *Komazawa Journal of Clinical Psychology*, 20, 9-23 (Japanese).

Naruse, G. (2014). *Development of Dohsa therapy: Body and mind harmony and activation*. Tokyo; Seishin Shobo (Japanese).

Shimizu, H. (2016). An introduction to the statistical free software HAD: Suggestions to improve teaching, learning and practice data analysis. *Journal of Media, Information, and Communication*, 1, 59-73 (Japanese with English abstract).

Appendix

Table 1. *Trends in each factor score in intervention method and results of ANOVA and effect size*

Psycho-logical Scale	Inter-vention method	Pre		Post		Intervention method		Time (intervention period)		Interaction		Simple main effect (time)
						F value	η^2_p	*F* value	η^2_p	*F* value	η^2_p	
		M	*SD*	*M*	*SD*	Dunnett		Dunnett				
S-SHS												
Self-existence of mind and body	①	3.29	0.57	3.25	0.57	2.90	0.05	0.17	0.00	0.08	0.00	
	②	3.01	0.55	3.01	0.58							
Relaxation of mind and body	①	2.11	0.60	2.77	0.81	1.11	0.02	18.32 ***	0.26	4.79 *	0.09	① Pre < Post **
	②	2.49	0.53	2.71	0.65							② Pre < Post *
Balance of mind and body	①	2.40	0.66	3.12	0.66	0.37	0.00	39.81 ***	0.44	8.50 **	0.14	① Pre < Post ***
	②	2.52	0.72	2.78	0.71							② Pre < Post **
Self of independence	①	2.79	0.70	2.65	0.84	0.15	0.00	0.06	0.00	1.92	0.04	
	②	2.74	0.56	2.83	0.59							
Self of physical stability	①	3.09	0.62	3.02	0.94	1.37	0.03	0.59	0.11	2.12	0.04	
	②	2.75	0.67	2.97	0.54							
LOC	①	2.58	0.39	2.67	0.41	1.07	0.02	7.56 **	0.13	1.19	0.02	
	②	2.74	0.47	2.78	0.52							

Note: ① – online group; ② – video veiwing group

* $p < .05$; ** $p < .01$; *** $p < .001$

CLINICAL PRACTICE

Archetypes, Ego States, and Subpersonalities

An Exploration of Diverse Expression Within Somatic Awareness

Sharon G. Mijares

ABSTRACT

A combination of somatic and psychodynamic approaches can reveal embodied ego-states, subpersonalities, and archetypal influences communicating through the body-mind. This paper supports the hypothesis that ego-states and other elements of the psyche manifest somatically. Thus, more attention needs to be given to the body as part of the therapeutic dialogue. This can illuminate egoic manifestations occurring with bodywork – for example, Reich's process for loosening character armoring, and Jung's theory of a universal collective unconscious with its archetypal forces manifesting biologically, leading to soul growth and individuation. Fragmented ego states, archetypal forces, and introjected subpersonalities become conscious as messenger molecules and neural networks attempt to communicate and heal the mind-body split. The goal is integration leading to embodied wholeness.

Keywords: Somatics, archetypes, ego-states, mind-body, body-mind

Submitted: 20.06.2022
Accepted: 05.01.2024

International Body Psychotherapy Journal
The Art and Science of Somatic Praxis

Volume 22, Number 2,
Winter 2023-2024, pp. 81-89

ISSN 2169-4745 Printing, ISSN 2168-1279 Online

> ***... psyche is as much a living body as body is living psyche...***

Our somatic selves are teeming with diverse expression and related experience. They mirror the diversity seen in the world around us. At this time in human evolution, we see immense differences in ideologies, feelings, and behaviors. These are evidenced outwardly through our actions, yet more often than not we are unaware of internalized influences prompting specific behaviors. Humanity is faced with treacherous challenges; consider the pandemic and its impact on health and the economy, increasing environmental catastrophes, and the threat of major wars. Our bodies, our emotions, and our minds are holding this knowledge. Attentive care is needed. Despite continued violence against "the other," there is increasing movement toward racial, gender, and cultural diversity. This same integrative movement needs to happen within our body-minds. Who has been rejected? Who hides in a private world of pain? Is there an unseen

Rarely do we see the varieties of life expression hidden in the cellular structures (tissues and organs) and power centers (chakras) within the body consciousness. Instead, we are dominated by an executive ego state that overshadows and controls a variety of life expression.

presence within the body consciousness who holds the power for restorative healing and increased life energy?

The rejection of various elements and expressions within the inner realms of the body-mind creates many relational problems – with self and others. Rarely do we see the varieties of life expression hidden in the cellular structures (tissues and organs) and power centers (chakras) within the body consciousness. Instead, we are dominated by an executive ego state that overshadows and controls a variety of life expression. There is much to learn from them, as both psyche and soma are teeming with intelligent awareness. In these transitional times we need all of our human capacity, so increasing this awareness is a relevant endeavor.

For thousands of years our patriarchal religious, philosophical, and academic social systems have blocked this awareness by creating an almost insurmountable chasm between the cognitive mind and body-mind. Religion, philosophy, and science have collaborated to deny the value of deeper unconscious life within the body (Descartes, 1649, 1989; Hanna, 1989, 1979; Mijares et al., 2020; Reich, 1953). Whereas religion has tended to encourage behavior assuring a spot in an afterworld, noting this earth realm to be an illusion or testing ground for a better afterlife, other social structures have also reinforced conformity based on their own ideologies. This occurs through the educational system, the family, and community expectations. There are rules for how to walk, talk, sit, and think. Body knowledge is rarely encouraged. This results in many people failing to note expressive sensations from within the body-mind. We tend to think of matter as something densely solid, and don't recognize that inner energies and presences have the capacity to stream through living flesh, the outer presentation of the body. Consciousness exists whether our egos are aware of it or not.

Ego States

How do we adequately define ego states? Do we fully understand the processes of ego fragmentation resulting from early life trauma? Far too often, the tendency has been to negate anything that differs from a suggested norm. The mental diagnostic system can be seen as a structure that names any deviation from an accepted norm to be diagnosable. The *Diagnostic and Statistical Manual of Mental Disorders* (DSM) expands diagnoses (new and old) with each new edition. The 2013 revised edition (DSM 5) included 17 additions. Increasing numbers of people fit into one diagnosis or another. Many clinicians were against the expansion of the DSM 5 for this reason (Frances, 2011). This paradigm often reduces clinicians to mechanical treatment responses using "evidence-based treatments," primarily because insurance payers want prompt clinical changes requiring less time in therapy. Problem-solving skills are great, but they often fail to address the deeper issues seeking healing (Schneider et al., 2020). This is where somatic therapies come in. They enable access to deeper issues and

We tend to think of matter as something densely solid, and don't recognize that inner energies and presences have the capacity to stream through living flesh, the outer presentation of the body. Consciousness exists whether our egos are aware of it or not.

In that mind is often confined to brain activity, the ego state is associated with mental activities, rather than embodied ones. Therapy and related healing can deepen when eliciting innate body knowledge.

subconscious energies hidden in the tissues of the body. Increased awareness, self-knowledge, and healing can result from these therapies.

When questioning ego states, one has to ask what (or who) is lurking behind the depression or anxiety? A gasp, a sigh, or a sudden unplanned movement can suggest unconscious activity. These can occur when one is in a state of rest, when ordinary psychic defenses are down. Is there a specific emotional quality or age to be recognized and named? If spontaneous sounds or movements manifest repeatedly, most likely this would be diagnosed as a tic disorder – for example, Tourette's syndrome. But these uncontrolled expressions could also be attempts to communicate by a fragmented ego state who has found a medium of expression (Mijares, 2009). Diagnosing another human being requires training, as well as innate sensitivity and wisdom. Does the pattern or manifestation appear to be a neurological tic or a dissociated ego state?

When researching dissociative identity disorder (DID) in depth, it is known that a personality can have its own age, gender, and other characteristics when it takes the executive position normally controlled by the primary ego state (Ross, 2005). There are also various levels of dissociation (Mijares, 2012). Human beings are innately clever in finding ways to avoid unpleasant emotions and memories. This capacity intensifies with trauma, as ego fragmentation can occur with early life traumas that disrupt ego identity.

The DSM 5 (American Psychiatric Association, 2013) defines DID as "a disruption of identity characterized by two or more distinct personality states or an experience of possession" (p. 292). In that it has been difficult for science to define the origin of mind and related consciousness, it is difficult for many people to accept the concept of more than one identity in a single body, as the human tendency is to cling to a dominant ego state (Varela et al., 1993). In that mind is often confined to brain activity, the ego state is associated with mental activities, rather than embodied ones. Therapy and related healing can deepen when eliciting innate body knowledge.

I observed credible evidence of changing ego states when I was a sexual abuse counselor at a women's resource center treating victims of sexual abuse. Although many clients were victims of rape, the majority of my caseload consisted of adults (primarily women) who had been molested as children (AMAC). One client was associated with an FBI case against her father, who had used her in his pornography business. This began at the tender age of two. When I met her, she was in her mid-30s, and a divorced mother of two young children. Professionally, she was educated as a chiropractor. Despite multiple personality intrusions and all the related difficulties in her life, she had come a long way, considering her capacity for holding changing ego states while managing ordinary life expectations. She regularly attended my weekly AMAC group.

One evening the group was sitting in a process circle. When one of the women asked the DID client why she was all red and perspiring, I looked over and saw that an alarming alteration was taking place. Her body was clearly noting a personality change. She appeared to be unable to talk; her uncontrolled hand and arm movements were that of a young toddler. No one could have faked the redness and obvious perspiration of face and body. A very young child ego state had moved into the executive ego position and was expressing a negative body memory. I asked the group to continue, and put a trusted member in charge as the woman and I left the room. At this point, the ego state was starting to change as we connected, and she was soon able to walk with me. The need was to get her out of the infant ego state and back into a stable personality who could manage self-care, including driving her car home. It took a bit of work, but it was successful. Such stories are not unusual when working with DID. This example represents a more extreme example of a dissociated ego state, where-

as *subpersonalities* are considered to be an average, shared phenomenon.

There are several ways to help clients recognize and listen to these subpersonalities. Subpersonalities can also be considered ego states. The late Italian psychiatrist Roberto Assagioli (1888-1974) developed a process called psychosynthesis. Established for integrating subpersonality states, it conceptualizes them as separate ego states. Assagioli believed these states to be especially related to important roles or relationships, even suggesting that some could be related to previous lifetimes (Sorenson, 2020). Assagioli recognized that integration of learning experiences is considered part of our human development. The work is one of expanding our boundaries and recognizing the archetype of the Self (similar to Jung's theory of individuation). Generally, ego states and subpersonalities have specific personality styles. Psychosynthesis utilizes a variety of therapies for this effort, including bodywork, which is understood to help awaken constituents within consciousness.

During the 1980s, Richard Schwartz developed a way of working with what he called "internal family systems" based on a family systems theory (Schwartz & Sweezy, 2020). This work is based on awareness of ego states, with the therapy focused on recognizing them as either firefighters (alarmists), managers (who maintain control), and exiles (personality parts that are deeply hidden in the fabric of the body-mind in order to avoid memories and related pain). A significant element in the therapeutic process is sensing where a subpersonality is located in the body. This entails a receptive experience of learning, arising from the body into the mind. Decades before Schwartz, Wilhelm Reich was opening doors between unconscious embodied emotional memories and recognition of them. Such releases could lead to wholeness and healing.

Reich was one of the first clinicians to name various armored areas in the body. He originally named five such areas that when stimulated evoked unexpressed emotions and related, limiting beliefs (Reich, 1933). Reich developed methods for manipulating these areas to release blocked emotions. For example, the eyes might be restrained due to muscular armoring. One therapy could be to make the eyes as wide as possible, such as in instances of fright. This could elicit a repressed visual memory. In his writings, Reich didn't consider these releases to be related to subpersonalities. Most importantly, he noted that emotional states can be expressed and released from various areas of the body. It was Carl Jung (1875-1961) who recognized that archetypal forces manifested somatically.

Archetypes of the Collective Unconscious

Jung was a pioneer in researching the value of psychological constituents motivating consciousness. He believed there were both personal and collective (universal) attributes within the psyche (Jacobe, 1959). Jung defined what he called the "collective unconscious." It was motivated by instinctive primordial, universal mythological presences. He called these unconscious motivating forces "archetypes" (Storr, 1983).

In attempting to define "archetype," Jung defined archetypal energies as "factors and motifs that arrange the psychic elements into certain images, characterized as archetypal, but in such a way that they can be recognized only from the effects they produce" (Jacobi, 1959, p. 32). Archetypes exist preconsciously. They are psychic structures containing biologically related patterns of behaviors consisting of certain qualities and expressions of being. Jacobi explains that the "archetype did not ever come into existence as a phenomenon of organic life but entered into the picture with life itself" (1959, p. 222). They are related to the instinctive life forces motivating the world's mythological stories and much of what both inspires or terrifies us. Our bodies are teeming with these forces.

Jung's deep explorations into unconscious realms evoked a steady stream of uncontrolled fantasies. He sought to understand these manifestations. He found himself experiencing intense psychic assaults as he entered unconscious realms and the onslaught began, but he stuck by his unswerving conviction that he was following a calling. In his words, he:

> "... stood helpless before an alien world; everything in it seemed difficult and incomprehensible. I was living in a constant state of tension... But there was a demonic strength in me, and from the beginning there was no doubt in my mind that I must find the meaning of what I was experiencing in these fantasies" (pp. 176-177).

Jung instinctively knew he had a task to fulfill. During this period, he used yogic exercises to help subdue the intensity of emotional flooding. In this journey, he personally experienced the powerful forces of the anima, animus, divine child, warriors, demons, and sages – all inherent parts of humanity's consciousness. These powerful forces are also easily accessed in dissociative states, trances, or with psychedelics. But, when seeking deeper healing, grounding the learning somatically is the key to healing and integration.

Holding and Healing

As noted, archetypal energies arise biologically (Stern, 2000) and manifest through somatic consciousness. Therefore, the body needs to be included in the therapeutic dialogue. Trauma expert Bessel van der Kolk recognized the need for the body to be part of the healing process (2015). Although van der Kolk and his team include numerous body therapies, they haven't noted subpersonalities, ego states, or archetypal forces expressing somatically.

Few theorists have considered that when trauma and related dissociation occur, *someone holds* the memory and the pain. Research by other investigators supports the hypothesis that fragmented ego states and archetypal forces become conscious as messenger molecules and neural networks attempt to communicate and heal the mind-body split (Mijares, 1995/2012).

Emotions express through the body. Messenger molecules regularly pass between bodily organs and the brain (Rao & Gershon, 2016; McGraty, 2015). Unseen communications take place on an ongoing basis, and are impacted by the intensity of an emotion. Emotional repression results from psychological dissociation. It can lead to traumatized psychic elements residing in cellular blocks, and *non-integrating neural circuits* within the body. Jung believed in the superiority of *affect* as the bridge for integrating and healing past traumas (Jacobi, 1959; Kluft, 1988; Reich, 1972; Rossi, 1993; Watson, 1971). He noted that "a purely intellectual insight is not enough, because one knows only the words and not the substance of the thing from inside" (in Jacobi, p. 14). In other words, insight and cognitive perception on their own are inadequate healers. Affect and body are intimately related to healing trauma. This also relates to William James's declaration that "all human emotions, or more precisely, the distinct quality of feelings, consists in the perception of somatic, notably visceral, changes" (Papancolaou, 1989, p. 8).

A fragmented ego-state might initiate alarming emotions. The goal is one of learning to *hold* these states in conscious awareness. This is an important therapeutic step. When appropriate, a therapist can present examples of the Taoist practice of *holding* opposing states. The Buddhist understanding that everything is impermanent and therefore change is occurring can also be helpful. The idea of being centered in the midst of change again implies the capacity for holding. This expands the boundaries of self-knowledge. Whenever we experience an emotion, there is an accompanying somatic sensation; if that feeling is associated with the body, then the body is inherently and deeply involved with this healing process.

This paper takes the discussion another level by noting that fragmented ego states, subpersonalities, and archetypal presences are hidden within the fabric of the body-mind (Mijares, 1995/2012). If these entities are ignored, problems can arise. The emotion being expressed may be from a fragmented ego state needing recognition, support, and integration. If the practitioner-therapist has developed awareness and holding capacities, s/he will be more attuned to what is arising within the client.

In his article "Jungian Views of the Body-Mind Relationship" (1974), Michael Fordham elaborates on psychoanalytic concerns with the relationship of psyche and soma. Even though Jung never provided affirming evidence to support his belief, he believed that "some kinds of psychic energy are more related to the body than others, and even to different parts of the body" (Fordham, 1974, p. 169). Therefore, entry into archetypal realms, and the potential of becoming engulfed by archetypes and complexes, are enhanced. The more we engage in alternative processes, especially those that include breath and body, the greater the chance that emotional states may arise that are outside the primary ego identity. Therapists need to be attentive and sensitive to clients' needs, levels of development, and timing. There is great fear over losing one's already fragile identity. This fear is comparable to the fear of death. Jung was well aware of this from his own explorations into unknown realms. This is

where the archetypal hero's journey can be seen. The journey of self-awareness and self-discovery requires passion, as well as the necessary courage. Jung noted:

> "Absorption into the instinctual sphere, therefore, does not and cannot lead to conscious realization and assimilation of instinct, because consciousness struggles in a regular panic against being swallowed up in the primitivity and unconsciousness of sheer instinctuality. This fear is the eternal burden of the hero-myth and the theme of countless taboos. The closer one comes to the instinct-world, the more violent is the urge to shy away from it and to rescue the light of consciousness from the murks of the sultry abyss. Psychologically, however, the archetype as an image of instinct is a spiritual goal toward which the whole nature of [humanity] strives; it is the sea to which all rivers wend their way, the prize which the hero wrests from the fight with the dragon." (Jung, 1960, p. 122)

Jung is referring to the hero/heroine's journey that results in oneness with authenticity of being. This mythological archetypal journey is acknowledged throughout mythology and the world's religions (Campbell, 1974; Jacobi, 1959). "Life presents an ultimatum to all organisms: change as all phenomena in the universe must change, or fall" (Allison, Goethals, Marrinan, Parker, Spyrou, & Stein, 2019, p. 2). This change includes the physical. It also holds the ideal that what we do for ourselves, we also do for others.

Sassenfeld (2008) points out that modern Jungians are beginning to explore the body in Jungian psychotherapy. He notes how Jung himself was aware that the "reciprocal relationship between body and mind provides an alternative to having to regard either body or mind as the primary source of psychological experience" (p. 6). Jung proposed the following concerning the body-mind relationship (1936, p. 114):

> "But the body is, of course, also a concretization, or a function, of that unknown thing which produces the psyche as well as the body; the difference we make between the psyche and the body is artificial. It is done for the sake of a better understanding. In reality, there is nothing but a liv- ing body. That is the fact; and psyche is as much a living body as body is living psyche: it is just the same" (as cited in Sassenfeld, 2008, p. 6).

Sassenfeld (p. 6) also notes how the above relates to "Reich's (1942, 1945 [1933]) idea of a 'functional identity' between psychic and somatic processes and provides a perspective that justifies direct therapeutic work with the body as part of Jungian analysis."

Integrating Qualities

A body therapist does not have to seek out subpersonalities or fragmented ego states when doing bodywork with a client. Professionally, it is good to be aware when this awareness occurs, and especially if there are obvious problems associated with dissociative states. If there is a good connection, most likely any fragmented ego states will find a way to communicate through spontaneous movement or sound.

The majority of clients simply seek relaxation and healing. Most therapists have their own way of working. Overall, it's best that the client's process guides the treatment. This researcher/therapist does not encourage naming parts and personalities (as John or Mary, etc.), as this may impair integrative processes. Instead, I find that naming the *quality* that's manifesting through the ego state or subpersonality encourages the goal of integration and wholeness.

Archetypal forces differ from personality states. In shamanic ceremonies, archetypes may manifest in the form of a bird of prey or an animal. They also represent *qualities*. For example, birds of prey usually see in the dark for great distances. An eagle sees the movement of a small field mouse from a vast distance and targets it. Its archetypal quality is the ability to zero in on truth and gain knowledge. This is why magicians and shamans are often associated with birds of prey (often as owls, hawks, and eagles).

Mantric practices from the Yogic, Buddhist, Taoist, and Sufi traditions represent archetypal qualities. The idea initiating the chanting of a mantra is to evoke its unique energy into the body-mind, leading to spiritual integration. The goal is that healing processes can lead to increasing wholeness. Practices that include the body also help promote unitive consciousness (Blackstone, 2021).

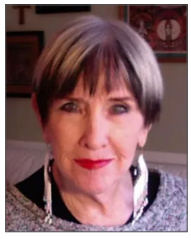
Conclusions

Jungian, Reichian and body therapists benefit by exploring the deeper connection with the somatic intelligence of the body-mind. When the recognition of an ego state or archetypal energy is experienced somatically, a bridge for integration is possible. Reich's exploration of character armoring and Jung's insight into archetypal energies of the collective unconscious can provide a psychotherapeutic format that opens a door to deep embodied transformation. The therapeutic path to individuation, healing, and wholeness widens. Wholeness also includes spiritual recognition, and, as Washburn points out, a complete spiritual transformation is an embodied one (Washburn, 1994:2003). Caring about ourselves and all other lives is spirituality in practice. We are living in increasingly difficult times. The patriarchal paradigm is slowly ending. It represents a dominant ego state that is having a very hard time letting go of its ideals and related power. As we integrate new ways of being and learn to listen to those silenced voices within us, we will find the strength and compassion to recognize, accept, and integrate what has been repressed. When freed from the domination of a controlling ego state, new ways of being can and will emerge.

Traditional psychology has primarily focused on self-limiting problems. It has failed to acknowledge that our lives are stories unfolding. We are heroes and heroines in the making, buffered and formed by a variety of interactions. The psyche travels through the depths of our bodies meeting, becoming entrapped by, and being freed from the inner and outer obstacles blocking the path to the jewel – authenticity of self. Our bodies are engaged in this journey. If we ignore hidden ego states, subpersonalities, and archetypal forces, we fail to grow.

We need to recognize the mythological stories moving through the molecular structures of our bodies. Our blessings and our tragedies embody all the elements of the hero and heroine's journey. We have what we need to move into greater integrity in our relationship with the body-mind. While holding a goal of unitive consciousness, empowered by heroic choices, we can ground our ideals and create a better world for all.

■ ■ ■



Sharon G. Mijares *is a psychologist and lead faculty at the California Institute for Human Science. She is a professor at National University and the University of Massachusetts Global. She authored and co-authored seven books focused on psychological and spiritual development, including* The Revelation of the Breath: A Tribute to its Wisdom, Power, and Beauty, *published in 2009. Her 2013 edited book,* A Force Such As the World Has Never Known: Women Creating Change, *brings women together from many cultures, and many areas of work. Her seventh book,* The Power of the Feminine: Facing Shadow/Evoking Light, *was co-authored with an Egyptian Sufi leader, a Tibetan feminist, an environmentalist from Ghana, and a USA professor. Sharon has presented workshops in Costa Rica, Ecuador, Egypt, India, Mexico, Scotland, Uganda, the United States, and Venezuela. A mother, grandmother, and great-grandmother, she lives in Silver City, NM.*

Website: www.psychospiritual.org
e-mail: sharon.mijares12@gmail.com

REFERENCES

Allison, S. T., Goethals, G. R., Marrinan, A. R., Parker, O. M., Spyrou, S. P., & Stein, M. (2019). The metamorphosis of the hero: Principles, processes, and purpose. *Frontiers in Psychology*, 10, 606. https://doi.org/10.3389/fpsyg.2019.00606

Blackstone, J. (2021). Inhabiting the body as unitive consciousness. *International Body Psychotherapy Journal*, 20(1). 36-43.

Campbell, J. (1974). *The mythic image*. Princeton University Press.

Descartes, R. (1649/1989). *The passions of the soul/Les passions de l'âme*. Hackett Publishing Company.

Fordham, M. (1974). Jungian views of the body-mind relationship. *Spring*. 166-178.

Frances, A. J. (2011, October 24). Psychologists start petition against DSM 5: A users' revolt should capture APA attention. *Psychology Today*. https://www.psychologytoday.com/us/blog/dsm5-in-distress/201110/psychologists-start-petition-against-dsm-5

Hanna, T. (1989). *Somatics: Reawakening the mind's control of movement, flexibility and health*. De Capo Press.

Hanna, T. (1970). *Bodies in revolt: A primer of somatic thinking*. Holt, Rinehart and Winston.

Jacobi, J. (1959). *Complex, archetype, and symbol in the psychology of C. G. Jung*. Princeton University Press.

Jung, C. G. (1935). Principles of practical psychotherapy. *Collected Works*, Volume 16.

Kluft, R. P. (1988). The phenomenology and treatment of extremely complex multiple personality disorder. *Dissociation*, 1(4), 47-58.

Merleau-Ponty, M. (2002). *Phenomenology of Perception*, Colin Smith (tr.). Routledge and Kegan Paul.

McGraty, R. (2015). *Science of the heart: Exploring the role of the heart in human performance*, Volume 2. HeartMath Institute.

Mijares, S. G. (2012). *Fragmented Self, Archetypal Forces and the Embodied Mind: Dissociative and Re-associative Processes*. Saarbrücken, Germany: Lap Lambert Academic Publishing. (Published 1995 doctoral dissertation).

Mijares, S. G. (2009). Be wary when you breathe. In S. Mijares (Ed.), *The revelation of the breath: A tribute to its wisdom, power and beauty* (pp. 211-224). State University of New York Press.

Mijares, S., Rafea, A., Sharling, D., Amponsem, J., & Mallory, M. (2020). *The power of the feminine: Facing shadow evoking light*. Egypt: Human Foundation.

Papanicolaou, A. C. (1989). *Emotion: A reconsideration of the somatic theory*. Gordon and Breach Science Publishers.

Rao, M. & Gershon, M. (2016). The bowel and beyond: The enteric nervous system in neurological disorders. *Nature Reviews Gastroenterology and Hepatology*, 13, 517-528. https://doi.org/10.1038/nrgastro.2016.107

Reich, W. (1933, 1973). *Character analysis* (translated by Vincent Carfagno, 1945). Farrar, Straus & Giroux.

Reich, W. (1953). *The murder of Christ: The emotional plague of mankind*. MacMillan.

Ross, C. (2005). Dissociative identity disorder and psychospiritual perspectives. In S. Mijares & G. S. Khalsa (Eds.), *The psychospiritual clinician's handbook: Alternative methods for understanding and treating mental disorders* (pp. 147-162). The Hayworth Press/Routledge Mental Health.

Rossi, E. L. (1993). *The psychobiology of mind-body healing*. Revised edition. W. W. Norton & Company. Inc.

Sassenfeld, A. (2008). The body in Jung's work: Basic elements to lay the foundation for a theory of technique. *The Journal of Jungian Theory and Practice*, Vol. 10(1), 1-10.

Schneider, R. A., Grasso, J. R., Chen, S. Y., Chen, C., Reilly, E. D., & Kocher, B. (2020, August 11). Beyond the lab: Empirically supported treatments in the real world. *Frontiers in Psychology*. Brief Research Report. https://doi.org/10.3389/fpsyg.2020.01969

Scwartz, R. C., & Sweezy, M. (2020). *Internal family systems theory*, 2nd Edition. The Guilford Press.

Sohn, E. (2019, July 24). Decoding the neuroscience of consciousness. Outlook. *Nature*, Vol. 571(S1-S5).

Sorenson, K. (2020, December 16). A conversation about subpersonalities with Assagioli. https://kennethsorensen.dk/en/a-conversation-about-subpersonalities-with-assagioli/

Stein, L. (1967). Introducing not-self. *Journal of analytical psychology*, Vol. 12(2). 97-114.

Stein, M. (1998). *Jung's map of the soul*. Open Court.

Stern, D. N. (2000). *The interpersonal world of the infant: A view from psychoanalysis and developmental psychology*. Basic Books.

Storr, A. (1983). *The essential Jung*. (Ed.) Princeton University Press.

van der Kolk, B. A. (2015). *The body keeps the score: Brain, mind, and body in the healing of trauma*. Penguin Books.

Varela, F., Thompson, E. & Rosch, E. (1993). *The embodied mind*. The MIT Press.

Watkins, J. G. (1971). The affect bridge: A hypnoanalytic technique. *The International Journal of Clinical and Experimental Hypnosis*, 19(1), 21-27.

Transformation in Body Psychotherapy

Conscious States and the Future

Luisa Barbato

ABSTRACT

The article presents a reflection on transformation as the goal of overcoming inner crises, and the ultimate goal of a psychotherapy process. The key concepts of a body psychotherapy therapeutic path are presented in light of the different personal planes – physical, emotional, mental, and spiritual – that are involved and transformed. Finally, the two key themes of a modern psychotherapeutic pathway are explained: evolution and integration.

Keywords: Body Psychotherapy, crisis, evolutionary path, unity, transformation

Submitted: 22.06.2023
Accepted: 18.12.2023

International Body Psychotherapy Journal
The Art and Science of Somatic Praxis

Volume 22, Number 2,
Winter 2023-2024, pp. 90-93

ISSN 2169-4745 Printing, ISSN 2168-1279 Online

The word *transformation* is very important on the path of personal evolution and growth, so important in fact that it is consistently repeated in psychological, psychosomatic, and spiritual manuals. Everyone expects their inner journey to lead to a positive transformation. Crises would probably be less bearable if they did not give us hope for change, for an improvement of the previous imbalance. It is no accident that the Chinese ideogram for the word *crisis* also contains the symbol for opportunity because every crisis brings change. However, things could also be worse; who can say, for example, whether the current Ukraine crisis that led to war will resolve into a better arrangement? Every crisis unfortunately breeds fear of possible catastrophe.

> ***... the process of personal growth from an evolutionary perspective constitutes the great conceptual shift in humanistic psychology, body psychotherapy, transpersonal psychotherapy, and holistic psychosomatics.***

But here, we will not speak of war but of inner evolution because the growth of the individual, from the physical to the psychological, to the emotional and spiritual, has steps which challenge the previous state, and move us on to a subsequent transformation. If there were no crisis, it would be difficult to access a higher level of consciousness. There is no possibility of survival if we do not follow the flow of life and station ourselves in crisis. What is expected from a path of psychotherapy and personal growth is to be accompanied in overcoming a crises in order to emerge transformed.

Let's take a more detailed look at how these steps work at the various levels of our being.

The Physical Plane

First of all, the physical plane. Physical development happens in steps; the child grows, evolves, acquires new functions, and the whole setup, including mental, follows an evolutionary thread marked by a crises between each developmental transition. One struggles to separate from the mother's breast, to stand up, to become autonomous, to deal with relating with a social other, to take more and more responsibility in life, and so on. Aging and the related psychophysical decline also mark an evolution toward less material and more reflective planes in preparation for detachment. If the crisis in a transition between stages is not overcome, there may be potential physical symptoms that often have no organic explanation, for example, fear that looks like semi-epilepsies, defensive anesthesia reminiscent of Breuer's and Freud's hysterics, or, childhood fibromyalgia, fainting spells, vasovagal syndromes, all often attributable to failure to mentalize separation anxiety and states of paralysis. These are all functional physical disorders – states of chronic and persistent tension that could be generically interpreted as anxiety attacks. But in fact, Reich, in his character-analytic vegetotherapy, already explained them as an altered functioning of the neurovegetative system resulting from emotional blockages. Currently, this principle has been taken up by Porges' Polyvagal Theory, which explains the evolution of the nervous system in mammals, giving us a basis for attachment diversified through neuroception. This neuroscientific base constitutes, a century later, scientific proof of Reich's studies of the autonomic nervous system. His vegetotherapy, by which many current body-psyche practices are inspired, integrate the function of the nervous system with psychological clinical theory and practice.

Emotions

Every stage of physical development is accompanied by feelings and emotions. Emotions also have a developmental process. A child's emotions are impetuous and coarse, but as we grow, we learn to avoid being unconscious prey to our emotions. If we get stuck in a series of emotions that are dysfunctional to the moment, such as fear, anger, or sadness, we risk halting our own evolution and allowing a psychological disorder to emerge. For example, it is functional to react to bereavement or to a major separation with a drop in energy and subsequent sinking into sadness. If, however, this drop, which expresses a crisis in the system, does not move us toward a new equilibrium, our sadness becomes stagnant and we develop a depression which may remain for life. This is Freud's concept of fixations at certain developmental stages.

The Path of Consciousness

Finally, the path of consciousness – inner evolution that is not only psychic, but also invites deep awareness. The ancient philosophical and spiritual traditions tell us that the spiritual path of knowledge of the subtler plane, and of inner and collective consciousness, is evolutionary. It proceeds step by step, marked by crises that are overcome by landing at a higher level of consciousness. Consider the various Jnanas of the Buddhist tradition, according to which the planes of consciousness follow an evolutionary process; there is no immutability even in the immaterial planes.

Thinking about the process of personal growth from an evolutionary perspective constitutes the great conceptual shift in humanistic psychology, body psychotherapy, transpersonal psychotherapy, and holistic psychosomatics. This concept restores hope and points the way forward. Come to think of it, how would we feel if, after talking to a psychotherapist about our discomfort, we were told that this discomfort could be resolved so that one could return to the previous problems that led us to the crisis and suffering. This would reflect Freud's thought that healing from neurosis returned us to the unhappiness of ordinary life.

We now know that it is possible to evolve toward living life as never before experienced. However, to accomplish this, we must introduce a second concept, in addition to the evolutionary one: the oneness of our being that functions systemically as a great network of connected subsystems. So, if we take a path of personal growth through Reichian analysis and vegetotherapy, we activate a process that touches all our planes; the physical transforms, the balance of neurotransmitters transforms, emotions transform, our awareness transforms, and finally, our plane of consciousness evolves. We are an inescapable systemic unity in constant motion.

And this unity gravitates around a self-conscious center and constitutes the central, energetic, systemic core – what Reich called the nucleus or core – and spiritual traditions refer to as the animist or psychic center, from the Greek psyche, meaning soul. And so, we are connected to the concept of the Self, which, in modern terms, can be represented as a unified consciousness of self in relation to all planes of existence. The Self, on one hand, governs the expression of the different physiological and neuropsychic instinctive, emotional, and mental functions – one's microcosm – and on the other hand is related to the universal and spiritual planes, to the *meaning* of our existence.

Thus, the realization of health in a comprehensive sense requires a psycho-body approach capable of integrating and healing:

- The bodily self and the physical dimension
- The emotional self and the affective dimension
- The cognitive self and the psychological dimension
- The core or sense of global identity
- The transpersonal dimension

However, if we do not want to get into a generic new age type of holism, which would be gross and undifferentiated, we must study the laws and steps that govern our unitary system. In practice, this means that we need to connect the knowledge of evolutionary psychology with the needs and growth of the physical plane, with the regulation of the nervous system and related neurotransmitters, and with the steps of awareness taught by meditative practices. It is a daunting task. Each of us studies only our own field, so we are surprised when research makes a transition and connects different planes – builds bridges. We are surprised when Damasio discovers that the child's primary self is innately bodily, when Panksepp discovers the sense of survival is linked to a few basic emotions, when Candice Pert shows that emotions are not only psychic, but also have a material basis, or when Buddhist meditation anchors us to the body.

The neuroscience research of recent decades has gone in this direction, as well as medicine's investigations into PNEI and brain function, and discoveries in quantum mechanics that open up avenues to scientifically explain what we have previously known only through experience or intuition. After all, some of the greats of the last century, such as Reich or Jung, have already built these bridges. Jung stated in 1931 that "neurosis is simply the body taking over, regardless of what consciousness wants."

We can then say that consciousness is the intelligence of the system, and the fundamental work is on integrating the body emotions. How does one work on this? Four steps are identified:

1. ***To feel the emotions*** – even when this seems natural, to become fully aware of them.
2. ***To express the emotions*** – because if they are not released, they remain imprisoned in our body memory. For these first two steps, Reichian analysis employs a series of highly and deeply structured body activations. However, these first two stages are not enough, because the expression of emotions can become crystallized.
3. ***To manage the emotions*** – that is, being with the emotions, breathing into them without chasing them away.
4. ***To transform the emotions*** – and with this comes the importance of meditation. It involves experiencing a condition of inclusive presence, the gaze that observes one's mental and emotional states without being controlled by them. Thus, we come to the Witness, the silent gaze in which we finally really exist.

The work of a Reichian analyst, who is integrative and systemic, opens the meshes of our personality and brings us into the experience of really being here and now – that is, finally feeling contact with the deep Self. The real transformation then takes place in the silence of our heart. This is the appropriate psychology of the future; we do not focus on only one aspect, but on a global pattern that makes possible a transformation of the state of consciousness with a true transformation of crises. Personal growth then becomes an ethical duty for every individual; it is a matter of moving toward the unity of Being that also becomes the unity of earth consciousness.

■ ■ ■

Luisa Barbato *is a certified Reichian body psychotherapist. Since 1999, she has been a SIAR (Italian Society of Reichian Analysis) board member and supervisor, as well as an AIPC (Italian Association of Body Psychotherapy) board member. From 2010 to 2014 she was an elected member of the Italian Professional Association of Psychologists. Since 2017, she has chaired the Executive Committee of the Forum of European accredited body-psychotherapy Training Institutes.*

She works as a body-psychotherapist with individual and groups in Rome, in private practice and with public institutions. In particular, she works with groups for the development of human potential, emotional release, and integral awareness. She has been practicing meditation for 20 years and her work integrates body psychotherapy, emotional release and meditation to develop a deep awareness of self and others. She teaches body-psychotherapy in numerous Italian post-graduate schools of psychotherapy.

Email: luisa.barbato@outlook.it

REFERENCES

Ader, R., Felten, D. L., & Cohen, N. (Ed.) (2006). *Psychoneuroimmunology* (4th Ed.). Waltham, MA: Academic Press.

Aurobindo, S. (1996). *The synthesis of Yoga*. Sree Aurobindo Asram Trust.

Boadella, D., & Liss, J. (1986). *La psicoterapia del corpo*. Astrolabio.

Bowlby, J. (1969). *Attachment: Attachment and loss*. Vol. I. Hogarth.

Capra, F. (1996). *The web of life: A new scientific understanding of living systems*. Anchor Books.

Cloninger, C. R. (1999). *Personality and Psychopathology*. American Psychiatric Press.

Damasio, A. R. (2010). *Self comes to mind: Constructing the conscious brain*. William Heinemann.

Eiden, B. (2009). The roots and the development of the Chiron approach. In *Contemporary body psychotherapy* (pp. page range of the chapter). Routledge.

Ferri, G., & Cimmini, G. (2012). *Psicopatologia e carattere*. Alpes Italia.

Ferri, G. (2020). *Il tempo nel corpo*. Alpes Italia.

Freud, S. (2012). *Introduzione alla psicoanalisi*. Bollati Boringhieri.

Jung, G. (2012). *Psicologia dell'inconscio* (p. 182). Bollati Boringhieri.

Lowen, A. (1958). *The language of the body*. Grune and Stratton.

MacLean, P. D. (1990). *The triune brain in evolution: Role in paleocerebral functions*. Plenum Press.

Montecucco, F. N. (2006). Coherence, brain evolution and the unity of consciousness. *World Future, the Journal of General Evolution*, 62(2), 127-133.

Navarro, F. (1992). *Metodologia della vegetoterapia*. Busen.

Panksepp, J., & Biven, L. (2012). *The ar chaeology of mind: Neuroevolutionary origins of human emotion*. W. W. Norton.

Pert, C. (1999). *Molecules of emotion: The science between mind-body medicine*. Scribner.

Schore, A. N. (2003a). *Affect regulation and the repair of the self*. W.W. Norton.

Schore, A. N. (2003b). *Affect dysregulation and disorders of the self*. W.W. Norton.

Stern, D. (1985). *The interpersonal world of the infant: A view from psychoanalysis and developmental psychology*. Basic Books.

Wilber, K. (1977). *The spectrum of consciousness*. Quest Books.

INTERDISCIPLINARY APPROACH

Belonging to Earth

Body Psychotherapy, the Seasonal Attunement Model, and Reclaiming Our Wild

Chloe Barrett-Page

ABSTRACT

In this paper, I determine how body psychotherapists can support clients' recognition of belonging to the natural world to support greater resilience and healing. The research begins by determining what multidisciplinary fields are saying about the importance of the relationship between humans and Earth. It then researches approaches from body psychotherapy that support resilience and healing, and highlights ways this overlaps with the research from multidisciplinary fields.

From here, the Seasonal Attunement model was created. A case study shows the Seasonal Attunement model supporting a client in reclaiming her anger and the potential this suggests for bigger societal change. This leads to a discussion of possible implications of this research for the field of body psychotherapy, including why supporting clients' relationship to the natural world is imperative for well-being.

Keywords: the natural world, Earth, body psychotherapy

Submitted: 13.04.2023
Accepted: 15.12.2023
International Body Psychotherapy Journal
The Art and Science of Somatic Praxis
Volume 22, Number 2,
Winter 2023-2024, pp. 94-107
ISSN 2169-4745 Printing, ISSN 2168-1279 Online

> ***Our bodies are not separate from the greater bodies that we live, cohabitate, and die in.***

In this paper, I determine how body psychotherapists can support client recognition of belonging to the natural world to support greater resilience and healing. In the past decade, we have seen an increase in studies of the nervous system. This has contributed to how body psychotherapists work with trauma, resilience, and healing. The field largely focuses on techniques *the individual* can do to regulate their nervous system. During a training, Anna Chitty, craniosacral and Somatic Experiencing expert, asked the class – other than the individual, "what regulates the nervous system?" (2021). This led me to wonder – *how can recognition of our belonging to Earth support resilience and healing in the counseling relationship*? Recognizing our belonging – to not only ourselves and each other – but our belonging to the natural world is essential to our well-being.

This topic has been adequately researched by many peoples throughout recorded history. However, body psychotherapy rarely includes the natural world in its approaches or research. Two days after I completed this paper I heard Jeanine Canty, author of *Returning the Self To Nature*, speak at Naropa University (2023). I was humbled when she named core principles in ecopsychology and deep ecology that overlap with what I write about in this paper. This highlights a need for increased interdisciplinary conversation.

As counselors, we walk alongside clients in their quest for greater wellbeing. As body psychotherapists, we work closely with the body and the nervous system to do so. Sessions often include clients identifying resources that support nervous system regulation, increase emotional regulation skills and support trauma to sequence through the body. Raising clients' awareness of their belonging to the natural world may increase the resources available in sessions. This promotes resilience and healing.

My hope is that this paper sparks interdisciplinary conversation between body psychotherapists and wisdom holders in other fields. This paper does not begin to cover the depth of wisdom and research that centers humans belonging to Earth. As a white, U.S. citizen and CIS-woman, I occupy many privileged identities. I am dedicated to listening to different voices in the field and learning how to incorporate clients belonging to Earth in a way that is congruent, appreciative, non-appropriative, and meets clients in their identities.

There are three key terms in this paper. First, *the natural world*, which includes the physical environment, living organisms and nonliving components such as air, minerals and rocks (Macy & Brown, 2014). It includes both saturated city streets and undeveloped land. While the form may shift, the natural world is always present. Second, *Earth*, which is used interchangeably with the natural world. Third, *body psychotherapy*, which "is the study of the relationship between our body sensations, thoughts, emotions, and behaviors. Somatic approaches are guided by the viewpoint that what we are thinking becomes a feeling in the body—and similarly, the ways in which we move and breathe impact our thoughts and emotions (Schwartz, 2021, p. 97).

This paper: 1) presents research on what experts across fields are saying about the necessity of including clients' belonging to the natural world, 2) determines key principles of resilience and healing from a body psychotherapy perspective 3) provides counselors with the *Seasonal Attunement Model*, 4) presents a case study showing the application of the model to support a client in reclaiming anger, and 5) discusses important implications of this research for the field of body psychotherapy and for the world at large.

1 Research

What Benefits Occur From Recognizing Our Inseparability With The Natural World?

The inseparability of humans from the natural world has been extensively researched for centuries. Experts of the medicine wheel, ayurveda, celtic healing, and Chinese medicine, just to name a few, speak extensively about this relationship. Many of these systems use a four or five quadrant model to classify different elements, seasons, emotions, herbs, medicines, physical, spiritual, emotional themes and so much more (Bear & Wind, 2006; Plotkins, 2008; Matthews, 1989). This suggests a shared belief between modalities that incorporating relationship to the natural world supports client well-being.

The research for this paper focuses on Chinese medicine, ecopsychology and interdisciplinary case studies. Chinese medicine offers a unique perspective because of its extensive application and centuries of research. Ecopsychology offers a unique perspective because it weaves Earth based connection into a Western counseling model. Interdisciplinary studies offer a unique perspective because of its diversity of voices and case studies. By bringing in these three approaches, the research provides an opportunity to notice similarities and differences across modalities.

I hope the reader will notice places of overlap and places of difference with their own orientations. The archetypal nature of this research question means that we each know something important about this topic through our lived experience. I invite the reader to use their first-hand experience to amplify this conversation.

Chinese Medicine

Chinese Medicine dates back 3,000 years with the earliest writings from the 11th century during the Shang Dynasty (Freed, 2021). In *Between heaven and earth: A guide to Chinese medicine* (1992), authors Beinfield & Korngold speak extensively to the theory and application of Chinese medicine. This will be the primary source used for understanding core principles in Chinese medicine.

One core tenant in Chinese medicine is that humans are "a microcosm of the universe that surrounds them, suffused with the same primeval forces that motivated the macrocosm" and are "part of one unbroken wholeness, called Tao, a singular relational continuum within and without" (p. 5). In essence, Chinese medicine sees humans as inseparable from nature and constantly in relationship and impacted by external forces.

The concept of *Qi* highlights how Chinese medicine operates from the assumption of the inseparability of mind, body and nature. *Qi* is an "invisible force", and is seen through what it "fosters, generates and protects" (p. 30). *Qi* is what creates the manifestation of all life forms – from organ systems, to thoughts, gardens, four-leggeds, oceans, mountains, and the galaxies (p. 35). All manifestations of *qi* are mutually dependent and influence one another. Therefore, the cycles of the human body mirror the cycles of the Earth (p. 33).

Chinese medicine balances *qi* to increase client well-being. Balancing *qi* requires a recognition of parallelism and synchronicity, a theory which states that "forces that govern the cycles of change occurring in the external world are duplicated within our human bodies and minds." (Beinfield & Korngold, 1992, p. 42). According to the authors, patterns in nature mirror patterns in our bodies, and vice versa. Through observing these patterns in nature, Chinese medicine created a five-phase system to support healing. The five-phase model includes five elements, five seasons, five personality types and five organ systems. Techniques used to support clients' *qi* are informed by the relationship observed and documented in the five-phase model. Increasing a client's well-being requires a knowledge of the cycles and qualities of Earth.

The authors then explain how the idea of separation between mind, body and nature began in the 17th century in Western culture when French philosopher Descartes wrote about Cartesian dualism. The Western world interpreted his writing as the mind and body being separate entities. Referred to as the Cartesian split, many body psychotherapists believe this philosophy hugely influences Western psychology today (Ford, 1999) and can be seen through wide use of approaches that focus on the mind. Body psychotherapy works off the assumption that the mind and body are inseparable, and incorporates techniques that encourage whole system awareness (Schwartz, 2021).

Ecopsychology

Like the five-phase model above, Bill Plokin's *Eco-Soulcentric Developmental Wheel* described in *Nature and the human soul: Cultivating* wholeness and community in a fragmented world (2008) is based on the assumption of the inseparability of humans from Earth. Plotkin created this model through observing nature which is seen through the incorporation of the four seasons, the four compass directions and the diurnal cycle.

Plotkin sees psychological wholeness as connected to one's relationship with the natural world and believes nature "supports our personal blossoming (...) through her spontaneities, through her beauty, power, and mirroring, through her dazzling variety of species and habitats, and by the way of wind, Moon, Sun, stars and galaxies" (p. 20). Plotkin hypothesizes that wilderness-based counseling is effective because it supports clients' emotional, somatic and imaginative experience in relationship to nature's enchantment. He believes this facilitates human wholeness which is often missing in Western society. Much like we saw in Chinese medicine, this model operates from the assumption that recognizing one's belonging to the natural world supports healing.

Interdisciplinary Studies & Psychedelic Studies

The myth of normal: Trauma, illness and healing in a toxic culture (2023), written by Gabor Maté, starts by discussing how systems in the United States and Canada create illness in its residents. Towards the end of the book, Maté brings in diverse voices to discuss avenues for healing in these societies.

Maté states that oneness with nature supports healing, something many of the world's Indigenous cultures have recognized for centuries. Ac-

cording to Navajo activist Pat McCabe, "When you are part of that larger community, Earth, and you are accountable to this mad romance with birds and fish and trees and mountains and sky, you have more to compel you, to guide you" (McCabe as quoted by Maté & Maté, 2023, p. 471). This suggests that recognizing one's belonging to Earth increases a sense of relational responsibility that facilitates reciprocity, a potential resource for clients.

Wade David believes that nature based metaphors, such as "mountains [a symbol] of strength and constancy; rivers embody change, flow, even life itself" (Davis as quoted by Maté & Maté, 2023, p. 479), shape how humans live their lives. It provides a way to listen to nature's signs and discover one's place in the world. Again, by acknowledging one's relationship to Earth, it might support clients' understanding of belonging.

Maté shares a case study where a client using psychedelics reports a powerful experience of deepening connection to the natural world. According to Rick Doblin, psychedelics facilitate experiences of being part of something bigger, and "when you are no longer looking at things from the perspective of 'I', you feel a newly released potential and sense of connection" which provides possibility for moving out of familiar patterns (Doblin as quoted by Maté & Maté, 2023, p. 460). Maté gives other case studies where psychedelics included healing experiences when clients connected with Earth. This suggests that connection to Earth provides resources for many clients.

2 Resiliency and Healing From A Body Psychotherapy Perspective

As we have seen, recognizing our interdependence and inseparableness from nature has been used to support healing across many different cultures and modalities, and for thousands of years. Colonialism, capitalism and Western culture, only a few hundred years old, disrupted this. We see the impact of this in the framework of Western psychology which focuses primarily on the mind. Body psychotherapy focuses on body and mind, yet often leaves out clients' relationship to Earth.

My curiosity grew about the intersections between modalities that highlight interdependence with Earth, and modalities in body psychotherapy. I began researching healing and resilience from a body psychotherapy perspective to determine parallels between these approaches. My research focuses on polyvagal theory and the *window of tolerance*, the ADEP model and mindfulness based approaches to working with trauma.

Polyvagal Theory (Dana and Porges), The Soul Nerve (Menakem) & The Window Of Tolerance (Siegel)

According to *Polyvagal Exercises for Safety and Connection: 50 Client-Centered Practices* (2020) by Deb Dana & Stephen Porges, polyvagal theory works with the vagus nerve, a family of neural pathways, to increase resilience and healing. This theory states that there are three expressions of the vagus nerve – the sympathetic nervous system (fight/flight), and two expressions of the parasympathetic nervous system, the ventral vagal system also known as the social nervous system (safety, connection, belonging), and the dorsal vagal system (immobilization) (p. 0-50).

Dana & Porges speak to how trauma can shift a person out of the ventral vagal system and into habitual sympathetic activation and habitual dorsal vagal immobilization. This creates feelings of disconnection and dysregulation in the nervous system. Resilience comes from "recognizing moments of dysregulation and connecting with resources to return to regulation" (Dana, 2020). This is referred to as vagal tone. Polyvagal theory supports clients in identifying resources in their life to increase vagal tone, which often include places that support co-regulation, connection and belonging.

Dr. Dan Siegel (2010) talks about a similar concept through the lens of the *window of tolerance*. According to the *window of tolerance* a person's optimal range of arousal is where connection and emotional regulation occur. This relates to the social nervous system. If a person is above their *window of tolerance* they are considered to be in a state of hyperarousal, which relates to the sympathetic nervous system. If they are below their *window of tolerance*, they are in a hypoarousal state which relates to the dorsal vagal nervous system. Like Dana & Porges (2020), Siegel believes that the *window of tolerance* can shrink through trauma, and can widen through the cultivation of resources.

In *My grandmother's hands: Racialized trauma and the pathway to mending our hearts and Bodies* (2021), Resmaa Menakem, provides tools for in-

creasing resources to support healing. According to Menakem, the *soul nerve*, or the vagus nerve, is in constant communication with both our inner and outer environment through sensations, emotions, and wordless knowing. This communication takes place "not only between different parts of the body, but also from one person to another" (p. 147). I would expand this to include communication with the natural world. Menakem believes that understanding the communication of the vagus nerve provides clients with the opportunity to identify where they experience a sense of belonging, connection and co-regulation, and where they do not. This increases clients' awareness of what supports their vagal tone.

Belonging can be a privilege. Systems of violence, like white supremacy, create environments where marginalized identities do not experience belonging or safety. According to Menakem, this must be recognized and incorporated into approaches that support resiliency and healing. Resources that support vagal tone can differ depending on client identities and the contexts they live in. He focuses on three different bodies in the United States – Black bodies, white bodies and police bodies. Body-centered responses developed by African Americans which include "collective humming, rocking, rhythmic clapping [...] just to name a few" have contributed to resilience in Black bodies (p. 15). He outlines different body-centered responses for different identities.

Menakem states that while resources that support vagal tone depend on client identities, everyone can be supported by learning how to settle their body. He gives different practices for settling the body and working with the *soul nerve*. He shares that instead of focusing on reducing stress, clients can increase coherency and flow by "tapping into the energies that surround and move through everything in our world" (p. 51). This relates back to concepts of working with *qi*. It suggests that Earth provides an avenue for co-regulation and healing.

Both polyvagal theory and the *window of tolerance* highlight the importance of supporting nervous system flexibility through resourcing to increase resilience and healing. "Trauma and healing aren't just private experiences. Sometimes trauma is a collective experience, in which case our approaches for mending must be collective and communal as well" (Menakem, 2021, p. 13). Therefore, both self-care and community-care approaches matter when it comes to healing.

Supporting client resilience requires multicultural reflexivity. Dr. Carla Sherrell's model *The 4 Perspectives/Lens* (2021), provides a way for clients and counselors to consider the complexity of influence on a clients life. It provides awareness around intrapersonal, interpersonal, cultural, and institution/structural influences. It highlights impacts between client identities and the contexts they live in. This model is one way to include multicultural considerations when identifying resources, resilience and healing with clients.

Emotional Connection & The ADEP Model (Fosha)

In *The transforming power of affect: A model for Accelerated Change*, Diana Fosha (2000) outlines her model called *ADEP* which centers around the belief that connection to emotions is essential for healing. According to Fosha, in order "[to] live a full and connected life in the face of difficulty and even tragedy requires the capacity to feel and make use of our emotional experience" (p. 13). She says that to access the life-giving energy of emotions, one must recognize where it was necessary to cut off emotional experiences and to return to a relationship with one's emotions.

Fosha states that counselors support this process by mirroring clients in their emotional experience. Often when a counselor mirrors core affect it increases resonance, emotional literacy and differentiation. She believes this provides clients with an opportunity to be with their emotions without being overwhelmed by them. This requires the counselors or the holding environment to be regulated and intact, which supports co-regulation as seen in polyvagal theory.

Similar to Menakem's work, Fosha highlights the importance of connection in the healing process. She believes that "... the difference between aloneness and the sense of being integrated in the mainstream of mutuality – community – is created by the act of affective communication with one other person, who is open and interested" (p. 28). While Fosha talks specifically about counselors mirroring clients' emotions and providing co-regulation, increasing awareness of the mirroring and co-regulation happening between human and the natural world also increases emotional nourishment,

belonging, mutuality and connection (Menakem, 2020; Beinfield & Korngold, 1992; Plotkin, 2008).

Mindfulness Practice For Body Awareness (van der Kolk)

In *The body keeps the score: Mind, brain and body in the transformation of trauma* (2015) Bessel van der Kolk, talks about the ways in which the body both holds and heals from trauma. He shares how clients' awareness of somatic experience is foundational in supporting the healing process.

One way to increase somatic awareness is to support clients' interoception, or the "awareness of [their] subtle sensory, body-based feelings" (p. 98). Van der Kolk states that by listening to body-based feelings, clients increase their ability to identify what they are feeling and how it relates to changes in their inner and outer environment. This in turn allows clients to see what changes are desired depending on messages from their body. He shares that one way to increase interoception is through mindfulness practices that strengthen the prefrontal cortex or the part of the brain that observes experience. Somatic interventions like Focusing or movement sequencing are examples of mindfulness based techniques that support increased somatic awareness (Schwartz, 2021).

Van der Kolk believes trauma treatment should not only address the past, but also focus on increasing presence in one's day-to-day experience. This requires oscillation of attention from one's internal world to one's external world. Until clients find awe in "everyday things like taking a walk, cooking a meal, or playing with your kids, life will pass you by" (p. 73). Accessing awe in the day-to-day requires awareness of both the internal and the external environment. By supporting clients to bring attention to how the cycles of the natural world relate to one's own somatic experience, clients gain skills in oscillating between the body and the natural world. This inherently increases presence in one's immediate experience.

3 The Seasonal Attunement Model

Body psychotherapists are at the forefront of many trauma-informed treatments. They have expanded the field's understanding of how to work with the body and the nervous system to support resilience and healing through utilizing techniques that increase somatic awareness (Schwartz, 2021). The next evolution in the field will be incorporating clients' belonging to the natural world more explicitly into the techniques. This is a strength of ecopsychology, a framework rooted in the belief that the healing of humans is inseparable from relationship to Earth (Canty, 2023). This paper hopes to increase conversation and inspiration across fields.

I am proposing the Seasonal Attunement Model as one way for body psychotherapists to incorporate clients' inseparability from the natural world into sessions. This model increases client's sense of belonging (Menakem, 2021), understanding of nervous system states (Dana & Porges, 2020), emotional literacy and regulation skills (Fosha, 2000), and embodied mindfulness practice (van der Kolk, 2015). Clients may fill in this model with wisdom from their culture, or they may embark on new discoveries outside of any practices or models they have known. Therapists may incorporate their own lens and knowledge into the model when it is culturally appropriate and clinically relevant.

How To Use The Seasonal Attunement Model

In the Seasonal Attunement Model there are opportunities for clients to do the following:

- ***Identify Seasons***

  What seasons do you observe where you live?

- ***Identify an Emotion***

  Is there an emotion(s) that you or your community feels is most dominant during each season?

- ***Identify Observations Of Self During Season***

  What do you notice somatically, affectively and cognitively during this season?

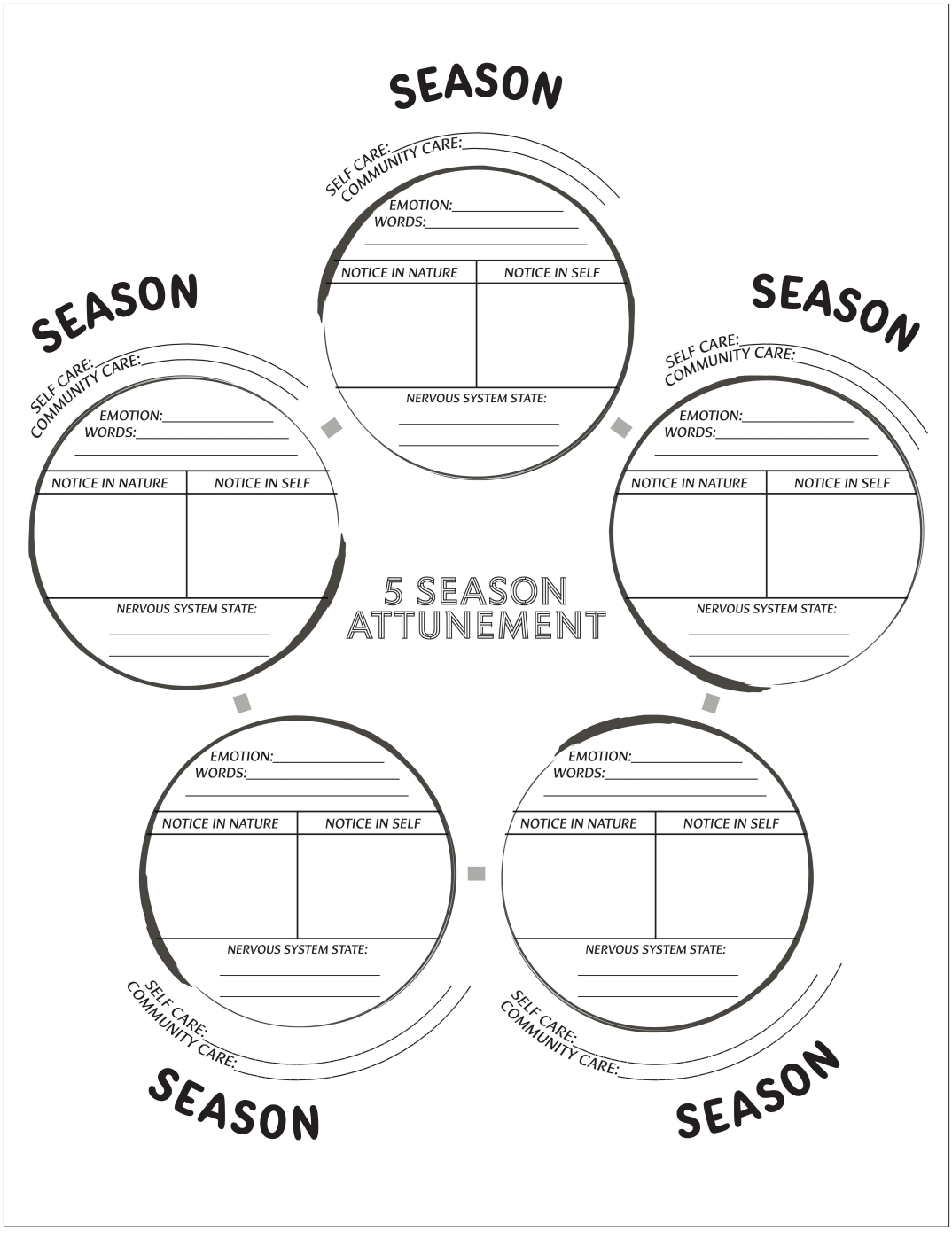
- ***Identify Observations Of Natural World During Season***

  What do you notice happening in the natural world during this season? What are the qualities of plants, animals, the sky, the sun etc. at this time?

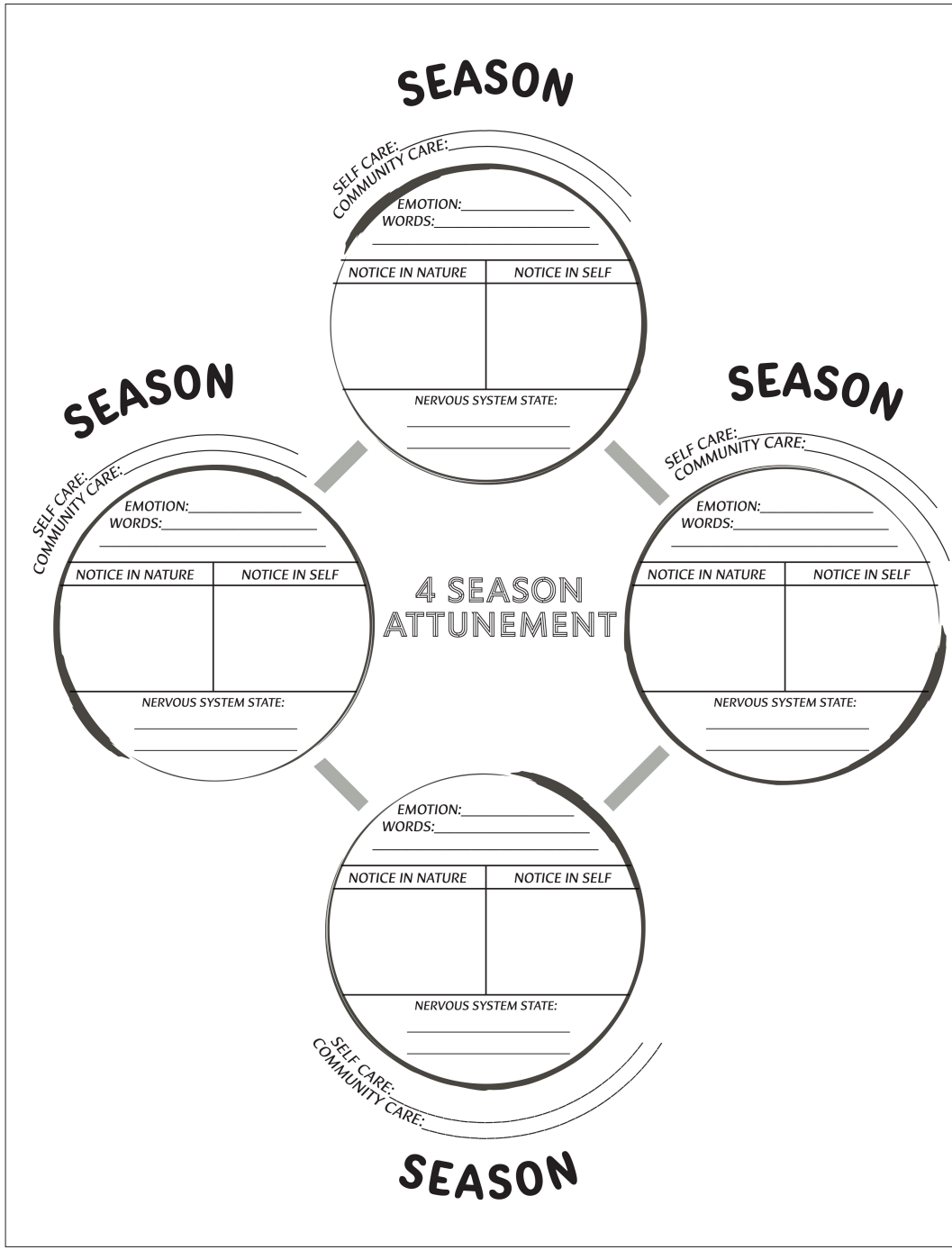
- ***Identify Words and Color Associated With Season***

  Are there greater themes or metaphors that you or your communities observe?

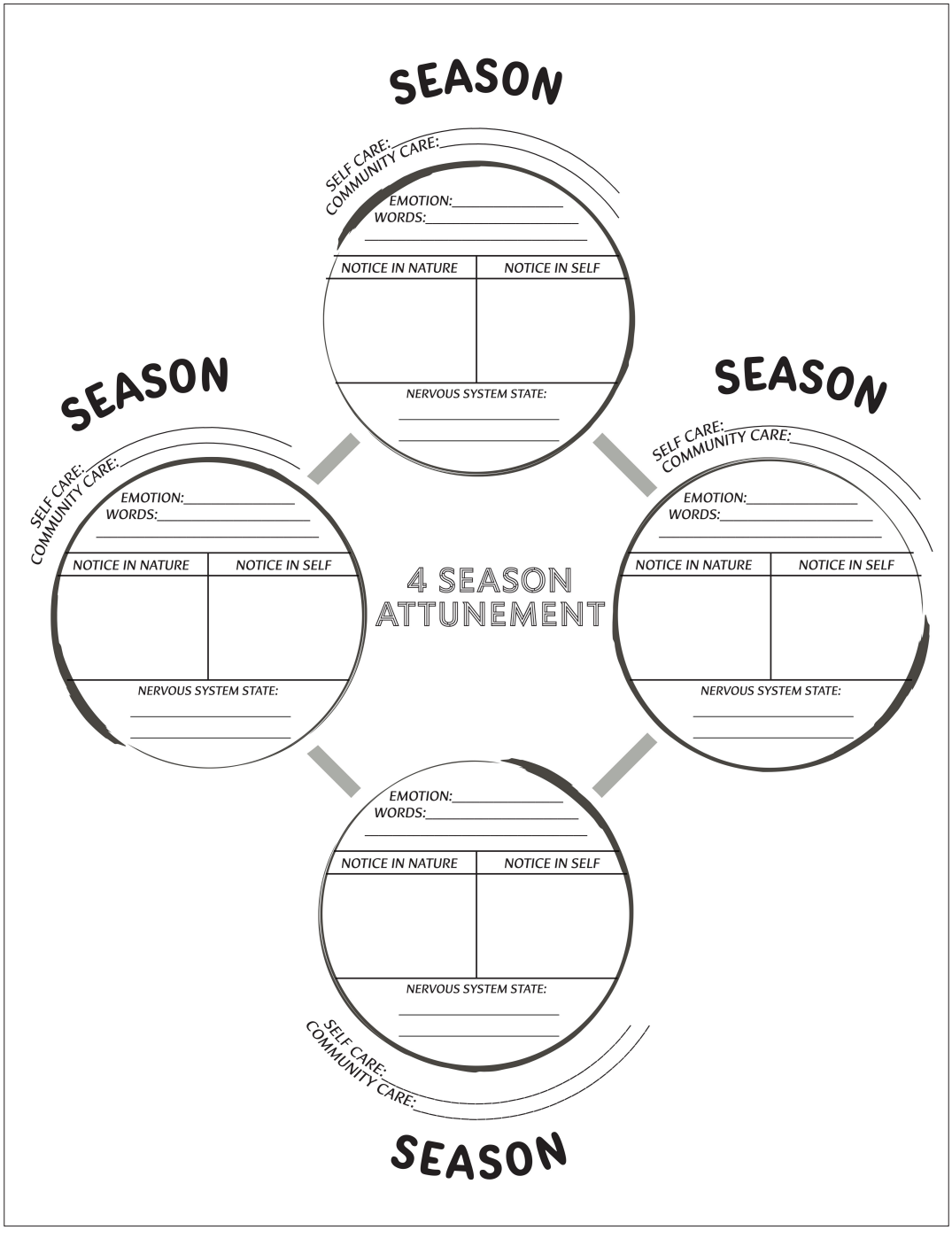
  Is there a color you associate or see in nature during this season?



The Seasonal Attunement Model© ■ 5 Seasons
can be used with clients who relate to five seasons

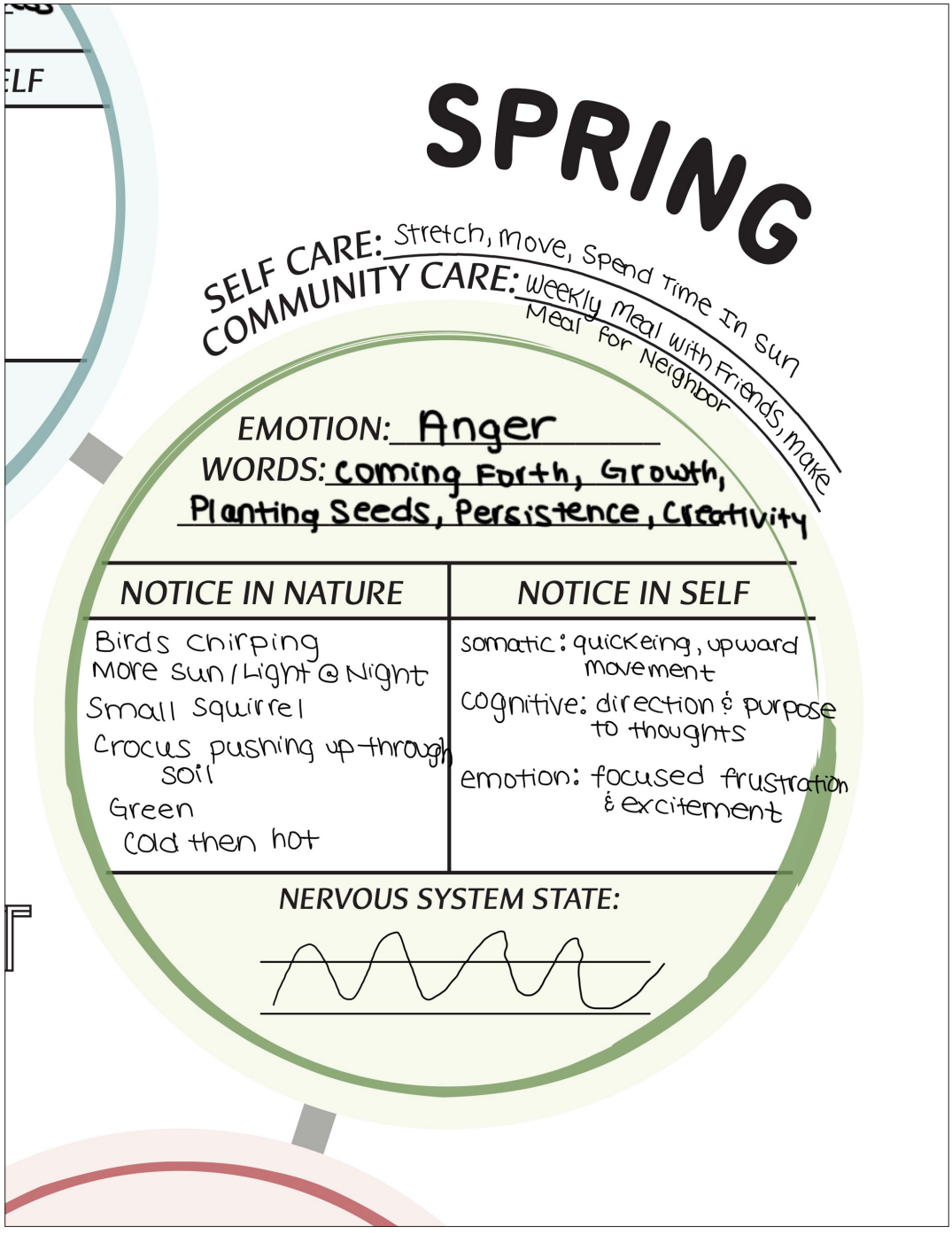


The Seasonal Attunement Model © ■ **4 Seasons**
can be used with clients who relate to four seasons



Incorporating A Chinese Medicine Lens

The model above is filled in with observations from Chinese medicine. It is inspired by my studies in meridian massage. The emotions and colors associated with the seasons come from Beinfield & Korngold (1992). The words associated with each season come from acupuncturist and body psychotherapist, Elena Giulini.



Incorporating A Chinese Medicine Lens *filled in by a client*

The emotion and words section were kept from the Chinese medicine lens. The client sat outside for one hour and wrote down their observations of the natural world and simultaneously wrote down observations of their somatic, cognitive and emotional experience. They then drew their nervous system state, which fluctuated between their window of tolerance and hyperarousal (Siegel, 2010). From the insight they gathered, they then wrote down self-care and community-care needs. This model can also be filled in with observations over the course of a longer period of time, as well as by a group of people.

- ***Identify Nervous System States (Polyvagal Theory & Window Of Tolerance)***

  Is there a pattern to your nervous system state during this season? Do you spend more time in the social nervous system, sympathetic nervous system state or dorsal nervous system state? Do you spend more time in hyperarousal, in your *window of tolerance*, or hypoarousal?

  Clients can draw above the top line to indicate being in hyperarousal, can draw between the two lines to indicate being in their *window of tolerance*, and can draw below the bottom line to indicate being in hyperarousal.

- ***Identify Self-Care and Community-Care Resources***

  What kind of self-care supports you during this particular season? Rituals or practices?

  What kind of community-care supports you during this season? (Community care might include resources provided by humans, plants, animals, the unseen world, minerals, the elements…)

Why Is This Model Relevant To Body Psychotherapists?

The Seasonal Attunement Model offers a structured way for body psychotherapists to incorporate clients' relationships to the natural world into session. By doing so, therapists have the opportunity to use clients' interconnectedness with the natural world to support well-being (Beinfield & Korngold, 1992; Plotkin, 2008; Maté, 2023). The model includes principles from the three body psychotherapy modalities researched above.

- The Seasonal Attunement Model incorporates four main concepts from polyvagal theory and the window of tolerance. First, clients identify their dominant nervous system state in different seasons (Dana, 2020; Siegel, 2010). Second, it highlights our inherent belonging to the natural world, and therefore supports this hardwired need (Menakem, 2021). Third, it identifies self-care and community-care needs (Menakem, 2021). Fourth, clients fill in this model based on their identities and the contexts they are living in (Menakem, 2021).
- The model incorporates three main concepts from Fosha's work (2000). First, a wide spectrum of emotional expressions are normalized in a client's life. Second, the model brings awareness to the potential of the natural world providing a regulated and intact holding environment. Third, it decreases separation and increases mutuality by highlighting the mirroring that occurs in the external environment.
- The model further incorporates two concepts from van der Kolk's work (2015). First, clients track what they notice somatically during the different seasons. By doing so, clients increase their interoception. Second, clients track what they are noticing in nature during each season. This supports them in observing present moment qualities in their external environment, which brings attention to one's immediate experience. Both interoception and present moment observations of the external world support embodied mindfulness practices and therefore healing.

Considerations When Using The Model

A client might be in a different season of their life than the season of the natural world around them. For example, a client might lose their job in Summer, and feel that their internal season feels closer to that of Fall. It may be important to bring awareness to the difference between their internal season and the external season to increase self-compassion and to identify support needed. Flexibility exists in the way clients relate to the model. Each person will find unique needs and balance in their relationship to the seasons.

Many cultures across the world revolve around seasonal attunement. Clients will bring depths of wisdom to this model, including rituals and practices from their cultures. Multicultural reflexivity is important when working across differences.

Through using this model, clients may recognize a desire for embodied practices and rituals and not know where to begin. The work of Melissa Michaels, a leader in the field of body psychotherapy, offers many possibilities for embodied ritual in her book *Youth on fire: Birthing a generation of embodied global leaders* (2017). She provides tools for tracking somatic, affective and cognitive experience and includes vast opportunities for self-care and community-care practices. Her work advocates for a caring and accountable relationship to all of life. It is a beautiful resource for this model.

This model can also be used as a tool for burnout prevention for counselors. By using this model, counselors identify how cycles and seasons shift their capacity to show up for clients. It provides flexibility in self-care and community-care practices, and provides motivation for regular seasonal assessment of the support needed to provide counseling in a sustainable way. It brings awareness to vast resources available in counselors' relationship to Earth.

This model runs the risk of appropriation. As a white CIS woman born in the U.S., I have been accustomed to taking from other cultures. It has been so normalized by my privileged identities that I often do not recognize I am doing so. My intention is to always explicitly name the lineage that I have learned from, to receive permission from the lineage to use the wisdom, and to consider whether what I am offering is congruent with my knowledge and what has been asked of me. If there are pieces I am missing, I hope to know. My intention for this model is that counselors who incorporate it will do the same.

4 Applying The Model In The Counseling Relationship

I worked with a client for a year who I will call Ivy. Ivy identifies as a CIS, white woman who reports having no significant trauma history and came to counseling for support navigating autoimmune symptoms. During our second session, I asked Ivy about her relationship to anger. She reported not being angry and unable to remember the last time she was. After discussing polyvagal theory, she identified feeling in a habitual dorsal vagal state.

I was curious about exploring Ivy's experience of sympathetic activation, and particularly anger, to support the possibility of mobilizing from a habitual dorsal vagal state (Dana & Porges, 2020). Since Ivy reported having a hard time connecting to anger, I asked about her relationship to Spring as an entry point. Anger is associated with Spring in Chinese medicine (Beinfield & Korngold, 1992).

We talked about what she notices in nature during Spring. She reported loving to watch the blossoms pop out from the trees. We moved into an experiential where she embodied that blossom popping out of a tree. In the process she described noticing a lot of energy, the movement push, and a slow and deliberate pace. I asked her what emotion she might associate with these qualities and with a surprised face she said ANGER!

From here, we processed messages she received about anger growing up including it being dangerous and shameful. She processed grief about why this energy had been cut off, which related to her socialization as a CIS woman. This client felt her lack of connection to anger was influencing her autoimmune symptoms. In our work together, she expressed how she was grateful "to get to reclaim my bitch!".

As I was working with this client, I was struck by the parallels between what she was reporting and what I had been reading in Maté's book *The myth of normal: Trauma, illness and healing in a toxic culture* (2023). According to Maté, anger is an evolutionary response that allows us to define our physical and emotional boundaries and to say No. Dr. Julie Holland notes how women's repression of anger correlates with rates of "depression [and] autoimmune disease" (Maté, 2023, p. 333).

Supporting healthy anger is crucial to healing (Maté, 2023). Anger, which includes sympathetic nervous system activation, often allows the nervous system to move out of a dorsal vagal state (Dana & Porges, 2020). By incorporating the Seasonal Attunement Model into the session, it normalized anger for this client. It provided a way to access emotion (Fosha, 2000) through observations of Spring. By embodying the bud popping out of the tree, the client increased interoception (van der Kolk, 2015) and recognized that her anger belonged (Menakem, 2021). By reclaiming her anger, her range of emotional experience also widened (Fosha, 2000). This is a radical act in a society that profits off of the repression of women's anger.

As I continued to use this model with clients, it not only provided an opportunity to reclaim anger, but to also reclaim grief, fear, joy and worry. Clients reported greater acceptance of their internal range of emotion when they identified ways the seasons mirrored their experience. Our bodies are not separate from the greater bodies that we live, cohabitate, and die in. Acknowledging our interrelatedness supports befriending the internal seasons and emotions experienced throughout life. It is a reclaiming of our wild selves.

5 Discussion

The research for this paper clarified the question: *How can recognition of our belonging to Earth support resilience and healing in the counseling relationship?* It can support resilience and healing by illuminating one's belonging to something vast, our interrelatedness with all living things, relationships of reciprocity, resources available in the natural world, avenues for co-regulation, connection and belonging, opportunities for present-moment awareness, the normalcy of emotional expression, the necessity of anger, interoception, community practices and rituals, and increasing awareness of the coherency, flow and *qi* that moves through and supports all of life.

The interdependence between humans and the natural world has been researched for centuries and many modalities offer models for incorporating this into sessions (Daly, 2013). However, body psychotherapy often does not explicitly name the importance of this connection. A strength of this research is that it contributes to the conversation of how to incorporate the necessity of belonging to Earth into techniques used in body psychotherapy. A limitation of this study is that the research only scratches the surface of these conversations; many wisdom holders who have much to contribute were not named. I was surprised to find the ease and overlap between body psychotherapy techniques and Earth based healing modalities. I hope further research continues to fill this gap.

Over the course of writing this paper, I worked with clients wanting support in their relationship to emotion. I was fascinated by a common theme of confusion and suppression of anger arising with clients who identified as white, U.S. born, CIS-women. Many felt deeply impacted by being socialized to be "nice, kind, caring and pleasant".

This paper offers a model for body psychotherapists to both conceptualize and work with anger in a way that honors its power for destruction and its power for healing. It can be seen as the energy that pushes a sprout out of the soil, to the energy that burns down a forest. This model offers the same opportunity for working with all emotions – joy, worry, grief and so much more. Counselors must consider who is safe enough to express emotion in different contexts.

Continued research will determine benefits and drawbacks of including clients' relationship to Earth in body psychotherapy sessions. It will include further research from a multicultural and social justice perspective. It will include case studies to determine when the Seasonal Attunement Model is applicable and appropriate. The breadth of information on this topic highlights the need for conversation and collaboration across modalities. I hope this paper sparks further research from diverse perspectives.

The purpose of this paper was to research the hypothesis that incorporating clients' relationship to Earth increases well-being. Menakem says "Whether your body is Black, white, or otherwise, you and other members of your group need to care for yourselves, care for each other, and help one another mend and grow. You will also need to create a new culture" (2021, p. 289). There is an opportunity for a new culture to be seeded in body psychotherapy. One that not only advocates for the inseparability of body and mind, but the inseparability of body, mind and Earth. This provides opportunity for mending and growth.

Conclusion

As the field of body psychotherapy continues to expand, interdisciplinary conversations create a great weaving of wisdom. Recognizing our belonging to ourselves, each other and Earth, amplifies resilience and healing available to both clients and counselors. The Seasonal Attunement Model offers one avenue to do so. May this paper inspire further conversation, research, curiosity, and action. May we continue to advocate for a future that includes the resilience and healing of all living beings. May we support the present moment awe of a setting sun, a swimming fish, a squirming worm, and the rising moon. Our future depends on it.

■ ■ ■

Acknowledgement

The readers for this paper were acupuncturist and body psychotherapist Elena Giulini, and Dr. Shara Brun. Their support and wisdom made this research paper possible.

This paper is in honor of Sally Barrett-Page.

■ ■ ■

Chloe Barrett-Page, LPCC, LMT (she/her), *received her M.A. in Clinical Mental Health with a concentration in Somatic Counseling: Body Psychotherapy from Naropa University. She studied structural integration at Pacific Center For Bodywork and Awareness, biodynamic craniosacral therapy at Colorado School Of Energy Studies and meridian massage at Big Tree School of Natural Healing.*

Email: goldenthreadwellness@gmail.com
Website: chloebpcounseling.com

REFERENCES

Bear, S., & Wind, W. (2006). *The medicine wheel: Earth astrology*. Simon & Schuster.

Beinfield, H., & Korngold, E. (1992). *Between heaven and earth: A guide to Chinese medicine*. Ballantine Books.

Canty, J. (2023, February 28). "Returning the Self to Nature: A Conversation with Jeanine Canty, PhD". Community Practice Day, Naropa University, Boulder, CO. Lecture.

Chitty, A. (2021). Biodynamic Craniosacral Training. Colorado School Of Energy Studies, Boulder, CO. Lecture.

Daly, Tom. (2013). "4 Gateways Training". http://www.4gateways.com/

Dana, D. (2020). *Polyvagal Flip Chart: Understanding the science of safety*. W.W. Norton & Company Ltd.

Dana, D., & Porges, S. W. (2020). *Polyvagal exercises for safety and connection: 50 client-centered practices*. W.W. Norton & Company.

Ford, C. W. (1999). *Compassionate Touch: The body's role in emotional healing and recovery*. Berkeley, CA: North Atlantic Books.

Fosha, D. (2000). *The transforming power of affect: A model for Accelerated Change*. BasicBooks.

Freed, J. (2021, November 2). *Chinese medicine*. American College of Traditional Chinese Medicine. Retrieved March 5, 2023, from https://www.actcm.edu/chinese-medicine

Macy, J. (2016). *The Greening Of The Self*. Spiritual Ecology: The Cry of the Earth. (2016). United States: Golden Sufi Center.

Macy, J., & Brown, M. Y. (2014). *Coming back to life: The updated guide to the work that reconnects*. New Society Publishers.

Maté, G., & Maté, D. (2023). *The myth of normal: Trauma, illness and healing in a toxic culture*. Vintage Canada.

Matthews, C. (1989). *The elements of the celtic tradition*. Element.

Michaels, M. (2017). *Youth on fire: Birthing a generation of embodied global leaders*. Golden Bridge.

Menakem, R. (2021). *My grandmother's hands: Racialized trauma and the pathway to mending our hearts and Bodies*. Penguin Books.

Plotkin, B. (2008). *Nature and the human soul: Cultivating wholeness and community in a fragmented world*. New World Library.

Schwartz, A. (2021). *The Complex Ptsd Treatment Manual: An Integrative, mind-body approach to trauma recovery*. PESI Publishing.

Sherrell, C. (2021, May). "The Four Perspectives/Lenses". Social and Multicultural Foundations. Naropa University, Boulder, CO. Lecture given by Schall, T.; Silver, D.

Siegel, D. J. (2010). *The mindful therapist: A clinician's guide to mindsight and neural integration*. W .W. Norton & Co.

The History of Chinese Medicine. (n.d.). Traditional Chinese Medicine. Retrieved March 5, 2023, from https://www.chinahighlights.com/travelguide/chinese-medicine/history.htm

van der Kolk, B. (2015). *The body keeps the score: Mind, brain and body in the transformation of trauma*. Penguin Books.

COMPETENCES PROJECT

Body/Somatic Psychotherapy Competences: What are they?

Courtenay Young

ABSTRACT

This article is about the development of the EAP's *Project to Establish the Professional Competences of a European Psychotherapist*. It is both an invitation and a challenge to all Body Psychotherapists and Somatic Psychotherapists. It encourages readers to identify and differentiate those professional competences that are special, specific, and even unique to Body/Somatic Psychotherapy, and to the different modalities within this mainstream.

Keywords: Body Psychotherapy, Somatic Psychology/Psychotherapy, professional competences, mainstreams & modalities

Submitted: 06.10.2023
Accepted: 28.12.2023
International Body Psychotherapy Journal
The Art and Science of Somatic Praxis
Volume 22, Number 2,
Winter 2023-2024, pp. 108-119
ISSN 2169-4745 Printing, ISSN 2168-1279 Online

> ***It may be confusing at first to get one's head around this classification, but it has its logic and it is resilient.***

Background

This article is about the development of the EAP's *Project to Establish the Professional Competences of a European Psychotherapist*, which was initiated by the European Association for Psychotherapy (EAP) around 2010. The goal was, and remains, to establish an independent profession of psychotherapy in Europe that differs from the professions of psychology and psychiatry, and, without stating this overtly, with an educational Master's degree level set higher than that generally required of counselors. The method chosen by the International Standard Classification of Occupations (ISCO) [1] is to classify all different jobs or occupations by what a person in any particular job or occupation essentially ***should be able to do***. These are, therefore, the competences of that occupation. There are various definitions of "job", "occupation", "skill", "skill level", "skill specialization", etc. on the ISCO website.

1. ISCO: www.ilostat.ilo.org/resources/concepts-and-definitions/classification-occupation/

First, a brief note of clarification about the difference between *competence* and *competency*. These two words are somewhat interchangeable, although *competence* is more often used to describe a person's general ability, while *competency* is more often used to describe a person's ability to perform a certain task. In short, competence is what you can do, and competency is how well you do it. You could have competence in the sense that you can do a job, but not necessarily do it well, or have the curiosity to think about where or how else that skill could be used, or how to further develop that skill with, for example, Continuing Professional Development (CPD).

In order to establish the differences between different occupations, one has to compare their professional competences: that is, what should a psychotherapist be able to do that is different from a psychologist or a psychiatrist? This is a fairly universal distinction – domestic plumbers or electricians have different competences from industrial plumbers or electricians, and both are different from house-builders.

Given the predominance of academic psychology in the US, *psychotherapy* as a professional activity has been subsumed into psychology, family therapy, licensed social workers, and counselors, etc., and complicated by the different criteria of the many state licensing boards. To become registered or licensed in the US and Canada, one usually needs a Master's degree in psychology, plus a few years of supervised practice. In Europe, there is no such accepted standard, and while some European countries have passed laws to regulate psychotherapists, there is still no coherence, which impedes the free movement of labor between EU countries. Hence, the EAP's mission statement [2] and investment in establishing a definition of psychotherapy, and what psychotherapists should be able to do – their professional competences.

As a key for thinking about the Project, instead of asking representatives of each psychotherapy mainstream what their competences were, and then trying to find some common ground, we first looked at the Core Competences that every psychotherapist should be able to demonstrate, irrespective of their training, modality, country, or background. We found a surprising and sizable degree of coherence, and the Core Competences part of the project was completed in 2013 (Young et al., 2013). [3] This has stood the test of time and been very useful. [4] There is now a basic understanding that *psychotherapy is not a subset of psychology*, despite national laws being passed in certain European countries assigning the practice of psychotherapy only to psychologists and psychiatrists. [5]

The Project in Phase 2

After a ten-year hiatus, Phase 2 of the Project is to establish the Specific Competences of every type of psychotherapist: that is, what should, for example, a Gestalt psychotherapist be able to do that is different from a family psychotherapist, or a Body Psychotherapist? Some of these Specific Competences may overlap; for example, many psychotherapies fall within a humanistic mainstream, and thus have certain similarities. Given the different mainstreams in psychotherapy – psychodynamic, systemic, humanistic, etc. – there are significant differences between and within these. Body/Somatic Psychotherapy is now recognized within the EAP as containing enough significant modalities to constitute its own mainstream – Bioenergetic Analysis, Biosynthesis, Biodynamic Psychotherapy, Bodynamic Psychotherapy, Radix, Hakomi, neo-Reichian Character-Analytic Vegetotherapy, etc.

Thus, we have begun working on Phase 2 of the Project: establishing the *Specific Competences* of all the mainstreams and modalities of psychothera-

2. EAP Strasbourg Declaration 1990: www.europsyche.org/about-eap/documents-activities/strasbourg-declaration-on-psychotherapy
3. EAP Project to Establish the Professional Competences of a European Psychotherapist: www.psychotherapy-competency.eu
4. Author's note: The European Standard Classification of Occupations (ESCO) has already accepted, on the basis of this Project, that psychotherapy is not a simple subset of psychology: www.esco.ec.europa.eu/en/classification
5. The EAP has recently proposed a new act at the European (EU) level, which – if approved – would supersede these national laws: www.europsyche.org/about-eap/documents-activities/psychotherapy-act/ However, the EU has recently suspended all submissions for new professions.

pies. These Specific Competences are essentially below, or within, the Core Competences – if you are insufficiently competent as a professional psychotherapist, it doesn't matter how skilled you are in a particular modality or technique.

As you work through the different levels of classification, if you thought you were sufficiently well-trained to practice professionally and successfully, it is natural to feel somewhat alarmed. You may now suddenly realize that you are untrained or inexperienced in dealing with particular disorders or problems you have never before encountered. Some disorders have surfaced since you were originally trained, so it is often not a question of being insufficiently trained, or incompetent, or unprofessional. Hopefully, the philosophy of your basic training included regular supervision, CPD, a sensitivity to changing social and ethical standards, and a dedication to professional self-development. These are all necessary competences.

The Specific Competences of a Body/Somatic Psychotherapist

In 2012, three UK Body Psychotherapy colleagues, from three different though similar Body Psychotherapy training schools, wrote a very good booklet, *Body Psychotherapy Competencies*.[6] This excellent start helped clarify people's thinking about what was special, or specific, to Body Psychotherapy. Unfortunately, these competences were not sufficiently in line with EAP's Project to be included. Now, as the EAP's Project restarts – and this essentially is the *raison d'être* of this article – it becomes necessary to revisit the topic of Body Psychotherapy Competences. This might have become necessary anyway, since, as Bob Dylan sings, *The Times They Are A-Changin'*.

There has been a substantive quantum shift in the basic training of psychotherapists, and of Body Psychotherapists in particular. The first and second generations of founders are passing away, and they often taught by what I call the apprentice method – the *Learn To Do As I Do* method! Trainings, now taught by a third generation, are becoming more structured and coherent.

In the last decade, we have seen a number of significant changes in the basic attitude of Body Psychotherapy. We have gently but significantly been moving from the perspective of having a special skill or craft, to incorporating and including ourselves within the much wider framework of mainstream psychotherapy, which involves neuroscience, a greater understanding of physiology – how the body works, definitions of ethical touch, impacts of trauma – as well as adapting to the shift in mainstream psychology/psychotherapy towards a greater understanding of the role of the body in psychotherapy. All these changes have created significant shifts in awareness and in trainings.

Much more is now published in mainstream books and journal articles than existed 40 years ago. We have seen the publication of several major books on Body Psychotherapy and Somatic Psychology[7] and there have been significant developments in its philosophy and practice, as evidenced in this journal, and others.[8] As a result, the time seems ripe to take a deeper look at the Specific Competences of a Body/Somatic Psychotherapist.

I was recently involved in setting up a Somatic Psychotherapy online, post-Covid, two-year conversion training course leading to a Somatic Psychotherapist (PACFA[9]) accreditation for qualified therapists and counsellors in Australia.[10] As part of this course, it became necessary to identify what was new and different to the trainees, to their already established training, thinking, and professional practice – in other words, what was special and specific about Somatic Psychotherapy. I wanted to get them thinking, so I adapted some of the

6. Boening, M., Westland, G. & Southwell, C. (2012). *Body Psychotherapy Competencies*. This document is available as a PDF download: www.eabp.org/body-psychotherapy-competencies/
7. Marlock, G., Weiss, H., Young, C. & Soth, M. (2015). *Handbook of Body Psychotherapy & Somatic Psychology*. North Atlantic Books; Heller, M.C. (2012). *Body Psychotherapy: History, Concepts & Methods*. W.W.Norton & Co.; Body Psychotherapy Publications – a series of books edited by C. Young: www.bodypsychotherapypublications.com
8. *Body Movement & Dance in Psychotherapy*: journal published by Taylor & Francis: www.tandfonline.com/toc/tbmd20/current
9. PACFA: Psychotherapy & Counselling Federation of Australia: www.pacfa.org.au
10. Somatic Psychotherapy Australia: www.somaticpsychotherapy.asn.au

aforementioned *Body Psychotherapy Competencies* into the format of the EAP Project's structure (see Appendix 1) as an exercise to see what they came up with. And I now invite readers of this article to do something similar.

As we move down the hierarchy of occupational classifications, we find layer upon layer of differentiations. Besides the Core Competences of Phase 1 of the EAP Project, [11] there will be profound differences in the Phase 2 Specific Competences of, for example Family Psychotherapists, Gestalt Psychotherapists, Hypno-Psychotherapists, and, of course, Body Psychotherapists. There is also a further set of Phase 3, Specialist Competences that apply to different branches of the profession, or to specific client groups such as Child Psychotherapists, Forensic Psychotherapists, psychotherapists working with geriatric clients, psychotherapists working with particular populations, like refugees, or addicts, as well as the specialist competences that apply to supervisors and trainers. We must also move to consider, in Phase 4, what are the knowledge and skills needed to acquire these competences, and eventually, in Phase 5, how to apply, and ultimately assess, these in the different Body/Somatic Psychotherapy training schools.

There are, of course, fundamentally significant differences between Body/Somatic Psychotherapists and most other psychotherapists in that we consider the body to be an integral part of the person's psyche:

> *[Body/Somatic Psychotherapy] involves a different and explicit theory of mind-body functioning that takes into account the complexity of the intersections of and interactions between the body and the mind, with the common underlying assumption being that a functional unity exists between mind and body.* [12]

This perception underpins how we approach clients and their issues, and therefore how we practice professionally. The variety of Specific Body Psychotherapy Competences across the various domains therefore has to incorporate these views and, most importantly, these practices. There will be Specific Competences that are fairly generic across all modalities and methods of Body/Somatic Psychotherapy, and there will be competences specific to various modalities within Body/Somatic Psychotherapy.

The knowledge and skill to touch

One major competence relevant to many Body/Somatic Psychotherapies refers to the knowledge and skill to touch clients appropriately and ethically. In **Domain 1, Professional, Autonomous and Accountable Practice**, there is a subset, **§1.1.3: Work according to accepted professional standards**, which involves:

> … being aware of and conforming to appropriate codes of ethics and practice; working under an agreed complaints procedure; having the knowledge and understanding of how professional policies, principles and guidance are expressed and translated into action through a number of different methods; handling problems in a manner relevant and appropriate to their professional practice and to their method of practice; etc.

A Body/Somatic Psychotherapy competence might add:

> **B(S)P: 1.1.3** – be aware of, and conform to, national and state (local) regulations about the use of touch in psychotherapy.

In the UK, it was standard practice to cover this particular point by requiring that everyone acquire a nationally accepted certificate in anatomy and physiology, which also covered the basics of Swedish-type massage. In Germany, this point, as well as several others, are often covered by taking a one-year Heilpraktiker (Health Practitioner) training. Each country or state may have different regulations, and therefore the competence is to know and meet the requirements – to demonstrate competence.

There is also the issue of ethical touch, which might be dealt with by another competency – possibly in **Domain 10: Ethics and Cultural Sensibilities**. In §10.1.2, something like this could be added:

11. Outline & Process of the Project: www.psychotherapy-competency.eu/Project_Outline/process.php
12. USABP website.

§10.1.2: Apply professional and ethical guidelines: which involves being able to draw upon knowledge and apply relevant professional and ethical guidelines, codes of conduct, and practice; adhering to appropriate ethical, professional, and contractual boundaries in one's relationships with patients/clients; obtaining informed consent for interventions; safeguarding the interests of patients/clients, especially when working with other professionals, team members, and members of their family; recognizing any limits to one's own competence, skill, and experience, and engaging in appropriate training and professional development to enhance these; maintaining patient/client confidentiality, and knowing when it can be breached; ensuring one's own practice conforms to best practice; maintaining appropriate standards of personal conduct; etc.

B(S)P: 10.1.2 – be aware of, and conform to, ethical practice about the use of touch in psychotherapy.

There is often a cultural component in certain societies and countries about touch, which also has to be recognized and adapted to in order to function professionally.

In its Code of Ethics, the USABP has an excellent section on Ethical Touch (§VIII), which all its members should / must follow. [13] In this article, we are looking at the wider picture of competences for all Body/Somatic Psychotherapists, and we are not as concerned with ethical behavior, nor a therapist's touch competency.

Research

Looking at **Domain 12: Research**, a lot has been written about Body Psychotherapy research, and rightly so, as there seemed to be a serious deficiency in qualitative research within the profession. Gradually, this is resolving, and the EABP Science & Research Committee (SRC) has been hard at work to raise awareness of this aspect, which should start with students' professional training.

We have begun to list the Evidence-Base for Body Psychotherapy [14], and all members of the EABP FORUM are now instituting a new training course on Science & Research. The SRC organizes a Scientific Symposium meeting at the bi-annual EABP Congress to raise awareness and inspire members to fulfill these competences. Should there be specific mention of an additional competence for Body Psychotherapists in Domain 12? This may not be necessary.

Domain 12: Research: This means that the psychotherapist is able to demonstrate that they are aware of the need for ongoing research and development in the field of psychotherapy; that they are prepared to engage in appropriate research; and that they maintain an awareness of, and their practice is informed by, significant developments in the field of professional practice.

§12.1.1: Be aware of psychotherapy research: which involves – recognising the value of research in the systematic evaluation of psychotherapy practice; being aware of what psychotherapy research has been done and how it impacts on current practice; being aware of different research parameters and methodologies; being aware of appropriate research methods, especially for one's own modality of psychotherapy; etc.

§12.1.2: Make use of psychotherapy research: which involves – having the ability to access sources of information from a wide range of resources (books, journals, internet, etc.) that can inform one's practice; being able to evaluate research and other evidence to inform one's own practice; utilising or adapting any significant and appropriate findings to improve one's practice; changing one's practice in the light of any newly evidenced developments; etc.

What has been particularly interesting for many Body/Somatic Psychotherapists is the relatively recent development of findings in neuroscience, attachment theory, and other aspects of physiology, such as Steven Porges' Polyvagal Theory, and how these can be applied to our professional practice.

13. www.usabp.org/USABP-Code-of-Ethics
14. www.eabp.org/research/the-evidence-base-for-body-psychotherapy/

Such an interest and application means that those involved are probably fulfilling the competences in §12.1.1 and §12.1.2. We don't have to become researchers, although there may be distinct benefits in joining a Practitioner's Research Network (PRN) to maintain this interest and apply it appropriately.

The writing and publishing of case histories is another way of demonstrating one's competence in the professional practice of Body/Somatic Psychotherapy, and – as a piece of qualitative research – it also assists others in their practice.[15]

Competence specificity

Some of the potential Body/Somatic Psychotherapy competences could be seen as a bit more complicated, especially since there is wide differentiation within this particular mainstream, and between the many different Body/Somatic Psychotherapy modalities.[16] For example, I trained originally in Gerda Boyesen's Biodynamic Psychology and Psychotherapy, which incorporated a lot of Biodynamic Massage into its methodology and practice. So, we worked, sometimes within the same session, with a mixture of talk therapy, neo-Reichian vegetotherapy with clients lying on a mattress, and a specific type of massage work that was designed to rebalance the autonomic nervous system.[17]

At times, Gerda would demonstrate working with the etheric energies of people's auras, which was wonderful work, but not necessarily a required competence. However, this could be a Specific Competence of a Biodynamic Psychotherapist: *To demonstrate awareness of, and the ability to work with, non-corporeal energies* – or something similar. This competence probably would not be listed, for example, within the Specific Competences of a Bioenergetic Psychotherapist (Alexander Lowen), or Integrative Body Psychotherapist (Jack Lee Rosenberg), or Hakomi Psychotherapist (Ron Kurtz). Similarly, some of the competences of a Radix practitioner would not apply to other Body Psychotherapy modalities.

The various and different body-oriented psychotherapy modalities currently include – and this list is not inclusive, as new Body Psychotherapies 'pop up' every day – Wilhelm Reich's US-based *Orgonomy*; Alexander Lowen's *Bioenergetic Analysis*; Gerda Boyesen's *Biodynamic Psychology & Psychotherapy*; Reichian (Wilhelm Reich / Ola Raknes') *Character-Analytical Vegetotherapy*; Nick Totton & William West's *Neo-Reichian Psychotherapy*, though Nick Totton has now developed what he calls *Embodied Relational Therapy*; Chuck Kelley's *Radix* work; John Pierrakos' *Core Energetics*; Ron Kurtz's *Hakomi*; Jay Stattman's *Unitive Psychotherapy*; Lisbeth Marcher's *Bodynamic Analysis*; Ajuriaguerra's psychoanalytically-oriented *Psychomotor Therapy*; David Boadella's *Biosynthesis*; Ilana Rubenfeld's *Rubenfeld Synergy*; Malcolm Brown's *Organismic Psychotherapy*; Al Pesso's *Pesso-Boyden Psycho-Motor System*; Peter Levine's *Somatic Experiencing*; Jack Lee Rosenberg's *Integrative Body Psychotherapy*; Arnold Mindell's *Process Oriented Psychotherapy* (though this also extends outside of Body Psychotherapy); and many others. There are also other branches of body-oriented psychotherapy, like Christine Caldwell's *Moving Cycle*, and Susan Aposhyan's *Body-Mind Psychotherapy*, which have evolved from dance and movement therapies. There are, as well, many splits, amalgamations with other psychotherapies, and other variations of the above, so new Body Psychotherapies continually emerge, like Pat Ogden & Kekuni Minton's *Sensorimotor Psychotherapy* coming out of Hakomi, and Jack Painter's *Psychotherapeutic Postural Integration* incorporating Gestalt.[18]

There are currently approximately thirty different Body Psychotherapy training institute programs in Europe, all roughly at a Master's degree level, most in the EABP FORUM of Body Psychotherapy Training Institutes.[19] Only one or two are attached

15. See Young, C. (Ed.) (2018). *Body Psychotherapy Case Studies*. Body Psychotherapy Publications.
16. For an explanation of Mainstreams, Modalities and Methods in Psychotherapy: www.courtenay-young.co.uk/courtenay/articles/Mainstreams_modalities.pdf
17. For more information about this particular modality of Body Psychotherapy, see Young, C. (Ed.) (2022). *"The 'New' Collected Papers of Biodynamic Psychology, Massage & Psychotherapy: 2022."* Body Psychotherapy Publications.
18. This list is based on that in a book edited by C. Young (2014), *About the Science of Body Psychotherapy*. Body Psychotherapy Publications.
19. EABP FORUM: www.eabp.org/eabp-forum/

to a university Master's program. There are many more Body/Somatic Psychotherapy training programs in the US, including about four university Master's and Ph.D. courses in Somatic Psychology. The term *Somatic Psychology* seems more popular in the US than the variations of Body Psychotherapy, or Body-Oriented Psychotherapy, or Somatic Psychotherapy. There are also Body/Somatic Psychotherapy training programs in Israel, Australia, various South American countries, Japan, and Russia. Most of these are evolving to become significantly different from the European and American modalities.

It is wonderful to see the spread and diversity of all these, but it is also interesting to note the lack of training programs in other countries and continents. Many modalities and methods may not survive the test of time, or the passing of their founders; however, their significant differences should be apparent in any listing of the Specific Competences.

Ideally, each training organization should ascertain the competences needed for their graduates to operate competently and professionally in their country and modality. Ideally, they need to ensure that their graduates can achieve these competences. If not, they may be training people to a less-than-professional standard. This is a profoundly different perspective than the previous apprentice perspective: trainees are not only expected to succeed in their training, the training must be fit-for-purpose professional, with widely acceptable standards. Increasingly, psychotherapy trainings of four years duration need to be at a Master's degree level, and possibly registered with the educational Qualifications Framework in that country at Level 7, in conjunction with their trainees demonstrating their professional Core and Specific Competences.

Distinct from all these, within the field of bodywork or body therapy, apart from the field of traditional physiotherapy, there are thousands of different programs, trainings, and methods, various types of massage – Swedish, medical, sports, energy, aromatherapy, etc. – as well as structural, functional and movement therapies, etc. However, I do not, and many others would not, consider these proper psychotherapies – which is not to say that they may be therapeutic or competent within the limitations of their methods.

The profession of psychotherapy needs to become properly professional in Europe, as well as in other countries, and Body/Somatic Psychotherapy must be equally professional, with its Body/Somatic Psychotherapists professionally competent.

The issue of cognitive behavioral therapy

Finally, as something of an aside, there is one significant omission from these various forms of psychotherapy that is worth a mention: cognitive behavioral therapy (CBT) and its variations. They do not seem to consider themselves a proper psychotherapy, do not associate with other psychotherapies, nor do they see themselves as needing to experience their treatment. They do not require a personal therapy component in their training, as do most other psychotherapies, because since there is nothing wrong with them, they do not need therapy!

There has also been an unfortunate distortion because of their claim that CBT is the *only* evidence-based therapy and randomized controlled trials (RCTs) are the gold standard for assessing the efficacy of a therapy. This has a distorting effect on research into the efficacy and effectiveness of other psychotherapies that do not lend themselves to manualized treatments. Someone trained in applying CBT or one of its variants may be competent and professional (many indeed are), but there is no psychological skill involved, and therefore little competency. Psychotherapy is not a medical treatment to be assessed by RCTs; it is a craft or skill, scientifically-based and informed by science. It is a profession with a set of professional competences, with several mainstreams within which there are many modalities. In Europe, Body/Somatic Psychotherapy is seen as a mainstream that includes several modalities. Most of these have been through an initial process of scientific validation within the EAP. In this respect, please consider the EABP's substantial and growing *Evidence-Base for Body Psychotherapy*.[20]

20. The Evidence-Base for Body Psychotherapy: www.eabp.org/research/the-evidence-base-for-body-psychotherapy/

The parallel process is to ensure that all psychotherapists of all mainstreams and modalities are sufficiently trained in the Core Competences of the profession, as well as the Specific Competences of their various mainstreams and modalities. It may be confusing at first to get one's head around this classification, but it has its logic and it is resilient. It is the way forward.

A Call to Action

To conclude, I offer a challenge that I hope a number of Body/Somatic Psychotherapy readers will take up. Please consult the *EAP's Project to Establish the Professional Competences of a European Psychotherapist* (at www.psychotherapy-competency.eu) to see what has already been accomplished. Please consider carefully what is special or specific about what you do as a Body/Somatic Psychotherapist, over and above the general Core Competences. Is the Specific Competency limited to your particular method or modality, or do you consider it more general to all Body/Somatic Psychotherapists?

Where and how might you be able to fit in a Specific Competency, and consider if you can synthesize it into a format or language similar to the Core Competences (see Appendix 1). Your new Specific Competences can then be compiled with the contributions of other Body/Somatic Psychotherapists, and contribute to the reasonably comprehensive list of the Specific Competences of a Body/Somatic Psychotherapist.

This challenge has been extended to other mainstreams and modalities within the EAP, and all European-Wide Accrediting Organisations (EWAOs) [21] to which EABP belongs. Hopefully, within a year or so, we will be able to have a clearer view of what we all have in common as Body/Somatic Psychotherapists, and how and where we differ from others in the mainstream branch of the profession.

Note: The table in Appendix 1 is purely indicative of the ***format*** that any Specific Competences of a Body/ Somatic Psychotherapist need to be listed in. These will then be listed as subsets of the various Domains in the Core Competences: i.e. a subset of Domain 2.1 – specific to Body/ Somatic Psychotherapy. There may also be subsets specific to, say, Gestalt Psychotherapy or Existential Psychotherapy, and other modalities for Domain 2.1. Ideally, all Specific Competences need to be assigned to one of the already established Domains, but if there is no suitable Domain, then please list this separately, and the new Working Group will try to fit it in.

■ ■ ■

Courtenay Young *is a well-known UK body psychotherapist who originally trained with Gerda Boyesen and David Boadella (1979-1983) and has worked clinically for 40 years in many different settings. He has authored many articles and edited several books, including:* The Handbook of Body Psychotherapy & Somatic Psychology *(2015)*; Being in the Body: The Handbook of Biosynthesis Psychotherapy *(in press)*; *and* The 'New' Collected Papers of Biodynamic Massage & Psychotherapy *(2022). He has also edited a series of books under his own imprimatur,* Body Psychotherapy Publications*. He was the lead writer for the EAP's* Project to Establish the Professional Competences of a European Psychotherapist *(2010-2013), and is a member of both EAP's and EABP's Science & Research Committee. He is currently editor of the* International Journal of Psychotherapy*. All his articles are available to download from his personal website.*

Website: www.courtenay-young.com
Email: courtenay@courtenay-young.com
Body Psychotherapy Publications: www.bodypsychotherapypublications.com

21. EWAOs: www.europsyche.org/about-eap/european-wide-representations/ewao/

REFERENCES

Young, C. with Szyszkowitz, T., Oudijk, R., Schulthess, P. & Stabingis, A. (2013). The EAP's Project to Establish the Professional Competencies of a European Psychotherapist. *International Journal of Psychotherapy*, Vol. 17, No 2, 39-57.

Appendix 1

The Specific Competencies of a Body / Somatic Psychotherapist

2.1	**Engage with the client somatically and establish a working somatic relationship.**

2.1.1	**Communicate clearly**, which involves:			
a	Beginning the first session by inviting clients to enlarge on why they are seeking body psychotherapy, how their somatic difficulties have arisen, and what their expectations are with regard to body psychotherapy	Y	N	?
b	As the therapist is "listening" with their body, finding appropriate forms of verbal communication with the client, and also identifying non-verbal types of communication (viz: Westland, 2012)	Y	N	?
c	Looking inside themself for resonances with the other person's experience, and trying to communicate with clients about *their* experience	Y	N	?

2.1.2	**Clarifying roles and methods**, which involves:			
a	Asking clients how they think this type of somatic psychotherapy can help them and/or why they chose this type of body psychotherapy	Y	N	?
b	Exploring any factors that might limit or restrict the client's ability (physical or psychological) to engage fully with the body-oriented therapeutic process	Y	N	?
c	Defining the (somatic) psychotherapist's role and the client's contribution to the somatic relationship, as well as identifying possible issues of difference and diversity in somatic education and upbringing: culture, religion, class, race, gender preferences, etc.	Y	N	?
d	Inviting clients to speak about any previous experience of somatic psychotherapy, body-oriented therapies or practices, or somatic self-exploration, and also about the habitual use of their body (swimming, climbing, running, etc.)	Y	N	?
e	Exploring clients' capacities and particular ways of perceiving the world through and with their body	Y	N	?
f	Discovering clients' level of psychological understanding and relating appropriately to the somatic psychological level	Y	N	?
g	Exploring how early somatic experiences might have influenced them (e.g. school, accidents, hospitalization, sports, body image, sexuality, violence and abuse, neglect, etc.)	Y	N	?

h	Observing how clients make contact, and which sensory modes or "channels" of contact are dominant and/or underused	Y	N	?
i	Observing clients' bodily communications, and, when appropriate, helping them to become more aware of these; observing the congruence between their words and body language, position, affect, etc.	Y	N	?
j	Discovering what type of interventions help to provoke (arouse), and which help to calm clients, aiming to help them become more aware of these, and thus become more able to self-regulate	Y	N	?
k	Enabling clients to recognize and regulate their affect states	Y	N	?

2.1.3	**Explain how ways of working somatically**, which involves working somatically or working within Body Psychotherapy, are significantly different than other ways of working as a different type of psychotherapist. This specific competency may include:			
a	Introducing and explaining the various methods of working in body psychotherapy more fully	Y	N	?
b	Answering questions about body psychotherapy and the particular psychotherapist's style simply, clearly, and concretely; confirming and affirming that clients have a choice about any of the methods to be used, and about whether to follow the psychotherapist's suggestions	Y	N	?
c	Confirming clients' right to object to anything in the session, and subsequently adjusting interventions to be more containing, or to give more personal space	Y	N	?
d	Finding and interacting through clients' preferred modes of communication	Y	N	?
e	Explaining about the possible use of appropriate touch, the rationale and conditions for touch, different types of touch, contraindications and limitations, and also about clients' absolute choice about when, where, and how the therapist can touch	Y	N	?
f	Explaining about other possibly used methods in somatic psychotherapy, their rationale, and limitations	Y	N	?

2.2	**Manage & maintain a somatic psychotherapeutic relationship**			
a	Maintaining the working somatic psychotherapy relationship by regular reviews and discussions, relating mainly to clients' relationship with their body, the therapist's relationship with their own body, and the somatic resonance between them; this is both intrasubjective and intersubjective	Y	N	?

b	Maintaining a constant awareness of both the therapist's and clients' somatic activity, especially in the present moment; actively using nonverbal and rhythmic dynamics, such as co-regulation, attunement, synchronization, mirroring, and spontaneous moments of meeting	Y	N	?
c	Understanding any of clients' early attachment issues	Y	N	?
d	Working to help maintain clients' level of arousal within a zone of tolerance or comfort zone, especially when helping them to integrate / resolve any traumatic experiences	Y	N	?
e	Being sensitive to moments of rupture and repair in terms of client-therapist contact	Y	N	?
f	Helping clients restore and maintain the balance of their autonomic nervous system (ANS)	Y	N	?
g	Maintaining awareness of clients' boundaries and levels of tolerance, and respecting these	Y	N	?

2.3	**Manage & maintain a Somatic Psychotherapeutic relationship**. Difficulties in the Somatic Psychotherapeutic relationship can include:			
a	Somatic transference and countertransference issues	Y	N	?
b	Awareness of the link between adverse childhood experiences, ways of coping with them, and long-term consequences (www.theannainstitute.org/ACE%20Study/ACE%20Overview%20Chart.pdf);	Y	N	?
c	Awareness of institutionalized re-traumatization (https://psychrights.org/Stories/anna.html)	Y	N	?
d	Awareness of body-mind interactions and enactments in therapy room, and how to work with these	Y	N	?

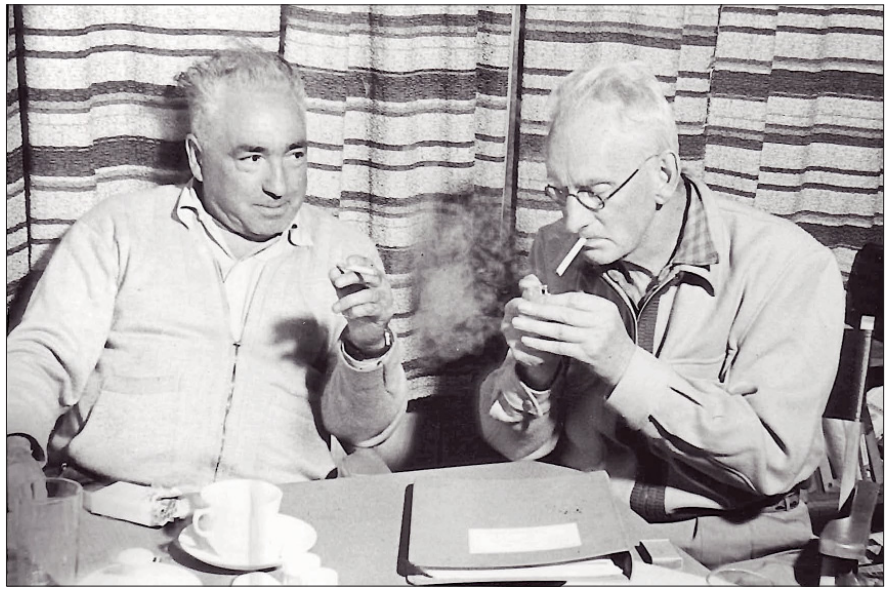
2.4	**Conclude the Somatic Psychotherapeutic Relationship**			
a	Awareness of somatic attachment issues, and how to help clients release these	Y	N	?
b	Awareness of own somatic attachment issues, and releasing these	Y	N	?

GETTING TO KNOW REICH

Wilhelm Reich and A. S. Neill

Insight into an extraordinary friendship

James E. Strick



The letters between Wilhelm Reich and A. S. Neill, founder and head of England's famous Summerhill School, are an extraordinary window into the personalities of two giants in their fields.

Neill, who had been in therapy with Reich, considered it had done him more good than years of psychoanalysis. Particularly, he felt that Reich had changed his thinking about how to work with problem children to help get their personal conflicts out of the way of their healthy growth. Reich shared his excitement about new discoveries with Neill, and spoke to him with unique warmth and deep respect. Neill was no "yes man" and could disagree with Reich, and press the argument in ways none of Reich's American students dared. In an era when relationships were sustained by typewritten letters crossing the ocean, their extraordinary lively exchange on everything from education, healthy childhood, marriage and sex life, and politics gives us an insight into the personal process of these two fascinating men.

I begin with a letter in which Reich responds to many things: for one, a claim Neill heard about Reich's new *International Journal of Sex-Economy and Orgone Research*. A psychoanalyst, John Flugel, had said to Neill:

> "... I am finding R[eich] most interesting reading. He is certainly an amazing fellow with an astonishingly wide outlook and a most useful power of synthesis. Orgone excites my curiosity a good deal. Walter Frank's article on Veg[eto-]Therapy I found particularly useful..., though I think he ought to give some credit to [Walter] Cannon who in his book [*The Wisdom of the Body* (1932)] said substantially the same things but some ten years earlier."

Reich's reply on this point was edited out of the published version for brevity. I restore it here from the original in the Reich archives because it conveys his fair-minded attitude about giving credit to others, while retaining a critical eye for the importance of his own unique contributions. But in Reich's tone throughout the letter, we can also read his respect for Neill, especially the latter's knowledge and practical experience in early childhood education. Part of this is reflected in Reich's willingness to adopt a jocular tone, kidding with Neill in a way he doesn't do with his American students – indicating he feels Neill is an equal or peer in many ways, not only a student.

In addition, we see Reich's early enthusiasm for the possibilities of the orgone energy accumulator. Yet Reich cautions, "We alone are responsible for our science" – in other words, we would be totally naïve to expect help from those threatened by it, e.g., the pharmaceutical industry or monopolized medicine.

Finally, we hear where Reich's thinking has arrived in 1942 on the question of how armoring originated. Could there be a more profound question in our age of steadily growing political reaction?

Reich to Neill, 20 July 42 (RoaF, pp. 72-74)

> "I suppose that you have received several copies of my book [*The Function of the Orgasm*] meanwhile. I would appreciate it very much if you would let me know how it was received and which suggestions have been made as to its elaboration in the second edition. You will also receive very soon the second edition of the journal which brings some excerpts from your book *The Problem Teacher*. I would like to remind you again how useful it would be to have stories from your school related in our journal. But somehow, I don't seem to be able to penetrate your armor concerning such articles.
>
> I did not hear from you in a long time. I hope that everything is all right there as far as circumstances permit.
>
> Before I left for Maine, I was visited by the vice-director of a New York State Hospital who has read the book, liked it, and suggested that I begin to apply the Orgone on patients of different types at the hospital. I don't know if something will come of it, but if it does, there will be rapid progress. By the way, did you build an Orgone Accumulator for yourself according to my description? I want you to have it. It does a really good job in building up strength and killing bad stuff in the blood. You have only to build a closet to sit in with inner metal lining and an outer wood lining and cotton or wood shavings or sawdust or earth in the space between the two linings. Such a closet can be used to fight colds, sinus troubles, flu, anemia and similar things. It is not dangerous in any way and it really helps. You may trust me, in spite of the fact that I am the inventor.
>
> By the way, when do you come over to New York? It would be a marvelous idea...
>
> P.S. I was just about to mail this letter when I received yours of July 4th. I was very glad to have it. Now to every single important point:

AS Neill and Peter Reich, 1948

"Now to your questions, which are very significant and important. You are not right that I am afraid of children. Children like me very much and I like them. But I do not know enough about children, not having worked with them and only knowing them through the reflection of my work with grown-ups."

—Wilhelm Reich

1. I am happy that you like the book. I only wonder why honesty gives one so much stomach ache in the process of production. I guess it's rational cowardice.

2. ... As to Flugel, I think his attitude is fair. I shall find out whether he is right in saying that [physiologist Walter] Cannon said, 'the same things ten years ago.' I don't know when Cannon's book [*The Wisdom of the Body*] appeared. I had it in my hands for the first time about two years ago and reading it I was struck by the fact that neither was sex mentioned at all in connection with the autonomic nervous system, that it impresses us by absence and not being mentioned in the title of the book. And that the sex-economic concept of the unitary function of antithesis and unity at the same time from the highest mental to the deepest biological function was not touched upon. Otherwise, I would have mentioned the book in *The Function of the Orgasm* as I have given credit to every single researcher whom I knew to have helped my own theory along. Besides, Flugel does not seem to realize that the "Urgegensatz" ["Basic Antithesis of Vegetative Life"] was published 1934 and written 1933, that means about 9 years ago. Besides, the sex-economic biology can by no means be compared in its functional concept with any existing physiology. In any case Müller's *Lebensnerven* does not contain an inkling of

our concept of biological pulsation. I studied the second edition of this book 1933 and it would have struck me if Cannon or someone else would have been in the neighborhood of our concept even slightly. So please, convince Flugel of my deep sincerity concerning quoting from others.

3. It is a pity that the *Orgasm* book should be reprinted in England when 3000 copies have been printed here. It would be too nice to have a second edition published soon.

4. You are completely correct in saying that we can rely on no one but ourselves, that we alone are responsible for what happens to our science. Edison would have been a fool to expect the acknowledgement of the electric bulb by the manufacturers of the gas lamps.

5. Please settle all business questions with Wolfe directly, because I have nothing to do with it. You have, of course, my consent, to have published in England whatever you wish, so long as no publisher succeeds in censoring what I have to say.

Please, dear Neill, don't fail to inform me of whatever you happen to hear from Scandinavia. Would you mind to take care of keeping up the connection with our Scandinavian friends through Elsa Backer and the address which I mentioned in the first page of this letter. Send all the books and journals you can also to Switzerland. Further on, they will find their way by themselves.

Now to your questions, which are very significant and important. You are not right that I am afraid of children. Children like me very much and I like them. But I do not know enough about children, not having worked with them and only knowing them through the reflection of my work with grown-ups. Why should I go to child biology if there are such marvelous educators as A. S. Neill, etc. who can apply orgone biophysics to children much better than I could. And b) 'Why Is Man A Moralist?' is being dictated just in these days after many sleepless nights ['The Biological Miscalculation'] and stomach convulsions which filled my wife with fear for my future and the outcome of my brain development. I have once tried to answer this question in my book *Der Einbruch der Sexualmoral* on the basis of the influence which is taken upon the human organism by socio-economic processes. Still, the answer why the human being is a moralist, i.e., afraid of the nature within himself, was unanswered. In *The Function of the Orgasm* some answer is given by working out the function of the pleasure-anxiety which is created by muscular spasms in the pelvis, on the background of historical economic processes. But still the answer is not complete. Maybe man held his breath for the first time in order to choke his orgastic feelings when the first mother, subjugated for the first time by her husband, who had been subjugated for the first time by his economic chief, in turn for the first time subjugated her child when this child masturbated. That leads up to your question, whether training alone is enough to explain sex repression. I would think yes. No wild stallion needs the assistance of any keeper. The domesticity of animals is entirely a moral training, because the natural sex function is not lived any more according to natural rules, but according to the opinion of man as to when a young horse or a young calf should be born. All things you mention, wrong food, clothing, etc. are in their last meaning nothing but evasion of nature, and of course, there can be no universal orgastic life if the rest is unnatural. And as to the value of culture 'that makes bombs, poison gas, prisons and politicians,' I believe it is destroying itself and the level of the life of the Trobriands will be back soon – and happily.

Write again, Neill, you are not only the only important European connection, but more than that, you are an honest good friend, and I am proud that you are a member of the Institute."

■ ■ ■

In another exchange, Neill complains that Reich uses too much technical terminology, and thus puts off many interested people who might actually become supporters. Reich's reply shows that by the time he's established in the U.S., he has become less interested in attracting followers if they don't have the wherewithal to do a bit of digging and educate themselves in the science that is needed to fully understand the importance of his discoveries. Here is some of that conversation.

Neill to Reich, 28 Apr. 42 (RoaF, p. 65-7)

> "My dear Reich, Number 1 of the journal [*International Journal of Sex-Economy and Orgone Research*] has arrived. I must congratulate Wolfe; it is splendid. Some of it is above my head... no layman can grasp words like parasympatheticotonia, but I feel strongly that one need not know anatomy and physiology to grasp the essentials of Vegeto-Therapy. To see them in English when I am unconscious of the language is truly delightful. Reich, the magazine is full of dynamite; it impresses more and more on me what I have long felt – that you are the only successor to Freud. You alone among them all have something new and great... makes me feel quite conceited to have 'discovered' you! ...
>
> If I have any criticism of the journal it is that it is too scientific for the layman, too much written for the specialist. Clever members of my staff read it and fail to grasp the essentials, but when I try to explain, as one who went through the treatment (partly, alas) they begin to understand the words. Your method will succeed only when it by-passes the doctors and gets understood by the ordinary people who will feel its truth without needing a professional knowledge. One psychoanalyst here when I told him about V. T. [vegeto-therapy] said airily: 'There is nothing new about it; it is all in Freud, and the Freudian analysis automatically frees all tensions.' That is the type you want to by-pass, the man with a set system."

Reich to Neill, 19 May 42 (RoaF, pp. 67-69)

> "I just received your good letter of April 28th. Wolfe and I know to begin with that the first number of the Journal will not be too easy to be grasped by the layman. But I do not think that we can avoid or that we should avoid the scientific physiological terms. You cannot do without them for they mean definite facts. I also believe that in a true democratic way we should not try to free the layman – a teacher is not quite a layman – from the responsibility to acquire a general knowledge of physiology and biology. For many years I have been trying to see how a better world could set up microscopes and charts about the body functions in public parks, instead of the foolish and useless lotteries they have now. The vegetative function of vagotonia and sympatheticotonia appears very simple if you present it in the form of an opening and closing hand. The opening is the vagotonia and the closing the sympatheticotonia."

One can hear in Reich's thought: This is real science! How can they want it to be easily digestible? Those too lazy to educate themselves a bit about the science, we don't need!

Reich respected Neill's experience, and encouraged him to write articles for the *Journal*. Here he continued:

> "I wrote you already to ask you to write an article for the third number of the journal, about practical experiences with children in the way that only you can write. We shall gladly print it. We would appreciate practical instances of how children behave, especially when they come to the school from unfree environments and how they adjust themselves to self-regulating behavior. This problem is, I believe, the most important of education and will be so in a truly free society.

My book [*The Function of the Orgasm*] is being sent this week to you in many copies. I think that the people who have not gone through the mill will understand the journal better if they have read my book, which, according to people who read it, is very easy to understand in spite of its scientific subject.

I was glad to learn that you changed from pessimism to optimism. You remember that you looked upon me as a kind of utopist when I said that the irrational in society cannot last for ever."

This is a truly remarkable aspect of Reich, the man. At times when excited about his work, new discoveries, or talented students, Reich could be effusively optimistic. At other times, he foresaw possibly being destroyed by the emotional plague, and could express profound pessimism. Rather than seeing this as a contradiction, it makes more sense as an indicator of what a remarkably *mobile energy system* Reich was. He could "swing very widely" (as he put it) in both directions, without involuntarily clamping down on the mobility.

■ ■ ■

James E. Strick *is Professor in the Department of Earth and Environment, and Chair of the Program in Science, Technology and Society at Franklin and Marshall College in Lancaster, Pennsylvania, USA. Originally trained in microbiology, and later in the history of science, Dr. Strick has published extensively on the history of ideas and experiments about the origin of life, including* Sparks of Life: Darwinism and the Victorian Debates over Spontaneous Generation *(Harvard, 2000),* Wilhelm Reich, Biologist *(Harvard, 2015) and, with Steven Dick,* The Living Universe: NASA and the Development of Astrobiology *(Rutgers, 2004). He is also the editor of two six-volume collections of primary sources:* Evolution and the Spontaneous Generation Debate *(Thoemmes, 2001) and* The Origin of Life Debate: Molecules, Cells, and Generation *(Thoemmes, 2004). Strick is currently at work on a scientific biography of Wilhelm Reich.*

BOOK REVIEW

Different Bodies

Deconstructing Normality

by Nick Totton

Roz Carroll

ABSTRACT

A review of Nick Totton's *Different Bodies* which summarizes and reflects on the contents of a ground-breaking and substantial book. It considers his in-depth arguments on the insidious nature of 'normative' values and his extensive research into other perspectives that are more enriching.

Keywords: Difference, Normative Embodiment

Nick Walker, author of *Neuroqueer Heresies* (2021), deftly describes *Different Bodies* as "a radical and beautiful emancipatory work [that] dismantles the concept of 'normal people'".[i]

The author, Nick Totton, is a prominent figure in the field of UK Body Psychotherapy. His early work, *Reichian Growthwork* (1988), co-written with Em Edmonson, is still in print, and his fascinating study of Reich's psychoanalytic roots, *The Water in the Glass: Body*

and mind in psychoanalysis (1998), was how I first discovered his work. He has written or co-written ten other books, including *Psychotherapy and Politics* (2000), *Wild Therapy* (2011), and *Embodied Relating* (2015), and edited five more, including *New Dimensions in Body Psychotherapy* (2005) and *Vital Signs: Psychological Responses to Ecological Crisis* (2012), with Mary-Jane Rust. The core themes of his work can be summarized as challenging the establishment, deepening the concept of embodiment and undomesticating therapy.

It's impossible to really summarize this book: the scope is wide and the argument quite intricate – not in the sense of being overly complicated, but rather like a Celtic knot, as befits the theme of densely interconnected issues. It is as much philological and existential as social-political, and always with a foundation in the perception, meaning, and process of embodiment in the world and in therapy.

A core strand is a relentless challenge to any discourse invested in the "them and us" strategy of making one group "normal," even by implication, and excluding others for being different. He deconstructs, as have others (Barker & Iantaffi, 2019; Carroll & Ryan, 2020; Sycamore, 2006), the very idea of "normal." Totton explains in his Introduction:

> *This book is for people, or the parts of people, who define themselves as 'normal'. The aim is to help you relinquish that label, both in relation to yourself – despite the privilege it gives you – and in general, as a supposedly helpful way of grasping the world. Like many labels, 'normal' brings into being its opposite, 'abnormal'. This happens very frequently and visibly between groups of people, but I will be arguing that it also happens within people – that very many of us have a 'normal' position within ourselves that despises, shames and persecutes other 'abnormal' parts of us* (p. 1).

Totton grasps early on the nettle of his own privilege and blindspots, as well as the "shamingly late realization about my own field of work, body psychotherapy." Throughout, he quotes widely from those on the front line of lived experience of marginalization, and from the fresh and vigorous activists and theorists articulating new and thought-provoking positions. In fact, one of the joys of this book is that, while confronting and testifying to the pain caused by the domination of a normative view, he brings into the foreground the voices of a dynamic, articulate, colorful, rebellious, and celebratory countermovement. One of these voices is Tobin Siebers, who coined the term "'temporarily able-bodied," or TAB (Siebers, 2008, p. 71), to point out that anyone can become disabled at any time. Totton uses this term by extension to refer to the "temporarily normal" (p. 5).

And so, he continues

> *My aim, in fact, is to speak to, and as a member of, the temporarily normal – the constantly shifting group of people whose bodies and bodily capacities fall, at a particular moment and in particular relevant dimensions, within the accepted category of 'normal' – and try to persuade my fellow members that we are the problem.*
>
> *We are the problem in the same crucial sense that white people are the problem in relation to skin colour, and men are the problem in relation to gender* (p. 6).

With this, the first stream in a finely wrought argument begins to flow as part of a deep enquiry into the structures that uphold pathologizing, categorization and oppression. It is profoundly searching (and researched) in its quest to unearth or unravel the linguistic, political, and behavioral strategies that construct our complex modern world. Many questions are posed throughout the book, and no easy answers offered – rather a journey with many provocations, byways, fascinating arguments, and perspectives.

Totton is sensitive to the issue of who is given a voice, and strives not to speak *for* marginalized communities, but *through* their words, citing the disability activists' slogan, "Nothing about us without us." He pays close attention to language throughout – playfully, subversively, and poetically – because "to explore new territory, one needs new language, and new language is always provisional, inconvenient, alienating, rendering both ourselves and our surroundings strange and unfamiliar – stressing us sufficiently that we see less of what we expect and more of what is actually to be seen" (p. 13). He also explains his choice of terminologies such as mainly using "skin color" and "colorism" in preference to "race" and "racism", because "race" is a construct, created by colonialism, with no grounds in biology (Quijano 2000).

The book is divided into four main sections: Making a Difference, Other-wise, Becoming Plural, and Becoming Animal. Perhaps the latter heading comes as a surprise in a book that explores race, gender, sexuality, disability, and neurodivergence. But as we shall see, it is both the logical underpinning and endpoint of a richly nuanced argument about difference, power, inequality, and the absurdity of trying to understand the world through divisions, hierarchies, and attempts at fixed order.

Making a difference

In Chapter One, Totton tackles the concept – implicit and explicit – of the *generic* body. He cites the work of British feminist journalist Caroline Criado-Perez, whose book *Invisible Bodies* exposes the data bias that reveals how practically everything is designed for men.

Conventionally "Reference Man" is Caucasian, age 25-35, able-bodied, and weighs 70Kg. It is immediately obvious that he references only a small minority of human beings, yet is the default figure for enormous bodies of data: for example, of toxicity, transport, tools, and protective gear (p. 22).

And Body Psychotherapy, he points out, has its own problem with Reference Man. Normativism has infused body psychotherapy literature, where until very, very recently – I'll cite more progressive works later – explicit attention to and exploration of difference (gender, sexuality, race, age, neurodivergence) have been lacking. And in particular, in teaching illustrations and exercises, there has been an unquestioned *assumption* of able-bodiedness in client and therapist.

In Chapter Two, Totton looks at difference, privilege, and power mainly through the lens of disability and disability activism. Drawing on the rich reservoir of "Crip theory," he outlines the insidious ways that "ablebodiedness, claiming to be the natural and normal state, in fact *creates and imposes* disability" (p. 33).

Totton strongly asserts "the need for body psychotherapy *associations and institutions*, as representatives of a profession that works directly with the painful and sometimes shattering effects of [what] Caldwell has called somaticism to take public action by [...] campaigning actively against all its forms" (p. 26).[ii] The most recent issue of *IJBP* on social justice in somatics is an inspiring example of this. The article titles speak of engagement, passion, and political aliveness: "Black girls are taught to survive," "An anti-oppressive quest to hold a body," "Disappearing act," "Neo-functionalism applied to the lived experience of a transgender person during gender affirmation," "Fanon's vision of embodied racism,", and many more. As guest editor, Karen Roller entreats us, "may this be the only time social justice is a 'special issue' for the *IBPJ*. [...] we must collectively awaken from our shared macrodissociation that interrupts our connections with each other and our planet. Breath by breath, we do this through microconnections to ourselves, each other, and the Earth" (Roller 2023, p. 14).

I think that the challenge to face intrinsic assumptions of ablebodiedness is particularly stark and poignant because many somatic pioneers – Feldenkrais, F.M. Alexander, Elsa Gindler – developed their approach as a way of dealing with their own chronic illness and serious injury. Or, like Emilie Conrad, evolved rich and subtle ways of working with the body, such as focusing on the fluid system, to support movement exploration in those with severe spinal cord injury (Conrad 2005). These important figures were not psychotherapists, but they did influence the development of embodied psychotherapies. Likewise, Arnold Beisser, the psychiatrist who fell ill with polio at 24 and was paralyzed for the rest of his life, made a significant impact (1989). As a wheelchair user, he trained in and practiced Gestalt therapy, and wrote the influential essay "The paradoxical theory of change" (1970). Another pioneer was Veronica Sherborne, who trained and worked with Rudolf Laban. For over 50 years, she worked with children with special needs, and their parents, carers, and teachers, developing the foundations of a creative relational movement approach (Sherborne, 2001).

These somatic pioneers dedicated their lives to the development of somatic work with bodies of all kinds, sharply questioning medical models of treatment. Yet critical disability theory offers the potential to take the field of Body Psychotherapy further and to properly update the foundations of our thinking by requiring that we rethink the whole way we perceive, locate, and frame relationships between those with disabilities and the society, including psychotherapists, they inhabit. This rethinking is at the heart of *Different Bodies*, and runs through all the chapters. Some of this important work has already evolved in the practice of dance movement psychotherapists working with children and adults with a wide range of disabilities (Unkovich, Butte, & Butler, 2017; Woods, 2019, Frizzell, 2023).

In the final chapter of this section, "Every body is different (differently)," Totton follows the earlier streams of his argument into the thematic river of intersectionality. He considers the huge area of layered and interrelated oppressions, including the way that "plaited into the concept of race, facilitating its use as an instrument of domination, was the identification of 'non-white' with 'disabled'" (p. 46).

Other-wise

In part two, Totton explores what he calls different 'other-wisdoms' – autism, ADHD, dyslexia, Down syndrome, and other neurodivergences, as well as Elaine Aron's concept of the highly sensitive person and Bernstein's 'borderland' personality. In a wide-ranging argument that is both subversive and subtle, he suggests that normativity has done great harm, not only in making people feel less than, but also in dampening and denying the particular gifts and capacities, and especially sensitivities, that neurodivergence covers.

Throughout the book, Totton considers the social processes underlying the biases implicit in any attempt to define what is normal. He draws on the work of Gramsci, who used the phrase cultural hegemony to describe the ability of groups in power to impose on society as a whole a worldview that comes to seem like common sense, while actually serving the interests of a particular group. Autistic people, Totton argues, challenge the normative hegemony in parallel ways to other communities of difference, demanding that the temporarily normal recognize the privilege that they would rather keep invisible (p. 98). He discusses the issue of autism diagnosis, citing C. L. Lynch, who fully demolishes the autistic spectrum concept, insisting that "a spectrum is a *line*, but autistic people form a *field*, in which each person can have a different set of skills and difficulties" (2019, p. 104).

What I like about this book is that serious – and sometimes playful – discussion leads to provocations that reverse the dominant paradigm, with questions such as: "What would it be like to take the vertiginous leap into fully embracing neurodiversity and treat *all* information processing styles as essentially differences rather than deficits?" (p. 120).

Becoming plural

This section is an exploration of gender and sexuality, of variation and liberation, of taboos and charged topics, and of people: "Breaking out of the straitjacket of binary gender – and not only by reversing gender, or even by *refusing* gender and/or sexuality entirely, but by finding wholly new, finely inflected gender identities …" (p. 134). As in other parts of the book, Totton likes to track and engage with the detail in the debate – the conflict between trans people and gender critical feminists, intersex biology, trans and autism, and the "battle of the bathrooms." This segues into the next chapter, "No-one is just one," and the fluidity that characterizes both gender and sexual practice, concluding with a "clarified, queerer and cripper version" of Reich's contribution to an embodied, pleasure-full sexuality (p. 174).

Becoming animal

In this final section, Totton articulates the deepest ground of his argument: the "final frontier is the one between the human species and the rest of life on Earth […] therefore, I am going to draw with gratitude from indigenous cultures and refer, as many of them do, to other-than-human *people*" (pp. 192, 194). He spells it out: "Other-than-human people are in a sense another, vast community of embodied difference, alongside disabled people, neurodivergent people, Black, indigenous and people of colour, and LGBTQI+ people. The issue is not that we shouldn't treat other humans as animals – animals is what we are – but that we shouldn't treat *anyone*, human or otherwise, as 'animals', in the sense that 'animal' is coded as 'someone who doesn't deserve to be cared for" (p. 205). The parallels between human abuse (including the consumption) of non-human animals, and the abuse, control, or murder of any groups of people designated as "animals" is striking.

Yet there are also juicier, regenerative, expansive, and freeing connections to be made if we humans can embrace our evolutionary heritage as animals (and, before that, fish, reptiles, unicellular organisms…). Verbal language, while enabling the development and communication of ideas, also limits our perceptions. The constraints of normalizing arise through language that categorizes, and therefore makes divisions and abstractions, which can be subject to distortion and manipulation. Yet "[e]mbodiment as we directly experience it, filtered only minimally by language and expectation, has a vast and richly multifarious quality that is in a strong sense *impersonal*: an It rather than an I, but also *plural* rather than singular" (p. 212). Here, with this word "plural," is one of those felicitous knots that join up different strands of argument in a core theme.

Totton reminds us that an approach that tracks shifts in embodied relating, that can be playful, that is always open to collaborative negotiation, and that gives space to the wild is both vital and vitalizing. The book concludes by advocating a community of care that is mutual and collective, including all humans, animals, rocks, plants, air, water – that "exist only in a web of living co-vulnerabilities" (De la Bellacasa, 2017, p. 145).

Part Four of *Different Bodies* is a tour de force, weaving ideas from anthropology, biology, disability theory, eco-activism, ethology, feminism, philosophy, physics, post-colonial thinking, comparative race studies, and literature. This sounds daunting, but

Totton does have a gift for taking academic discussion and making it accessible. What comes across is his passion to illuminate and express the possibilities of new interdisciplinary perceptions and reframings, taking us forward in a quantum leap of consciousness. These ideas are mind-bending: stretching and reorganizing the coordinates of the working assumptions of Western linear, materialist thought. I found myself excited and hopeful about the potential for a more expansive sense of kinship, and multiple new relational possibilities, in a world that – if we can co-create, re-create, and radically revise it – is more fluid, flexible, freer, fairer.

This is a very differently structured and focused book to those anthologies that, like Don Hanlon Johnson's *Diverse Bodies*, or Caldwell and Leighton's *Oppression and The Body*, offer chapters where each author explores and articulates a particular intersectional perspective. There is minimal case material as such; the multiple voices quoted are largely activist/theorists. The sections on "Implications for Therapy" are broad-brush, inviting rigorous self-excavation of our assumptions as therapist, and encouraging curiosity and non-defensiveness. For more concretely illustrated and step-by-step therapeutic journeys of working with difference, the works of Rae Johnson (whom Totton recognizes as a pathbreaking voice in Body Psychotherapy, along with Caldwell and Leighton) and Resmaa Menakem's *My Grandmother's Hands*, are recent highly valued contributions.

By growing down into contact through heart and gut, finding roots, interconnecting, and growing up into rigorous self-reflection and openness to further and further education, Totton's book invites us all to be humbled, challenged and inspired.

Roz Carroll *is a registered body psychotherapist (UKCP). She taught in the MA in Integrative Psychotherapy at the Minster Centre for 14 years, at The Bowlby Centre for seven years, and has been a regular speaker at Confer for 20 years. She is co-editor with Jane Ryan of* What is normal? Psychotherapists Explore the Question *(2020) London: Confer. She was a founding editor of the* Journal of Dance Movement and Body in Psychotherapy. *Her numerous writings include chapters in* Embodied Approaches to Supervision, *(Eds.) C. Butte & T. Colbert (2022), and* Talking Bodies, *(Ed.), K. White (2014).*

Email: rozcarroll.thinkbody@gmail.com

ENDNOTES

i. Endorsement, front inside cover of *Different Bodies*.
ii. Defined as making "particular bodies wrong" (Caldwell 2018, p. 36).

REFERENCES

Barker, M.-J., & Iantaffi, A. (2019). *Life isn't binary*. London: Jessica Kingsley.

Beisser, A. R. (1989). *Flying without wings: Personal reflections on being disabled*. New York: Doubleday.

Beisser, A. (1970). The paradoxical theory of change in Fagan & Shepherd (Eds.) *Gestalt therapy now*. The Gestalt Journal Press.

Caldwell, C. (2018). 'Body identity development: Who we are and who we become'. In C. Caldwell & L. B. Leighton (Eds.), *Oppression and the body* (pp. 31-50). Berkeley: North Atlantic Books.

Caldwell, C., & Leighton, L. B. (Eds.) (2018). *Oppression and the body*. Berkeley: North Atlantic Books.

Carroll, R., & Ryan, J. (Eds.) (2020). *What is normal? Psychotherapists discuss the question*. London: Confer Publications.

Conrad, E. (2005). Continuum Movement in Totton, N. (Ed.) *New dimensions in body psychotherapy*. Oxford University Press.

Criado-Perez, C. (2019). *Invisible women: Data bias in a world designed by men*. New York: Abrams Books.

De la Bellacasa, M. P. (2017). *Matters of care: Speculative ethics in more than human worlds*. University of Minnesota Press.

Frizzell, C. (2023). *Posthuman possibilities of dance movement psychotherapy: Moving through ecofeminist and new materialist entanglements of differently enabled bodies in research*. Abingdon: Routledge.

Johnson, D. H. (Ed.) (2018). *Diverse bodies, diverse practices: Toward an inclusive somatics*. Berkeley: North Atlantic Books.

Lynch, C. L. (2019, May 4). 'Autism is a spectrum' doesn't mean what you think. *Neuroclastic*. https://neuroclastic.com/its-a-spectrum-doesnt-mean-what-you-think/

Menakem, R. (2017). *My grandmother's hands: Racialized trauma and the pathways to mending our hearts and bodies*. Las Vegas: Central Recovery Press.

Quijano, A. (2000). Coloniality of power and Eurocentrism in Latin America. *Nepantla: Views from the South*, 1(3), 533-580.

Roller, K. (2023). Editorial: Microconnections. *International body psychotherapy journal*, 22(1), 12-14.

Sherborne, V. (2001). *Developmental movement*. London: Worth Publishing.

Siebers, T. (2008). *Disability theory*. University of Michigan Press.

Sycamore, M. B. (2006). *Nobody passes: Rejecting the rules of gender and conformity*. Berkeley, CA: Seal Press.

Totton, N. (2000). *Psychotherapy and politics*. London: Sage Publications.

Totton, N. (1998). *The water in the glass: Body and mind in psychoanalysis*. London: Rebus Press.

Totton, N. (2015). *Embodied relating: The ground of psychotherapy*. London: Karnac.

Totton, N. (2011). *Wild therapy: Rewilding inner and outer worlds*. Ross-on-Wye: PCCS Books.

Totton, N., & Edmondson, E. (1988). *Reichian growth work: Melting the blocks to life and love* (1st ed.). Prism Press.

Totton, N. (Ed.) (2005). *New dimensions in body psychotherapy*. Oxford University Press.

Totton, N., & Rust, M.-J. (Eds.) (2012). *Vital signs: Psychological responses to ecological crisis*. London: Karnac.

Unkovich, Butte, & Butler (Eds.) (2017). *Dance movement psychotherapy with people with learning disabilities*. Abingdon: Routledge.

Walker, N. (2021). *Neuroqueer heresies: Notes on the neurodiversity paradigm, autistic empowerment, and postnormal possibilities*. Fort Worth, TX: Autonomous Press.

Woods, A. A. (2019). *Dance/movement therapy (DMT) for individuals with physical and intellectual disabilities*. Independently Published.

BOOK REVIEW

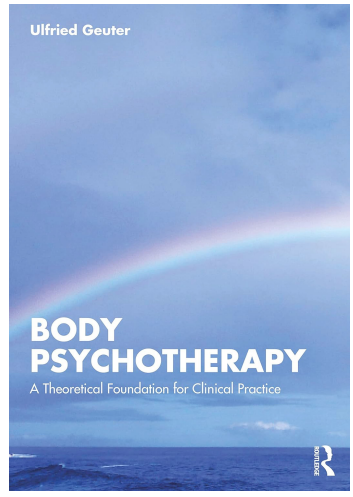
Body Psychotherapy

A Theoretical Foundation for Clinical Practice

by Ulfried Geuter

Translated by Elizabeth Marshall

Christopher Walling



Ulfried Geuter's new English translation of *Body Psychotherapy: A Theoretical Foundation for Clinical Practice* is a book with a legacy of its own. Geuter opens his new text by sharing the remarkable history of how this translation marks the second edition of the book, first published in German in 2015, and now the revised English version in 2023. In his ambitious attempt to find "a common ground" for all the various body psychotherapy schools, Geuter reports that his hope for this contribution to the field was to write for psychotherapists of every orientation, and for students in the profession. I am happy to report that he has succeeded, for I adopted the textbook for my graduate students in advanced somatic psychotherapy theory and techniques at the California Institute of Integral Studies just this year, and we are ever grateful both to him and for the experience of the German Association for Body Psychotherapy (DGK) that helped make the textbook available now for an English-speaking audience. Geuter acknowledged further that the European Association for Body Psychotherapy and the Wilhelm Reich Foundation sponsored the translation along with the DGK.

The book begins by tracing the origins of body psychotherapy to three historical traditions: what he calls "critical psychoanalysis" (Reichian), body education and bodywork methods (from reform gymnastics and expressive dance), and experiential body psychotherapy (from the human potential movement and humanistic psychotherapies).

These traditions underscore the focus on the patient's inner life, embodied experience, and the therapeutic relationship. It then delves into defining body psychotherapy, and differentiating it from related fields such as body-oriented, body-centered, sensorimotor, somatic, body-mind, and body mind psychotherapy. Geuter notes that he prefers the term *Body Psychotherapy* for its international recognition and its emphasis on treating patients through both bodily and psychological means – though of course we use the term *Somatic Psychotherapy* now in North America, given its more inclusive connotations. He debates the use of the term soma, or Lieb in German (living body), arguing that it is an unnecessary iteration. However, I think it's important for Geuter to further explore how somatics as a discipline, particularly in the United States, has led to many traditions that work not just with the "bodily means or various states and tensions," but that also see the living body or soma as an epistemology of its own, not merely a therapy with bodily and psychological means, but a form of knowledge production equally valid to objective, subjective, or intersubjective phenomenology.

Geuter spends time exploring the "quest for natural aliveness" throughout subsequent chapters, and the legacy of the many schools in our global history of body psychotherapy. While it's perhaps impossible at this point to compile a list of schools that is truly exhaustive and thorough, he does cover many of the more historical traditions from recent generations in Europe and the United States. There was not, however, acknowledgement of the many indigenous systems of somatic healing that permeate throughout the Americas that incorporate touch, dance, and movement as psychological healing systems. Nor was there mention of subaltern methods in research that would have given a multicultural inclusion to the lineages section. Also, sadly it did not appear that Geuter was aware there are now only two remaining university programs granting accredited degrees to clinicians in somatic psychology here in the United States: the California Institute of Integral Studies, and the Naropa Institute.

The real synthesis of Geuter's text comes in the central chapters on memory, emotions, child development, and working with affect. He has worked hard throughout his career to synthesize a multi-method framework that allows for maximum inclusivity of the research to date, while looking for common factors that touch across our rich traditions and techniques. I was particularly impressed with his summary of how to best work with what he calls the various "channels" of communication (movement, posture, gestures, facial expressions, prosody, and proxemics). He also spends a whole chapter on working with the dimensions of transference and countertransference – a refreshing read for a relational-somatic psychoanalyst like yours truly.

With his appreciation of the intersubjective turn in body psychotherapy, and his dedication to creating a theoretical consideration of the body experienced in psychotherapy, he has managed to offer in this second edition a wonderful textbook for academics and psychotherapists alike to appreciate the rich summaries of how an experienced-based embodied system of theory and technique can help advance any psychological system when the body is taken up as an essential component of the therapeutic action in process.

Where I and many clinicians will differ with Ulfried, however, is how he ends the book with a chapter opining on whether body psychotherapy should be integrated with other psychotherapies, or remain autonomous. He states:

> "Body psychotherapy brings to this integration a perspective that is generally lacking in other approaches: our understanding of body experience as the foundation for self-experience, the bodily aspects of core processes of affective regulation, the anchoring of memory, the emotions and the schemas of experience and behavior in the body, the developing of schemas in bodily interaction, the understanding of

> how human beings communicate implicitly from body to body and the appreciation of therapy as a resonant, embodied encounter. What distinguishes it from other approaches is its 'holistic perspective, oriented toward the systemic wholeness of subjective experience, in which the psychic dimension of human experience and the bodily dimension of lived experience are equally appreciate' (Marlock & Weiss, 2015, p. 11)." (Geuter, p. 373-374)

As a professor of Somatic Psychology, I must confess I wish we could lay claim to all these features of our clinical methods exclusively, but sadly we cannot. It is simply not true that we are the only psychotherapy that sees bodily experience as the foundation for self-experience. We share this with much of relational psychoanalysis today, with its emphasis upon early infant development, the skin ego, and the bodily ego as primary processes involved in our psychic development. We also cannot lay claim to the bodily aspects of core processes of affect regulation, working with procedural memories, core emotions, and other schemas of experience in the body, as countless psychotherapies now in humanistic and psychodynamic traditions leverage advances from affective neuroscience to do much of the same. In recent studies we have conducted at the Traumatic Stress Research Consortium surveying body psychotherapists throughout the world, we have in fact discovered most of our representative samples are in fact integrationists – often practicing two or more modalities along with body psychotherapy. Body psychotherapists in practice are integral psychotherapists, according to the survey research.

Where I do agree, however, is that what distinguishes ours from other approaches is our emphasis upon a holistic perspective – a dynamic wholeness that body psychotherapy does seem to preserve that is often absent from many other schools of psychotherapy: a mind-body unity in both theory and praxis. This, I think, is because we have always been "experience-near" in our clinical work since the days of Reich, and have never forgotten the potency of shared affective experiences that can be felt between us, rather than just analyzed or interpreted away. Body/somatic psychotherapists have simply been ahead of the affective curve in our methods before other psychotherapies caught on. But with each passing decade, we have more in common with other psychoanalytic, psychodynamic, and humanistic approaches than we have differences. The body is here to stay in depth-oriented psychotherapies, and hopefully we can deliver on Ulfried's hope to welcome all students and therapies into the embodied fold as they now contribute with us to advances in helping create a more embodied, liberated, and healthy world.

■ ■ ■

Chris Walling, PsyD, MBA, FABP *is a licensed clinical psychologist, board-certified psychoanalyst, and an active leader in the bio-behavioral sciences. Dr. Walling is an Associate Professor in the School of Professional Psychology & Health at the California Institute of Integral Studies, and Research Chair & Past-President of the United States Association for Body Psychotherapy. He is a Fellow of the American Board of Psychoanalysis and a member of the New Center for Psychoanalysis, where he serves as Faculty in the Adult Psychoanalytic Training program and a member of their Education Committee & Diversities Committee. Dr. Walling also serves on the American Psychoanalytic Association's Committee on Gender & Sexuality. As a Clinical Research Fellow at Kinsey Institute for Research on Sex, Gender, and Reproduction located at Indiana University Bloomington, he serves on their International Advisory Council. His clinical interests survey the fields of somatic psychotherapy, relational psychoanalysis, human sexuality, and trauma psychology. His peer-reviewed works are published in the American Psychological Association's* Journal of Psychotherapy *and the* International Body Psychotherapy Journal*. Dr. Walling maintains a private practice in Brentwood (Los Angeles), California.*

REFERENCES

Geuter, U. (2023). *Body psychotherapy: A theoretical foundation for clinical practice* (pp. 373–374). Taylor and Francis. Kindle Edition.

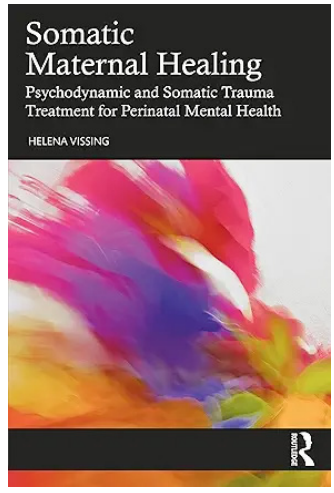
BOOK REVIEW

Somatic Maternal Healing

Psychodynamic and Somatic Trauma Treatment for Perinatal Mental Health

by Helena Vissing

Kate White



At the outset of a review of *Somatic Maternal Healing*, I want to say, *Finally*! Finally, books about somatic trauma healing in the prenatal and perinatal field are being published. Helena Vissing, PsyD, SEP, PMH-C has written a holistic text that combines psychodynamic approaches to understanding a woman's transition into being mother, especially the biospsychosocial aspects and identity, and the bodily-felt sense approach to working with healing trauma in the prenatal and perinatal period.

The book is divided into two parts. Part 1 consists of five chapters describing the need for a somatic and psychodynamic approach to helping women with prenatal and perinatal trauma. Part 2 consists of five chapters presenting the clinical approaches and skills associated with the approach Vissing previously describes. Her text blends cultural, societal, psychological, and physical factors that play a role in the confusion and trauma women experience when they cross the maternal threshold. She writes, in the very first sentence in the introduction:

> When I became a mother in the early Spring of 2012, it felt like I walked through a big, heavy door that then slammed shut behind me. This isn't only a metaphor for my emotional experience of my transition to motherhood; it was also a physical experience. (p. 1)

Many women report feeling traumatized as they cross this threshold. Current data report that as many as 45% of new mothers in the United States experience traumatic births, with these impacts lasting long after the birth itself (March of Dimes, 2024). Women who need help to integrate these experiences are often caught between the fact that many practitioners are not trained to help with traumatic birth, and the possibility of feeling inadequate or even stigmatized as having postpartum mood disorders when they are having natural and normal responses to overwhelming events. Vissing further spends chapters exploring the biopsychosocial clinical practices that aid practitioners and families to help women make sense of their experiences. She outlines the need for her framework because there is so much confusion about what birthing parents are experiencing: Could it be postpartum mood distress as defined in the literature, or could it be a trauma response? Could it be that parents are having a hard time with unrealistic expectations of themselves, and from culture and society? Or could it be from layers of trauma from the parents' experience, such that they have no reference about how to be with and parent a newborn? Vissing addresses all these questions in her book, as well as skills for practitioners to consider.

Part 1 offers conceptual frameworks and a review of literature important for her holistic message. The book opens with definitions of trauma, stress, and trauma-informed approaches. Having spent a lot of time reading the data about prenatal and perinatal trauma, I know that professionals need to address post-traumatic stress disorder (PTSD). We need to affirm the challenge in childbirth. Many times, the traumatic stories that we hear may not fall into the category of post-traumatic stress, but need still need to be addressed. For the new provider seeking guidance, professionals need to review the diagnostic elements for PTSD, as well as other elements connected to the overwhelming feelings that occur prenatally, during birth, and after birth. A provider who cares for families who have had difficult births encounters many layers of experience, including early childhood trauma or trauma in the parent, discrimination and racism, a challenging conception, overwhelming pregnancy, traumatic birth, challenges after birth, such as breastfeeding trauma or neonatal intensive care stays, or postpartum illnesses. We have trauma-informed principles from proven fields such as substance abuse, and other psychological approaches that we can apply to the maternal field (see pp. 46-47).

Vissing also addresses the ways society and culture can undermine a new mother (Chapters 1 and 3). Using feminist theory, cultural and critical analysis, and clinical co-regulatory approaches, Vissing weaves a theoretical cloth for her somatic and therapeutic skills outlined in Part 2. In particular, she uses the concept of "bodyless mothering" and body insecurity. Many women have challenges making an easy transition to being a mother when they have had a traumatic prenatal and perinatal experience. Vissing pulls from the work of Christine Caldwell and her concept of bodylessness, which she identifies as "ignoring the body, seeing the body as an object or project, hating the body, and making one's own or other's bodies wrong" (pp. 69-70). Women will often blame their bodies and themselves for their difficult experience, and suffer silently. They apologize for their bodies, feel betrayed by them, feel like they have failed, and then feel disempowered in their role as mother of their baby. Vissing writes that often the provider is treating two raw nervous systems in the room, the mother and the baby, and the way they are with each other. Our job as providers is to help the more mature nervous system heal, and then come into relationship with her baby to help soothe and regulate, thus creating a template for secure attachment. This "intersubjectivity" is part of the psychoanalytical tools Vissing provides, as well as just the subjectivity of the maternal body.

She provides a counter to *bodylessness* with *bodyfullness*, outlined in Chapter 3, both concepts from Christine Caldwell (2018). Trends in helping women make the leap to moth-

erhood include matricentic feminism. Vissing makes the case that we need to restore a woman's identity by relieving motherhood of patriarchal oppression, a central tenet of matricentric feminism. She pulls from the analytic writing of Andrea O'Reilly in particular (2007, 2019, 2020, 2021). Vissing's writing calls for a cultural and societal resistance to bodylessness and patriarchal definitions of the mother through bodyfullness. She says, "[P]artriarchal motherhood turns women into bodies that birth instead of full subjective who have their identity transformed in a developmental and embodied sense by becoming mothers" (p. 105). She again pulls from Caldwell's work and her concept of bodyfullness as the practice of sensory awareness, or feeling in the body, and enlivening a new story of the maternal body. Further, she states: "Experiencing the new maternal body is a sensory experience, but it must be integrated and made sense of through responsiveness towards and reflection on these new sensations, which is the essence of bodyfulness" (p. 107). A new maternal self is born, one that feels empowered and can then mother her baby.

These chapters in Part 1 accompany two chapters on somatic trauma theory and perinatal moods to help bring the reader into a state of readiness for the skills in Part 2. Sensory awareness is a necessary step in the somatic healing process. The therapeutic and medical consumer communities are aware of how the "body keeps the score" (van der Kolk, 2015). Vissing describes the body-based healing approaches employed by Peter Levine in his development of Somatic Experiencing®. Body-based psychotherapy was developed from a relational psychodynamic approach, but Vissing also says that the somatic approach grew from "... significant advances in the neuroscientific fields of interpersonal neurobiology, affect regulation theory and traumatology" (p. 116). In her final chapter of Part 1, Vissing describes the bottom-up approach to trauma treatment, making the case for the somatic approach for maternal healing. She further combines this approach with descriptions of the risks and vulnerabilities of the prenatal and perinatal period.

Part 2 describes the principles, treatment goals, and key clinical skills of maternal somatic healing. Vissing calls for a blending of feminist principles from matricentric work to help with the mother's new identity. She further combines this with somatic psychology to empower the mother, help her craft a new narrative of her experience, regulate her nervous system (and that of her baby), and also give the provider a basis for clinical skills. The chapters define the psychological, biological, and social approaches to healing. For a shortcut to understanding Vissing's message, see the introduction to Part 2. There, she outlines her approach and defines key clinical skills:

1. Ability to identify and track own patterns of nervous system activation.
2. Ability to identify and track clients' patterns of nervous system activation.
3. Familiarity with the particular forms of nervous system upheaval and dysregulation of the maternal transition.
4. Ability to actively use own somatic countertransference to deepen the therapeutic relationship, using knowledge about the landscape of the perinatal nervous system patterns and one's personal somatic biases.
5. Sensitivity to the client's verbal and nonverbal expressions of resisting (or seeking to resist) patriarchal motherhood, and claiming the embodied maternal subjectivity. (p. 144)

Chapters 5 through 8 provide a satisfying exploration of clinical skills the provider needs to help with somatic maternity healing. Vissing is Somatic Experiencing®-trained, so the chapters describe the sensory skills needed to help with bottom-up healing. It is particularly satisfying that she emphasizes that the perinatal therapist needs to be proficient in tracking their own somatic reactions, and their own somatic histories. She says:

> "One of the most important forms of support in the perinatal period is to experience somatic attunement … We must offer the new mother an experience of being received on a bodily level, meaning that the wildness of her maternal transition is fully received, and not defended against, by the therapist. In this way, we listen to her in her raw embodied state, with our body" (p. 148).

Resonance is one of the dominant tools described by Vissing. By feeling our client's visceral, body-felt state and reflecting that, the mother can then feel heard. Citing Peter Levine (2010) and Raja Selvam (2022), two somatic therapists and instructors, Vissing states, "Resonance is the therapist's powerful instrument for attunement and connecting, indeed the basis of intimate relationships" (p. 150). Our own bodies become an important tool in the space. This resonance combines with presence in the provider to help the new mother, facilitating the feeling of being held, felt, heard, and understood; the huge ruptures that accompany birth trauma can then be repaired. A woman will often carry the trauma of her birth her whole life. This kind of repair is sacred, life-giving work for the parent, baby, family, and future generations. Vissing addresses the tools of co-regulation and the mother-baby relationship, grief, and shame. She assists the therapist in orienting to their own self-regulation as a practice, and supports countertransference as a tool in the therapeutic relationship.

Vissing completes her book with case studies and specific ways that the clinician can work with somatic maternity healing. Of particular use is the specific application of skills, tools, and even mastery of words and phrases for the clinician. The reader can glean skills, sensation words, overarching steps, and specific applications. The relational therapeutic field is seen as a development of a new nervous system in the parent, parent-baby, and family. Her model of somatic maternal healing is seen on page 207, building as nesting concentric rings in this cascading order:

- Stabilizing and safety
- Increase affect tolerance with sensory awareness
- Build internal and external resources through bodyfulness
- Gradual integration of traumatic memories
- Expansion and integration

Vissing states that "the essence of trauma healing lies in the restoration of a sense of aliveness and a reconnection to full-body awareness," (p. 208) (Levine, 2010; Selvam, 2022). Vissing applies this to the maternal landscape, those very important neurodevelopmental moments of pregnancy, birth, and after birth that we ALL are impacted by. We are all born to mothers.

The completion of *Somatic Maternal Healing* includes the importance of psychoeducation and neurobiology for the clinician and the new mother. We know that trauma creates inflammation. We can help our world become more sensitive to the needs of mothers and their babies. Vissing provides specific treatment goals, descriptions, and objectives for psychoeducation.

I have spent the last two decades developing preventive tools and treatment options for birthing families who have experienced birth trauma. I know it is difficult territory. Birth trauma is not like other traumas; it has many layers, multiple plains of experience, and more than one person involved. In fact, it often has deep intergenerational or transgenerational layers. *Finally*, we are seeing books, articles, and trainings dedicated to this vital neurodevelopment threshold for humankind.

■ ■ ■

Kate White *is an award-winning educator and an advanced bodyworker. She is trained in somatic therapies, prenatal and perinatal somatic health, lactation, brain development, infant mental health, and has specialized in parent-baby dyad care using somatic prevention and trauma healing approaches for nearly 25 years. She is a mother of two children, holds a BA and MA in Communication, is a Registered Craniosacral Therapist in the Biodynamic Craniosacral method and a Somatic Experiencing® Practitioner. Her work combines somatic trauma healing, energetic therapies, bodywork, pediatric therapies and education about the nervous system to help give families with babies and small children the best possible start. She is Founding Director of Education for the Association for Prenatal and Perinatal Psychology and Health where from 2013-2019 she created and ran the Prenatal and Perinatal Educator Certificate program, a large online educational program for professionals. She went on to found* Prenatal and Perinatal Healing Online *and the* Prenatal and Perinatal Somatics Institute*. She teaches classes online and in person, and offers a training called* Integrated Prenatal and Perinatal Dynamics*. She has a private practice in Charlottesville, VA called Belvedere Integrated Healing Arts (belvederearts.com) and offers her own seminars through the Center for Prenatal and Perinatal Programs.*

Email: ppncenter@gmail.com

REFERENCES

Caldwell, C. (2018). *Bodyfullness. Somatic practices for presence, empowerment, and waking up in this life*. Shambala.

Levine, P. (2010). *In an unspoken voice: How the body releases trauma and restores goodness*. North Atlantic Books.

March of Dimes. (2024, January 14). The toll of birth trauma on your health. Downloaded from https://www.marchofdimes.org/find-support/topics/postpartum/toll-birth-trauma-your-health

O'Reilly, A. (2007). Feminist mothering. In A. O'Reilly (Ed.) *Maternal theory. Essential readings* (pp. 792-821). Demeter Press.

O'Reilly, A. (2019). Matricentric feminism: A feminism for mothers. *Journal of the Motherhood Initiative for Research and Community Involvement*, 10(1/2). Retrieved from https://jarm.joiurnals.yorku.ca/index.php/jarm/article/view/405551/

O'Reilly, A. (2020). Maternal theory: Patriarch motherhood and empowered mothering. In L. O'Brien Hallstein, A. O'Reilly, & M. Giles (Eds). *The Routledge companion to motherhood* (pp. 19-35). Routledge. 10.4324/978135167848

O'Reilly, A. (2021). *Matricentric feminism: Theory, activism, practice*. The 2nd Edition. Demeter Press. 10.2301/j/ctv1k2j.ctv1k2j331

Selvam, R. (2022). *The practice of embodying emotions: A guide for improving cognitive, emotional, and behavioral outcomes*. North Atlantic Books.

van der Kolk, B. (2015). *The body keeps the score: Brain, mind, and body in the healing of trauma*. Penguin Publishing.

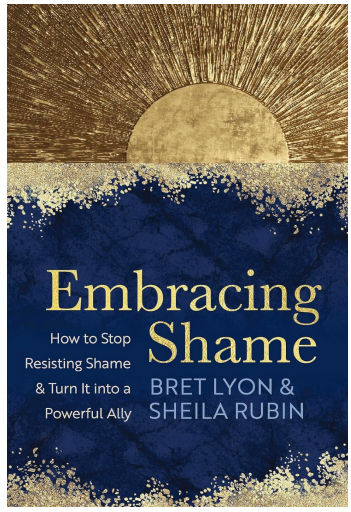
BOOK REVIEW

Embracing Shame

How to Stop Resisting Shame & Turn It Into a Powerful Ally

by Bret Lyon & Sheila Rubin

Beverley De Witt-Moylan



Shame is a word that on its own evokes somatic reactions such as changes in breath and heart rate, uncomfortable sensations in the viscera, tightening in the throat, impulses to shift or avert the gaze, and postural freeze. Ranging from barely perceptible to notable, and even disturbing in the bodymind, our reflexive shame responses can cause us to "shrink physically and mentally" (Lyon & Rubin, 2023, p. 8).

Babette Rothschild acknowledges that shame is "... a terrible emotion, because it is so awful to feel," but "... like every other affect has a survival value" (Rothschild, 2000, p. 63).

As a social emotion, shame's constructive function helps shield a group from adverse outcomes from an individual member's potential antisocial behavior. Evolving from a time when being cut off from one's tribe meant certain death, shame strengthened the social order in support of group survival by carrying the existential threat of exile for indefensible transgressions.

A potent tool of control in childrearing and education, the predictable freeze state resulting from chronic shaming becomes entwined with trauma in developmental dynamics of the past that can hold us prisoner there, and prevent us from fully experiencing or expressing competency as adults in the present.

"Shame is not just a feeling; it's a major factor in determining who we are." (Lyon & Rubin, 2023, p. 192)

Though shame and trauma seem inextricably linked as freeze states, in trauma the threat is to survival. Shame's inherent threat is to connection. As a result, shame does not relax its relentless hold on the bodymind through the same somatic techniques that effectively discharge trauma's survival energies and lead to healing.

Enter Bret Lyon and Sheila Rubin. With techniques refined through decades of research, training, exploration, and experience, their approach reflects the belief that "[t]he most intense moment of the trauma experience is actually a moment of shame" (Lyon & Rubin, 2023, p. 30). They describe shame as an "embodied cognition," pointing out that shame has a strong cognitive component – a thought that says, "There is something wrong with me. I am flawed."

Having originally gathered their life's work into their 2021 Sounds True audiobook, *Healing Shame*, they now offer *Embracing Shame*, a handbook brilliant in its simplicity and accessibility, available in print with an audio option. The concepts they have researched, tested, expanded upon, and taught, along with their self-directed exercises, are a resource for both professionals and laypeople.

Bret and Sheila's decades of investigation and practice substantiate what they have taken to heart, that "acceptance and contact appear to be keys in relieving shame ... it does seem to dissipate under very special circumstances – the nonjudgmental, accepting contact of another human being" (Rothschild, 2000, p. 62).

With the warmth and positive regard that infuse their classes, Bret and Sheila have achieved a masterful collaboration in *Embracing Shame*, as together they become the voice of the "Kind Inner Coach" at the heart of their method, delivering the poignantly transformative message "You are not alone" (Lyon & Rubin, 2023, p. 150).

Their work clarifies the concepts of *healthy shame* vs. *toxic shame*, reinforcing the core belief that shame has intrinsic social value for survival of the species, while acknowledging the message carried by corrosive shame: "There's something wrong with me." Shame can adversely affect every aspect of a person's life until addressed with compassion, kindness, and humor, "gently, gently," in Sheila's signature phrase.

Bret and Sheila's complementary personal styles and approaches blend seamlessly in an accessible handbook for transforming an inescapably universal human condition. Through gentle guidance and practical exercises, they provide what we did not receive as children: the operating instructions to understand and manage the gift of shame, which helps ensure our survival as a social species.

Their insightful candor smoothly steers the reader through a range of topics, from basic definitions of shame to the science of Polyvagal Theory (Porges, 2011) and beyond, all of them relatable and relevant.

Moshe Feldenkrais, father of the *Awareness Through Movement®* somatic method, whose work influenced Bret and Sheila, was fond of saying, "You can't do what you want until you know what you are doing." Toxic shame operates in the shadows and often below our awareness, controlling our interactions, inhibiting our relationships, and thwarting our potential.

The authors offer a clear-eyed assessment of the real-world damage to our relationships when we fail to recognize the subversive role toxic shame plays in the development of our coping strategies. They show how toxic shame wears down our connection to our community, how it distorts our concept of our inherent goodness, and how it corrupts our sense of worthiness, thus unravelling the social fabric that defines our humanity.

In contrast, they have consolidated their decades of research, experience, and teaching into a message of optimism and hope. Awareness of toxic shame's influence on our lives gives us the choice to transform it. To paraphrase Moshe Feldenkrais, when we know what we're doing, we can do what we want. Transformation is possible. *Healthy shame* exists as the achievable antidote to *toxic shame*. *Embracing Shame* shows us how.

Along with student or client cases to illustrate concepts, Bret and Sheila share their own stories of shame, and struggle to underscore their core teaching that transforming shame is a worthy, lifelong practice. If generosity is the highest form of courage, they offer their own vulnerability throughout the book as enlightening, teachable moments.

Embracing Shame is a wise and kind guide, an indispensable resource to help us heal the wounds of our past, transform shame, and alter the trajectory of our lives for good. It is a truly life-changing book.

Beverley De Witt-Moylan, M.Ed., SEP, *Tibetan Cranial Practitioner, Kinēsa Practitioner, Center For Healing Shame Student, is retired from 38 years in education, including 29 years as a Special Educator. She has been in private practice as a Healing Facilitator since 2007. Having discovered Bret and Sheila through a USABP presentation several years ago, she became inspired by their work, their gentle teaching, and the warm, accepting humanity that infuses their approach to working with shame.*

REFERENCES

Porges, S. (2011). *The pocket guide to the Polyvagal Theory*. W. W. Norton.

Rothschild, B. (2000). *The body remembers*. W. W. Norton.

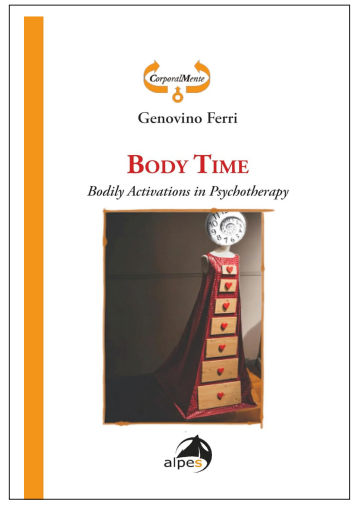
BOOK REVIEW

Body Time

Bodily Activations in Psychotherapy

by Genovino Ferri

Irena T. Anastasova



Body Time, the last book in a series by Genovino Ferri, presents the essence of the knowledge and experience of four generations of Reichian analysts, whose work and contributions are mentioned with respect and in their exact order of appearance on the **arrow of time**.[1] The history of all body psychotherapeutic modalities known today begins with Wilhelm Reich, who as Ferri describes, discovered a diamond in the rough whose value he could not imagine. Generations after him have unfolded the richness and scale of his discoveries, until today when all of us body psychotherapists hold in our hands a finely-cut diamond through which we can select the most suitable bodily activation for our clients.

Ferri's Contemporary Reichian analysis is an innovative and up-to-date three-dimensional (3D) character-analytical Vegetotherapy on the **Evolutionary Phase**,[2] **Character Trait**,[3] **Relational body level**,[4] rightly positioned on the arrow of time.

The 20 actings, or bodily activations, described in this book can rightly be seen as a form of surgical instrumentation – portals located at the periphery of the body, through which we can reach the central areas corresponding to the particular body level. With the help of these ontogenetic movements, after gathering precise information about the client's history, analyzing their current state, and their implicit and explicit requests presented in the **setting**,[5] the trained psychotherapist is able to activate the client's life force in-

telligence which is directed towards **negentropy**[6] and the reorganization of the system, leading to physical, mental, and social well-being.

The presentation of the actings as a discussion between Professor Ferri and a group of colleagues – experienced psychotherapists and students – is extremely valuable. Through personal experience of bodily activations and feedback from volunteers as well as comments from group participants, knowledge deepens and a better understanding emerges of the relationship between the basic components of contemporary character-analytical 3D Vegetotherapy on the Evolutionary Phase, Character Trait, and Relational body level. Teaching and sharing knowledge and experience in a group is characteristic of Professor Ferri. By regularly meeting with colleagues from all over the world, he is stimulated and continues to develop and improve Contemporary Reichian analysis to an ever higher level of precision and understanding.

Reading this book was for me a journey through time, from the birth of Body Psychotherapy associated with Wilhelm Reich to present time. The book traces the roots of Contemporary Reichian analysis, gives recognition and respect to the contributions of previous generations of Reichian analysts, and opens space for the new developments supported by modern discoveries in biology, physics, neurology, and genetics. Thanks to his knowledge in the fields of psychiatry, neurology, psychoanalysis, and body psychotherapeutic modalities, as well as his sincere interest in the principles of reality and the intelligence of life, Professor Ferri was able to actively contribute to the difficult transition from the third to the fourth generation of Reichian analysts.

One of his significant contributions to Contemporary Reichian analysis is the inclusion of the intrauterine phase of development that precedes the previously known evolutionary phases. He asserts its significance for the character analytic 3D Vegetotherapy of the Evolutionary Phase, Character Trait, and Relational body level. Revolutionary for its time, this interpolation brings with it an avalanche of innovations, one of which is a change from the original top-down direction of development to a bottom-up trajectory consistent with human ontogenesis. This, in turn, leads to the rearrangement of Reich's seven bodily levels in a new logical way that follows the stages of human development from the beginning of life.

Another significant characteristic of Ferri's Contemporary Reichian analysis is the introduction of the neurotransmitters norepinephrine, dopamine, and serotonin in the diagnosis and construction of the therapeutic plan. Very important as well is his emphasis on analyzing the character of the therapist-client relationship, and the choice of a specific countertransference to a given client.

The Contemporary Reichian analytical setting described by Ferri in *Body Time* is a complex living system filled with benevolence, intelligence, precision, responsibility, ethics, acceptance, and a great deal of humanity.

I hope the experience and wisdom shared by Professor Ferri in his most recent book will awaken your curiosity to deepen your understanding of Contemporary Reichian analysis, and bring you enough open questions to strengthen the negentropic spiral of development, which will affect our personalities and our work with clients.

■ ■ ■

Irena T. Anastasova *is a medical doctor, body psychotherapist, and Contemporary Reichian analyst trained by Professor Genovino Ferri. Since 2011 she has worked as a body psychotherapist in private practice in Sofia, Bulgaria. Together with two other colleagues, she organizes supervision groups and master classes with Professor Ferri in Bulgaria.*

ENDNOTES

1. The evolutive arrow of time is a concept in Contemporary Reichian analysis that describes the total time of a person's existence from conception onward. It considers biological and biographical depth from both phylogenetic and ontogenetic perspectives.
2. The Evolutionary Phase is the period of ontogenetic evolution in which the Self receives imprints from relationships with the partial objects of that time. The interval bounded by two transitions is biologically marked on the evolutive arrow of time.
3. Within each developmental stage, an imbricated set of behavioral patterns and modules are deposited that have been established by relationships with specific partial objects. These result from each of our own life stories in particular stages, and they define the trait patterns of our character.
4. The relational bodily level is the somatic location associated with the time of that specific stage in which the imprints are recorded, and where the peripheral and implicit memories of that particular character trait are deposited.
5. The therapeutic setting allows for the relationship between the analyst and the analyzed. The relationship itself is a third presence – a responsive, third, living force. It will create triangulation that can be expressed, and will expand the dialogue to a trialogue.
6. Negentropy refers to a negative variation of entropy, which always moves towards greater orders of organization and developmental stratification from their original value. In Contemporary Reichian analysis, entropy and negentropy can be represented by two opposite directions on the arrow of time, one moving towards entropic zero and the other moving towards an increase in negentropy – for example, from the birth of an individual, the origin of life, or the beginning of a relationship.

IN MEMORIAM

"Conductor of the Bodymind"

Laura Hope Steckler

Ilana Rubenfeld
1934 – 2022

Ilana Rubenfeld has passed away, leaving behind a major bodymind legacy. She has been variously referred to as "the Grande Dame of the body-oriented therapy movement," "the Godmother of talk-and-touch therapies," and "the genius of touch" (Rubenfeld, 2000).

Originally an orchestra conductor, the rigors of conducting led to chronic back and shoulder pain that, after the medical profession offered little or no help, was eased by use of the Alexander Technique. She was so impressed that she trained as an Alexander teacher.

She subsequently trained with Moshe Feldenkrais in the Feldenkrais Method® of somatic education. Completing the cocktail of methods that eventually became the Rubenfeld Synergy Method® (RSM), she trained with Gestalt therapy founders Fritz and Laura Perls at Esalen in the 1960s. She began to weave these three methods into her own cloth. Her synthesis of bodywork and psychotherapy has been described as "conducting the bodymind."

Her method eventually came to be called The Rubenfeld Synergy Method® after demonstrating her work to Buckminster Fuller, who said that she was not just doing a combination of Alexander Technique, Feldenkrais®, and Gestalt therapy, but that she was "synergizing." Indeed, as Gestalt psychology tells us: "The whole is greater than the sum of its parts."

To this day it is rare, if not impossible, to find anyone who has so seamlessly and elegantly synthesized bodywork and verbal psychotherapeutic exchange. She would refer to each session as a "piece," i.e., a work of art. And, indeed, the work was artful, musical, and beautiful. Each session captured universal themes that emerged from the client's bodymind.

Early Life & Roots of RSM

Born in Tel Aviv, Israel, Ilana Rubenfeld came to the United States at the tender age of five. Her family escaped in 1939, before their hometown was bombed. Music was her first love; her book *The Healing Hand* (2000) begins with the sentence "Music saved me."

Leading a Rubenfeld Synergy session is like conducting Haydn's "Creation."
It is a journey of great depth.
We enter the chaos before creation, hear the birth of the universe,
rejoice in the theme of variations of life,
and discover and integrate the harmonious soul voice that is within each of us.

—Ilana Rubenfeld (2000)

Rubenfeld was a highly successful musician. She studied at the Manhattan School of Music, and then studied conducting at the Juilliard School of Music, where she received her B.S. degree in 1960, as well as the Frank Damrosch Award for Outstanding Conducting. At that time, female conductors were a rare breed! Rubenfeld approached the professional trainings in Rubenfeld Synergy® with the rigor and meticulousness of a dedicated musician.

Like so many healers, her journey began with her own wounding; a spasm in her back led her first to seek relief in the Alexander Technique in the early 1970s. As the Alexander work supported her to open in her body, she noticed strong and powerful emotions emerging. Her Alexander technique teacher was not equipped to help her process these emotions, and so she sought verbal psychotherapy.

She found, however, that verbal work did not facilitate the depth of emotional experience as did her work with touch. She began to feel that these two arenas should be integrated, and then had an insight that she, herself, would need to do this. This journey of integration led to her work with Moshe Feldenkrais and Fritz and Laura Perls. Upon witnessing her emerging synthesis, Fritz Perls told her he felt this was the future of Gestalt therapy.

Like Perls, Rubenfeld was also influenced by the "sensory awareness" practices of Charlotte Selver, a student of Elsa Gindler who took Gindler's work to the USA after the most of her writings had been burned by the Nazis (Johnson, 1995). When asked why she had her students lie on the floor so much during trainings, Rubenfeld loved to quote Selver: "Something's gonna change, and it wouldn't be the floor!"

Rubenfeld also spent time in Brazil, where she studied with traditional healers. She incorporated some of these techniques into RSM, including 'brushing off' energy from clients (and practitioners) that was released during sessions. She also began a subtle somatic mirroring of the movement of energy she felt in her hands. Although she never described the work in this way, it had some similarity to craniosacral therapy (see for example Sills, 2011).

As her method developed, she began to see clients, and became quite busy as demand for the work grew. She witnessed rapid transformation and healing that she felt would otherwise take years using verbal psychotherapy alone.

She offered well-attended workshops in her method at Esalen Institute in Big Sur, California, the Omega Institute in Rhinebeck, New York, the Hollyhock Retreat Center on Cortes Island in British Columbia, and the Rowe Conference Center in the Berkshire Mountain foothills in Massachusetts.

She further held that
in using a listening touch,
we are contacting the whole person,
facilitating the emergence of stories
held in the body that needed
to be heard and witnessed,
and the energy they held
that needed to be released.

The Method

Rubenfeld used a "listening touch," somewhat different from what she had learned as an Alexander teacher. Alexander used a directional intent in his method of touch. Hers was a very light touch that facilitated sensing in the hands the movement (or lack thereof) of energy in the body. She called it a "butterfly touch," which might reflect the influence of Eva Reich (Overly, 1994/2004). The energetic response she felt in her hands would direct her verbal enquiry, and vice versa. At times, if she felt a stagnation in response to what the client said, she would say: "Your body doesn't believe you!"

Rubenfeld always felt that the body and mind were integrally connected. She believed that the word "bodymind" should be used to reflect this. To honor that, this term is used throughout this article. She further held that in using a listening touch, we are contacting the whole person, facilitating the emergence of stories held in the body that needed to be heard and witnessed, and the energy they held that needed to be released. Not unlike Reich, she further believed that blocking emotions in various ways led to disharmony in the bodymind. Unlike Reich, however, she felt that armoring could be melted in a gentle manner.

She believed that string theory's multidimensional model of inner space provided a good model for bodymind dynamics, and that there was a musicality and sound oscillation to emotions throughout the entire body (Rubenfeld, 2016). Thus, she described her work in musical rather than anatomical terms. During trainings, she often made musical sounds to describe what she felt in her hands during a session.

Ilana with Moshe Feldenkrais (left) and Buckminster Fuller (right)

At the time that her work developed, the Cartesian body/mind split was still prevalent. The use of touch in psychotherapy was virtually unheard of, although Gerda Boyenson was beginning to develop psychotherapeutic touch work around the same time in Europe (Young, 2022). Well before the publication of the seminal *Descartes' Error* (Damasio, 2006), Rubenfeld instinctively sense what we somatic psychotherapists now know: the body and mind are integrally connected, and including the body in psychotherapy is crucial for more complete therapeutic change. Candace Pert, author of *Molecules of Emotion* (1997), had a session with Rubenfeld and subsequently told her that her research and Rubenfeld's work were based on the same principle: "the body has emotions."

Mindfulness and compassion-focused work, which include interoception and the use of imagery and breath, have been well-researched as effective interventions for psycho-

logical well-being, (Khoury et al., 2013; Kirby et al., 2017), but did not exist at the time Rubenfeld was developing her work. A number of interventions used in these approaches are similar to those used by Rubenfeld, such as visualizing a substance or color coming into the body, or sensing difficult emotions in the body with curiosity rather than judgment or preference. The Gestalt-based intervention "If your… (belly, arm, foot, shoulder)… could speak, what would it say?" is one such example of a mindfulness approach. She was truly a trailblazer.

Touch, as used in RSM, seems to facilitate interoception, which has now been shown to be associated with greater affect regulation, and is implicated in greater psychological well-being (Khalsa et al., 2018; Price et al., 2018).

In addition, it has been found that touch can lead to increased vagal activity (Field, 2008) and increased parasympathetic activity in the autonomic nervous system. Touch can lower blood pressure, slow down the heartbeat, and reduce cortisol, and triggers the release of oxytocin (Field, 2014). None of this confirmatory research existed at the time Rubenfeld developed her work.

Rubenfeld also felt that many somatic experiences could be metaphors for a client's psychological functioning. Her work has been described as hypnotherapeutic; indeed, she would tell trainees that their client was in a trance state, and that they too, were in a trance state when working in this way. Her work has been compared to that of the pioneering hypnotherapist Milton Erikson (Rubenfeld, 2000). After witnessing her work, an Eriksonian colleague told Rubenfeld that the safe container created by her use of gentle touch and humor naturally facilitated a trance state.

According to Erikson & Rossi, analogy, metaphor, and even jokes can be understood as potent medicine for the unconscious mind by activating "association patterns and response tendencies that suddenly summate," leading to new perspectives and responses (Erikson & Rossi, 1976/2021). Thus, insights gained in RSM sessions were embedded in the unconscious bodymind, perhaps accounting for some of the rapid transformations experienced by her clients.

She also emphasized the healing power of humor, which may also have functioned as described by Erikson & Rossi. She was not always able to articulate how she did this, as it came to her so intuitively. It is my belief that she had an uncanny ability to combine deep compassion with the awareness of the many paradoxes of being human that led to this humor, which was what made it so successful. She emphasized that deep laughter can be just as cathartic and healing as crying or expressing rage.

Training Others

People told her she could not train others to do what she did; it was felt that the success of the work was unique to her character and her particular abilities. She did, however, come to train many others, beginning in 1977. There are now over 800 certified practitioners across the globe. Her trainees came from a wide variety of backgrounds, and include psychotherapists, bodyworkers, social workers, musicians, and educators.

In classical Gestalt fashion, each and every trainee had an individual session with Rubenfeld in front of the whole group. Rubenfeld wrote (1992) that the table replaced the "hot seat." These sessions would be preceded by didactic material, poetry, music, or jokes. She recorded everything she did, and then meticulously watched and critiqued what she saw. She left 400 hours of instructional training videos to The Ilana Rubenfeld Foundation.

She had a strong belief in the healing power of music, so music and dance were an integral part of the training experience. She often played music before sessions began,

and after trainees had sessions with her. This created an atmosphere suited to whatever was focused on that day. Trainings took place in her West Village brownstone basement, where there was a beautiful grand piano with a sign that said, "Don't even think about touching this!"

Rubenfeld likened the synthesis of touch, movement, and therapeutic dialogue to conducting, as one had to simultaneously attend to multiple elements. She often gave trainees brief lessons in conducting. She "scored" RSM sessions according to the somatic intervention, client response, and her observations and reflections (Rubenfeld, 1992).

She emphasized self-care in her trainings, often reminding trainees to be really clear about their boundaries, to sense themselves, and not get enmeshed with their clients.

Witnessing her working with others was a rather magical experience. The work usually took place with the client fully clothed, lying on a massage table. There was something about that combination of compassionate humor with the universal themes that emerged from each session that was fascinating to watch. There was a performative element to the work. Rubenfeld managed to balance staying with her client, her own body, and connected to her audience simultaneously. She made it look easy! There were often tears and abundant laughter in the witnessing audience.

In 1998, Rubenfeld held a year-long group/workshop leadership training together with the late longstanding RSM practitioner and theatre director Bernie Coyne. Evolving from this training, a new program, RSM for Life, has now been developed.

In 2000, she published her long-awaited book, *The Listening Hand: Self-Healing Through the Rubenfeld Synergy Method of Talk and Touch*. In 2015, she published a chapter on the history, theory, and practice of hands-on somatic-emotional release work in *The Handbook of Body Psychotherapy and Somatic Psychology* (Rubenfeld & Griggers, 2015).

Last Words

Rubenfeld was once described as an urban shaman. She was earthy, feisty, funny, fiercely intelligent, and fabulously well-read. When she turned 60, she would get a big grin on her face and say, "Still juicy at 60!"

She was fierce in her dedication and commitment to her work. This at times could lead to conflict and disharmony amongst those she worked with. However, many practitioners remember her with gratitude for the work they did with her personally and professionally. One psychotherapist said working with RSM is like "doing therapy in color." Suzanne Forman (1998), a massage therapist, describes feeling that her work became three-dimensional after training with Rubenfeld.

In 1994, Rubenfeld was given the Pathfinder Award by the Association of Humanistic Psychology for her outstanding contributions to Humanistic Psychology. In 2002, she received a Lifetime Achievement Award from the United States Association for Body Psychotherapy.

Rubenfeld moved to Ashland, Oregon in 2000, and reconnected with music, her first love. She passed away peacefully in December 2022 after an extended period of ill health. She was 88 years old.

A simple and quiet end
To an extraordinary life,
One breath, and no more.
A hummingbird (yes, really)
Zipped back and forth
Above her brightly colored
Shroud
To a nearby tree
As her body was wheeled
Away.

Brian Kerns
Executive Assistant

Laura Hope Steckler, PhD, *Clinical & Somatic Psychologist & Body-Centered Psychotherapist, lives & works in the UK. She is a Certified Rubenfeld Synergist® and was in Ilana Rubenfeld's 11th training group. She also participated in the group/workshop leadership training with Ilana Rubenfeld and Bernie Coyne.*

For more information about The Rubenfeld Synergy® Method,
see https://usabp.org/Rubenfeld-Synergy-Method-Training and https://www.rubenfeldsynergy.com/

Donations may be made in Ilana Rubenfeld's name to The Ilana Rubenfeld Foundation (TIRF) www.rubenfeldfoundation.org

REFERENCES

Damasio, A. (2006). *Descartes' error: Emotion, reason and the human brain*. New York: Vintage.

Erickson, M. H., & Rossi, E. (1976). Two level communication and the microdynamics of trance and suggestion. In Rossi, E., Erickson-Klein, R., & Rossi, K. (2021). *The Collected Works of Milton H. Erickson MD, Digital Edition: Volume 2: Basic Hypnotic Trance and Suggestion*. Digital Edition. Erickson-Rossi.com

Field, T. (2014). *Touch* (2nd ed.). Cambridge, Massachusetts: Bradford Books.

Field, T. (2008). Vagal activity, early growth and emotional development. *Infant behavior & development*, 31(3), 361-73.

Forman, S. (1998). The Rubenfeld Synergy Method® addresses mind, body and spirit. *Massage Magazine*, 71, 70-80.

Johnson, D. H. (1995). *Bone, breath and gesture: Practices of embodiment*. Berkeley: North Atlantic Books.

Khoury, B., Lecomte, T., Fortin, G., Masse, M., Therien, P., Bouchard, V., & Hofmann, S. G. (2013). Mindfulness-based therapy: A comprehensive meta-analysis. *Clinical Psychology Review*, 33(6), 763-771.

Kirby, J. N., Tellegen, C. L., & Steindl, S. R. (2017). A meta-analysis of compassion-based interventions: Current state of knowledge and future directions. *Behavior Therapy*, 48(6), 778-792.

Khalsa S. S, Adolphs, R., Cameron, O. G, Critchley, H.D., Davenport, P. W., Feinstein, J. S., Feusner, J. D., Garfinkel, S. N., Lane, R. D., Mehling, W. E., Meuret, A. E., Nemeroff, C. B., Oppenheimer, S., & Petzschner, F. H. (2018). Interoception and mental health: A roadmap. *Biol Psychiatry Cogn Neurosci Neuroimaging*, 3(6): 501-513.

Pert, C. (1997). *Molecules of emotion: Why you feel the way you feel*. New York: Scribner.

Overly, R. (1994/2004). *Dr. Eva Reich's butterfly touch massage*. Asheville, Gentle Bio-Energetics Institute.

Price, C., Parent, S., Thompson, E, Pike, K., Hooven, C., Crowell, S., & Cheng, S. (2019). Immediate effects of interoceptive awareness training through mindful awareness in body-oriented therapy (MABT) for women in substance use disorder treatment. *Substance Abuse*, 40(1), 102-115.

Rubenfeld, I., & Griggers, C. (2016). Somatic emotional release work among hands-on practitioners. In Marlock, G., Weiss, H., Young, C., & Soth, M. (Eds.). *The handbook of body psychotherapy and somatic psychology*. Berkeley: North Atlantic Books.

Rubenfeld, I. (2000). *The listening hand: Self-healing through the Rubenfeld synergy method of talk and touch*. London: Piatkus.

Rubenfeld, I. (1992). Gestalt therapy and the bodymind: an overview of the Rubenfeld synergy® method. In Nevis (Ed.). *Gestalt therapy perspectives and applications*. New York: Gardner Press.

Sills, F., (2011). *Foundations in craniosacral biodynamics. Volume 1: The breath of life and fundamental skills*. Berkeley: North Atlantic Books.

Young, C. (Ed.) (2022). *The new collected papers of biodynamic psychology, massage & psychotherapy*. Edinburgh: Body Psychotherapy Publications.

IN MEMORIAM

A Luminous Presence

Zaharina Savova – Ina
1961 – 2024

Zaharina Savova – Ina was an accomplished psychotherapist, teacher, author, and dean of Filaretova Medical College, whose impact on the academic and psychotherapeutic communities in Bulgaria was truly immeasurable. She served as a board member and teacher at the Bulgarian Institute for Neo-Reichian Body Psychotherapy, where her passion for teaching and nurturing the next generation of therapists was abundantly evident. Her dedication to the field of body psychotherapy, coupled with her extraordinary zest for life, set her apart as a beacon of inspiration to all who had the privilege of knowing her, especially her students. What endeared Professor Savova to us all was not only her professional excellence but also the generosity of her spirit. Her infectious laughter was a gift that brightened any day, and her presence will be greatly missed.

As we grapple with the profound loss of such an extraordinary individual, we are committed to honoring Professor Savova's legacy by continuing the work and development of the Bulgarian Institute for Neo-Reichian Body Psychotherapy, just as she would have wished. In doing so, we will strive to emulate the dedication, passion, and boundless enthusiasm that defined her remarkable life.

May her soul rest in eternal peace.

Alexander Vachev
EABP Newsletter, January 2024

In tracing Ina Savova's academic journey, we uncover a rich legacy that not only expanded the frontiers of knowledge but also fostered tangible improvements in healthcare practices. Her academic contributions continue to resonate, leaving an enduring impact on the field of body psychotherapy.

Professor Savova earned her Doctorate in Social Medicine and Healthcare and Pharmacy Organization in 2006. In 2013, she assumed the academic position of Professor in the Faculty of Public Health at the Medical University of Sofia. Her habilitation thesis is titled *Social-Medical Issues and Approaches to the Prevention of Anorexia and Bulimia*.

In 2021, Professor Savova received the prestigious PANACEA Award in the medical-social field for her noteworthy achievements in teaching, scientific research, and expert contributions. Simultaneously, she was honored with the distinction of "Favorite Teacher" at the Medical University (MU) – Sofia, highlighting her exceptional impact in the field of medical-social sciences. As academic advisor to numerous graduates, specialists, and doctoral candidates at the Faculty of Public Health at MU – Sofia and the Bulgarian Institute for Neo-Reichian Analytical Body Psychotherapy, Professor Savova played a pivotal role in shaping the academic landscape.

An accomplished author and co-author, she made substantial contributions to over 170 scientific publications, spanning a range of topics including stress, psychogenic eating disorders, and the somatic psychotherapeutic approach in their treatment. Her scholarly endeavors extended to the creation of eight textbooks and teaching aids in critical areas such as social medicine, health prevention, gerontology, geriatrics, as well as pedagogical and psychological aspects of healthcare. She became a member of the Medical Science Council at the MU – Sofia in 2008. She served as the Chief Editor of the journal *Health and Science*, and was a member of the editorial board of *Health Policy and Management*. Additionally, she was a member of a number of national and international organizations, and actively participated in more than 80 events in her professional capacity.

Professor Savova's scholarly endeavors and professional career were prominently concentrated in the fields of social medicine with emphasis on prevention, individual and group psychotherapy, gerontology, geriatrics, and the pedagogical and psychological dimensions of healthcare and education. This rich tapestry of academic pursuits showcased her versatility and holistic approach to healing. The impact of her work weaves through diverse domains, encompassing groundbreaking research, innovative methodologies, and practical applications in a long list of achievements.

Theoretical contributions

- *Pioneering sociomedical study*. The first comprehensive sociomedical study on psychogenic eating disorders in Bulgaria, which explored the intricate interplay of predisposing, triggering, and sustaining factors, offering a groundbreaking assessment of the probability of developing anorexia and bulimia.
- *Psychotherapeutic analysis*. In-depth analysis and evaluation of major psychotherapeutic approaches in treating psychogenic eating disorders.
- *Innovative methodology*. The novel methodology rooted in the neo-Reichian psychotherapeutic approach, involving systematic observation and psychotherapy, marked a pioneering effort in the treatment of patients with anorexia and bulimia, and provided a detailed analysis of the results.
- *Educational models for mental health*. A significant aspect of her academic journey involved the development of practical educational models for raising and educating

young children and adolescents. Aligned with the National Mental Health Program in Bulgaria (2004-2012), these models aimed at achieving proper development and mental health.

Scientific and applied contributions

- In developing a model for the risk factors of anorexia and bulimia that can be applied in creating specific programs for adolescents, young people, and other at-risk groups.
- In adopting a new comprehensive methodology and toolkit for the diagnosis, observation, and psychotherapy of patients with anorexia and bulimia, with high efficiency. This allows for the integration of the methodology in both hospital and non-hospital sectors in healthcare.
- In the development of a guide with general rules and criteria for best practices in the prevention of anorexia and bulimia that can serve as a recommended standard in the creation of specific guidelines for participants in preventive activities.
- A significant aspect of her academic journey involved the development of practical educational models for raising and educating young children and adolescents. Aligned with the National Mental Health Program in Bulgaria (2004-2012), these models aimed at achieving proper development and mental health.

Prevention and rehabilitation of malignant disease

As a consultant and participant in Bulgaria's first comprehensive specialized program for prevention and rehabilitation following breast cancer, with objectives in two directions:

- Preventive (educational and awareness) activities targeting at-risk groups, those affected by the disease, and their families;
- Improvement of overall survival and enhancement of the quality of life for individuals with breast cancer through participation in a program for the recovery of mental, emotional, and physical health.

Research and analysis of the program's results were published and presented at scientific forums in Bulgaria, France, Switzerland, and Montenegro.

Education and teaching

- A lecturer at the Medical University of Sofia, Faculty of Public Health, and the Medical College "Yordanka Filaretova," where she also assumed the role of director.
- A teacher and supervisor at the Bulgarian Institute for Neo-Reichian Analytical Body Psychotherapy, while concurrently serving as a member of its Board of Directors.

A distinguished psychologist, psychotherapist, scientist and researcher, author, teacher, supervisor, and leader, she left an indelible mark on the academic landscape.

But above all, and in all, she was first and foremost human.

■ ■ ■

A Luminous Presence

I have been writing for as long as I can remember. I write prolifically and effortlessly, akin to breathing. Now, facing the blank page, words elude me. I am still in the phase where I can't believe I have to bid farewell and write: Farewell, Ina! In Bulgarian, "Farewell" means "with God" – no longer a physical presence among people, but at home *with God*.

Ina emerged as a trailblazer in body psychotherapy in Bulgaria, undergoing her training in the Therapy of the Five Movements in Switzerland as part of our Institute's fourth cohort some 30 years ago. In 2010, she joined the board of directors at BINAP. As a professor at the prestigious Medical University – Sofia, she secured the distinction of being the first individual member from Bulgaria to gain acceptance into EABP. Her membership not only paved the way for us to apply as a professional community and training institute, but also facilitated the subsequent inclusion of many of us – her colleagues and students – as individual members. Without her pioneering efforts, we wouldn't be part of the expansive European professional family today.

Ina was one of those people whose luminous presence will forever remain etched in memory. I recall her words: "Today, our lives are increasingly hectic, laden with tasks and demands. We suffer from a chronic lack of time for ourselves and our loved ones. The responsibilities, often self-imposed, haunt us, but what our soul and body yearn for, is *a question for another time*. 'They can wait,' we often say. But it is up to us, I am convinced, to live in harmony, feel content, and achieve happiness and success. What we have to do is to embrace our nature, put in the effort, and, most importantly, desire and strive for a change. The wonders are within us, and my life experience and the many years of psychotherapeutic practice prove exactly that."

Ina embodied a radiant and diversely gifted spirit – remarkably resilient, yet maternally warm. Her attire, thoughts, and emotions painted a kaleidoscope of colors, and she unleashed a whirlwind of vibrant ideas and laughter. Her laughter, a trademark emblem, echoed with healing qualities. As my consciousness wrestles with denial and yearns for understanding, I contemplate the possibility that other realms may now be beneficiaries of Ina's therapeutic laughter. Ina, who facilitated laughter therapy, left an enduring mark on those whose lives intersected with hers – colleagues, students, and grateful patients alike. *Ina, we will dearly miss you, but we are committed to perpetuating and advancing our shared mission in your honor.*

In our last conversations, we delved into the prevalent longing for unity among people today. Therefore, each of us – her colleagues and students at BINAP – commits to embracing and endorsing any initiative that fosters our collective sense of belonging. This commitment extends beyond professional gatherings, aiming to encompass human dialogue and promote unity among us as individuals, parents, and persons with diverse talents or shared personal challenges. It is within this community, where we share common values, philosophy, and beliefs, that we strive to counteract loneliness and alienation, preventing these forces from distancing us from our inherent human nature and well-being.

Ina, we extend our deepest gratitude for the wealth of knowledge, invaluable experiences, and the personal example you set – living with vibrancy and always with love! Your passing imparts yet another profound lesson in the journey of life. We hold you dear, Ina, with love and gratitude.

Madlen Algafari
Co-Founder and Developer
Bulgarian Institute for Neo-Reichian Analytical Body Psychotherapy

Madlen Algafari partnered with Ina Savova in founding, developing, and leading the Bulgarian Institute for Neo-Reichian Analytical Body Psychotherapy (BINAP), and remained a longtime colleague and a dear friend.

Feeling Her Hand in Mine…

My first encounter with Ina took place during my admission interview at the Bulgarian Institute for Neo-Reichian Analytical Body Psychotherapy. I vividly recall her welcoming smile, and the welcoming tranquility with which she greeted me as if she were embracing me into the family. It marked one of the rare instances in my life until that moment when I tangibly sensed what it means to belong, the security it imparts, the warmth and enrichment it brings. This is who Ina was – proficient in comforting, offering a sense of safety and stability. Her smile had the extraordinary power to provide warmth, even during the hardest of times.

The years of my training unfolded, affording me the privilege to glean wisdom from my teachers, with Ina standing prominently among them. She was the exemplar of an extraordinary therapist – perceptive in uncovering the unseen, delicately and powerfully addressing pain, and creating a nurturing space to reclaim that which life had taken away. And when during a training simulation where I confronted one of my most horrifying and deeply entrenched traumas, having pushed myself beyond the limits of tolerance, reason, and endurance, Ina was a steadfast presence. She was simply there for me. It felt as if I were simultaneously spreading my wings in flight but also giving up. Much of what transpired in that moment of overwhelming pain and erupting rage is a blur to this day, but what I do remember is her hand holding mine. In that moment of touch between our hands, my memory of this blend of warmth, firmness, and decisiveness is almost surreal. Seemingly insignificant, this point of contact was one of the safest anchors in my life. Feeling her hand in mine, I knew I was alive, present, capable, and deserving of *being*.

I found myself at the opposite end of the room, curled up like a baby on a mat – shattered into pieces yet whole, hushed but still attuned to the beating of my heart and… Ina. Ina had enfolded my body, providing me with a sense of security, presence, vitality, and life I hadn't known until then. Also the silence, and space and time, to rise from the ashes. This marked the pivotal moment, in which the healing of my wounds, and there were so many, truly commenced. And for that too, I thank you, Ina.

I learned a lot from Ina, who presented me with countless opportunities to grow, fostering my confidence as a person and a psychotherapist. She entrusted me as editor for her book on the psychology of eating, *See Your Reflection in the Empty Plate*. Ina consistently provided unwavering support throughout my evolution as a trainer, supervisor, and lecturer at BINAP. One of the last challenges I received from her was the invitation for me to be a keynote speaker at the 18th International Congress of EABP in Sofia in September 2023. I readily acknowledge that, yet again, my success in this endeavor was largely attributable to her support and belief in me.

To me, this is who Ina was – the embodiment of a smiling, accepting, profound, firm, reassuring force, perpetually giving. Oh, and rather mischievous… She had many sides with many colors. I am eternally grateful our paths were intertwined over the past 11 years.

Ina, you occupy a cherished space in my heart. May your soul forever beam with light. I love you!

Christina Bogdanova
Ina's Student and Colleague
Bulgarian Institute for Neo-Reichian Analytical Body Psychotherapy

A Loving, Resolute, and Just Mother

The dearest memory I have with Ina is from a training simulation where she was the appointed supervisor, and I was chosen for the position of the therapist. The session was halfway through when suddenly, Ina interrupted it, and gave me a task. The interruption immediately signaled to me that I wasn't doing nearly as well as I had wished, which in turn activated a deep-rooted fear of failure. I made several attempts to fulfill the task, all of them contributing little to no value to the therapeutic process. Ina then intervened again, this time by taking control of the session and carrying it out through the end. Guiding the way, she helped the client, a fellow student, come to a profound realization, while holding them firmly yet lovingly every step of the way. Once the session was over, Ina turned to me and asked "How are you?"

I was surprised to find myself overwhelmed by a sense of utter failure. My body was frozen in shame, and my mind was buzzing, trying to find justification for my actions and appease my inner critic who was announcing the verdict – a critic I instinctively projected onto Ina.

"I feel so useless," I nearly cried out.

She looked at me and firmly said:

"You're not here to be useful; you're here to learn."

I had no idea what she was talking about. I was furious at her for exposing a part of me that I had buried deep, under layers of effort and accomplishments. It was the part of me that doesn't know it all, can't perform very well, would not inspire applause, is unable to be of help, and does not have it all figured out and under control.

Much time had to pass for me to grasp that her words did not imply I lacked usefulness or the potential for it. They simply meant I did not have to be useful, or rather aim at it, in everything. My worth did not diminish because of that; rather, it increased, for Ina had granted me permission to be uncertain, inexperienced, unprepared, unhelpful... In a broader sense, she had provided a safe space for me to not have to be the stable and capable figure that I aspired to be at all times, but a small inexperienced child who has yet to learn, through the care and support of others. Ina was not the critic I knew all too well I had projected onto her. Instead, she embodied a loving, resolute, and just mother, whose voice I wasn't accustomed to hearing.

This is who Ina was to me and to many of us, her students and colleagues at the Bulgarian Institute for Neo-Reichian Analytical Psychotherapy. She was one of the bedrocks of our community. She radiated acceptance and admiration for our individualities. She was genuinely curious about our lives, joys, and pains. She delighted in our talents and successes, shared in our sorrows, and supported us in our challenges. At the same time, she insisted that we assume responsibility. She had little to no tolerance for falling short of our abilities, and challenged us frequently and unapologetically. With her passing, we lost a leader, a supervisor, a lecturer, a role model, a colleague, and a friend. And many of us, in a sense, lost a mother as well – a subtle, yet infinitely more profound aspect of this loss.

It feels surreal to be writing words of farewell. In my grief for Ina, I don't know how to *be*, I am unsure of what to do... I am small, helpless and unprepared. I am to learn what it is like to live in a world without her in it. Yet I am loved and I have support. And I know this and feel it because of her.

Today, I make a promise to remember and live by the lessons in love and life that you imparted to me, Ina.

Kalina Raycheva
Student
Bulgarian Institute for Neo-Reichian Analytical Body Psychotherapy

Loving Myself

I believe that our capacity for self-love is what draws us nearer to the life we yearn for!

True happiness proves elusive without self-awareness, especially when living in discord with one's true self.

The strength I draw from living authentically infuses my life with joy, fulfillment, and self-esteem.

Contentment in the way of life, delight derived from meaningful connections, cultivating positive self-regard, the experience of profound fulfillment and happiness… All require a gentle and loving attention towards oneself – the continuous practice of care and understanding. I endearingly refer to this as the acquired knack of loving yourself.

To love yourself is to not only comprehend but also to welcome and embrace your thoughts, feelings, emotions, and desires.

Choices made should resonate with your inherent nature and align with your genuine needs. Defending your right to be and allowing yourself the life that makes you happy – this is what begets a sense of purpose and the experiencing of living a meaningful life.

However, the knack of loving yourself is also intimately intertwined with recognizing, acknowledging, and understanding the realities faced by others.

INTERNATIONAL BODY PSYCHOTHERAPY JOURNAL

Published by the European & United States Associations for Body Psychotherapy & Somatic Psychology

The Art and Science of Somatic Praxis

- **Promoting the global exchange of ideas, scholarship, and research in the field of body psychotherapy and somatic psychology**
- **Broadening the understanding of how the body remembers and reveals the story of our lives**

In response to the worldwide growth of the field of body psychotherapy and somatic psychology, we support this expanding body of knowledge so that clinicians, students, researchers, patients, policymakers, and journalists can understand the vital importance of body psychotherapy and somatic psychology.

- Leading edge somatic developments and research
- Working neurobiologically with the body
- Embodied self-awareness and mindfulness
- Working with trauma in the body
- New approaches in addiction treatment
- Social justice, oppression, and the body
- Book and film reviews
- And much more…

Connect with body psychotherapy and somatic psychology

Subscribe at: **www.ibpj.org**

Become a member of the United States Association for Body Psychotherapy (USABP) at www.usabp.org or the European Association for Body Psychotherapy (EABP) at www.eabp.org

INTERNATIONAL **BODY PSYCHOTHERAPY** JOURNAL
Published by the European & United States Associations for Body Psychotherapy & Somatic Psychology

The Art and Science of Somatic Praxis

Call For Papers

Summer 2024

Special Issue

Emotion and the Body

In the past twenty-five years, there has been a revolution in our understanding of the role of the body in cognition, emotion, and behavior. Cognitive and affective neuroscience research have clearly shown that emotion determines every aspect of cognition and behavior in every moment of our lives.

> This implies that every therapy modality – body-oriented or otherwise – would have better outcomes if it gave emotion and its regulation an important, if not central, role in its treatment approaches.

Neuroscientific evidence in the past twenty-five years has also revealed that cognition, emotion, and behavior depend not only on the brain, but also on how we embody, and the environment.

> This has clear implications for all psychotherapy modalities – body-oriented or otherwise. To work with cognition, emotion, or behavior without taking the body and the environment into account would be to provide less-than-optimal care to our clients.

This strong evidence offers all body psychotherapy approaches the material to build a valid theoretical scientific bridge of their own.

In this exciting time of advances in our understanding of the importance of the body in all psychological processes, we are also learning that cognition, emotion, and behavior are not as distinct as we might have believed.

> Their physiology is inseparable in both the brain and body. Given that their physiologies are interrelated, it would seem that it does not matter if our work focuses on cognition, emotion, or behavior. One would expect that changing one would change the other two.

However, there are at least two reasons why working with emotion might be a more important or productive starting point than working with cognition or behavior:

- Emotion determines cognition and behavior moment-by-moment.
- The choice of the best behavioral strategy in a given situation is optimal when emotion is available rather than when it is not.

The causal role of emotion in cognition and behavior and the dependence of the body and environment imply that not only should emotion play the primary, if not an important role in treatment, but

that it needs to be worked with in relation to the body and environment for optimal cognitive, emotional, and behavioral outcomes in all approaches.

> This is all the clearer in the research evidence from the paradigm of embodied emotions. When the face or body are inhibited from participating in an emotional experience – in other words, emotionally defended against – the brain's ability to process the situation cognitively, emotionally, and behaviorally is severely compromised.

When non-body-oriented psychotherapists work with emotions, they usually focus on what might be in the way of accessing them by providing support for the emotions, and working with various psychological defenses against them, such as denial.

> However, because their training does not include the body, they are not aware of how strong physiological defenses against emotions can be, for example, how constriction can form very early on in childhood and persist into adulthood. They also do not know how to work with the body to undo the defenses against emotions – how to access them somatically and regulate them.

As body psychotherapists, we know how various physiological defenses can form against emotions in the various systems of the body and brain. We also know how persistent and potent a role these defenses can play in defending against and dysregulating emotions. We also know different methods for working with such somatic defenses.

Therefore, as guest editor of the **IBPJ Special Issue on EMOTION**, I invite contributions from practitioners of different body psychotherapy modalities to present:

- How your specific approach understands the role of the body in emotions
- Your understanding of the relation of emotion to cognition and behavior
- How your system understandsthe physiological and energetic defenses that can make emotions inaccessible or dysregulated
- Your methods for working with such defenses to access and regulate emotions
- Expected or predictable outcomes of body-oriented interventions in cognitive, emotional, and behavioral realms
- Different goals of emotional work such as emotional expression, regulation, and capacity building

Please include one or more examples, or a case study, to illustrate your presentation. I also invite work with emotions through the body with special populations such as children and people with borderline traits.

It is my hope that this special issue on EMOTION will offer articles from various modalities in order to inform all body psychotherapists about how each of us works with emotions and the body. This would also be of tremendous value to the increasingly large numbers of psychotherapists who are becoming aware of body psychotherapy and somatic psychology, looking for ways to work with the body and with emotions in particular.

Papers should be submitted by May 15th 2024

submissions@ibpj.org

or contact Raja Selvam

at drrajaselvamphd@gmail.com if you have any questions

■ ■ ■

INTERNATIONAL **BODY PSYCHOTHERAPY** JOURNAL

The Art and Science of Somatic Praxis

Volume 22 ■ Number 2 ■ Winter 2023-2024

The *International Body Psychotherapy Journal (IBPJ)* is a peer-reviewed journal, published twice a year in spring/summer and fall/winter. It is a collaborative publication of the European Association for Body Psychotherapy (EABP) and the United States Association for Body Psychotherapy (USABP). It is a continuation of the *USABP Journal*, the first ten volumes of which can be found in the *IBPJ* archive.

The *Journal*'s mission is to support, promote and stimulate the exchange of ideas, scholarship, and research within the field of body psychotherapy and somatic psychology as well as to encourage an interdisciplinary exchange with related fields of clinical theory and practice through ongoing discussion.

Note: The accuracy or premises of articles printed does not necessarily represent the official beliefs of the USABP, EABP, or their respective Boards of Directors.

USABP: usabp@usabp.org ■ www.usabp.org
EABP: secretariat@eabp.org ■ www.eabp.org
IBPJ: www.ibpj.org

Correspondence Addresses
Editor-in-Chief: ibpjsubmissions@ibpj.org
Change of Address: secretariat@eabp.org
Advertising: EABP, assistanteditor@ibpj.org,
USABP: Liam Blume, www.usabp.org

The *IBPJ* is available free online.
Print subscriptions: http://www.ibpj.org/subscribe.php
Printed single issue: Members €22.50, Non-members €25
Yearly subscription: Members €37.50, Non-members €42.50
Two-year subscription: Members €65, Non-members €75
Payment through bank transfer: American Express or PayPal

Translation: The *Journal* is published in English.

Article abstracts can be found on the *IBPJ* website in Albanian, Bulgarian, French, German, Greek, Hungarian, Italian, Japanese, Portuguese, Russian, Spanish, and Turkish at: www.ibpj.org/archive.php.

If an article originally written in another language has been accepted for publication in English, the full article may also be found on our website in the original language.

Abstract Translators: Elmedina Cesko, Albanian; Arber Zeka, Albanian; Alexandra Algafari, Bulgarian; Marcel Duclos, French; Anton Darakchiev, German; Costas Panayotopoulos, Greek; Yaniv Gafner, Hebrew; Marton Szemerey, Hungarian; Fabio Carbonari, Italian; Yasuyo Kamikura, Japanese; Evgeniya Soboleva, Russian; Eva Palicio, Spanish; Celal Eldeniz, Turkish.

ISSN 2169-4745 Printing*, *ISSN 2168-1279 Online

Letters to the Editor

The Editors are eager to receive letters, particularly communications commenting on and debating articles already published in the *Journal*, but also suggestions and requests for additional features. A selection of letters received will be published in the next issue of the *Journal*.

Advertising Information

The *IBPJ* accepts advertisements for books and from training institutions of interest to our readers. We do not accept dated events. All dated events can be advertizedadvertised in our IBPJ social media. and USABP website. For more information, please contact **Biljana Filipovska** at **managingeditor@ibpj.org**.

Criteria for Acceptance

The *Journal*'s mission is to support, promote and stimulate the exchange of ideas, scholarship, and research within the field of body psychotherapy and somatic psychology, as well as to encourage an interdisciplinary exchange with related fields of clinical theory and practice.

First consideration will be given to articles of original theory, qualitative and quantitative research, experiential data, case studies, as well as comparative and secondary analyses and literature reviews.

Authors must certify that any material presented to the *International Body Psychotherapy Journal* is original unpublished work not under consideration for publication elsewhere.

Our editors and reviewers will read each article with the following questions in mind:

- Does material in this manuscript inform the field and add to the body of knowledge?
- If it is a description of what we already know, is there some unique nugget or gem the reader can store away or hold onto?
- If it is a case study, is there a balance among the elements, i.e., background information, description and rationale for chosen interventions, and outcomes that add to our body of knowledge?
- If it is a reflective piece, does it tie together elements in the field to create a new perspective?
- Given that the field does not easily lend itself to controlled studies and statistics, if the manuscript submitted presents such, is the analysis forced or is it something other than it purports to be?

Author Guidelines

Submission: For full submission details please consult the EABP website. Articles must be submitted by e-mail.

Format: Please consult the latest edition of the Publication Manual of the American Psychological Association. Manuscript should be single-spaced in 10 pt. type, with a one-inch (25 mm) margin on all four sides. Please include page numbers. Paragraph indent – 1.27 cm. The manuscript must be free of other formatting.

Order of Information: Title, full authorship, abstract (±100-350 words), keywords (3-5), text, references, biography (100 words). The biography should include a photo, the author's degrees, institutional affiliations, training, e-mail address, and acknowledgment of research support.

References: References within the text should include the author's surname, publication date, and page number. Full attribution should be included in the references at the end. Copyright permission must accompany any diagrams or charts copied, or altered from, published sources.

We follow ***American Psychological Association (APA) standards*** for citations.

- ***Citation Simplifier*** takes the fuss out of writing the bibliography! If you need to use a different citation style, it can be found on the left-hand side of the page. Click on the type of resource cited (book, blog, article, etc.) and fill in the required information (click the + button to add an author if your source has more than one). When complete click "Make Citation" and there you have it, a formatted bibliographic citation that can be copy-and-pasted directly to your work. Of course, you may wish to consult a more comprehensive resource about APA style guidelines.
- ***In-line citations***. To find the information you need for citation, referring to the primary source you used is best. If you no longer have access to it, a Google search with the information you do have (book/article title/author's name) will often provide the rest in the first few hits. Start by clicking on the first Google result, and by eye, search for the information that the citation machine website specifically requests. Browse the next few Google links if need be. If the information needed (i.e., page numbers) can't be found in the first few hits, it is unlikely to be online at all.

Language: Authors are responsible for preparing clearly written English language manuscripts, free of spelling, grammar, or punctuation errors. We recommend ***Grammarly***, an automated proofreader and grammar coach. Authors are also responsible for correct translations. If the article is originally written in a language other than English, please submit it as well and we will publish it on our websites.

Peer Review: All articles are peer reviewed by three reviewers. Reviewer suggestions for changes or alteration will be sent to the author. Final decisions for changes are made at the joint discretion of the author and editors. Before the Journal goes to print, authors will receive a copy of their article to check for typographical errors, and must return corrections by e-mail within the time limit specified.

By submitting a manuscript, authors agree that the exclusive right to reproduce and distribute the article has been given to the Publishers, including reprints, photographic reproductions of a similar nature, and translations.

Confidentiality: To ensure the confidentiality of any individuals who may be mentioned in case material, please make sure that names and identifying information have been disguised to make them anonymous, i.e., fictional and not identifiable.

Copyrights: It is a condition of publication that authors license the copyright of their articles, including abstracts, to the *IBPJ*. This enables us to ensure full copyright protection, and to disseminate the article and the Journal in print and electronic formats to the widest readership possible.

Authors may, of course, use their material elsewhere after publication, providing that prior permission is obtained from the *IBPJ*. Authors are themselves responsible for obtaining permission to reproduce copyrighted material from other sources.

As biological entities, we develop in linear mode, but technologies develop in exponential mode. Can we easily switch between real and virtual realities?

—Mariana Todorova

■ ■ ■

European Association for Body Psychotherapy

USABP United States Association for Body Psychotherapy The Hub of Somatic Psychology

Journal (ISSN 2169-4745)