
THE USE OF BIOFEEDBACK BY HAKOMI THERAPISTS

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See introductory note before psychodrama article.

Biofeedback can be a useful part of a Hakomi therapist's practice if employed within the wisdom and guidelines of the Principles. This article will discuss biofeedback from the perspective of the Principles.

By definition, biofeedback is simply information given to a person about their physical condition at a particular moment. Bathroom scales and oral thermometers are the most common examples of biofeedback equivalent. Modern technology has now made available on a widespread basis the possibility of measuring muscle tension (EMG), galvanic skin response (GSR), blood pressure (BP), brain waves (EEG), temperature, and is now working on methods to access gastric secretions, hormonal levels, and the status of internal organs. Temperature and muscle tension equivalent are most common to outpatient clinical settings.

Philosophically, biofeedback has been and is a mainstay in the movement toward the new paradigm in medicine, the paradigm that recognizes the inherent capabilities of a person to both prevent illness and to heal through the self regulation and self control of such stress indices as heart rate, blood pressure, muscular tension, temperature, and breathing. This voluntary control of what was previously thought to be automatic bodily functions represents a drastic change in the role of a patient in the Western world in our day and time. Hakomi therapists are in complete agreement with this movement. All of the principles outlined by Ron Kurtz point directly to the desire to empower the person as opposed to making them dependent on some exterior authority. No therapy makes it clearer than biofeedback that it is the patient's responsibility to do something about their life and that it is to the patient's credit when they do so. Who else is making the needles on the meters go back and forth

than the person themselves? If a person attempts to abdicate responsibility by saying something like, "Doctor, I still wake up tense in the morning," a good therapist will not get into taking responsibility for who has responsibility, but will respond with something Ericksonian like, "Yes, it takes a lot of practice, for a number of months, for the results to generalize from day time to night time."

In a pure medical setting biofeedback is used for direct symptom control, or indirect symptom control via higher mechanisms, non specific therapeutic mechanisms. However, as Heiner Legewie of the Max-Planck Institute fur Psychiatrie in Munich points out, the boundary between organic and psychosomatic functional disturbance is not fixed. Is a tension headache cured by training the frontalis muscles in the forehead to relax or is the therapeutic success due to the concomitant indirect effects of general relaxation? We don't know. In a traditional psychotherapy setting biofeedback might account for 25% of the therapy and be mainly used for monitoring relaxation/tension levels, identifying conflictual topics, and circumventing intellectual defenses. Many therapists with general practices play it by ear and use biofeedback in any combination of ways.

MIND-BODY HOLISM:

One of the most obvious Hakomi principles that biofeedback helps to underline is that of mind-body holism. Though notions of psychosomatic medicine and mind-body-spirit integration are seemingly wide spread in our day and time, it should not surprise us to find that the majority of folks still are not on to it. To a great many people one might encounter in a general psychotherapy practice a headache or back pain is just that and has nothing to do with frustrated sexual issues or dislike of the boss at work. And the reason they posture themselves the way they do (though it is totally out of whack with peace with gravity) is "That is the most

natural easy way to stand for me, so what?" Some estimates say that recurrent, non-responsive conditions treated by physicians today are 75% psychosomatic. This idea is not in the consciousness of the people being treated. Unconsciously, it is still more acceptable to most Americans to have physical problems than emotional ones, and so they do.

MINDFULNESS:

Biofeedback encourages a number of the dimensions that go along with mindfulness.

Signal to Noise Ratio: Relaxation is a standard aspect of biofeedback. Again, many people do not see the logic, necessity, or time for relaxation unless it is ordered by a doctor. So some people are well helped by having the "doctor" prescribe and teach relaxation. In so doing of course, the person can become exquisitely sensitive, allowing the desired signals to emerge much more clearly from the noise of everyday life.

Some therapists when dealing with something like Raynaud's Disease (pathological coldness in the hands) will ask someone to practice raising the temperature in their hands 30 to 40 times a day for two to three weeks. It is probably more realistic that somebody get to it six times a day. In either case, what is desired is that a person learn the relaxation response, be able to quickly, automatically, effortlessly go into a quiet state of non-tense alertness. It might take three to six months for the average patient.

Throughout the training a good therapist is teaching sensitivity, weaning people off the machines as quickly as possible, turning the meters on machines away from view and asking the person to give the correct reading. It does not take long before a therapist can meet someone at the door and ask, "So what temperature are your hands running today, Hank?" and get the correct response, "Oh, I don't know, about 92.6 I suppose." The same thing with muscle tension indicators for anxiety, guilt, etc. This is a wonderful happening for many folks who before training were only able to differentiate a charley horse from normal muscle tone.

Non-Doing: Another plus for biofeedback is that right from the beginning the person

learns the wonderful Taoist lesson that effort leads to failure. One simply cannot mobilize force and will to do combat with a meter indicator on a muscle tension machine. "I'll make that needle go down if it's the last think I do!" Precisely the last. Same thing with temperature. One has to let go, give up control, simply lay back and passively watch the indicators of the machine along with one's own experience, and somehow down the track, the body spontaneously learns to go one way and the other. After that level is reached, which might take a number of sessions, a person can begin to have more self conscious control through the use of imagery, visualization, etc. First, the person will normally have to find that level of not being mobilized and learn to differentiate it from the normal levels of tension associated with doing.

Awareness-Turned-Inward: The hallmark of mindfulness of course is becoming a witness to one's present experience. Good biofeedback practitioners, and certainly Hakomi people dealing with biofeedback, will always be using it as a tool to help the person explore internal states of awareness and what they are associated with, what they mean. "Why do you suppose the needle moved when we started through your day and hit 9:00 a.m.? What are you aware of when I mention 9:00 a.m.?" "Well, I don't know. I like my work." "Just hang out with the experience of 9:00 a.m. for a moment and see what emerges for you. It is good that it is mysterious and murky at this point." "I get a sensation in my upper stomach and neck." "Great. We don't have to do anything with that. How about just hanging out with it in a non-judgmental, curious kind of way and see if it will tell you any more about itself, no rush." "Greta! It's Greta this stiff-necked, overly important, too helpful secretary that brings me my morning mail along with a presumptuous agenda for my day." And the work is underway.

Sharp biofeedback practitioners focus awareness on two feedback loops that are important for the way a person interprets and experiences their world. One is the perceptual-cerebral loop. They help people become aware of how they automatically perceive situations and interpret them to themselves as in "every new woman I meet is contemptuous of my cowlick," and how that interpretation

mobilizes patterns of tension in the body. Emphasis is also put on the muscular-cerebral feedback loop. A person learns that every time they tense their muscles in a certain way, regardless of the presence of any objective situation (new woman), the brain is tipped off that a situation appropriate to withdrawal and defensiveness is present. So here is a good example of attempting to examine the "how" of how we do ourselves which Kurtz is always stressing; the way we process information.

The concept of patterning is important here. Ron talks about Pribram's holographic theory of the mind. Hakomi people will appreciate an article by Gary Schwartz titled "Biofeedback and Physiological Patterning in Human Emotions and Consciousness." Schwartz applies Pribram's ideas to the wave patterns of combinations of neurophysical, endocrine, and muscular systems that underlie the perception of emotions. There is a lesson here in organicity and complex non-linear determinism. Hakomi trainees know from tracking practice that the same muscles in the face can be involved in slightly different ways in expressing different emotions. So, at one time we track and guess, "a little sad, huh?" and another time it is subtly different and we go with, "a little skeptical, huh?" Many times we might not be self conscious about all the clues we are using to get our impression. If the person had a biofeedback electrode monitoring a specific point on a specific facial muscle, it is basically impossible to distinguish the readings involved in sadness and skepticism. Schwartz makes the point that many different physiological systems that combine to produce subjective gestalts need to be monitored to get a more accurate reading of the overall pattern of an emotion. He talks about synergism, how the whole is greater than the parts while dependent on the organization of the parts for its emergent properties.

This theory does come down to a practical, methodological implication. Normally in biofeedback, all we have the luxury of monitoring is one clue, one muscle for instance. However, sensitivity to this one muscle can give a clue to the meaning of the overall pattern and emotion. The way to help the person get at the whole is help them generalize. "What else are you aware of as your

neck muscles tighten?" "What is happening to your abdominal muscles at the same time?" "Do you feel more or less nauseous?" "Are your eyes more focused or defocused?" "What word describes the overall quality of this mobilization?" "What situations tend to bring about this pattern?" "What is the earliest memory you have that involved this pattern?"

In addition to deepening awareness of the overall pattern someone is generating, it is always important to generalize the relaxation ability beyond the office. Any good therapist knows that nothing has been done if a person has learned to relax in the office and then goes out and gets completely tense and enmeshed when the elevator is late. So they will have the person fantasize and act out different situations once the relaxation has been mastered in the quietness of the office. "You have another appointment after you leave here? Great. Fantasize going out of the office to the elevator and standing there while it is later and later in coming. Watch how you mobilize yourself. See if you catch the tension subtly coming over you. What do you have to do, what do you have to tell yourself to suspend that growing mobilization?" "Practice watching the same thing when you go over to you in-laws."

This is an important step that is neglected to the detriment of the patient. Often times a patient will come to a biofeedback therapist and learn how to control their blood pressure. The differences between pre and post training might not be that great. However, if the post training is compared to the blood pressure recorded in their medical charts which was taken in a normal hospital setting, the differences can be impressive. Laboratory settings are usually quiet and non-threatening, nothing compared to the potency of real life variables.

NON-VIOLENCE:

A couple of things in relation to non-violence. Is biofeedback really necessary? Does it lead to any better kind of relaxation than other methods we can employ? A number of articles addressed themselves to this point. Richard Surwit and David Shapiro have

one titled, "Biofeedback and Meditation in the Treatment of Borderline Hypertension." They compared the effectiveness of blood pressure biofeedback training, EMG biofeedback, and meditation. There was no difference overall. Meditation would actually be given the edge. It has a quicker effect at the start as well as improvement over time.

William B. Plotkin of the University of Colorado confirms this result and goes further. His article is "On the Social Psychology of Experiential States Associated with EEG Alpha Biofeedback Training." What he found is that the quality and intensity of positive values associated with the alpha experience such as pleasantness and relaxation have no actual relationship to alpha enhancement as recorded by EEG patterns. Good experiences have more to do with variables of social psychology. For instance, a person must perceive themselves to be successful in the task believed to lead to the alpha experience. The setting is important. Such qualities as compassion, acceptance, and encouragement provided by the therapist are needed. You can be in literal alpha EEG patterns and still be bummed out. Here is an interface with hypnosis.

So, Plotkin concludes that profound experiences are within the realm of normal people. They have the skills. EEG equipment is not needed. People have a natural ability for self control and self regulation that they have hitherto not been willing to grant themselves. The biofeedback researcher, by taking control, allows the person to give themselves the experience they thought not under their control and circumvent their self doubt.

Those are nice conclusions to be aware of I think. However, you or I knowing these things don't matter a twit when it comes to someone coming to our office asking for biofeedback. I believe it is simple elitism on our parts if we scorn a person's expressed desires and belief out of our superior knowledge of a better way. Non-violence says something to me about taking a person where they are at. After writing this much about biofeedback, I don't mind sharing that I am not that excited about it or disposed to use it myself. I would rather avoid it when it comes to first choices. But Ron has taught me a lot about going with the flow. I find it so much easier not to argue with people

anymore. If someone comes in and says, "What shall we talk about today?", a classic set up for a power struggle over who has responsibility for the session, I quickly pick a subject I like, like Opel GTs or how the Trailblazers did on their last outing. It usually takes about 75 seconds for the person to bring the session back to something important to him. They are just checking me out to see if I am invested in being a good therapist that day, running some particular agenda or number of them. So, non preferences, non-doing, going with the flow, non-violence, in relation to biofeedback or anything else. If biofeedback is all a person is open to, motivate for, I'm not into arguing with them about the necessity or superiority of other methods.

There is a good case in the literature that illustrates my bias nicely. A successful, hard driving businessman with a wonderful pain on his right side. The type who would have a heart attack 20 minutes before doing a presentation, breathe his way through it and do the presentation anyway. Completely anti-therapy of course. "Just roll up your sleeves and do it if it needs doing."

However, through the pressure from concerned family members he agrees to a biofeedback, stress management program. The therapist agrees to take him as a client and hooks him up to the equipment and teaches him some self regulation and control. A non-offensive, non-intrusive invitation is given for the man to simply be aware of whatever comes into his consciousness and share it with the therapist if he wants.

The man does learn how to manage his stress better and is encouraged to keep coming. It is important for him to have the measurable experience of success biofeedback offers. Then about the tenth session he spontaneously finds himself making a connection between the pain on his right side and his supervisor at work. The therapist processes that as much as the man is willing and available for. The feedback sessions continue. The man of course is getting quieter and more sensitive. At the 18th session a connection comes to him about the pain, the supervisor, and his relationship with his father. He is reflective, has his sadness available to him, and he is willing to process that with the therapist.

I like that illustration. Nice, easy, no confrontation or fuss. Things happen when they are ready to. The man's initial wants and non-wants are respected regardless of the therapist's hunches which saw the broader picture from the start. There is faith and trust in the healing process that transcends needing to make something happen, in a particular way, on a particular schedule.

MISCELLANEOUS ISSUES:

Children: Biofeedback can work quite nicely with children. Children accept the acquisition of physiological control skills as quite natural and the control might be a valued rarity in their otherwise externally dominated life. The learning process should be designed as one of play that fosters self exploration and self responsibility. Directions should be simple and the expectation implicit that they can do something. "Become quiet inside and make the needle go down." Children can learn the importance of attending to the body even in the midst of social pressure to the contrary such as a teacher scolding a class. Parental permission and encouragement are important for this kind of endeavor. Children will often not let the therapist be a stranger for long. They like modeling and the sense of having a compatriot in a special field not everyone is privy to. So, they will often ask the therapist to perform the task they are being asked to do too, to join with them in the adventure.

Contraindications: It is best to require a medical check up before accepting anyone for biofeedback. Generally speaking, a psychotherapist should not accept anyone with diabetes, stroke history, heart disease, high blood pressure medications, thyroid medications, phlebitis, bleeding ulcers or epilepsy. The reason is that the homeostatic balance of the body is changed through the relaxation. Blood clots can break loose, and people can overdose on their medications. One would need to be working closely with licensed medical people to alter this rule. Hakomi therapists in general would do well to follow this guideline since we also work toward relaxation and meditative states that influence body chemistry and balance. In general, it is good to have a working rela-

tionship with licensed health care professionals such as M.D.'s, Naturopaths, etc.,

One therapist reported a case that illustrates the necessity of effecting proper titration of medications during biofeedback. He was working with a patient whose sensitivity to the tricyclic anti-depressant Tofranil resulted in hypomania and the patient leaving therapy. Vertigo is a somewhat common reaction in some Type A, sympathetic dominant patients: kind of a decompression response from learning to relax. With insurance and disability benefits being what they are today, a final caution or contraindication is that of patient who is receiving a lot of secondary gains from their symptoms.

IN CONCLUSION:

Biofeedback can be important. It will probably never live up to all the hopes some people have put in it, but for all the reasons outlined above, it has its area of service. When I have talked about good biofeedback therapists in the body of this paper, I managed to leave out all the infinite ways biofeedback can be improperly used and wasted. I would hope that Hakomi therapists working within the guidelines of the Principles could put biofeedback to the best of uses. Certainly Hakomi folks who want or need well rounded generalist practices or who want to specialize in stress management, health psychology, and receiving referrals from the medical community will want to consider biofeedback as a part of what they offer. Formal training and accreditation in biofeedback can be obtained from the Biofeedback Society of America, 4301 Owena Street; Wheat Ridge, Colorado 80033; Tel (303) 420-2889.

(NOTE: Many of the articles referred to in this paper can be found in the NATO Conference Series of books, Biofeedback and Behavior).

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