

## Dissolving Physical Pain

Pain is epidemic in our culture. Pain is not just a throbbing headache or an aching neck but can be a broad range of sensations. It's any sensation or feeling that has an unpleasant or unwanted quality or intensity of experience that lingers over time, including a wide array of emotions such as anxiety, hatred, sadness, embarrassment, loneliness and depression. It includes all forms of physical pain – sharp, pulsating, shooting, dull, or fuzzy – even such vague forms as *weltschmerz* (literally “world pain”). And it includes such everyday pains as headaches, muscle spasms, back pain, and body aches.

Culturally we hold a one-dimensional view of pain, the “telegraph-wire” model, wherein pain signals are sent to and perceived in our brain. Surgeons can either cut the wire to interrupt the transmission or drug the pain into submission. Some models of pain, however, hold that tissue damage is only a small part of the total picture. A host of other physical and psychological factors determine how pain is perceived, affecting everything from the intensity of the pain to its nature, whether the pain is sharp or dull or throbbing to how other neural signals may enhance or compete with the pain.

In simple terms, the central nervous system is responsible for perceiving and registering pain. If it is running at too high a speed and is unstable – as it is in narrow-objective attention, where we gain speed in exchange for stability – it does a poor job of handling pain signals. It becomes much more reactive and hypersensitive, registering pain that might not have any physical cause and making minor pain seem much worse than it is. Pain, then – even physical pain—is a product of how we habitually attend. Chronic narrow-objective attention, which is the style of attention that we use when we tough it out, unconsciously pushing the pain away and keeping it at bay by averting our attention, actually makes things worse.

These symptoms are in large measure, products of an electrically unstable or overactive brain. Drugs can be helpful, of course, but they have side effects, and taking a drug doesn't teach us how to establish stable brain activity or stable attention on our own. A brain that can be electrically stable when necessary – and flexible when necessary – can deal with pain much more effectively than one that is not. My own clinical experience has shown that neurofeedback training can guide us to deploy our attention so as to achieve greater brain stability and flexibility.

To effectively deal with pain we need to do the opposite of what we usually do. When we feel pain, we automatically want to distance ourselves from it and fight it, thinking that resisting or otherwise avoiding the pain will give us some relief. But over the long term exactly the reverse is true. We give power to pain by narrowly objectifying away from it, whether consciously or unconsciously. By contrast, moving toward pain in an open focused attention style allows it to diffuse into a broader awareness and thus to dissipate and dissolve. It is possible that accepting pain instead of fighting it could prevent swelling and inflammation.

The act of narrowing and objectifying attention of a painful leg, for example, holds the pain at a distance and triggers additional nervous-system arousal, which makes the brain more reactive and the leg more painful, which in turn coincides with more narrow-objective attention; as a result, the pain takes on an exaggerated place in our narrow awareness. This feedback loop tends to sustain the emergency form of attention once it is triggered, and thus it takes some time to recover electrical and attentional stability.

As a person includes diffuse attention, along with narrow focus on pain, his or her physiological arousal levels are lowered and a broadened awareness develops around the pain. Opening to and accepting pain, and moving even closer to it, in this broadened scope of attention, diminishes its intensity. When our pain becomes a small portion of our total broadened awareness it becomes more acceptable, less threatening, and can readily be merged with and dissolved altogether.

Why does the way we attend affect painful muscles? In fight-or-flight mode, muscles are tense. Research has found changes in muscle cells that suggest oxygen deprivation results from tension. How we attend affects the brain's EEG, which in turn releases muscle tension, increases blood flow, and changes a host of other functions associated with sympathetic autonomic nervous system activity and increase of parasympathetic activity.

It's easy to understand the need to alter and broaden the way we attend to the external world but harder perhaps to understand the concept of paying attention differently to internal feelings and sensations, because our reactions to these are often unconscious and automatic. The placebo effect may, in fact, be a result of unconsciously changing how we attend to our internal experiences. It's a powerful phenomenon: in many double-blind studies of antidepressants and other psychoactive drugs, the placebo group fares as well as or better than the group taking the actual medication. This demonstrates the powerful self-healing mechanisms we have, and the effect is usually ascribed to a patient's expectation or belief that he or she will get better. There's no consensus on what the physiological mechanism underlying the placebo effect is, but a good case can be made that it is mediated by a shift in attention. When patients are given a sugar pill placebo they release their lock on a narrow-objective attention to their symptoms and include a more diffuse-immersed form of attention as they begin to merge with signs of illness, allowing symptoms to dissolve and supporting improved health.

The process of dissolving pain begins by establishing a physically quiet, low-frequency style of attention. Once clients in diffuse attention have objectified their pain and the space in, around, and through it, they imagine moving toward the pain, eventually merging with it. The sequence of attention styles usually necessary for pain dissolution begins with the client in narrow-objective attention and at least somewhat averse to full and direct experience of the pain. The client is first guided to include in his peripheral awareness a diffuse attention to all available senses in space. This is developed while attention is centered in feeling his/her pain and feeling the space that pervades all sensations. Keeping this diffuse attention in awareness, the second step is to narrow and objectify the pain by physically feeling its location in the body, feeling its shape, and feeling its intensity (on a zero-to-ten scale). The third step establishes a clearer, more direct objective attention to the pain with a simultaneous diffuse experience of space and sensations as a background. The fourth attention change involves creating the permissive conditions for merging one's conscious awareness into the center or heart of the experience of pain, thus allowing it to spread, diffuse, dissipate, and dissolve over a period of one to thirty seconds.

Repression and chronic avoidance of pain causes an immense energy drain, and once pain has been dissolved it frees up energy for other things. Clients who have dissolved their pain – physical or emotional – using neurofeedback-trained attentional skills often feel more centered, as if they have slipped back into their own “skin” after a long absence.