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Don't Be Afraid to Think. Critically.

by Bruce McKinnon '90

I've always enjoyed the practice of massage therapy. The human body is something I can reach out and touch and know that it's real. I can apply my knowledge of anatomy and state with certainty that I am touching what I think I am touching. This is what I have always believed – that what I am touching *is* what I am touching. Until more recently.

About two years ago I began to develop a bit of a problem. The blame for this problem can be laid squarely at the feet of the Internet. I started reading. Stuff. Stuff on various blogs and other science pages. Stuff written by some very bright people. I read some things I didn't agree with, because they were at odds with what I had been taught in school. At first I tried to ignore what I was reading, but because the Internet does not forget, it would not go away. These very smart people were challenging and poking holes in my belief system and I began to feel as though the foundation was being chipped away from beneath my practice.

It took some time for me to recognize that I have been a "trusting sponge"—I've happily absorbed everything offered without much questioning.

There are currently some serious debates going on in our profession. These include such topics as whether or not myofascial trigger points exist. John Quinter, et. al. say no; Jan Dommerholt et. al. say yes. And what about stretching fascia? This would be a no-brainer to a Rolfer or Structural Integrator. However, Diane Jacobs has suggested that we are stretching *skin* and that the changes in the tissue we perceive are neurologically-mediated responses to the skin being stretched. Do you feel confident with your palpation skills? Inter- and intra-rater reliability for some standard palpation tasks, such as measuring the height of the iliac crest or locating PSIS, has been shown to be poor.

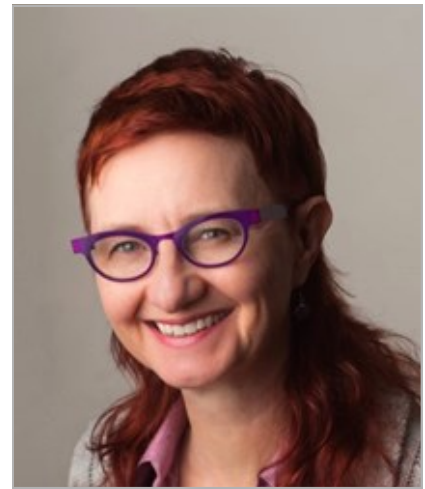
As a therapist, how am I to reconcile these disparate points of view? It turns out that being a critical thinker is essential. Looking at the science can be more helpful than simply fretting over what I have come to regard as 'therapeutic folklore.' According to Wikipedia, folklore is "traditional art, literature, knowledge and practices that are passed on in large part through oral communication and example. The information thus transmitted expresses the shared ideas and values of a particular group." Groups will cling very tightly to their shared ideas and values, even when faced with solid evidence: hello Flat Earthers, Obama Birthers and Climate Science Deniers.

Critical Thinking



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To gain some insight into critical thinking, I recently spoke with Monica Noy. Monica graduated from Sutherland-Chan in 2003 and from the Canadian College of Osteopathy (where she won an award for her research) in 2010. Since then, she has earned a BSc in Osteopathy from the Metropolitan University of London, England (via the British School of Osteopathy), and is currently enrolled in a Masters of Rehabilitation Science at McMaster. She has presented the Research Literacy course at S-C for several years and offers continuing education courses to healthcare practitioners on pain science. She is also just getting a critical thinking course off the ground.



Monica Noy

Her masters program is research-oriented and allows Monica to delve into the field she wants to investigate – pain science. In her words: *I get to research around pain science: setting up questions, doing the research, answering questions. It's very evidence-based medicine and evidence-based practice. This is a much more formalized learning than I am used to: how do you properly find research; why would you find it; how to formulate a question in order to search for the research; how to use the data bases; how to decide what is valid and what is not valid in order to narrow the focus. I'm also learning how to teach people about some of these things, so this is material that I can introduce into the classroom.*

Bringing these new insights into the classroom is a challenge, as time is tight and the material can be daunting. *Obviously I can't offer a masters program to massage therapy students – there's just not enough time. So I want to focus less on the nuts and bolts and more on what they need before that, which is the ability to critically think. That in itself requires a lot of tools. Part of the problem is understanding what critical thinking actually is and what the traits are that you want to develop when you critically think about something.*

For example: if your patient has a sore shoulder and you've found a trigger point, you might think 'this person has a trigger point in their shoulder and it's referring and that is their cause of pain.' This would be a fairly normal consideration in massage therapy. Questions then would come out of that: 'Can I actually say what a trigger point is?' and 'Why does it refer pain?' and 'If this treatment doesn't work, what other course of action do I have?' Part of critical thinking is to be able to understand when something doesn't work. And a big part of critical thinking is recognizing your own biases – humans are really, really good at confirmation bias: This protocol worked for Person A, so Person A then becomes representative of a much larger number than is real.

But the patients for whom the treatment didn't work – those who had more pain, or weren't satisfied with the treatment or didn't get better or didn't come back, those people may not even register. Those people can be dismissed in some way – they didn't do their self-care, or it wasn't because of the treatment, but because something else was going on for them...

If you're going to take credit for something and say 'I provided this treatment, this treatment worked', you have to at the same time be willing to take blame. And we're generally not ready to take that blame. We're not willing to see ourselves as possibly not good therapists. It's a hard one

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to say 'Is there another way? Should I be thinking differently about this?' There's this overarching context: we have trigger points, trigger points do this, this is how they operate, this is what we do to fix them... so if it's not happening, then we need to find other excuses. And that is the first thing we will do if we are not critically thinking. We will blame it on something else, we'll find a red herring, but we will not look at ourselves and we will not look at the information that we do have.

It's really about the self. Critical thinking is about looking at yourself. Part of critical thinking is embracing uncertainty, embracing 'I don't know.' That doesn't mean that the treatment doesn't work. It's going to have an effect for some of the people some of the time. Thinking about this process involves consideration of 'What else could we do? What are the other explanations for this that could come out of physiology or neurology or psychology?'

We don't get to pick and choose the science, and that's the interesting thing when you look at it from a critical thinking perspective. Massage therapy, osteopathy, chiropractic and others have borrowed some of the science – the anatomy, physiology, biomechanics, some anatomy of nerves, some function of nerves – but there are a lot of parts of the science that we've decided NOT to look at, so we've made theories from a limited amount of knowledge. These theories seemed to work at the time, but they can be shown to be inadequate. When they're shown to be inadequate we want to protect them, because we've built this bottom line around them and we don't want to give them up. But we don't have to give them up. This isn't about saying 'Oh that's bad', this is about saying 'That's an option. I can clinically reason when to use that option, because I have this knowledge.' But if you ignore this knowledge, then you don't have the clinical reasoning. All you know is 'This fits my model. I'm going to do this.'

Critical thinking is not about doubting everything, but it is about questioning everything.

And where does that leave me? The reality is that my therapeutic worldview has shifted from one of certainty to that of frequent confusion. Which brings me back to the Internet. What better place than the Internet to find raging arguments and maybe even some answers to my questions? I have found it prudent to use a cautious approach, as information, particularly misinformation, travels widely and quickly. As with media outlets, there are stronger resources and weaker resources, so as a consumer it's a good idea to vet them carefully – do your research, as it were...

There are several people/references/sites/blogs that I have found interesting, informative, and frequently entertaining. Some of my favourites, in no particular order, include:

- Lorimer Moseley
- Alison Sim (beyondmechanicalpain.com)
- Jason Silvernail
- Diane Jacobs (dermoneuromodulation.com)
- cor-kinetic.com
- Greg Lehman (greglehman.ca)
- Soma Simple (somasimple.com)
- Monica Noy (monicanoy.com/painstaking-blog)



Finally, if you've been in a deep sleep and haven't noticed, there is a lot of snark online - I think it behooves us to challenge one another in ways that are civilized and respectful.