Rethinking Chronic Pain

To the GISME workshop participants. This is a first draft of a new project. I still need to clean up the text a lot, add several more citations, and decide how to divide up the topics I cover in this paper. But there is enough here to give you a sense of the project. I look forward to hearing what you think! Thank you for taking the time to read this. ~Jess

Abstract

At least 20% of adults suffer from chronic pain. Pain reprocessing therapy is a promising, though often overlooked, treatment for chronic pain. Reprocessing therapy, broadly understood, consists in learning about the neurological nature of pain, identifying the psychosocial causes of chronic pain, journaling, behavioral therapy, and the resumption of normal activities. Crucially, reprocessing therapy requires that the patient acknowledge that they are not physically injured and accept that their pain has a psychological origin. In section 1, I argue that a significant number of chronic pain patients are suffering from psychosomatic pain disorders and I introduce reprocessing therapy as a promising treatment. In section 2, I then argue that a person who suffers from chronic pain can rationally undergo reprocessing therapy to address their chronic pain, even though the therapy requires patients to initially adopt a belief for pragmatic reasons. I address potential ethical objections to the promotion of reprocessing therapy for chronic pain in section 3. Section 4 concludes.

Introduction

The success stories have a similar structure. It begins with pain. Someone experiences chronic pain after they begin a new job, move to a new city, give birth, lose a job, lose a loved one, or get married. Or, they develop a repetitive strain injury from typing, gaming, sports, or playing a musical instrument. Sometimes it starts with a painful accident, or a frightening pop or strain. Other times the pain shows up for seemingly no reason at all. For some, the pain has been there off and on since childhood.

When the pain appears, it is intense and debilitating. Yet often, the pain comes and goes. The pain moves around in the patient's body. The patient goes to specialists. They read books. They watch videos about posture. They visit their family physician, physical therapists, dietitians, psychiatrists, orthopedic surgeons, rheumatologists, chiropractors, and endocrinologists. They resent the suggestion that it's all in their head. They try ergonomics and yoga and strength training. They do the prescribed exercises. This goes on for months or years, maybe decades. The patient is diagnosed with degenerative disc disorder, chronic fatigue syndrome, arthritis, depression, all of the above, and more. At the same time, physicians cannot point to any unusual tissue damage or injury. The patient downloads more apps. The doctors say they can only manage the symptoms. The patient tries Botox. The pain grows until the patient must lie flat on their back on the floor. They try acupuncture. Some doctors offer opioids. The patient tries meditation and relaxation techniques. Surgery doesn't fix the problem. Doctors tell the patient to accept their condition. The patient is unable to work, unable to do chores, unable to hold a toothbrush, unable to walk without a cane, bedridden. They are told that their body is broken and they believe it.

Then, suddenly the patient finds an effective solution. The pain dissipates. After years of searching and suffering, their condition is alleviated by an intervention that doesn't require any money, surgery, or drugs. This patient's account is fairly representative. He writes, "It was oddly exhilarating to take control of my body again. I got back to running, lifting weights and was living normally within weeks."[1] After their recovery, the patient is reluctant to tell other people what worked for them. They say things like "I swear I'm not woo-woo, but…"[2] Or, "it was hard for me to grasp that I was a rational person who had gone through a confusing and

[1] Jonathan Forani, "John Sarno's Mind-Body Theory Helped Thousands with Chronic Pain," *The Toronto Star*, July 16, 2017, sec. Health & Wellness, https://www.thestar.com/life/health_wellness/2017/07/16/john-sarnos-mind-body-theory-helped-thousands-with-chronic-pain.html.

[2] Juno DeMelo, "I Have to Believe This Book Cured My Pain," *The New York Times*, November 9, 2021, sec. Well, https://www.nytimes.com/2021/11/09/well/mind/john-sarno-chronic-pain-relief.html.

esoteric experience. I felt like a proselytizing religious convert"[3] Or similarly, "It was the closest thing that I've ever had to a religious experience in my life,"

For these chronic pain patients, the solution to their pain was, essentially, learning that their pain was psychosomatic. Many people report that their pain was cured by reading a book or watching a lecture that explained psychosomatic pain disorders. For these patients, the first step and most powerful part of their recovery consisted in simply forming the belief that their bodies were not damaged and broken, and that the pain they were feeling was a psychological response to stress or emotional discomfort.

Though there are many names for this disorder and the therapies that treat it, for my purposes I will refer to this cause of chronic pain as 'conversion disorder' or psychosomatic pain disorder; and I will call the treatment 'reprocessing therapy.' Reprocessing therapy, broadly understood, consists in learning about the neurological nature of pain, identifying the psychosocial causes of chronic pain, journaling, behavioral therapy, and resumption of normal activities. Crucially, reprocessing therapy requires that the patient acknowledge that they are not physically injured and accept that their pain has a psychological origin.

I realize that many readers are likely already skeptical of my suggestion that many people with chronic pain suffer from psychosomatic pain disorder that can be treated through a psychological intervention like reprocessing therapy. In Section 1, I will explain why psychosomatic pain disorder is often a plausible explanation for chronic pain and illness and I will review the evidence in favor of reprocessing therapy as a treatment for chronic pain.

The phenomenon of psychosomatic pain disorder and the clinical success of reprocessing therapy is philosophically interesting for two reasons. First, it provides further evidence for the claim that a person can rationally will themselves to believe something that contradicts their perception of the world and it suggests that people can and should rationally choose to form a belief for pragmatic reasons. Reprocessing therapy also sheds light on some puzzles related to transformative experiences. I address the rationality of reprocessing therapy in section 2.

The fact that reprocessing therapy is a promising treatment for chronic pain challenges several widely held tenets of medical ethics. To critics of reprocessing therapy, it can sound like proponents of this approach are gaslighting patients into thinking that they are not physically injured and denying disabled people's testimony about their own pain. Or it can sound like bright-siding or victim-blaming. Some people compare psychosomatic diagnoses to Freudian hysteria—suggesting that both are diagnoses that health workers deploy to avoid accountability and to dismiss and discredit difficult female patients. It can also be risky to recommend reprocessing therapy to patients who may indeed have underlying physical injuries or illnesses. In section 3, I address these objections to reprocessing therapy and I discuss the ways that reprocessing therapy has potentially revisionary implications for these ongoing conversations in medical ethics. There, I also discuss the implications of reprocessing therapy for pain management and public policy. I argue that officials and health workers should consider the ways that social institutions, incentives, and treatment protocols create or prevent psychosomatic pain disorders. I also make the case that public officials and health workers should be mindful that their narratives of illness can potentially exacerbate the prevalence of psychosomatic pain disorders. Additionally, I argue that officials and health workers are never justified in withholding information about psychosomatic pain disorders and reprocessing therapy, even if publicizing this information could further stigmatize chronic pain patients. Section 4 concludes.

1: The Problem of Chronic Pain

Chronic pain causes an extraordinary amount of suffering, not only due to the pain itself but also due to the missed opportunities that pain patients experience and the burdens that chronic pain patients place on the health system and the economy. In this section I first argue that chronic pain, like other forms of pain, is a subjective psychological phenomenon. I then argue that chronic pain does not always arise due to underlying injury, illness, or tissue damage. Next, I review the medical literature for various treatments for chronic pain. I then introduce the evidence for a psychosocial treatment for chronic pain—reprocessing therapy. At the end of this section, I discuss the evidence in favor of reprocessing therapy.

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[3] Isobel Whitcomb, "The Mysterious Pain I Felt for Years Led Me to a Strange Place—and a Thrilling Solution," *Slate*, June 5, 2022, https://slate.com/technology/2022/06/chronic-pain-identity-spoonies-support-recovery.html.

At least 20% of adults suffer from chronic pain. Chronic pain can include back pain, repetitive strain injury, gastrointestinal problems, fatigue, and other forms of chronic illness. I will focus mostly on back pain, but many of the claims I review in this section apply to other kinds of chronic pain too. Chronic pain is extraordinarily costly. It is costly to the health system. Typically, chronic pain patients see multiple doctors and other specialists every year. Pain treatment is expensive too, imposing costs on patients as well as insurance providers. Chronic pain patients can also require workplace accommodations, including ergonomic devices, time off for physical therapy, and restrictions on their ability to do physical tasks related to their jobs. Some chronic pain patients cannot be employed. Taxpayers pay to support chronic pain patients who are too disabled to work. In some cases, chronic pain patients turn to opioids. The opioid epidemic is not only costly due to the expenses involved in prohibition, recovery treatment, and overdose treatment; it is also costly in terms of the life years lost when people die prematurely from an overdose. Most heartbreakingly, chronic pain is costly in ways that cannot be quantified. Millions of people are suffering every day.

When people talk about chronic pain, they often conflate the description of pain with the explanation for the pain. For example, people will say "my wrist hurts anytime I type because I have an overuse injury" or "the discs in my back are so damaged that I feel like I'm being stabbed every day." Yet, a person can experience pain without experiencing any underlying injury or tissue damage. And a person can experience tissue damage without pain. As an illustration of this point, Rachel Zoffnes presents two cases of workers who were injured by nails.[4] The first worker jumped off a plank onto a 7-inch nail, which penetrated through his work boot. He was in so much pain that the physicians at the emergency room gave him opioids before they removed the boot, only to find that the nail had slipped between his toes and his body was in no way damaged. In contrast, Zoffnes also describes a worker who was hit in the face with a nail gun. He experienced a mild toothache and his jaw was bruised, but did not realize that a 4-inch nail was also imbedded in his head until he went to the dentist six days later. Accounts like these are common in medicine. People's experience of pain is highly contextual, and pain is not always a reliable indicator of tissue damage.

Other research also confirms the psychological nature of pain. For example, placebos can effectively treat pain even though they do not cure patients of an injury or treat their illnesses. The placebo effect even works when health workers administer an 'open placebo' by telling their patients that they are receiving an inert substance. Placebos can also cause pain, if health workers suggest that an inert substance may have negative side effects.[5] Phantom limb syndrome is a condition where amputees experience painful sensations in a limb that no longer exists. This condition further confirms that a person's experience of pain is not necessarily an indication of tissue damage.[6]

Psychological conditions can cause people to experience physical symptoms of chronic illness. For example, consider people who suffer from conversion disorders (which are sometimes called functional neurological system disorders). Patients with conversion disorder often have symptoms that are similar to other neurological disorders such as multiple sclerosis or epilepsy, but their symptoms are not attributable to these physiological ailments. Conversion disorders take many forms. Some people who suffer from the disorder experience numbness or paralysis. Others have seizures. Conversion disorders can cause blindness and deafness too. In other cases, patients may experience memory loss, slurred speech, an abnormal gait,

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[4] Rachel Zoffnes, "A Tale of Two Nails," *Psychology Today*, November 21, 2019, https://www.psychologytoday.com/us/blog/pain-explained/201911/tale-two-nails.

[5] Winfried Häuser, Ernil Hansen, and Paul Enck, "Nocebo Phenomena in Medicine," *Deutsches Ärzteblatt International* 109, no. 26 (June 2012): 459–65, https://doi.org/10.3238/arztebl.2012.0459.

[6] As Murat Aydede characterizes the philosophical literature on pain, scientific research on pain tends to characterize it as an emotional state, rather than as a form of perception akin to vision or the sensation of touch. This view of pain is consistent with the cases I am describing, where people's experience of pain is not caused by their perception of tissue damage or the effects of a harmful drug. Aydede writes that philosophers of pain have, until recently, been more favorable to the view that pain is a form of perception like touch or vision, but that even those who defend the view that pain is a form of perception acknowledge that a person can experience pain while misperceiving the causal origin of that pain. Philosophical debates about pain generally assume that pain is a subjective experience in the brain, but disagree about how to characterize it from there. On one hand, some philosophers cite stories of pain indifference to challenge the claim that pain is intrinsically bad (see e.g. Dennett on pain asymbolia) Others try to separate the feeling of pain from the evaluative attitude. As Hardcastle argues, these debates are not really about the physical nature of pain, rather they are about finding a conceptual analysis of pain that can fully accommodate the range of experiences that are included in the folk concept of pain. For our purposes though, the only analysis of pain that is ruled out by the claim that people can experience psychogenic pain is a theory which would narrowly define pain as a psychological response to physical injury.

difficulty swallowing, tremors. One kind of conversion disorder, resignation syndrome, is a condition where children respond to psychological trauma in ways that cause them to become catatonic.[7] These children are incontinent, motionless, and must be fed through a feeding tube in order to survive. In these cases, the patients symptoms and impairments are real, but the cause is psychological.

What I am calling psychosomatic pain disorders are similar to, or a version of conversion disorder. A person who has psychosomatic pain disorder might experience back pain, stomach pain, or joint pain despite the fact that they do not have an underlying injury or tissue damage. Most physical injuries to a person's joints, bones, or muscles can be identified by a physician and they heal within two months. Yet many chronic pain patients experience symptoms of injury for years and physicians cannot identify a clear underlying injury or cause. Often these symptoms emerge when a person experiences new psychosocial stressors, such as a new baby, a job change, an accident, or a death. Then, the symptoms themselves become an additional source of stress, which exacerbates the pain symptoms.

2. Treating Psychosomatic Pain

Suffering does not always reveal its origin. Before we had an understanding of heart disease, aneurysm, and cancer, people would suffer and die from mysterious ailments that they attributed to demons or spirits, poor diet, or moral failures. Today, as in the past, patients and bystanders may misunderstand the causes of chronic pain. A person's back pain, for example, may be attributed to degenerative disc disease or a repetitive strain injury when it's actually a psychological condition. At the same time, psychosomatic pain disorder is controversial among health workers and chronic pain patients, partly because they worry that psychosomatic diagnoses may also be inaccurate. Telling injured people that they aren't really injured is harmful, but so is telling an un-injured person that they are injured. Many people suffer from chronic back pain may balk at a psychosomatic pain disorder diagnosis on the grounds that their doctors have in fact identified spinal abnormalities, disc degeneration, or inflammation.

I grant that some people who suffer from back pain do in fact have back injuries. Yet even if a person has spinal abnormalities, they may also have psychosomatic pain disorder.[8] Pain is not reliably correlated with abnormal findings in medical imaging or physical exams. Though providers and patients may cite an abnormality as the cause of a person's back pain, they overlook that many people have similar abnormalities and no pain and that 85-99% of people who experience chronic pain do not have an clear structural disorder or injury that sets them apart from other patients.

According to some health workers who treat psychosomatic pain disorders, people are especially prone to experience psychosomatic chronic pain if they are perfectionistic and morally scrupulous. To the extent that this is true, psychosomatic pain disorders is similar to what Walter Sinnott-Armstrong and Jesse Summers call Moral Obsessive Compulsive Disorder (OCD), a condition where a person's anxiety about moral transgression causes them to act in ways that are self-destructive or counterproductive.[9] But unlike patient' with Moral OCD, patient with psychosomatic pain disorders are not aware that their scrupulosity is causing physical symptoms.

Health workers who treat the condition also report that people are also vulnerable to psychosomatic pain disorders as they age, and some speculate that it may arise due to anxieties around aging and death.[10] New mothers also seem to experience psychosomatic pain disorders at a high rate. If this all sounds somewhat Freudian it's because it is, at least in the sense that it rests on the assumption that psychological states like guilt, anger, and shame can influence a person's phenomenological experiences and behavior without the person being consciously aware of those emotions.

Perhaps the strongest evidence for the claim that many people suffer from psychosomatic pain disorder is the evidence behind various therapeutic responses for conditions like repetitive strain injury and chronic back pain. Repetitive strain injury (RSI), which is sometimes called overuse syndrome, is a pain

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[7] https://doctorsoftheworld.org/blog/swedens-mystery-illness-resignation-syndrome/#:~:text=The%20syndrome%2C%20also%20known%20as,have%20been%20identified%20outside%20Sweden.

[8] Cite CO back injury study/ MRI study of radiology results

[9] Jesse S. Summers and Walter Sinnott-Armstrong, *Clean Hands: Philosophical Lessons from Scrupulosity* (New York: Oxford University Press, 2019).

[10] Sarno healing back pain

disorder associated with certain occupational behaviors such as typing or sitting at a desk. It often includes severe pain, numbness, or sensitivity to touch. RSI develops in particular cultural contexts. The strongest correlation between occupational risk of RSI and chronic pain that precludes a person from returning to work is poor job satisfaction.[11] People often report the development of RSI symptoms after starting a new job or beginning a stressful phase of life. There are few known medical interventions that successfully treat RSI, but for thousands of patients, therapies for psychosomatic pain disorders are an effective cure.

Similarly, many people who suffer from chronic back pain will struggle for years to find an effective treatment, or even to find evidence of an underlying injury. One review finds that "In the case of chronic low back pain, the magnitude of tissue damage may be out of proportion to the reported pain experience, there may be no remaining structural impairment, and physical signs that have a predominantly nonorganic basis are likely to be present." [12] More generally, most people with back pain have no discernable physical injury, infection, fracture, or tumor that would explain why they experience back pain.[13] Most people without back pain have bulging disks and protrusions, according to MRI's, leading researchers to conclude that these conditions in people with back pain may be coincidental, rather than a cause of their pain.[14]

A lot of medical interventions for back pain, including surgical interventions, are counterproductive and harmful on balance for patients.[15] Opioids are often harmful too. Not only do they fail to effectively reduce people's pain symptoms, they can cause some people to become hyper-sensitive to pain, thereby making their pain worse in the long-term.[16] Relatedly, a recent Randomized Clinical Trial finds that opioids did not improve knee and hip pain patients' functionality after a year of use.[17]

Adding to the evidence for psychosomatic back pain, reports of back pain are be more prevalent in some cultural and demographic groups than others. And there are strong placebo effects for the treatment of back pain. The strength of the placebo effect (including an open placebo effect!) for back pain also suggests that the condition is at least partly psychosomatic, and not a response to an ongoing physical injury, since the placebo effect is itself a psychiatric intervention.

So too with bowel disorders. Many people suffer from gastrointestinal symptoms that cannot be explained by an underlying physical disease or injury. In these cases, people are diagnosed with irritable bowel syndrome (IBS). IBS is highly correlated with anxiety. And one of the most effective therapies for IBS is a hypnotherapy program that aims to treat people's anxieties about their gastrointestinal symptoms.[18]

If these patients were not suffering from a psychosomatic pain disorder though, then we should not expect psychiatric interventions to work. Instead, we should expect physiological interventions to be more effective. Yet when patients commit to using psychological interventions that help patients recognize and overcome their psychosomatic pain, they are more likely to recover. For example, two large meta-analyses of psychological interventions for chronic pain found that cognitive behavioral therapy had a small but statistically significant effect in reducing pain symptoms and improving pain management.[19]

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[11] M. C. Ratinaud et al., "Job Satisfaction Evaluation in Low Back Pain: A Literature Review and Tools Appraisal," *Annals of Physical and Rehabilitation Medicine* 56, no. 6 (September 1, 2013): 465–81, https://doi.org/10.1016/j.rehab.2013.06.006.

[12] Eric L. Garland, "Pain Processing in the Human Nervous System: A Selective Review of Nociceptive and Biobehavioral Pathways," *Primary Care* 39, no. 3 (September 2012): 561–71, https://doi.org/10.1016/j.pop.2012.06.013.

[13] Rebecca Gordon and Saul Bloxham, "A Systematic Review of the Effects of Exercise and Physical Activity on Non-Specific Chronic Low Back Pain," *Healthcare* 4, no. 2 (April 25, 2016): 22, https://doi.org/10.3390/healthcare4020022.

[14] Maureen C. Jensen et al., "Magnetic Resonance Imaging of the Lumbar Spine in People without Back Pain," *New England Journal of Medicine* 331, no. 2 (July 14, 1994): 69–73, https://doi.org/10.1056/NEJM199407143310201.

[15] David Epstein, "When Evidence Says No, But Doctors Say Yes," ProPublica, accessed June 23, 2022, https://www.propublica.org/article/when-evidence-says-no-but-doctors-say-yes.

[16] Marion Lee et al., "A Comprehensive Review of Opioid-Induced Hyperalgesia," *Pain Physician* 14, no. 2 (April 2011): 145–61.

[17] Erin E. Krebs et al., "Effect of Opioid vs Nonopioid Medications on Pain-Related Function in Patients With Chronic Back Pain or Hip or Knee Osteoarthritis Pain: The SPACE Randomized Clinical Trial," *JAMA* 319, no. 9 (March 6, 2018): 872–82, https://doi.org/10.1001/jama.2018.0899.

[18] W M Gonsalkorale et al., "Long Term Benefits of Hypnotherapy for Irritable Bowel Syndrome," *Gut* 52, no. 11 (November 2003): 1623–29.

[19] Bahar Niknejad et al., "Association Between Psychological Interventions and Chronic Pain Outcomes in Older Adults: A Systematic Review and Meta-Analysis," *JAMA Internal Medicine* 178, no. 6 (June 1, 2018): 830–39, https://doi.org/10.1001/jamainternmed.2018.0756. and Amanda C. de C. Williams, Christopher Eccleston, and Stephen Morley, "Psychological Therapies for the Management of Chronic Pain (Excluding Headache) in Adults," *The Cochrane Database of Systematic Reviews* 11 (November 14, 2012): CD007407, https://doi.org/10.1002/14651858.CD007407.pub3.

Among these psychiatric treatment options for chronic illness, perhaps the dominant therapy for psychosomatic pain disorders, which is sometimes called pain reprocessing therapy, is effective for a range of conditions. Reprocessing therapy largely consists in two interventions. First, reprocessing therapy involves convincing patients that they have a psychosomatic diagnosis. As one researcher writes,

> "Clinicians may believe that diagnosing pain subtype is difficult and potentially stigmatizing. However, the attribution that centralized pain stems primarily from peripheral tissue damage maintains patients' fears that their pain signals dangerous bodily damage. This fearful belief can decrease patients' motivation to engage in needed psychological and behavioral changes, thereby impeding treatment" [20]

Second, once patients acknowledge that they have a psychosomatic pain disorder, reprocessing therapy can involve journaling, exposure therapy, and other kinds of psychiatric exercises that help patients address the psychiatric concerns that were causing them to experience physical symptoms.

In a recent systematic review and meta-analysis of a version of pain reprocessing therapy, researchers find that psychosomatic pain therapy is associated with a significant reduction in pain, which strongly suggests that a substantial number of patients found these therapies helpful.[21] In that review, the authors write,

> "In (back pain) and other chronic conditions, to consider such pain as malingering or somatization would be to grossly oversimplify the matter. Pain, whether linked with injured tissue, inflammation, or functional impairment, is mediated by processing in the nervous system. In this sense, all pain is physical. Yet, regardless of its source, pain may result in hypervigilance, threat appraisals, emotional reactions, and avoidant behavior. So in this sense, all pain is psychological." [22]

These authors take care to emphasize that people who suffer from psychosomatic pain disorders do experience 'real' pain that is neurochemically identical to the pain people feel when they are injured. Yet the etiology of the pain is psychological, so in these cases psychiatric treatment is warranted for physical pain.

As previously noted, psychosomatic pain disorders are similar to other conditions such as Bodily Identity Integrity Disorder (BIID), phantom limb syndrome, dissociation, hallucinations, or body dysmorphic disorder. In some ways, it is also similar to Tinnitus and other functional neurologic symptom disorders. In each of these cases, patients experience physical sensations (or a lack of physical sensations) that are psychogenic in their origin. In some of these cases, psychogenic conditions can only be treated with physical therapies. For example, BIID is most effective treated by limb removal.[23] But in other cases, psychiatric interventions can effectively alleviate psychogenic symptoms. For example, mirror therapy is the most effective treatment for phantom limb syndrome. Like reprocessing therapy, mirror therapy involves psychiatric interventions that help patients develop a more accurate belief about the nature of their bodies and their pain, in order to mitigate the pain they experience.

Similarly, for some psychosomatic pain patients, psychiatric interventions may be unsuccessful, either due to patient's resistance to treatment, their inability to accept a psychiatric or neurological diagnosis, or due to the more general limitations of psychotherapeutic medical interventions.

I do not mean to suggest that everyone with chronic pain is suffering from a psychosomatic pain disorder or that psychosomatic pain disorders are the primary cause of chronic pain. In my view, some health workers who advocate for reprocessing therapy overstate the prevalence of psychosomatic pain disorders and the effectiveness of reprocessing therapy. However, the foregoing evidence suggests that a significant number of pain patients could benefit from reprocessing therapy when other treatment has failed. And this suggests that a significant number of people with chronic pain have, to some extent, psychosomatic pain disorders. Given the extraordinary prevalence of chronic pain among adults and the dearth of other effective interventions, mainstream health workers should not marginalize or dismiss reprocessing therapy as a promising treatment for chronic pain.

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[20] Psychological Therapy for Centralized Pain: An Integrative Assessment and Treatment Model

[21] Eric L. Garland et al., "Mind-Body Therapies for Opioid-Treated Pain: A Systematic Review and Meta-Analysis," *JAMA Internal Medicine* 180, no. 1 (January 1, 2020): 91–105, https://doi.org/10.1001/jamainternmed.2019.4917.

[22] Garland, "Pain Processing in the Human Nervous System."

[23] Tim Bayne and Neil Levy, "Amputees By Choice: Body Integrity Identity Disorder and the Ethics of Amputation," *Journal of Applied Philosophy* 22, no. 1 (2005): 75–86, https://doi.org/10.1111/j.1468-5930.2005.00293.x.

2. Reprocessing and rationality

Though reprocessing therapy is often effective, it can only be effective if the pain patient accepts that their pain is psychological and that their bodies are not injured or damaged. Yet it can be very hard for patients to accept that their pain has a psychological etiology, due to the psychological conditions that cause people to experience chronic pain. In this section I address whether a person can rationally undergo reprocessing therapy for chronic pain. One reason to think that reprocessing therapy is irrational is that it requires people to initially adopt a belief (that they are not injured/that their pain is psychosomatic) in the absence of evidence that the belief is true. It is only once the patient has genuinely adopted the belief that the patient acquires evidence that the belief was true after all. When their pain dissipates after they adopt the belief that their pain is psychosomatic, this provides evidence that their pain is psychosomatic. If patients cannot genuinely believe that the pain is psychosomatic, then they cannot successfully use reprocessing therapy, and then they cannot access the needed evidence that their pain is psychosomatic.

In this way, questions about the rationality of reprocessing therapy are similar to the questions about the rationality of faith, hope, transformative experience, and believing for pragmatic reasons. The success of reprocessing therapy can not only inform these debates about the rationality of adopting a belief, it also sheds light on broader questions about belief and volition.

I suspect that some of people's concerns about the rationality of reprocessing therapy also arise due to concerns about falsifiability. Whenever reprocessing therapy works, the effectiveness of the therapy provides strong evidence for a diagnosis of psychosomatic pain disorder. The problem is that whenever the therapy doesn't work for a pain patient who shows no signs of injury or damage, a proponent of the therapy might reply that the therapy didn't work because the patient didn't believe that it would work or give the therapy a sincere try. In these cases, there's no way for a health worker or patient to know whether the patient is suffering from a psychosomatic pain disorder or whether their chronic pain is caused by a still unknown injury or disease.

Reprocessing therapy can be rational in the ways that faith can be rational. For example, Lara Buchak defends the risky-commitment account of faith. On her view, it can be rational for a person within a tradition to maintain their traditional beliefs and to ignore or discount counter-evidence "because the only way a tradition can be successful if correct is if counterevidence is sometimes ignored."[24] By analogy, the only way that reprocessing therapy can be therapeutically successful, if a patient is in fact suffering from a psychosomatic pain disorder, is if the patient ignores and discounts the evidence they encounter (via the perception of pain) which suggests that their tissue is damaged and their bodies are injured.

Buchak also discusses the rationality of faith conversions where people reject one systematic tradition and begin to believe another one. These circumstances can include scientific paradigm shifts, religious conversions or radical changes to interpersonal relationships. Buchak writes "conversion, unlike ordinary belief change, resolves tension that is built up and involves a drastic epistemic reorientation." This occurs *because* a person can rationally maintain their commitment to a tradition despite counter-evidence, but if evidence gradually (or suddenly) exceeds a threshold which merits revision, they no longer have the reasons to rationally maintain their commitments despite counter-evidence. Paradigm shifts and seemingly radical conversion experiences can therefore be rational even if they seem to involve an abrupt reassessment of available evidence. For people with psychosomatic pain disorders, reprocessing therapy is effective because it provides enough evidence for a person to realize that their previous commitment to believing they were injured or damaged was no longer warranted, and to adopt a new paradigm instead.[25]

It can also be rational for a patient to try reprocessing therapy for their pain because there is some evidence that many people do have psychosomatic pain disorders and there is evidence that reprocessing therapy is effective for people with this condition. Even if a person thinks that there is only weak evidence for reprocessing therapy and that psychosomatic pain disorders are fairly rare, on some accounts, people may have several options for permissible belief.[26] If so, then this is another way that believing in reprocessing therapy could be rational.

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[24] LB Nous paper

[25] Proponents of reprocessing therapy explicitly appeal to the language of paradigm shift (e.g. Schubiner unlearn pain book)

[26] Miriam Schoenfield epistemic permissivism

Reprocessing therapy can also be rational in the way that having faith in oneself, or in other people can be rational. Ryan Preston Roeder argues that it is not only virtuous but also potentially rational to have faith in other people because having faith in someone and setting high expectations can make it more likely that the person will act well and meet those expectations.[27] Similarly, if a person with a psychosomatic pain disorder has faith in their ability to successfully undergo reprocessing therapy, it is much more likely that the reprocessing therapy will succeed. Reprocessing therapy cannot work to treat pain if the patient cannot provisionally adopt the belief that it can work.

Similarly, some accounts of the rationality of hope make a similar argument for adopting provisional beliefs on the grounds that the belief is more likely to be true if someone holds it.[28] More broadly, some epistemologists argue that a person can rationally adopt a belief for pragmatic reasons. Knowing about the success rates of reprocessing therapy, patients in pain can rationally adopt the belief that they have psychosomatic pain disorders and that reprocessing therapy will work for them not only because those beliefs may be true, but because those beliefs can be instrumental to their recovery from pain.

Reprocessing therapy works by transforming the patient's experience of her own body. Often, patients who use reprocessing therapy find it both liberating (from pain) and burdensome. It is burdensome because the therapy can require patients to confront difficult emotions and to develop a mental habit of managing their emotions consciously rather than repressing their anger and stress. This is another sense in which someone might wonder if a person can rationally undergo reprocessing therapy, since they cannot know what it will be like to recover from their pain in this way. On my view though, even if reprocessing therapy is a transformative experience and even if transformative experiences do pose some challenges for rational decision makers, these concerns are less of a barrier to viewing reprocessing therapy as a rational decision because the status quo of chronic pain is extraordinarily burdensome.

A related worry about reprocessing therapy is that patients might be unable to effectively adopt the necessary beliefs to overcome their chronic pain, even if they think they have a psychosomatic pain disorder and even if they think that reprocessing therapy could work. There are two versions of this worry. The first is that people generally cannot will themselves to believe things, or that belief is non-volitional. Yet even if we grant that people cannot straightforwardly will themselves to believe without any other behavioral changes, people can put themselves in a position where they are more likely to form one belief over the other. Moreover, people can put themselves in a position to form particular beliefs for pragmatic reasons, or even moral reasons. In this case, people can form identities and attend to evidence in ways that make it more likely that they will accept a psychosomatic pain diagnosis, and they can choose to form these identities and process evidence in these ways because doing so will help them recover. At the same time, people may form identities and attend to evidence in ways that make them reject a psychosomatic pain diagnosis too, if they have other pragmatic or moral reasons to maintain the belief that they are physically injured.

In addition to these strategies for putting oneself in a position to form a belief in a psychosomatic diagnosis, on some accounts of belief, people can will their beliefs to be true through force of will alone. For example, David Velleman views intentions as beliefs that are subject to our volitional control.[29] This is consistent with some accounts of psychosomatic pain recovery where patients overcame their chronic pain by forming intentions to act as if they were not injured or in pain, which then caused them to subsequently believe that they were not injured or in pain.

Another version of this worry is more empirical. Namely, the worry is that some people will, in fact, be unable to form the belief that their pain is psychosomatic, even if it is. This empirical worry is legitimate. It can be hard for patients to accept a psychosomatic diagnosis for a variety of reasons, which I will discuss in the next section. One of the most difficult aspects of effective reprocessing therapy is that it requires patients to doubt their own perceptions about what is causing their pain, and in many cases, to reject previous diagnoses too. At the same time, there is also a great deal of evidence for placebo effects, which establishes that merely forming a belief can be curative for a range of conditions, so patients may be justified in believing that a belief alone can alleviate their pain as well. Placebos can even be beneficial for chronic when patients

[27] RPR faith in humanity
[28] Miriam M on hope
[29] Velleman 2000?

know that they are receiving a placebo.[30] And the aforementioned evidence in support of reprocessing therapy shows that at least some people are able to sincerely form the belief that reprocessing therapy will lessen their pain, which causes the therapy to lessen their pain.

3. Moral objections to reprocessing therapy

People who are skeptical about reprocessing therapy for chronic pain press several objections against the practice. First, they argue that it is dangerous to promote reprocessing therapy because some people really do have tissue damage or a treatable illness, and dismissing their pain as a mental health condition could cause them to forego seeking treatment in a timely way. Another line of this criticism focuses on the lack of evidence in favor of reprocessing therapy as a treatment for chronic pain. Second, critics of reprocessing therapy may characterize it as a kind of victim-blaming for pain patients. In this vein, some people may find the idea of curing pain through positive thinking to be not only implausible, but also oppressive and condescending. A third worry about the promotion of reprocessing therapy is that it casts pain patients as unreliable narrators of their own experiences. And as many disability advocates and feminist scholars point out, it can be harmful to question or undermine a patient's testimony about their own experiences of embodiment. In this section I address these ethical objections to reprocessing therapy.

The first criticism of reprocessing therapy is that it could prevent patients from receiving effective treatment for an injury or from a different disease. As many patients in chronic pain advocacy groups and communities are quick to point out, physicians have recently discovered potential physiological causes of many diseases that were initially diagnosed as psychosomatic, including Multiple Sclerosis and peptic ulcer disease.[31] And since medical knowledge is so limited, the physiological causes of many people's pain is still unclear. Yet proponents of reprocessing therapy acknowledge that some people do experience chronic pain due to non-psychosomatic diseases. But the effectiveness of reprocessing therapy suggests that many others experience psychosomatic chronic pain. So while there are risks associated with delaying treatment for any chronic pain condition, the risks of delaying effective treatment for psychosomatic pain conditions while a patient searches for an injury or a different diagnosis are also morally significant.

Despite the substantial evidence for psychosomatic pain disorders that I presented in the previous section, chronic pain patients and advocates also claim that it can be dangerous to diagnose a person a psychosomatic pain disorder because there isn't enough evidence for the claim that a lot of pain is psychosomatic or the claim that reprocessing therapy can help. Admittedly, the research I presented in above is fairly nascent. Researchers are only now beginning to apply the same rigorous analysis to psychosomatic pain disorders that they've historically applied to physiological pain treatments. At the same time, the claim that there's insufficient evidence for the claim that many people suffer from psychosomatic pain disorder is one that applies selective standards of rigor to the available medical evidence. After all, the evidence for the efficacy of other medical interventions, including physical therapy, medication and back surgery finds that these physiological therapies are often ineffective in addressing chronic pain. So too, the evidence for the claim that back pain is caused by atypical disk degeneration is not well supported by the available medical evidence.

Or, consider the weak evidence for the presence of Chronic Lyme disease. Obviously, I cannot say whether prominent Chronic Lyme sufferers are in fact suffering from psychosomatic illnesses. Yet the following claims about Chronic Lyme are true. The evidence for Chronic Lyme as a distinctive health condition is extremely weak, as is the evidence for the effectiveness of antibiotic therapy. People who are diagnosed with Chronic Lyme are often first diagnosed with psychiatric conditions, or a physician suggests that they may be suffering from a psychosomatic illness. People who claim to have Chronic Lyme often reject the scientific evidence against Chronic Lyme diagnoses while also touting the (far lower quality) evidence in support of therapeutic interventions for Chronic Lyme disease. And although many people do seem to eventually discover drugs or therapies that treat their Chronic Lyme symptoms, these effects are

[30] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5113234/

[31] Though again, the evidence here is about as good as the psychosomatic pain evidence. The MS/Epstein Barr connection is based on one large epidemiological study. Nearly everyone gets EBV and few of those patients develop MS, so the correlation is still unclear. As for peptic ulcer disease, I grant that this condition is usually caused by an infection of H. pylori bacteria or from taking NSAID medicines, but only a small subset of people who suffer from gastritis or Irritable Bowel syndrome have peptic ulcer disease.

indistinguishable from placebo effects and the people who claim that their treatment worked cannot know whether the benefits they experiences are attributable to, e.g. antibiotics, or to the belief that their treatment would help them.

Another objection to diagnosing pain disorders as psychosomatic is that it constitutes a form of victim blaming. For example, in an overview of studies that addressed Myalgic Encephalomyelitis/chronic fatigue syndrome (ME/CFS), Anderson et. al. note that previous accounts of ME/CFS describe the condition in a way that "that makes patients accountable for the cause of their illness due to a psychosomatic explanation."[32] They then suggest that psychosomatic explanations for pain can, in virtue of this dynamic, constitute a strategic attempt by taxpayers, insurers, or health workers to avoid accountability for providing care. They writing that that "shifting accountability from the medical system to the individual patients is one way in which the societal response blames the victim."[33]

Yet this objection erroneously suggests patients are blameworthy or responsible for psychogenic illnesses. And it's also the wrong kind of reason to reject psychogenic explanations for pain disorders. Imagine if someone made a similar argument against diagnosing behavioral disorders as psychological in origin. It would be unhelpful to claim that health workers should not diagnosis people as psychotic or schizophrenic on the grounds that doing so amounted to blaming them for their condition. If anything, these diagnoses typically mitigate a person's blameworthiness for their condition and shift accountability for care away from the patient.[34]

Often, chronic pain patients respond angrily to diagnoses of conversion disorder or other psychosomatic conditions. They compare the diagnosis to earlier diagnoses of hysteria, which they characterized as a gendered response to women's pain that enabled male physicians to dismiss women's suffering. Others characterize recommendations for reprocessing therapy as a prescription for positive thinking, which can be insulting and cruel to someone who is suffering from a painful condition. Relatedly, some pain patients claim that physicians who diagnose them with psychosomatic pain disorders are gaslighting them. Concerns about gaslighting are especially salient to women, who often feel that people are denying their perceptual capacities. Black people, who are aware of the ways that health professionals have historically discounted their pain may also be worried about gaslighting. So too for fat people, who rightly worry that health workers fail to take their concerns seriously until they lose weight. I am sympathetic to patients who respond negatively to psychosomatic diagnoses. In a similar vein, proponents of standpoint epistemology may argue patients are in the best position to know whether they have an injury or a psychosomatic illness. I have defended a similar position elsewhere in my work, where I've argued physicians should treat patients as the presumptive experts about which medical treatments are in the patient's overall interests, since patients know more about their values and lifestyles than their doctors do.

Yet patients who seek medical assistance and then reject a psychosomatic diagnosis are different from patients who seek medical assistance but then disagree with their physician's advice, in several ways. The patient who accepts her diagnosis but refuses to follow a physician's recommendation can consistently claim that while her doctor is an expert about her disease, she is an expert about how she should treat it, given her values and lifestyle. Whereas the patient who rejects her diagnosis should wonder why she visited the doctor in the first place, if she did not take the doctor to be an expert in diagnosing her condition. Sometimes, psychosomatic pain patients will see multiple specialists who fail to diagnose their condition or who diagnose them with conversion disorder, only stopping when they receive a non-psychosomatic diagnosis for their pain.

Some disability justice advocates also object to psychosomatic diagnoses for chronic pain on the grounds that it is disrespectful to characterize people with invisible disabilities as suffering from a psychosomatic condition when they do not identify in that way themselves. In some chronic pain communities, patients strongly identify with their chronic pain diagnosis and form social communities around those identities. They call themselves 'spoonies,' named after a theory of chronic pain management by the

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[32] Valerie R. Anderson et al., "A Review and Meta-Synthesis of Qualitative Studies on Myalgic Encephalomyelitis/Chronic Fatigue Syndrome," *Patient Education and Counseling* 86, no. 2 (February 1, 2012): 147–55, https://doi.org/10.1016/j.pec.2011.04.016.

[33] Anderson et al.

[34] Michelle Ciurria, "Moral Responsibility and Mental Health: Applying the Standard of the Reasonable Person," *Philosophy, Psychiatry, and Psychology* 21, no. 1 (2014): 1–12, https://doi.org/10.1353/ppp.2014.0007.

writer Christine Miserandino, who suffers from Lupus.[35] People who identify in this way may then hear my claim that many people are suffering from psychosomatic diagnoses as invalidating their identities, in addition to misrepresenting their experiences.

Yet if a some of these chronic pain patients are suffering from a psychosomatic condition, it is very harmful for them to participate in disability pride groups or for them to form a social identity that involves suffering from a physical health condition. Psychological researchers and epistemologists find that identity-based beliefs are especially resistant to evidence that may prompt people to abandon or change their identities.[36] And medical researchers find that for people with postoperative pain, fatigue and for people with conditions like osteoarthritis, rheumatoid arthritis, and fibromyalgia, focusing on pain, accommodating the pain in one's lifestyle, and ruminating about it seems to make the pain worse.[37] In this case, people who identify as chronically ill may be especially unlikely to accept a diagnosis of conversion disorder because it would threaten that identity. They may not consciously resist diagnosis for this reason. Nevertheless, their identity as a sick person could be a barrier to them accessing psychiatric interventions that would improve their quality of life.

More generally, I suspect that many patients are resistant to a psychosomatic pain diagnosis because they have internalized the stigma that is associated with mental illness, especially mental illnesses that involve delusions. This is a rational source of resistance. Psychosomatic illness is stigmatized and people who suffer from psychosomatic pain disorders may be accused of faking their pain, malingering, or even of committing disability fraud. People who suffer from delusions may worry that their mental health condition could threaten their employment status or custody of their children. For these reasons, whenever a person is in fact suffering from a psychosomatic pain disorder, the stigma and lack of support for mental illness exacerbates their suffering, as it does in so many other cases of mental illness. Yet here, as in other cases of mental illness, the a social problem requires a social remedy. Encouraging patients to deny the true nature of their condition only serves to ensure that they cannot effectively treat their disorder.

Another line of objections to my suggestion that many people's untreated chronic pain could be effectively treated with psychiatric interventions may point out that it's possible that some chronic pain conditions are not psychosomatic, but rather, are merely poorly understood. In defense of this claim, one may point out that there seem to be some biological factors that make predisposed to experience chronic pain. For example, susceptibility to chronic pain is partly genetic.[38] People who experience chronic pain may have different brain structures than people who will not experience chronic pain.[39] Then again, this doesn't rule out psychogenic origins for these patients' chronic pain, since susceptibility to psychological pain catastrophizing is also associated with specific genotypes.[40]

A more pragmatic worry about my calls for heightened openness to psychosomatic pain diagnoses is that people will be unable to access effective care for their pain if they are dismissed as having a psychosomatic illness. Hospitals, insurance providers, and public health systems currently incentivize patients to seek care for physical ailments that physicians and health workers can treat through physical therapy, drugs, or surgery. These providers also have financial incentives to continue treating patients with physical therapy, drugs, and surgery, and they may reasonably think that these interventions are effective insofar as their patients with psychosomatic pain disorder find relief from their symptoms due to the placebo effect. At the

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[35] Miserandino describes the experience of being chronically ill as having a limited supply of physical and emotional capacities (spoons) to complete everyday tasks. Whereas healthy people have seemingly unlimited capacities to get through each day, chronically ill people must manage their energy (spoons), which is itself emotionally and physically taxing.

[36] Cite like all of political psych + Joshi I guess?

[37] Robert R. Edwards et al., "Pain, Catastrophizing, and Depression in the Rheumatic Diseases," *Nature Reviews. Rheumatology* 7, no. 4 (April 2011): 216–24, https://doi.org/10.1038/nrrheum.2011.2.Ran Kremer et al., "The Role of Pain Catastrophizing in the Prediction of Acute and Chronic Postoperative Pain," *The Open Pain Journal* 6, no. 1 (2013).Nada Lukkahatai and Leorey N. Saligan, "Association of Catastrophizing and Fatigue: A Systematic Review," *Journal of Psychosomatic Research* 74, no. 2 (February 1, 2013): 100–109, https://doi.org/10.1016/j.jpsychores.2012.11.006.

[38] Katerina Zorina-Lichtenwalter et al., "Genetic Predictors of Human Chronic Pain Conditions," *Neuroscience*, Nociception, Pain, and Analgesia, 338 (December 3, 2016): 36–62, https://doi.org/10.1016/j.neuroscience.2016.04.041.

[39] Ali R. Mansour et al., "Brain White Matter Structural Properties Predict Transition to Chronic Pain," *PAIN* 154, no. 10 (October 2013): 2160–68, https://doi.org/10.1016/j.pain.2013.06.044.

[40] Lawrence Leung, "Pain Catastrophizing: An Updated Review," *Indian Journal of Psychological Medicine* 34, no. 3 (2012): 204–17, https://doi.org/10.4103/0253-7176.106012.

same time, to the extent that therapy for psychosomatic pain disorders is generally less expensive than physical therapies and less dangerous than surgery or drugs, one might worry that public officials have compelling reasons to be overly enthusiastic about promoting psychosomatic pain diagnoses in cases where these other interventions are warranted. This dynamic may further entrench health workers' suspicions about the normalization of psychosomatic pain diagnoses.

Relatedly, patients also have social incentives to avoid considering a psychosomatic explanation for their chronic pain. For one, in many communities there is still a great deal of stigma against people who suffer from mental illnesses. Patients who suffer from delusions are especially vulnerable. Patients may justifiably fear that they could lose their legal rights, employment opportunities, or parental custody if they are diagnosed with a mental illness that undermined their perceptual capacities. Patients also may worry about accusations of malingering, faking, or freeloading. Patients with psychosomatic illnesses may also be concerned that accepting a psychosomatic pain diagnosis will be financially bad for them. Many chronic pain patients receive disability insurance payments because they cannot work. In these cases, accepting a psychosomatic diagnosis could endanger a person's ability to meet their basic needs. Many chronic pain patients also use opioids, and they may worry that they would need to stop using opioids in order to address the psychosomatic basis of their chronic pain, while at the same time, opioid withdrawal could exacerbate their pain symptoms.

These pragmatic considerations weigh against raising awareness about psychosomatic pain diagnoses under current conditions. But they weigh in favor of normalizing psychosomatic diagnoses in medicine and destigmatizing meatal health conditions that cause chronic pain. Given the scale of chronic pain suffering, policymakers and other people who are interested in reducing suffering should address these social and institutional barriers to a potentially effective form of pain treatment. In practice, this means that policymakers and clinicians should make it minimally burdensome for patients to accept a psychosomatic pain diagnosis.

5. Conclusion

Thousands of chronic pain patients have used reprocessing therapy to become pain free. I have argued that the evidence in favor of reprocessing therapy is plausibly as good or better than the evidence in favor of more mainstream medical interventions for chronic pain. In contrast to pharmacological treatments, surgery, and physical therapy, comparatively few people have even heard of reprocessing therapy. For those who know about the therapy, many patients and health workers dismiss the idea as 'alternative medicine.' Yet every year that people continue to suffer with chronic pain that could be treated through reprocessing therapy is a year of needless suffering. Most philosophers recognize that we have powerful moral reasons to reduce needless human suffering and to make life easier for people, especially when we can do it at little cost. For this reason, reprocessing therapy for chronic pain merits further attention.

This argument has broader lessons for patients, clinicians, and policymakers. For patients, it suggests that they should be more open to what is sometimes dismissively called alternative medicine, and perhaps more skeptical of the prevailing approaches to chronic pain. People should also consider the psychological correlates of psychosomatic pain diagnoses, and be wary of communities that promote perfectionism, excessive caregiving expectations, and moral perfectionism. For example, effective altruists may have reason to be concerned about their internal culture, insofar as it is the kind of culture that psychosomatic pain patients cite as contributing to their illnesses.

For clinicians, the phenomenon of psychosomatic pain disorders points out a potential blind spot in evidence-based medicine. Namely, researchers and clinicians have failed to consider a range of potentially promising interventions and therapies on the grounds that they were unsupported by the evidence, while these therapies were unsupported by the evidence because they lacked institutional support and because few clinicians used them. This dynamic makes it difficult for proponents of alternative therapies, such as psychosomatic pain reprocessing therapy, to establish credibility within the medical community.

And for policymakers, this argument highlights several potential hazards of the current approach to chronic pain. When public officials require people to be disabled in order to receive income support, they incentivize people to identify as disabled and they disincentivize people from accepting a psychosomatic pain diagnosis even though accepting a psychosomatic pain diagnosis could be necessary for them to recover. When public officials mistreat people who suffer from mental illness by violating their rights or by accusing them of malingering, they also stand in the way of effective treatment for psychosomatic pain patients.

To close, I want to speak directly to any readers who are currently suffering from chronic pain. If you have seen physicians and they haven't found a physical cause for your condition, and if you identify with some of the psychological patterns described above, and if your pain is non-specific, changing, and resistant to treatment and recovery, I would encourage you to consider that you may have a psychosomatic pain disorder. This doesn't mean that you aren't in physical pain, and it doesn't mean you've been faking your disability this whole time. It means that you can get better.