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Edited by
Frances E. Mascia-Lees

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Editorial Offices
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The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

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For my husband, Francis C. Lees

CHAPTER 21 PAIN
Pain and Bodies

Jean E. Jackson

Introduction

The topic of pain offers a treasure trove of anthropological research projects that pose intriguing intellectual challenges. To begin with an obvious point, pain, especially chronic pain, is a hugely important issue: 40 percent of patients seeking medical attention cite pain as the reason; approximately 45 percent of people will experience chronic pain at some point during their lives (Taylor 2006: 237); an estimated 86 million Americans have some form of chronic pain (Sullivan 2007: 263); and over US $100 billion is spent yearly in treatment-related costs and lost-work productivity due to chronic pain (Sullivan 2007: 268). Also, pain medicine intersects in complex, anthropologically fascinating ways with powerful institutions like the insurance and pharmaceutical industries, and government. Another reason to encourage more research is that new insights emerging from social science investigations can potentially ameliorate the distress experienced by pain sufferers and those around them.

Academic disciplines studying pain range from psychophysics and biomedical engineering all the way to philosophy. Although a great deal of behavioral and clinical social science research on pain has appeared, sociology and anthropology have paid relatively little attention to the topic. Yet, given the truism that the best locations for understanding a society are the sites where things don't work, pain's invisibility and ontological and epistemic uncertainty offer fertile terrain for anthropological investigation.

Various paradoxes coalesce around pain, "one of the most controversial areas in neuroscience... rife with philosophical problems" (Aydede and Guzeldere 2002: S266). For example, while pain is conventionally seen as aversive and unwanted, biologically speaking, pain is indispensable. Pain warns of injury or organ malfunction, and helps heal a wound by motivating the individual to tend to and protect the

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site. Many textbooks on pain begin by describing the extremely unhappy lives of those rare individuals born with a congenital inability to feel pain. Pain medicine plays with this contradiction: one book is titled *Pain: The Gift Nobody Wants* (Brand and Yancey 1993), and one article's title is "When good pain turns bad" (Watkins and Maier 2003).

Both an aspect of mind (experience) and brain (produced by neurological structures and processes), pain illustrates some of the problems associated with mind–body dualism. Murat Aydede and Guven Guzeldere note that the "fundamental tension between what can be quantified as the 'objective' measure of pain as characterized in terms of tissue damage and the 'subjective' criterion of when to categorize a given experience as pain is in fact prevalent in pain research" (2002: S267). Medical science's traditional definition of pain as sensation provides an example. Francis Keefe and Christopher France's definition, "a sensory event warning of tissue damage or illness" (Keefe and France 1999: 137) nicely elides the nature of that warning; while pain is certainly a sensation, its bedrock meaning – and what distinguishes it from nonpainful sensations – is aversiveness, which, being an emotion, does not fit within biomedicine's underlying biologistic foundational premises (see Kleinman 1995: 27–34). Another example: although emotions are always embodied (this is precisely what distinguishes them from cognitions), because we tend to see emotions as an aspect of "the mind," the body's fundamental role in emotions is often obscured, phrases like "heartbroken" notwithstanding.

Joanna Kempner notes that biomedicine has the cultural authority to define what is biological and therefore natural (Kempner 2006: 633). However, it is also true that, because everyone has had pain, including serious pain (for instance, childbirth pain), we all can speak authoritatively about it. Interesting gaps are found between pain as conceptualized by neuroscience and ordinary, "folk" notions (which includes clinical medicine; see Chapman et al. 2000: 217). For example, neurosurgeon John Loeser asks, "Does anyone really believe that a tooth is capable of hurting? Or a back?" (Loeser 1991: 215). Yes indeed, Dr Loeser: pain sufferers (and, for the most part, their primary physicians) see backs and teeth as precisely where pain happens, not the central nervous system, which is, ironically, the precise location being referred to when a given pain is dismissed as being "unreal," "imaginary," "all in his head."

Any anthropological discussion of pain will sooner or later depart from the biomedical model because so many dimensions of pain lie outside, or at the extreme margins, of medicine. A given pain's meaning derives from an individual's history and environment. Pain of necessity remains poorly formulated until it is located in a time and a cultural space – the immediate context of a pain experience and the myriad less proximate factors that shape it. These include sex and gender (Garro 1992; Kempner 2006; Whelan 2003), social class, ethnicity (Trnka 2007), prior experiences with pain, family history, and so forth (see, for example, Good et al. 1992). Moreover, although biomedically and conventionally pain is seen as a property of an individual, in fact it is deeply intersubjective. The experiential world of a pain sufferer will be significantly shaped by persons participating in that world, a point made by Wittgenstein some time ago (also see Das 1997; Kleinman et al. 1992).

A given pain's meaning is the most significant determinant of the pain experience, and a major reason why pain (particularly chronic pain) may not be proportional to tissue damage. Indeed, the experience "may be totally unrelated to the physical

parameters of intensity and to the duration of the 'pain-producing' nociceptive stimulus" (Tracey 2005: 127). One of the most famous demonstrations of this fact is Henry Beecher's report on soldiers wounded on the Anzio battlefield in the Second World War. Because their injuries represented a ticket home with honor, requests for pain medication were significantly fewer than would be expected (Beecher 1946).

There are numerous studies of pain in other cultures, but as their topics, aims, and methodologies vary extensively it is difficult to draw generalizations. Space limitations prevent me from discussing the cross-cultural literature in any comprehensive fashion. The variety of studies is apparent in the following randomly selected list of published accounts: ballet dancers' pain in the Netherlands; infibulated refugee Somali women; Indo-Fijian women's pain discourses; the role of pain in a particular martial arts practice in Israel; childbirth pain in India. With respect to anthropological research in the U.S., only a few extended studies exist (Bates 1996; Corbett 1986; Greenhalgh 2001). Well-known work by sociologists includes Baszanger 1998, Hilbert 1984, Kotarba 1983, Zbrowski 1969 and Zola 1966.

Pain of various kinds occupies center stage in much of the West's cultural production, and the symbolics of pain offers an endless set of possible research topics in the humanities (see, for example, Morris 1991, 1994). As Kempner notes, "pain offers a tabula rasa on which to inscribe our most fundamental cultural ideas about suffering" (Kempner 2006: 636; also see Scarry 1985). As with bodies in general, the painful body simultaneously produces and is produced by culture, reflecting and reproducing it. Pain is a powerful and productive metaphor. Given that the body is the main source of metaphors of order and disorder (Turner 1991), we can confidently state that pain is the quintessential symbol of disorder – one could argue that death is more orderly than pain. As Chris Eccleston et al., paraphrasing William Arney and Bernard Bergen (1983), state, "Pain can only make sense for those directly involved in it as an index of disequilibrium. Such disequilibrium and disorder are threatening to both patient and physician. This is a disorder which invites and demands resolution." They note that attempts to stabilize the disequilibrium only "provide opportunities for repeated failure" (Eccleston et al. 1997: 707). Exceptions to such a sweeping assertion do exist, but they emerge only after pain's meaning has traveled a considerable distance from the conventional one, most often toward a conceptualization of pain as "good" in some way. For example, if pain becomes the means to a sought-after end, say, redemption, one can say pain has restored order. Another example is Jeremy Bentham's assertion that pain governs individual lives much as a sovereign power governs a state, ruling us when we feel pain and even when we do not, thus providing stability to our lives (cited in Morris 1994: 8).

The protean nature of pain perhaps partly explains why it has not received the anthropological attention it deserves. According to Arthur Kleinman, pain "eludes the discipline's organized explanatory systems as much as it escapes the diagnostic net of biomedical categories" (Kleinman 1992: 170). But these very same reasons provide a potential researcher with a promising site in American medicine "where the relations of power and professional knowledge and the potential for exploitation residing in power relations are unusually visible" (Kleinman et al. 1992: 6).

This essay discusses the areas of pain research and treatment of most interest to anthropology. The next section looks at recent neurological research on pain, including the profound impact of neuroimaging technologies. A brief discussion of some clinical considerations follows. A section on the biopsychosocial approach to chronic pain treatment comes next, followed by a brief section on language and pain, and then conclusions. Note that the body is problematized throughout, but for the most part implicitly.

Neurological Approaches to Pain

The International Association for the Study of Pain provides a widely used definition of pain: "an unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage" (1979: S217). Yet despite this presumably authoritative definition, debates over how to conceptualize pain continue to appear (see Baszanger 1998; Thernstrom 2010). As already noted, one source of difference stems from whether pain is being seen as aversive experience (grounding it in emotion and mind) or as a nociceptive event involving a noxious stimulus triggering electrochemical impulses that register as pain in the central nervous system.

The distinction made between physical and emotional pain, so seemingly necessary, commonsensical even, is "a myth" (Morris 1994: 23). Neurologist Howard Fields states that,

> ...what most people call mental, or emotional pain is ontologically identical to what they call organic, physical or bodily pain. This point is counter-intuitive and failure to appreciate it has compounded the confusion about the nature of pain. Once this point is appreciated, many confusing phenomena, such as the placebo response, somatization, psychologically induced headache, and analgesia in trance, become less surprising and arcane (Fields 2007: 43).

Harold Merskey, another eminent pain researcher, agrees: pain "is monistic, which, at least as a rule, cannot be split up into organic or psychological components" (Merskey 2004: 71). Fields states that pain "is generated in the brain. It is neural and mental. It is physical pain in the sense that nerve cells and their activity are physical. Pain is mental pain in the sense that it is subjectively experienced 'in' what we generally call the mind" (Fields 2007: 43). We can add that the experience of pain is always both "mind" and "body," mental and physical, simply because the pain experience is always embodied.

In actuality, the physical/mental distinction refers to cause, not the pain itself. According to the IASP, "activity induced in the nociceptor and nociceptive pathways by a noxious stimulus is not pain, which is always a psychological state." Although psychophysicists zeroing in on barely measurable neuron activity in rats will say they are studying pain, they are actually studying one point in a causal chain that ultimately produces a pain experience. Every time an author uses the phrase "physical pain," they are referring to cause, not pain.

That a given pain always has multiple causes, at varying removes from the experience, should be obvious, but this point is also often ignored (see Jackson 1994a) because the conventional model of pain focuses in on its proximate cause, the "nociceptive stimulus." That all pain results from a chain of causes prompts philosopher Mark

Sullivan to question whether we should even conceptualize pain as something that begins with nociception, given that the experience is so fundamentally influenced by previous experience (Sullivan 1995: 9).

The fraught arguments that took place until fairly recently at professional meetings and in journals expose some of the basic contradictions not just in pain medicine but in biomedicine as a whole. Researchers have abandoned the pain-as-sensation model and now agree that it is quite a complex process, a subjective response of a conscious individual, an interpretation of nociceptive inputs. Major advances in neurobiology "have generated a fundamental change in attitude and expectation about the control of pain" (Holdcroft and Power 2003: 635). A paradigm shift occurred in pain medicine with the widespread acceptance during the 1970s of a unified model: the gate control theory (Melzack 1999; Melzack and Wall 1996). (Other theories include the operant model, the Glasgow model, the biobehavioral model, fear-avoidance models, and diathesis–stress models [Taylor 2006: 241].) The gating control system model was more flexible than the neuroanatomical approach, and the current neuromatrix model incorporates multiple sites for modulation and extensive neuroplasticity (Holdcroft and Power 2003: 636). Traditional notions of pain-as-sensation in which a unidirectional nociceptive input from the body travels up the dorsal horn of the spinal cord and is processed by the central nervous system have been replaced by two-way flows along multiple pathways involving cognitive, emotional, and behavioral inputs that shape a nociceptive signal. Donald Price describes the unpleasantness of pain as reflecting "the contribution of several sources, including pain sensation, arousal, autonomic, and somatomotor responses, all in relation to meanings of the pain and to the context in which pain presents itself" (Price 2000: 1769). Fields discusses three distinct components of pain: a purely discriminative part, a motivational aspect, and an evaluative component, each of which takes place in different parts of the brain (Fields 2007: 45). All pain experience results from activating a neural representation in the brain, which is projected "in space to the site of tissue injury" (Fields 2007: 43). Loeser's comment above is confirmed: nothing outside the mind/brain is capable of hurting. He advises that pain is "not a thing; it is a concept that we impose upon a set of observations of ourselves and others" (Loeser 1996: 102).

According to Linda Watkins and Steven Maier, pain is the most dynamic of the senses (Watkins and Maier 2003: 232–233). Pain pathways are much more responsive to pain modulatory systems, including top-down influences like learning, attention, expectation, and mood (see Fields 2007: 52–53). In this and other respects the contrast between pain and other modalities of perception like vision, hearing, and touch is striking (Aydede and Guzeldere 2002: S266). Anita Holdcroft and Ian Power report on evidence that "inhibitory, immune, hormonal... and inflammatory systems may enhance or inhibit neuronal activity" (Holdcroft and Power 2003: 638). Processes that enhance pain constitute another paradoxical example of "good" pain, for hyperalgesia increases one's focus on the damaged or infected area. Modulating systems may release endogenous opioid peptides (endorphins) that suppress pain. Furthermore, a "mental representation of an impending sensory event can significantly shape neural processes that underlie the formulation of the actual sensory experience" (Koyama et al. 2005: 12950). Experimental manipulation of expected pain shows significant effects on reported pain experience, one study showing that positive expectations

"produce a reduction in perceived pain (28.4%) that rivals the effects of a clearly analgesic dose of morphine" (Koyama et al., 2005: 12950). Also, over time, persistent pain "can produce changes in the nervous system pathways responsible for the transmission and perception of pain messages, and thereby affect future responses to pain" (Keefe and France 1999: 138). In short, "the state of an individual determines the present pain" (Holdcroft and Power 2003: 638). Many conditions lacking tissue damage (e.g., phantom limb pain) that would have resulted in a patient being referred for psychiatric treatment in earlier times are now understood to be due to normal neurological processing, or altered cerebral representation of nociceptive input, which explains many cases of chronic back pain. The diagnostic trajectory is clear – which is not to say that psychiatric referrals ought to end, but that clinicians must take into consideration the fact that purely psychogenic pain is very rare (Taylor 2006: 242; also see Kleinman et al. 1992: 4), and that what is much more frequent are initial tissue damage and subsequent interactions by "a complex set of emotional, environmental and psychophysiological variables" (Ingvar 1999: 1347) that can permanently alter the brain and produce a chronic pain condition. This is a far cry from concluding that if tissue damage is not apparent, a patient's pain is due to a neurosis, and therefore "imaginary."

Many of the research findings that have brought about these "fundamental changes" were obtained using neuroimaging technologies developed over the past 30 years: positron emission tomography (PET), and functional magnetic resonance imaging (fMRI). The value of these technologies lies in their ability to reveal changes in brain functioning in response to painful stimuli, profoundly increasing understanding of how the brain processes – i.e., represents, interprets – sensory stimuli. These technologies permit pain's status as a symptom, knowable only through pain behavior (any behavior, verbal or non-verbal, seen to result from a pain experience), to change into a sign – visible and measurable brain activity. Because of medicine's emphasis on objective measures ("evidence-based medicine"), findings obtained through imaging technologies are seen as more valid, reliable, and replicable. An example: Ploghaus et al. discuss neuroimaging research into areas of the brain where "activation of mechanisms to prevent future harm by learning to recognize signals of impending pain" occurs, which are "distinct from the neural substrates of pain itself" (Ploghaus et al. 1999: 1979, 1981). Another example: recent studies reveal neurological affective responses (called "mirroring") to depictions of someone in pain, which shows the neural substrates of empathy (Tait, 2008; also see Singer et al. 2004). Clearly, the last 40 years of pain medicine research offers a plethora of research topics for anthropology of science scholars.

Not surprisingly, these neuroimaging technologies are "good to think." A considerable gap exists between brightly colored successive two-dimensional images of computer-generated information and the experience of pain (Dumit 2004). For one thing, the quality of imaging studies is highly constrained by small sample size (Ingvar 1999: 1353). The limits of neuroimaging are particularly apparent in clinical settings: "...the MRI is still just a snapshot of the anatomy. It does not reveal physiology. It does not show pain. The picture it yields is no more self-explanatory than a rash or a heart murmur. The image – like any physical finding or laboratory test result – must be interpreted, and the fundamental, irreplaceable basis for its interpretation must be the patient" (Saberski 2007: 253).

Some Clinical Considerations

Pain medicine emerged as a stand-alone specialty in the 1970s. Over the succeeding years significant advances were made, the first being the gradual acceptance of pain itself as worthy of attention, for example, deserving of a slot in medical school curricula. Improvements were made in understanding the differences between acute pain and chronic pain. As already indicated, pain is commonly seen as a symptom rather than a disease, a "normal" indication of something abnormal; chronic pain, having lost this function, is itself the problem. Hundreds of pain clinics, both inpatient and outpatient, many taking a multidimensional approach, were established in North America and Europe. New kinds of pain medications and anti-depressants were developed, as well as devices like TENS (transcutaneous electrical nerve stimulation). A battery of sophisticated instruments (e.g., the McGill Pain Terms Assessment; the Pain and Impairment Relationship Scale) were developed and used in these clinics alongside older instruments like the Minnesota Multiphasic Personality Inventory (MMPI). Cognitive-behavioral medicine approaches were custom-tailored for pain patients; for example, instruction in inducing the relaxation response. Recent research has shown that practices like meditation, prayer (Wachholtz and Pearce 2009), or self-hypnosis may affect the serotonin pathways in the brain that regulate mood and pain (see, e.g., Seybold 2007). Research has also shown that pain-coping skills can influence higher centers in the brain to the extent of actually blocking the flow of pain signals from the spinal cord (Melzack and Wall 1996). Knowledge about optimal clinician attitudes and behavior increased; for example, Raymond Tait reports that an empathic provider "may be less vulnerable to the general provider tendency to discount the intensity of chronic pain" (Tait 2008: 110).

But problems remain. For example, despite a widespread consensus that a great deal of pain is undertreated, and although efforts have been made to ameliorate the situation (for instance the recently installed signs in examining rooms asking patients to rate their pain), undertreatment continues to be a serious problem (see Morris 1994: 10). Part of the reason is the West's "drug problem," in particular the illegal traffic in prescription drugs, which has led governments to very tightly regulate opioids (the most potent painkillers). Another reason, surely, is that despite our powers of empathy and knowledge about certain diseases' ability to produce tremendous amounts of pain (sickle-cell disease, cancer), we cannot feel another person's unmediated pain. This issue was mentioned over and over by patients in the inpatient pain center where I conducted ethnographic research in 1986; for example, "I wish that doctor could feel this pain for a day – only for a day, because I wouldn't want *anyone* to feel it any longer than that" (Jackson 2000). Finally, certain attitudes about pain doubtlessly contribute to its undertreatment, for example, the notion that sufferers (particularly men) should just "grin and bear it." Because we have all had pain, a kind of "mountain-out-of-a-molehill" response sometimes occurs, asserting that because everyone has aches and pains, the sufferer needs to stop being childish, self-indulgent, and weak; rather, he should "pull himself together." If female, she should seek psychological counseling (Thernstrom 2010: 148).

Other responses to pain sufferers by people not in pain, including health care professionals, can lead to disappointment and frustration as well. Pain's potential benefits might be mentioned, the pain sufferer told that adversity provides an opportunity for growth, or that pain builds character. Of course, adversity *can* lead to growth, but when a pain sufferer hears such a comment she can feel put down and unheard. Now, if *she* chooses to make such a comment about herself, because the messenger is always part of the message, a very different message is being sent. Not surprisingly, the benefits of pain are, for the most part, touted by people who are not suffering serious pain.

Seemingly so easily defined as pain that lasts and lasts, as symptoms that persist beyond expected healing time, in clinical practice chronic pain is a deeply ambiguous and fraught concept. Eccleston et al. (1997: 707) comment that "chronic pain creates a challenge to orthodox and accepted understandings of illness and medicine." Robert Kugelmann states that "chronic pain as an entity finds its very existence disputed" (1999: 1665). "The question of pain is not in what category to classify it, for the categories themselves are freighted with philosophical presuppositions, not labels for pre-existing things" (Kugelmann 2000: 306). This slide between the simple meaning of chronic pain and much more complex ones is encountered throughout the pain medicine literature. Another example: David Patterson states that although almost all chronic pain originates from some sort of illness or injury, "once it persists for longer than six months, it is often maintained by factors that have nothing to do with the original damage" (Patterson 2004: 254), such as emotional distress, excessive focus on physical complaints, and the like. A too-simple opposition between acute = organic cause and chronic = psychological cause, while appealingly clear-cut, in fact does not represent any number of well-understood chronic conditions like post-herpetic neuralgia, endometriosis or rheumatoid arthritis. One can find examples in the anthropological literature as well. Kleinman et al. state that chronic pain has not been shown to be universal – it is not something that crosses "cultures and historical epochs" (1992: 3). Taken at face value, the statement either is making a methodological point verging on the hyperempirical ("not been shown..."), or seems to be stating that in other cultures pain that lasts might not exist at all, which this author finds hard to believe. However, the authors later make it clear that they are talking about the many problems encountered by those studying and treating "intractable," "pathological" chronic pain, sometimes referred to as chronic pain syndrome. And further on they discuss chronic pain's uncertain status: "a widely used clinical category without official sanction, an anomalous category, only partially legitimized as disease" (Kleinman et al. 1992: 4). Another diagnostic distinction, whose terminology chronic pain sufferers might find somewhat odd, is the one between "benign" chronic pain and "malignant" pain (i.e., due to cancer).

In short, the goal of establishing widely accepted diagnostic terminology continues to be elusive. Watkins and Maier apply the phrase "pathological pain" to any chronic pain that fails to meet two criteria: well understood causal mechanisms and optimal pain management on the part of the patient (Watkins and Maier 2003; see Baszanger 1998). Of course, all chronic pain is "pathological" in the sense of unfortunate and no longer serving any biological function. But chronic pain that fails to meet these two criteria is "pathological" in several additional, very significant respects.

Studying chronic pain exposes the normativity lurking just underneath the surface of the presumed neutral position of biomedicine, where "wrong" or "bad" have very constrained meanings linked to departures from the body's normal structure and function. Biomedicine sees pathology – the "abnormal" – to be a physical state. But we have just seen that clinicians distinguish between what we might call "good" chronic

pain and "bad" chronic pain. In fact, virtually all chronic pain sufferers' lifeworlds are filled with normative discourses deploying multiple meanings of right and wrong, "should" and "should not." Sooner or later any discussion of chronic pain must deal with a slew of negatively valenced issues, and in the following section I briefly discuss eight of them. (Note that they are not mutually exclusive.)

The first negative issue is the nature of the experience itself – unending pain that experiencers and those around them want to go away. The second, which characterizes all chronic illnesses, arises due to the fact that the sick role is legitimate only for a period of time. The third negative aspect stems from the belief that pain's persistence signals that *something went wrong*. We may know perfectly well that many incurable conditions cause a great deal of pain, gout or diabetic neuropathy coming to mind. But we are so oriented toward thinking of pain as something that will go away, and of medicine as producing cures, that we tend to see chronic illness as not only unfortunate, but wrong in the sense that, even if no-one is to blame, failure has somehow occurred. Biomedicine developed in an era characterized by successful campaigns that greatly reduced infectious diseases' incidence or severity – or eliminated them altogether (e.g., smallpox and yaws). We have barely begun to heed recommendations that we reconceptualize medicine as a set of knowledges and practices oriented toward treating chronic illness. Because physicians are oriented toward achieving cures, a chronic pain patient's attending physician will sooner or later experience frustration – if not more negative emotions, and the patient may come to feel that she is somehow to blame, or may blame her doctor or the institution that treated her (see Wright et al. 2009: 137). The Latin root for "pain," after all, means punishment. In a just and orderly world, our reasoning goes, innocent people would not be suffering like this, so something must be *wrong*.

The fourth negative issue appears if the clinician determines that the patient is not managing the situation as well as he should. Chronic pain patients rather easily fall out of the category of patients physicians are eager to treat and into the category of being "a pain" themselves – a "crock" (see Gamsa 1994: 23). Relations between pain patients and health care deliverers are considered the worst in medicine. In fact, pain patients can provoke an intense hostility in caregivers, often the result of a relationship that has seriously deteriorated. The sources of clinicians' negative feelings include, first, the simple fact of the practitioner's failure to end the pain; second, noncompliant patients; third, patients who "shop" for doctors with liberal pain-medication prescription policies; fourth, patients who obtain pain medications from more than one physician; and fifth, patients who clearly need to be weaned, at least to some degree, from the health care delivery system.

The fifth negative issue derives from pain's invisibility. Even those patients who have a well-understood painful disease struggle with this property of pain. Pain cannot be communicated without pain behavior. The distinctions between the experience of pain, pain behavior, and certain emotional states seen to often accompany, rather than constitute pain, such as suffering, depression, or demoralization, can be, and often are, highly ambiguous. Indeed, separating the pain experience from experiences accompanying it is a demanding, perhaps impossible, task and one reason why sufferers find that making their pain apparent can elicit negative, unsupportive responses. Although, as Laurence Kirmayer (1988: 83) points out, people tend to view the stoic as mentally sound and morally upright, the problem remains that people interacting

with individuals who "suffer with dignity" must have some way of finding out about the status of the sufferer's pain. The problem with the stiff-upper-lip approach is that most people, while respecting stoic forbearance, nonetheless find it hard to believe someone is experiencing severe pain unless reminded of it at least intermittently. Precisely because we all have had pain, and for most of us our pain went away, it is hard to imagine situations where it does not. Despite the fact that huge numbers of the world's population live with daily pain, it is difficult to deeply, empathically comprehend the nightmare of living with severe pain that lasts and lasts. For one thing, such an idea is threatening; it is no accident that hell is envisioned as severe chronic pain. I have argued elsewhere (Jackson 2005b) that chronic pain, by profoundly challenging mind–body dualism, turns the person embodying that challenge into someone ambiguous, perceived to transgress the categorical divisions between mind and body and to confound the codes of morality surrounding sickness and health. Sufferers' uncertain ontological status threatens the normal routines of biomedical treatment and the expectations governing ordinary face-to-face interactions between individuals labeled "sick" and other members of their social world. This is why some of my interviewees commented that managing the pain was more difficult than the pain itself. Sociologist R. A. Hilbert (1984) describes people who experience persistent pain as "falling out of culture."

The sixth negative issue appears when the cause of the chronic pain is not well understood. We have seen how easily an unknown cause can morph into a diagnosis of "chronic pain syndrome," and that the phrase "chronic pain" often refers exclusively to this category of patient, especially when "intractable" precedes the phrase (note that *intractable* simply means unresponsive to treatment).

The seventh, and most complex negative issue, closely related to the sixth, occurs when a diagnosis of psychogenic pain is made, which often results in the sufferer being seen to not have a "real" illness or "real" pain. Suggestions to patients about psychogenic inputs can invite worry about being seen as mentally ill, which undoubtedly is a major reason why people involved in chronic pain – sufferers, their families, and primary care physicians – are so often invested in seeing pain in mechanical terms: the archetypical lighted match under a finger. For the majority, any suggestion of mediation by the mind is seen to decrease the organic quality of a pain experience, thereby increasing its "wrong," potentially stigmatizing quality. A "real" pain, seen as simple physiological communication about tissue damage from an external cause or an internal organ malfunction, fits into an uncomplicated model that challenges neither conventional notions about the separation between the body and mind nor ideas about who deserves sympathy for bodily injury. Seeing pain as an experience felt by an individual with a personal history, who is embedded in a social and cultural milieu – surely the way to conceptualize it – admits the possibility that the sufferer might have somehow "brought it on himself" to some extent.

Despite pain medicine's advances, most people continue to rather categorically oppose "real" (organic, physical) pain to "all-in-your-head" (imaginary, mental, emotional, or psychosomatic) pain. Institutional actors play a role, too; as Mara Buchbinder notes, health insurance and worker's compensation boards require "proof" of pain before reimbursement (Buchbinder 2010: 123). In short, pain continues to have a complicated relationship with "real" signs of abnormality, which speak in the Cartesian idiom of objectifiable reality that can be socially apprehended.

The eighth, and final, negative issue concerns the degree to which the cause of a sufferer's chronic pain ethically entitles them to the sick role. The most deserving are those who have experienced tragic events, for example, a robbery that resulted in serious trauma. These sufferers' moral status is impeccable, for they are seen to have in no way deserved their fate. Less deserving are people who are seen to be responsible to some degree for their current situation – for example, being involved in a car accident while on drugs and ending up a paraplegic. Also less deserving are people whose neuroses are seen to produce or augment their continuing pain. Their mental "weaknesses" disqualify them from membership in the first group because their pain's cause lies within them, and from the second group because the cause is located in their unconscious. Finally, individuals who knowingly misrepresent the degree of impairment they have sustained in order to access medical treatment or financial compensation are seen as morally reprehensible malingerers, some of them outright criminals who should be prosecuted for fraud.

Unfortunately, how to go about assigning individual patients to a specific category is not at all clear; researchers have pointed out that teams of clinicians in pain centers sometimes find themselves in heated disagreement during evaluation meetings (see Corbett 1986; Loeser 1996).

The question of entitlement is complicated further by the issue of possible gains. Some chronic pain sufferers are seen to resist getting better because they are unconsciously motivated by benefits obtained from being ill – "secondary gain." Three kinds of gain are distinguished in the clinical literature: primary gain diverts the patient's attention from a more disturbing problem; secondary gain is the interpersonal or environmental advantage supplied by a symptom; and tertiary gain involves someone other than the patient seeking or achieving gains from the patient's illness. Discussions in the literature about secondary gain analyze patients' attempts to "game the system." Phrases like "accident neurosis" and "cured by a verdict" refer to litigation following automobile or other accidents (Worzer et al. 2009).

The Biopsychosocial Approach to Chronic Pain Treatment

Over the past forty years pain medicine has adopted behavioral medicine's biopsychosocial treatment model. Keefe and France note that a biopsychosocial perspective "emphasizes that pain is a dynamic process that not only is influenced by biological, psychological, and social mechanisms of pain, but also produces biological, psychological and social changes" (Keefe and France 1999: 137). While doubtless this approach is superior to the conventional medical one in many respects (see, e.g., Kleinman 1992: 170; Patterson 2004; Worzer et al. 2009), its therapeutic and normative implications need to be examined. Biopsychosocial therapies that talk of managing pain rather than curing it necessarily assign far less responsibility to the health professional. Shelley Taylor describes the clinician as "co-managing the problem with the patient. If the new technologies are to work, patients must consent and actively participate" (Taylor 1995: 594, as cited in Kugelmann 1997: 59). Being "responsible for one's pain" requires disciplining the body and mind. Ruthbeth Finerman and Linda Bennett argue that the new "responsibility and blame focused" explanatory models "have the added consequence of stigmatizing and further victimizing victims

by ascribing blame ... [such that] disease, onset and outcome are directly ascribed to the afflicted themselves [who] are then subject to censure for personal failures which 'caused' their condition" (Finerman and Bennett 1995: 1; also see Kleinman 1992: 185). They go on: "such patients are forced to fight both health threats and social stigma or sickness-induced 'shame'" (1995: 2). As Eccleston et al. note, pain professionals' repositioning of themselves from a "healer" role to a "manager" role "has been recognised as a common response of orthodox knowledge when faced with threat and challenge" (Eccleston et al. 1997: 707). "In chronic pain, when the cause remains lost, the patient reappears to own that loss: the patient becomes the lost cause" (Eccleston et al. 1997: 700). Kugelmann considers such an implicit "morality of responsibility" in pain management to be "deeply exploitative" (1997: 59) and complains that "what are no longer recognized in the biopsychosocial chart of existence are limits. There are no limits to intervention into the patient's life" (Kugelmann 1997: 62). The biopsychosocial gaze at the clinic where I conducted my research was quite extensive. Many patients complained about unwanted staff intrusions into intimate aspects of their or their fellow patients' lives. For example, during a meeting of all patients and several staff members, one patient stated that he did not want to hear about a fellow patient's divorce in such a public setting, and asked, "what does her divorce have to do with her pain?" Of course stressors like going through a divorce can produce deleterious changes in physiological functioning and exacerbate pain, which most patients understood. This patient was mainly objecting to the public nature of the intervention – which staff saw as therapeutic.

Pain Narratives

A significant amount of literature has emerged in recent years that discusses the stories patients tell, "illness narratives," virtually all of which are shot through with accounts of pain. (see Das 1997; Kleinman 1988; Mattingly and Garro 2000). Space limitations allow only a brief mention of some of the issues. Some scholars focus in on interpreting pain narratives (Charon 2005: 37–40). A frequently encountered issue concerns the way severe, unending pain challenges a sufferer's very identity. Pain narratives are often gripping: even "pointless," "meaningless" pain can motivate the teller to aim for impressive heights of descriptive power, in particular through metaphor, and fashion dramatic appeals to the interlocutor. Pain can be an enemy, a "monster" (Good 1992) that takes over one's body – which can turn into something unrecognizable, alienated ("possessed"), even traitorous. Pain exiles sufferers from their own bodies, which surface as "strangely *other*" (Goldberg 2009: 34, 35; emphasis in the original). Some accounts vividly describe rejection, in no uncertain terms, of the painful body part.

A great deal has been written, often employing a phenomenological approach, about the relationship between language and pain. According to Jason Throop, the theme of pain-resisting language appears regularly in the literature. Pain tends "to actively 'resist' the cultural patterning of linguistic and interpretive frames" (Throop 2002: 13; also see Daniel 1994; Goldberg 2009: 33). Kleinman et al. write that pain "...occurs on that fundamental level of bodily experience which language encounters, attempts to express, and then fails to encompass" (Kleinman et al. 1992: 7; also see

Jackson 1994b). Due to pain's "unsharability," Elaine Scarry writes that "physical pain does not simply resist language but actively destroys it, bringing about an immediate reversion to a state anterior to language, to the sounds and cries a human being makes before language is learned" (Scarry 1985: 4–5). Drew Leder makes a similar point: "...pain is the consummately private sensation... It is, in fact, actively speech destroying" (Leder 1990, as cited in Throop 2009: 33).

Apart from instruments like the McGill Pain Terms Questionnaire, information about pain not experimentally induced is obtained during medical, psychiatric, or social science interviews. Buchbinder provides a valuable discussion about the constraints the anthropological interview places on the interviewee, in particular what gets left out (2010: 124). Rather than examine the literature on narrative, she argues, we should be looking at the field of rhetoric, for the interview occurs in a setting of unequal power balance where the patient is highly invested in communicating her view of what has happened and her status as a moral being (see Jackson 2005a).

Conclusions

This chapter has presented some areas in pain research and treatment of particular interest to anthropology. That so much is at stake when people hurt for long periods of time makes chronic pain a loaded topic, one constantly being discussed in medical, political, and economics venues. Pain's meanings are so dependent on culture that generalizing about the cross-cultural anthropological research on pain poses a major challenge. Of course, any experience is heavily influenced by its context, but accepting that the meaning of a pain experience is its most important determinant is quite difficult, in part because of our notion of pain as a sensation. Pain seems so fundamentally biological – a noxious stimulus and hard-wired response – that recent findings about the plasticity of the central nervous system and its responsiveness to, for example, emotional or environmental variables, can seem counter-intuitive. The "fundamental tension between pain as subjectively understood versus pain as objectively characterized" (Aydede and Guzeldere 2002: S266) continues. The abundant evidence of pain's multimodality requires that we accept the likelihood of a wide range of influences on the pain experience. For example, some aspects of pain processing, such as coping, induce neural processing prior to actual pain stimulus (Ingvar 1999: 1347). Also, chronic high levels of pain constitute a prominent stressor that can produce activation and inflammation of immune system and neuroendocrine reactivity, which can feed back into the pain processing system and permanently change it (Sturgeon and Zautra 2010: 105).

Pain continues to be seen as a "thing" rather than an experience. Full acceptance, even within pain medicine, of pain's location exclusively in the brain/mind will be a long time coming, if phrasing in current pain medicine publications is any indication. For example, "pain can therefore be expected to influence brain processing on many levels" (Ingvar 1999: 1347). Media articles with similar phrasing also appear regularly, for example, "Acupuncture 'lessens pain in brain not body,' scientists discover" (Hough 2010).

The situation faced by sufferers of chronic pain exposes several fault lines of the dominant positivist and Cartesian understandings of selfhood and the human body as

they have been institutionalized in U.S. biomedicine. Certain conceptual and moral foundations of biomedicine classify people into categories that pain-sufferers straddle, including those based on two of biomedicine's most basic discourses. The first one, illustrated by the imputation of psychogenic pain, is that of the real and unreal, "physical and mental, real and imaginary" (Kirmayer 1988: 83). And pain sufferers not only reveal the inadequacies of this classificatory system, they also threaten the ethical and normative implications accompanying that system by defying attempts to classify them as a particular kind of moral being. This second discourse – Kirmayer's "accident and moral choice" (1988: 83) – is that of responsibility.

In short, chronic pain patients embody disorder: It might not be going too far to describe chronic pain sufferers as being seen to attack the established order of the part of the universe having to do with received wisdom about the body and mind. If, as Kirmayer suggests, the dualism of Western culture is firmly rooted in the West's construction of the moral order and the person, then understanding the role played by "the fundamental experiences of agency and accident, and their moral consequences" is crucial (Kirmayer 1988: 58). Elsewhere (Jackson 2005b) I have suggested that pain sufferers occupy an ambiguous space with respect to agentive, as opposed to completely involuntary, action, and, as a consequence, ambiguity will inhere in any moral evaluations concerned with agency.

The degree to which changes in the biomedical paradigm, in particular its shift to ever-greater acknowledgment and incorporation of mind–body connections, will benefit sufferers of chronic pain is anyone's guess. Although neuroimaging represents a significant advance in pain medicine, in some respects, it has strengthened biomedicine's model of disease "as a thing spatially located in the body" (see Morris 2008: 400). Despite a highly significant shift in clinicians' language about pain (and the pain patient) resulting from these technologies (see, e.g., Merskey 2004), pain still straddles the body–mind fence and still continues to represent a fundamental medical anomaly. In clinical settings pain continues to be seen as in need of validation before a reliable diagnosis can be reached. But there *are* indications that such a shift is occurring (see, for example, Hardcastle 1999; Melzack 1996; Merskey 2004). According to Fields, the gate control hypothesis, proposed four decades ago, "brought the most clinically relevant aspects of pain out of the realm of pure psychology and into the realm of neuroscience. A corollary of this was to provide enhanced respectability for pain patients, for the physicians who cared for them and for the scientists working in the field" (Fields 2007: 50).

It is to be hoped that more anthropologists will consider investigating this compelling topic.

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