Pain: A Literature Review
by Malcolm Barrett

Reckoning with pain, in its acute form, is an essential aspect of human existence. Indeed, pain and pain behavior, in the Darwinian sense, are understood as a beneficial part of our genetic lineage, one that, the analogy goes, operates as a warning system in order to prevent tissue damage. The perennial illustration of the value of such a system is the rare medical condition called congenital analgesia. Because this condition prevents the maintenance of important sensory neurons that create the slew of sensation we take for granted in everyday life, those born with this unfortunate disorder often lose their digits to repeated trauma or otherwise mutilate tissue in mundane acts, such as in eating, and have significantly shortened life spans (Wolf 2007). This, of course, is due to the absence of pain behaviors that are a part of the reaction to pain, from removing one's hand from the stove to retreating to a safe location after an injury. Behaviors like these and others, such as facial and verbal expression, may also serve as selected-for reflexes to alert entire groups of danger and to signal the need for medical attention (Williams 2002). Acute pain, then, is not only (almost) ubiquitous, it is also useful. It is a biological event and also an adaptive one, to greater or lesser degrees. Chronic pain, however, is not experienced by everyone, nor is it clear to what epidemiological extent it has occurred across history and cultures (Kleinman et al. 1992:3). In many cases, chronic pain persists well after the original site of injury has healed. In many more, there was never a clear organic origin in the first place.

Chronic pain has constantly challenged the biomedical model of disease, where signs and symptoms are usually subsequent to discrete entities, and has led to a rather remarkable rethinking of pain—acute and chronic—that can be found inside and outside of medicine.\(^1\) This change, although by no means universal or homogeneous, manifested after World War II. Three key examples from the 1960s illustrate this: in 1961, the anesthesiologist John Bonica founded the first multidisciplinary clinic in Seattle; in 1965, Melzack and Wall (a psychologist and physician, respectively) proposed the Gate Control Theory, a framework for the mechanics of pain that emphasized the descending modulatory effects of psychological factors on the experience of pain; and, in 1969 Mark Zborowski, an anthropologist, published his ethnography documenting the effects of ethnicity in a Bronx VA hospital.

Pain—all pain—besides being a medical or adaptive event, then, is something that occurs in context of the individual and the sociocultural factors that mold its experience and display. It is thus a highly appropriate field of study for anthropology and other social sciences. The study of pain also allows for an opportunity to reflect on biomedical values and assumptions, the power structures of medicine, and the larger political economic factors that help mold the medical encounter (or otherwise prevent it from occurring). Indeed, many of the themes found in these areas of research in general manifest in the management of pain and are discussed in this review.

Understanding some of the mechanics of pain is useful in knowing why the social science of pain is more than an academic or philosophical exercise. Unfortunately, a general review of the biomedical side of pain would be impractical, although there already exist

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\(^1\) For historical reviews related to pain, see Rey 1995; Baszanger 1998; Manchikanti et al. 2003; Meldrum 2003.
several excellent resources, of varying degrees of technicality, on this subject (e.g. Wall 2000; Melzack and Wall 2004; Fields 2007; Woolf 2007; Bausmam et al. 2009; MacMahon and Koltzenberg 2005). Still, one should keep in mind that the biology and neurology of pain seem to support this approach. The greatest contribution of Melzack and Wall's (1965) Gate Control Theory, after all, was not that they had discovered all the right mechanisms of nociception. In fact, several were quite incorrect (Woolf 2007; Fields 2007; Coakley and Shelemay 2007:67-69; Melzack and Wall 2004). Rather, their key observation was that there existed mechanisms in the spine for cognition to modulate pain, apparently to a great degree. Because behavior and cognition are inherently social, a social science of pain is extremely appropriate.

A review of the psychological literature on pain is more practical, and, in fact, several very good sources already exist in that vein (e.g. Eccleston 2001; Gamsa 1994a, 1994b; Williams 2002; Morley 2008; Jackson 2005:336-339). While a full review of the work done in this field is well beyond the scope of this paper, psychology has had significant effects in the clinical and academic understandings of pain (including in the fields that will be focused on here), and the institutions involved in pain management themselves require attention. Therefore, a short summary of some of the major schools of thought is of use.

The psychoanalytic approach is the earliest way of thinking about pain psychologically. Gamsa (1994a) notes that the psychoanalytic perspective is marked by the notion that “intractable pain which defies organic explanations is a defense against unconscious psychic conflict” (6). Perhaps the most influential idea derived from this school is the theory of psychogenic pain, stating pain that is due to psychological rather than physiological factors. The behavioral approach to pain was developed most fully by Fordyce (1976, 1984). The behavioral approach follows Skinner in only studying observable actions. Thus, the question is not one of the pain experience but of pain behavior—crying, facial expression, communication—and of the operant factors involved in its perpetuation (see Gamsa 1994a:9). Operant pain, as opposed to respondent pain, is persistent due to these factors and thus serves as an explanation for intractable chronic pain, as opposed to acute (respondent) pain that is due to immediate damage. The cognitive-behavioral approach is the third major method in psychology of understanding and treating chronic pain, effectively a sophisticated blend of the previous two, although with less attention to psychodynamics. This model builds from the Gate-Control Theory in stressing the importance in cognitive factors in the experiences of pain and pain relief. Another work that influenced this approach is Beecher's (1956) classic and widely cited article on the response to pain of soldiers in World War II versus their non-combatant counterparts in the United States, emphasizing the importance of context (for the soldiers in Beecher's article, the pain of injury is less substantial because it also means a return home).

These three schools have made major contributions to the study and treatment of pain, although each has critics (Gamsa 1994b; Merskey 1994:S73; Kugelmann 1997:58; Jackson 2005). Since the beginning of multidisciplinary pain clinics in the 1960s, the role of psychology in pain treatment—the therapeutic modes of these approaches—has had some success in its endeavors. Together with the biomedical model of pain, these areas of study and treatments compose the largest percentage of both the research and clinical practice. Still, there are many critical subjects left untouched by these approaches that are perhaps best dealt with by a sociocultural model. The very fact that pain management is separated into two major components—physiology and psychology, the soma and the psyche—demonstrates many of the assumptions about the nature of the health and illness,
body and personhood, politics and power, that are often left unquestioned in the clinic—by practitioner and patient alike.

II
The long-term experience of pain challenges notions about identity, illness, and suffering and is modified by local and idiosyncratic meanings; many of these categories leave room for study by sociology and anthropology. Pain is, in a sense, public2 (in the sense offered by Geertz 1973). Still, traditionally sociological or anthropological research on the subject is limited, and many of the major works on pain are, in fact, interdisciplinary. Part of the explanation for this is simply the now-longstanding trend in the sociocultural sciences to draw from many other modalities than the classical sources (or methodology) alone; that is to say, sociology and anthropology are, and have been, increasingly interdisciplinary in nature anyway, drawing from many other fields; because medical sociology and medical anthropology study fields that come with their own vast literature, it is unsurprising that this generalization would be especially fit for these sub-disciplines. A second explanation rests in the nature of pain itself. Pain frustrates genres as much as it does practitioners, pain sufferers, and caregivers. These blurred boundaries are the reason that I include certain works that don't meet standard anthropological and sociological definitions.

A note on method
The organization of the rest of the paper is comprised largely of my reading of themes in the social science of pain. To determine which themes to use and which to leave out was part technique, part assessment, and part intuition. I developed codes for the reading using an open coding style followed by a closed coding style (Emerson et al. 1995:150-162). For the most part, it was raw numbers that determined the themes discussed. However, this can be misleading, and a few other factors should be kept in mind. For instance, citations that I determined to match the code mind/body were by far the most common in that a huge number of studies bring up the matter (see below). The actual number of studies, though, that seriously contemplated this relationship—let alone those that took it up as its major object of study—is much smaller. Many otherwise productive codes, as well, were left out for one reason or another, from usefulness to impact on the literature. Ultimately, this process resulted in eleven main themes.

Defining pain
Defining pain is difficult, and it shows in the literature. Jackson (2005) has done the most in terms of organizing the many available definitions and herself defines it as “an aversive feeling experienced in the body that cannot be measured directly” (333, 334-335; see also Jackson 1992:141; Jackson 2000:3-5; Jackson 2007:143; Encandela

Definitions used in the literature are often conflicting or otherwise absent, but it is useful to note that the most commonly cited definition (by far) is the one created by the International Association for the Study of Pain: “An unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage” (Merskey and Bogduk 1994; Merskey 1994).

Goldberg (2009), following Wittgenstein, feels unencumbered by the wide-ranging definitions of pain, stating that, “epistemic agents do not require an analytic definition of a word or a concept in order to use it meaningfully in practice” and “that Wittgenstein’s conception of meaning rejects the need—if not the existence—for necessary and sufficient criteria of words and concepts to ground those words and concepts’ meaning” (3). In Wittgenstein's (2001) colorful metaphor, talking about pain is like having a box with a beetle in it that no one else can look into (§293). The word that we use to refer to the thing in the box, “beetle,” is not necessarily the name of the thing itself; it need not be, as we might have different species of beetles in our respective boxes, a different object entirely, or nothing at all, none of which changes the meaningfulness of the word.4

Pain and ethnicity
Assumptions about ethnicity and pain have a long history. One particularly powerful example is the development of methods for the surgical repair of vaginal fistulas (tears in the vaginal wall consequent to birth) by Dr. J Marion Sims. At the time (the mid-1800s), it was thought that people of African descent were less sensitive to pain than those of European slave women that he brought to a small hospital and, over the course of four years, worked to invent the repair process—without anesthetization. (Anesthesia was first publicly used in a surgery two years after the experiments began, but it was not widely accepted for many years, and so it is not surprising that Sims never administered it to the women.) It wasn't until the thirteenth surgery that the so-called father of modern gynecology succeed.

The first significant scholarly achievement in the study of ethnicity and pain (and in the entrance of anthropology into the study of pain generally, although Kleinman et al. [1992] note—sadly without citations—that both W.H.R Rivers and Erwin Ackerknecht “made inquiries” into the subject) was by Zborowski. His field work in the 1950s produced an early article (1952) and the book People in Pain (1969). His ethnography examines the reactions to and explanations of pain by American men in a veteran’s hospital located in the Bronx. Zborowski divides the veterans into four ethnicities: Old American, Irish, Italian, and Jewish. By arranging a considerable amount of quotations by ethnicity and then comparing them, he examined many different categories of behavior, as well as explanatory models (an under-appreciated aspect of the work, considering the degree to which later work on pain has focused on models and narrative). In general, Old American and Irish patients were more stoic and more cooperative while Jewish and

See also Encandela 1993:786 on the role of social scientists contributing to definitions and models of pain.

Alternatively, that which we cannot talk about is truly private. That pain is both public and private can be shown in the difficulty of expressing pain (Scarry 1985; see the discussion on this under the section on real versus unreal pain).
Italian patients were more emotional and critical of the hospital, although Zborowski traces subtle differences between all four ethnicities. For instance, Jewish patients were future-oriented—that is, concerned about what will happen—while Italian patients were present-oriented—that is, concerned about the immediate elimination of pain.

Zborowski's work is controversial in the scholarship of pain. Two very strong criticisms come from anthropology via Kleinman et al. (1992) and Pugh (1991). Kleinman et al. argue that, “Nowadays, his writing seems like a quaint anachronism. The cultural stereotypes ... are elevated above the particularities of person, gender, and situation. They are ahistorical and unchanging,” and that “his work led a generation of social scientists and health professionals into a conceptual and methodological cul-de-sac” (2). Their strongest criticism is that it, in the habit of classical anthropology, tends to ignore the “lived-experience” of the local world, marked by historicality and idiosyncrasy. Pugh denounces the stoical/expressive divide that Zborowski observes throughout his work as having a detrimental effect on the study of pain, especially in that it only provides negatives of one another as descriptive options, with no subtlety. Expressiveness is equated with “loud, excessive, or prolonged verbal and vocal activity and pronounced gestural activity” where stoicism is “a style without expression, as it were” (20).

Zborowski's work is, indeed, antiquated in style and theoretical background—and there is no question that some parts of his analysis “create cardboard characters instead of describing real people” (Kleinman et al. 1992:2); however, some of these criticisms are unfair. Morris (1991)—a postmodernist work and, therefore, a sort of strange hero for Zborowski—argues that People in Pain offers us a picture of the now-gone cultural world of pain patients in the 1950s (55). He also argues that stereotyping—no doubt a threat to real research, to say nothing of the social world—is simply a danger resulting from the lack of clarity of life outside of the laboratory. Perhaps one of the most impressive aspects of the book is incredibly high ratio of direct quotations. Even if Zborowski's analysis were completely useless (which it isn't), these data alone would be valuable enough for any scholar interested in the historical or social study of pain to qualify the book as worthwhile reading.

In large part due to Zborowski's influence, the subject of ethnicity was the hallmark of sociocultural sciences in the study of pain until the 1980s, although the number of such works is relatively limited compared to the boom in studies during and since that time period. Zborowski's most general claim—that ethnicity has a profound effect on pain behavior—has since been confirmed and elaborated on (see especially Zola 1966; Bates 1987; Bates and Rankin-Hill 1994), although how Zborowski portrayed it was indeed more static than is true; naturally, other variables are at play, such as individual idiosyncrasy and environment.

In addition, ethnicity does not simply influence the patient's behavior or explanatory model: it also affects the health care staff. Practitioners are, for instance, more or less likely to administer or prescribe anesthetic medication based on the ethnicity of the patient. In one study, Ng et al. (1996) examined the prescription of patient-controlled analgesia in post-operative pain. Even though neither self-report of pain nor the actual amount of self-administration differed between four ethnicities (Asians, blacks, Hispanics, and whites), even when other variables (age, gender, site of surgery, and pre-surgery history of narcotics use) were controlled for, ethnicity served as the primary factor as to who received what amount of medication (see also Al-Atiyyat 2009). Encandela (1993) argues that ethnicity's relationship with pain has been studied well enough and no longer needs to be the main object of research (785). I don't believe this to
be a call to ignore it, however. The confirmation of the effect of ethnicity on pain behavior and perception means that it must be controlled for—or at least receive attention in further work, even if it does not produce further study itself. As such, it is by no means absent in the recent literature (e.g. DelVecchio Good 1992:68; Woolf 2007:31; Al-Attiyat 2009:155-156).

Gendered pain

Pain is often gendered (DelVecchio Good et al. 1992:201); even the person who ends up caring for a person in pain is more likely to be a woman (Richardson et al. 2007:354). The amount of work that has been done on gender and pain explicitly in the sociocultural sciences is a little disappointing, especially considering the fact that the epidemiology of chronic pain seems to disproportionately represent women (including some indication of an earlier age of onset), as does morbidity in general (see Finkler 1994; Bendelow 1993:285; Andersson 1994). The subject, however, has certainly not been ignored (Loftus 2011:217; Zola 1966:619; Jackson 2000:145, 181-182, 2005:340; Honkasalo 2001; Throop 2010:224-225; DelVecchio Good 1992; Emad 2003; Encandela 1993:785-786). There are, in fact, a few very excellent studies on the matter. Trnka (2007), for example, worked with Indo-Fijian women, for whom pain may serve the extra purpose of pointing to physical labors that were the result of successfully filling one’s gender role. Exhaustion and aches, for instance, may function as an index of effort (399-400). When their pain is doubted by their health care providers, as it frequently is, it also implied that they were not, in fact, completing their duties as women (401). For Somali immigrants in Norway, on the other hand, the lasting pain of infibulation while living amongst a different culture served as a way to discuss the value of the practice, a “counterpoint” to their native culture (Johansen 2002).³

In an interesting study in pain clinics in North London, Bendelow (1993) found that the perception of pain and its relationship to the body was quite gendered. The mind/body dualism (see below) was much more strict when talking about men, for whom a psychopathological diagnosis was more stigmatizing, than women, who were more likely to talk about the relationship between emotions and pain and more likely to be diagnosed within a psychological nosology in the first place (280, 282; see also Honkasalo 2001). Bendelow argues convincingly that this is rooted in another Western dichotomy, nature/culture, where women are associated with the former and men the latter (289; Aldrich and Eccleston 2000:1637). In Bendelow’s study, women were thought to be better equipped for pain to prepare for birth; indeed, for women, pain was natural and common, whereas for men it was unnatural and uncommon (286-287, 289-290). “All we do is shave,” noted one man (286).

Birth, especially in American culture, where pain is much of the focus of birth talk (Davis-Floyd 1992; Jordan 1993), is an obvious source of gendered pain.⁶ The anthropology of birth is quite an extensive field, but there are a few works that are highly

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³ Johansen's (2002) study also illuminates the power of culture to modulate the pain experience. It was noted by many of her informants that the pain of infibulation was actually worse in Norway, where it was significantly less accepted, than it was in Somalia, where it was more commonly practiced.

⁶ On a related matter, see Emad 2003 for a discussion on birth pain as perceived by doulas.
relevant. Davis-Floyd (1992) argues that the process of birth in the United States can be understood as a ritual, and that one of the key features of rituals is to take dangerous, liminal states (like pregnancy and birth), and to root them into the cognitive matrix of everyday culture (10, 18-21). The use of analgesia in birth has a dual ritual purpose: it, one, confirms notions of pain and the body—that pain is bad, that unnecessary suffering should be eliminated, and that the body is a machine that can be modulated mechanistically—and, two, heightens the “strange-making” process of rituals that is essential to both reaffirmation of the cognitive matrix and the transition from one status to another (motherhood) (99-102). The birth experience of Southern Indian women that Van Hollen (2003) worked with confirmed a view of pain that was a sort of inversion of the American model: pain is not only necessary (in Tamil, the word for contraction pain is the same word for the contraction itself), its intensity gives women strength (57). Rather than analgesic medicines, these women often used drugs like pitocin, a synthetic form of oxytocin, which speeds up birth (because birth is dangerous and should be done as quickly as possible; epidurals actually slow birth: Davis-Floyd 1992:100) and heightens its intensity. The danger and intensity of childbirth gives women sakti, a female regenerative power intricately related to the Hindu pantheon and gender roles (Van Hollen 2003:58-60).

Although most of the work cited here focuses on women, it is clear that pain presents certain challenges unique to men, as well. Honkasalo (2000), in a study of Finnish pain sufferers, notes that gender is involved in many of the narratives analyzed. For one elderly man, for instance, the story of his pain is at the same time a reckoning with becoming an old man disabled by pain while maintaining the autonomy, honor, and dignity that are key qualities of Finnish masculinity (203-204). Bates and Rankin-Hill (1994) suggest that therapy for Puerto Rican men in pain that are unemployed by their disability should involve culturally-appropriate occupational therapy because of the importance that employment plays for masculinity in that culture (644). Pain is both an affront to many models of masculinity, of “being-a-man” (Kugelmann 2003:41), especially in its chronic form, where its legitimacy is often questioned, and a space to confirm masculinity through the values of that model, such as the stoicism and self-reliance of one North American patient Kugelmann (2003) interviewed (44) or explaining pain in terms of effort exerted on community projects, as was the case for a Yapese pain sufferer that Throop (2010) spoke with (201-204; see also Bendelow 1993:286-287; Jackson 2000:181-182).

More studies need to be done on gender and pain in general in the sociocultural sciences—for both women and men. There are some more specific areas that are lacking, too. As Encandela (1993) observes, the study of some types of pain should not be separated from certain disorders, such as cancer and HIV/AIDS. This is quite relevant for gender studies because of the way certain diseases, like endometriosis (Emad 2003) or cancers of the reproductive organs, occur along gender lines. One particularly poignant area of study, and one that is untouched, would be of post-cancer chronic pain, such as in post-mastectomy pain, which, like all amputations, is highly vulnerable to phantom pain (Goudas et al. 2005:188; Flor 2002; Melzack and Wall 2004). Those studies that do not take gender as its main object cannot forget to include consideration of its influence (Encandela 1993:786).

Narrative
The study of narratives in medical anthropology begins most notably (or at least influentially) with Kleinman's (1988) *The Illness Narratives*. It so happens that Kleinman,
a physician and anthropologist, has also studied pain quite extensively in the United States and China, and so many of the chapters in the book deal with the subject of pain. Kleinman describes the illness narrative as such:

The illness narrative is a story the patient tells, and significant others retell, to give coherence to the distinctive events and long-term course of suffering. The plot lines, core metaphors, and rhetorical devices that structure the illness narrative are drawn from cultural and personal models for arranging experiences in meaningful ways and for effectively communicating those meanings. Over the long course of chronic disorder, these model texts shape and even create experience. The personal narrative does not merely reflect illness experience, but rather it contributes to the experience of symptoms and suffering (49).

Kleinman argues that the narrative gives meaning and order to suffering, while also possessing both diagnostic value (130) and therapeutic value when the interviewer (be he or she an anthropologist or a physician) behaves as a “moral witness” to the patient’s suffering (246; see also Good 1992:31; Emad 2003:12). For the purposes of the social scientist, however, the content of the narrative is too varied even within a given culture to understand how exactly it gives meaning. Instead, we must focus on the structure of narratives (185).

Garro (1992), in an examination of the pain narratives of American women, found that their narratives have a reoccurring structure that revolves around the North American emphasis on treatment in the process of help-seeking (130). These stories follow four basic stages. They “typically start by establishing the genesis of the illness.” (Honkasalo 2000:201 also found this true of Finnish narratives.) The next stage recounts the realization that the pain is a major disruption to the pain sufferer’s life. The third stage is the search for and (when applicable) the acceptance of a diagnosis. Finally, the story turns to the search for an effective treatment. Of course, this is a generalized formula, and many narratives include several periods of hiatus and the reevaluation of one stage or another.

Honkasalo (2000), in a discussion on Finnish pain sufferers, argues that Western narratives are ultimately divided into two parts due to the central notions of discontinuity and disruption in the understanding of disease (204). Chronic illness disrupts an otherwise knowable and orderly life. It is also, then, centrally embedded in notions of time: not only in terms of (dis)continuity but also as prior and posterior, past and future (Garro 1992:103-104; Coker 2004; Throop 2010:258; see the section on time and space below). It may be precisely the way that narratives organize experience that serve to maintain a continued sense of self in the face of disruption. Loftus (2011) argues that narratives are, in fact, extended metaphors that provide such intelligibility (226; see also Honkasalo 2001). Hilbert (1984), on the other hand, argues that the cultural resources (such as metaphors) for the experience of chronic pain are extremely limited to the point

Kugelmann (2003) observes that the structures of narratives for physical and emotional pain are very similar. While Woolf (2007:27) points out that they certainly do not share molecular mechanisms, Fields (2007) and von Knorring and Ekselius (1994) argue that they may share other physiological structures, such as neural pathways (see also Ternstrom 2010). For many non-Westerners, such as the Sudanese immigrants discussed in Coker (2004), much to the chagrin of their Egyptian doctors, this division is a non-issue. The ontology of this subject is a very interesting area, and many writers contemplate it (for a phenomenological take, see Kugelmann 2000). However, it is a bit too philosophical for the purposes of this paper.
that he is compelled to discuss the “acultural” dimensions of pain (see also Throop 2011:233). Darghouth et al. (2006), in a study of headaches amongst Peruvian women, observe that narrative time (here non-linear and descended from Andean notions of time in its composition) is in stark contrast to the bodily time of the actual headache (281-282). Temporality, then, grants illness narratives a quality of fluidity. Indeed, narratives are not static, and many writers note that the production of scholarly work misleadingly cements stories that are actually modified quite readily (e.g. DelVecchio Good et al. 1992:201-202).

To what extent, however, narratives actually reflect the experience of pain (or any other illness) is unclear. Desjarlais (1996) questions whether the terms are even appropriate. He argues that “experience”—taken to be a universal and “supremely authentic”—is actually a recent historical and cultural phenomenon embedded in notions of individual agency and interiority (70; see also Throop 2010:257-260). “Experience” and “narrative,” then, may reflect Western notions of self (and its relationship to the other) and time, and how those moments are organized along this specific form of linear temporality. Even if these terms have in situ value, the actual process of narration cannot be assumed to be an exact reflection of the experience of pain. Buchbinder (2010), who studies pediatric pain clinics, notes that storytelling is inherently political. Something is often morally at stake for the teller, as in the case of the mother of a pain patient who has a vested interest in showing that she possesses certain qualities as her son's advocate and guardian (118). What's more, the illness narrative emerges from an institutional setting that restricts access to subjects of research (109). Patients in a given setting might be providing the types of narrative structures they expect are appropriate. Medical anthropology, as well, is an institution itself, and there is no reason to doubt that it modulates its object via the interview process (110; see also Richardson et al. 2007:349-350).

Explanatory models of pain
Closely related to illness narratives is the subject of the explanatory models (EM) that influence the understanding of pain for practitioners, sufferers, caregivers, and—importantly for the stigma of chronic pain—the population in general. EMs modify the illness experience and vice versa (Kleinman 1988:48). Like narrations of past experience, explanatory models of chronic illness “respond to such questions as: What is the nature of this problem? Why has it affected me? Why now? What course will it follow? How does it affect my body? What treatment do I desire? What do I most fear about this illness and its treatment?” (Kleinman 1988:121). Explanatory models are not, however, consistent or even necessarily explicit. Indeed, the literature is replete with examples of highly fluid, diverse, and idiosyncratic models (Yilmaz and Weiss 2000; Darghouth et al. 2006; Buchbinder 2011a; Buchbinder 2011b; Jackson 1992, 2000, 2005:335, 339; Coker 2004:22-24; Kleinman 1988; Throop 2010:7, 74, 194-235; Kleinman et al. 1992:8; Garro 1992:130-131; Baszanger 1992; Eccleston et al. 1997:699-700; Bendelow 1993:284; Coakley 2007:90; Gómez 2007:104). Whether it is enacted clinic philosophy or individual practitioners and patients, a given model can be biomedical in nature at one moment, lay in nature at the next (so-called folk models, a term that seems to unfairly

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8 This is a somewhat inexact a rendering of Desjarlais's opinion. He does not explicitly state that experience may refer to time, memory, and organization, but it is not a large leap. Throop (2010) appears to have a reading of Desjarlais's work similar to my own.
imply a sort of intellectual peasantry), and intuitive, personal understandings at still other moments. Indeed, rather than a simple division of biomedical models and lay models, EMs are almost better understood in a postcolonial sense: a hegemonic model (biomedicine) surrounded by models that may at once resist it, overlap with it, or otherwise disregard it completely.

This is not to say that their fluidity and diversity mean that explanatory models do not have deep roots or long reach. As Hunt and Arar (2001) point out, the differences in models of chronic disease profoundly affect the clinical encounter. While the terms of the nature of disease might be misleadingly similar between models, other aspects, such as goals, strategies for management, and markers of evaluation might be widely divergent (353-354). As Fadiman (1997) points out in her book following the treatment of a young Hmong girl with epilepsy, the differences can easily go unnoticed by all parties (260-261; see these pages as well for commonly used interview questions to elicit an explanatory model).

While explanatory models have been a very productive way of thinking about health and illness, and much work has been done in the area of pain, there is a profoundly undeveloped area in their study. As Baer and colleagues, in a series of comparative studies on lay and physician models of various diseases, point out, the understanding of explanatory models exclude the everyday, lay understanding that significantly affects both the help-seeking process and the view of people with whatever illness is at hand (e.g. Baer et al. 2004; Baer et al. 2008; see also Kleinman 1988:242). Too often, it is restricted to the illness narratives of people with the condition or models of disease from the professional standpoint. Both are, however, susceptible to the lay model's influence. Indeed, as Baer et al. (2004) observe in their study of AIDS models in Mexico and the United States, comparisons of physician and lay models in both countries revealed that “there was a shared core model of AIDS across all four samples, but that physicians' models were more similar to those of lay people in their own communities than either was to samples across the border” (3; see also Baer et al. 2008). This has serious implications for the experience of the pain patient, and to date no studies exist for its examination in regards to pain (see the section on the need for community studies below).

Mind and body
The next two areas (mind/body, real/unreal) would most accurately be subsumed under the category of Western dichotomies and most properly understood under those conditions along with other common dichotomies in science and everyday life. However, because of the high proportion of these two subjects in the literature and the fact that a discussion on them will cover many of the inherent issues of dichotomies in general, I have decided to only discuss these two tropes, common to both explanatory models and the research analysis.

The split between the mind and the body, usually called the Cartesian divide or Cartesian dualism (even though, as Goldberg 2009:159-161 points out, Descartes gets more blame than is fair for spreading the idea), has a long history of discussion in the anthropology of biomedicine. Its position in the experience of pain is more pronounced due largely to the ambiguous nature of pain. Often, health professionals are scolded in the

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9 In fact, I coded for others, e.g. visible/invisible (Goldberg 2009; Kugelmann 1999; Honkasalo 2000; Kleinman 1988:68; Jackson 2000:37, 93, 148, 176) and objective/subjective (Giordano 2010; Loftus 2010; Kugelmann 2003), but many were not included.
literature for suggesting that pain is “in the head,” but an under-appreciated aspect of this divide is the extent to which pain sufferers themselves conceive of their pain (and its legitimacy) in these terms (Kugelmann 1999:1666-1667; Jackson 1992). Kirmayer (2007) points out that many of the metaphors that we use are embodied, such as being upright as being morally good and being in balance as being in harmony. I believe that this dualism is best understood not just as a misunderstanding of how consciousness emerges from the body (and it is certainly that: see Goldberg 2009:173-196 and Searle 1992), but an embodied schema of the understanding of the world common to many modern Western cultures.10 The mind/body divide is “good to think with” in that it invokes many of the other dichotomies in the Western world: culture/nature, real/unreal, spirit/matter, object/subject, etc.

Pain complicates the divide, however, and this is why it is such a commonly discussed aspect of the pain experience that it would take a full paragraph to cite every instance of it in the literature. In the medical (and everyday) setting, the body is equated with real, organic pain, while the mind is equated with psychogenic, “unreal,” functional pain. This is especially burdensome for those without a clear diagnosis, but even those with obvious pathology are expected to not “make mountains out of a molehill” (Jackson 2005:333). Even though the Gate Control Theory delineated mechanisms by which all pain is modulated by cognition (and many more studies have since then clarified some of the inaccuracies of the original theory: see Coakley and Shelemay 2007:67-69 for a short discussion; Melzack and Wall 2004), specificity theory (that is, pain localizable to organic sites) is still common in biomedicine in large part because of the acceptance of the mind/body duality. It is also complicated by the fact that major depressive disorder is a common co-morbidity with chronic pain, affecting up to a third of pain sufferers (Goudas et al. 2005; Laird et al. 2009; von Knorring and Ekselius 1994; Yilmaz and Weiss 2000). Jackson's (2000) study of a multidisciplinary pain clinic that stresses the depression model of pain demonstrates how uncomfortable patients are with the suggestion that it's “all in their head.” Indeed, many patients strongly emphasize that the pain came before the depression (e.g. Kugelmann 1997, 1999; Jackson 1992, 2000). The diagnosis (or accusation) of psychosomatic pain is extremely common, probably explained in part by the fact that 30-50% of all medical visits include “the presentations of physical symptoms which cannot be confirmed by a medical diagnosis” (Dworkin 1994:S80). Less than 1% of cases match the actual diagnostic requirements (Dworkin 1994:S80-S81 using the DSM-III-R guidelines).11

This divide can be seen in some of the common experiences in the phenomenology of pain. The body is usually absent; rather, body and mind are seamlessly merged in the lived flow of existence (Leder 1990). Pain is one of many ways of bringing attention to the body (Kleinman 1988:45; Throop 2010:279; Jackson 2000:18, 146, 161; Garro 1992:104, 132; Osborn and Smith 2006). Good (1992) argues: “We act in the world through our bodies; our bodies are the subject of our actions, that through which we

10 As Throop (2010) and other writers point out, this divide is not unique to the Western world. However, its particular configuration is very different than, say, a subcontinental understanding of the divide.

11 Naturally, the DSM-III-R guidelines are outdated, and there are assumptions about using the psychiatry diagnostic manual as a guide to this matter that complicate the meaning of this statistic.
experience, comprehend, and act upon the world. In contrast, Brian [a pain sufferer Good interviewed] described his body as becoming an object, distinct from the experiencing and acting self” (39). Both the language about and the experience of pain (especially long-term) indicate that the body often becomes reified, experienced as an object (and thus giving embodiment of the dualism for the pain sufferer, as well as the subject/object dichotomy). This may be in part due to the grammatical structure of English. In a linguistic study of Greek pain talk, Lascartou (2007) found a similar objectification in that language (103, 145). Honkasalo (2000, 2001) demonstrates that this is a common experience for Finnish pain sufferers, as well.

Jackson (2005) gives serious thought to the relationship between pain and mind/body dualism. Pain sufferers are often stigmatized for several reason (see below). Following Turner and Leach, Jackson attributes the primary cause of stigma to the liminal, “betwixt-and-between” status of the individual in pain. By “profoundly challenging mind-body dualism,” the chronic pain sufferer becomes a “sublimely liminal creature whose uncertain ontological status provokes stigmatizing reactions in others” (333). The pain sufferer no longer fits into everyday categories of wellness and illness or mind and body, “crucial boundaries that people find essential for understanding, ordering, and evaluating experience” (346).

If there is work left to be done in the area of the mind/body dualism and pain, then understanding how it can relate to the destigmatization of chronic pain syndromes is certainly among them. Encandela (1993) also charges social scientists to contribute to new models of pain, noting that some work has been done by Morris (1991) that emphasized pain as a spectrum. However, Encandela reads this model as ultimately conceding to the dualism: the extreme ends of a spectrum model of pain are still entirely physical or entirely psychological (786). Goldberg (2009) dedicates one section of his dissertation to adapting Searle's (1992) model of the emergent properties of consciousness to the pain experience (173-196; see also Giordano 2010 for a similar “brain-mind” model). While this is a valiant and convincing effort, it still remains difficult to discuss the relationship of psychological and physiological factors without using language bias towards the divide, and so new (or better adapted) terms for discussing the matter are also needed. Phenomenological approaches to pain in the sociocultural sciences have been a particularly successful rethinking of this relation, especially through the concept of embodiment (Kleinman 1988:12, 39; 1992:181; Throop 2010; Buchbinder 2010, 2011a, 2011b; Jackson 2000:157; Becker 2007:173; Kirmayer 2007:369; Kleinman et al. 1992:7; Bendelow 1993:290; Emad 2003:23; Good 1992; Leder 1990; see also M. Jackson 1996). However, like Goldberg's model, phenomenology is difficult to import into everyday life. This fact is only exacerbated by phenomenology's prohibitive and highly technical vocabulary and the fact that its Continental sensibility is counterintuitive to both North American lifeworlds and academic philosophy. (This is not to say there are not American or Canadian phenomenologists, but in general philosophy in North America is deeply rooted in the analytic tradition.)

Reality and unreality

The Cartesian dualism is, in the pain experience, intimately related to notions of “real” pain and “imagined” (or “unreal”) pain, where the body is perceived, often by health care providers, patients, and caregivers alike, to be the only true site of pain. Kugelmann (1999) points out that the narratives of pain sufferers are polarized by the real/unreal divide, often conflated with the Cartesian dualism. Indeed, for many pain patients, the legitimacy of their condition was often stressed through the terms of physiological syndromes. In Kugelmann's (1997, 1999) interviews, pain almost always precedes depression. The ambiguity of pain “could not be sustained, because pain discourse is simultaneously medical, legal, and financial” (1667). I would also add that it is moral (Kleinman 1988, 1992; Throop 2010; Buchbinder 2011a, 2011b; Yilmaz and Weiss 2000; see also the section on community studies below). The accusation of “unreality” or pain being “in the head” incites a whole slew of subtle discourses on blame and responsibility as it commonly relates to the sick role in modern Western cultures (Eccleston et al. 1997; Jackson 1992:138, 140, 155-159; 2000: 19, 78, 172; 2005:345-346; Garro 1992:104; Bendelow 1993:284, 288). Therefore, as Arthur Kleinman would say, there is much at stake for the pain sufferer (and their significant others: Richardson et al. 2007:361) when it comes to the perceived legitimacy of his or her condition.

Pain sufferers, especially those without a clear diagnosis, are, then, extremely concerned with proving that their condition is “real.” The accusation that it is not is a common experience (Good 1992:36-40; Brodwin 1992:81; Garro 1992:104, 115, 131; Eccleston et al. 1997:703-704; Hansson et al. 2001:290). In the medical encounter, “probably the most authoritative institution in the United States” (Jackson 2005:342), doubting pain can delegitimize the patient's illness experience. Eccleston et al. (1997) suggest that this may be, like Jackson's interpretation of the liminality of pain sufferers, another issue of classification: the “index of disequilibrium” that pain refers to is troubling to both the patient, as sufferer, and physician, as healer—and nosologist (707). Jackson (2005) offers two other ways the patient becomes delegitimized (340). First, we generally see pain as a strictly acute experience that is bound to end (see the section on the sick role); chronic pain defies that. Second, because of the very acuteness of pain, we are encouraged not to “make mountains out of mole hills.” It will go away, and any behavior to the contrary is selfish or childish. In an interesting and different assessment of the process of delegitimization, Kirmayer (2007) opines that perhaps the denial of pain (especially in the health care field) might be a reaction that arises from how difficult it is to tolerate, powerlessly, the pain of the other (381). This strong emotional reaction might interface with biomedical knowledge (and its perceived authority) to reinforce the notion that, as Kirmayer says, “you can't be feeling that.” While this is certainly interpretative (Kirmayer gives no evidence of it, but rather interprets the intentions of the pediatric nurses from another study), it is a better explanation of why otherwise empathetic health care providers and caregivers would doubt the pain of the sufferer than mere malevolence.

As Scarry (1985) observes in her sweeping and influential treatise on pain, destruction, and creation that pain not only resists language, it can even destroy it, reducing the sufferer to pre-linguistic expressions like screaming or moaning. Although

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Again, the two are best understood properly as related sub-groups of a generally binary schema in modern Western cultures.

In her study of a New England pain clinic in the 1980s, Jackson (1992) gives the most significant thought to this dichotomy, as well. She points out that while “real” pain is fairly uncomplicated—organic damage that the person is usually not responsible for—“unreal” pain (a term more often implied than spoken and later interpreted by the patients to be an accusation of illegitimacy) is “actually a cover term for a set of rather fuzzy and complicated notions” (138). She organizes some of these classifications in four basic categories: real pain, somatized pain (see Dworkin 1994; Manchikanti et al. 2003:489; Buchbinder 2011b:n. 17; Coker 2004:33-34; Kleinman 1988:57-59), imaginary pain (hypochondriasis, hysteria, hallucination: see Morris 1991:103-124; Kleinman 1988:194-208; Asad 2011), and no pain (malingering; see Kleinman 1992:169), where the latter three are under the heading “unreal pain” (143). Somatic pain is the most complicated, with six nuanced subcategories, e.g. psychosomatic pain (with elements of reality, like ulcers, but ultimately psychological) and “originally 'real' pain (e.g., car accident) ... maintained because of 'unreal' reasons.”

Clearly, the legitimacy of the pain sufferers condition is of serious concern. It has far reaching implications morally, financially, legally, and medically. Because this divide contributes so much to the stigma of chronic pain, it is of key concern to social scientists who are trying to understand and prevent that process. Further studies may not be necessary in terms of confirming this phenomenon, but they surely must take it into consideration, especially when dealing with stigma or political economy.

Chronicity, the sick role, and the nature of disease
The delegitimization of chronic illness is strongly related to the Parsonian concept of the sick role, and many writers have used this model as a way of thinking about chronicity in medicine.\(^{15}\) When a person gains access to the sick role, the sick person is allowed to exit

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\(^{14}\) Many have argued that metaphor is much more important than simply a tool for expression. Rather, it is a mode of living, intrinsic rather than accessory to understanding (Lakoff and Johnson 1980; Sontag 1990). Pain narratives are ripe with metaphor, and the metaphoric qualities of pain have been addressed in a few works. See Lascartou 2007; Lofts 2011; Kleinman 1988, 1992; Jackson 2000:149-150, 163, 2005; Coker 2004; Throop 2010:259; Kirmayer 2007:369, 376.

\(^{15}\) For a critical appraisal of the notion of the sick role, see Mol (2002:7-9). She takes an approach that is dismissive of the mere functionalism of Parsons's work. The model surely deserves some unpacking. However, in the literature on chronic disease, it is clear that some of the ideas of what it means to be legitimately sick are profoundly influential on the illness experience, and so its usefulness is certainly not spent.
social time in order to heal; normal responsibilities are suspended, and blame for the illness does not fall on the sick person. However, there are certain stipulations for the sick role. The sick person is obliged to try to heal, especially by listening to the advice of a doctor (usually thought of in terms of compliance vs non-compliance; see Fadiman 1997:261; Hunt and Arar 2001:348, 351; Fordyce 1984:867; Bates and Rankin-Hill 1994:644; Encandela 1993:787). The sick role is also time-limited and difficult to access if the diagnosis is of a stigmatized or contested illness (or if there is no diagnosis).

Chronic illnesses, such as chronic pain, do not integrate well with the sick role. By definition, those with chronic illness do not get well quickly (if at all), at least not in the sense of acute illness (Ong and Hooper 2006:216). The endlessness of chronic illnesses does not mesh well with the metaphorical understanding of the body as a machine—a machine that is repairable by doctors (Schepers-Hughes and Lock 1987). By nature, of course, they are not time limited (Jackson 2005:333); and many chronic illnesses are contested or stigmatized (as in the case of pain, although it has become overall less contested and does depend on the syndrome; see Kugelmann 2003:32-33). Responsibility, especially for diseases like diabetes and pain, often falls on those with chronic illness.

There are a few other barriers to the sick role. Pain is unique amongst chronic illness in that it is treated acutely and is often, by patients and practitioners alike, thought of in those terms (Turk and Okifuji 2002:687; Hilbert 1984; Brodwin 1992:90; Jackson 1992:140; Hunt and Arar 2001:362; Hansson et al. 2001:289; Encandela 1993:785). Jackson (2000) notes that “chronic pain’s very persistence creates a deep gulf between chronic pain sufferers and those who have experienced only acute pain” because it is so difficult to imagine pain of that duration or intensity (45). Pain behaviors such as moaning or crying out are only acceptable for a short period of time because the pain is expected to end: continuing to enact them can be delegitimizing (Jackson 2000:37, 2005:340; see also Brodwin 1992:90-91). On the flip side, not displaying any pain behaviors is equally delegitimizing because, as dramatic and unconscious events, they are expected to naturally arise as a reaction to pain. Pain is also usually thought of as a symptom rather than a disease, although this issue is complicated by recent evidence that chronic pain creates neural pathways that seem to perpetuate the experience, as well as possessing other more pathological attributes (Thernstrom 2010:183-191). Even when thought of in these terms, however, it is as a symptom that has lost its usefulness—the broken warning bell, the metaphor goes, that keeps sounding (Jackson 2005:335).

Therefore, the management and experience of pain occupies a very curious spot somewhere in between chronicity and acuteness. This complicated temporality incites difficulty in trying to access the sick role and legitimacy because it is neither a single event nor a disease to be managed in the long-term, quite contrary to both the obligations of the sick role and everyday notions of the nature of pain.

As Glenton (2003), in her article analyzing the contributions to an on-line Norwegian back pain discussion list, argues that gaining access to the sick role is a prime concern of the patient, and its denial may, ironically, lead to what is commonly assessed to be dependence on the medical system. As opposed to other chronic illnesses, where the doctor-patient relationship is seen as less vital, and the independent action of the patient more vital, a lack of clear diagnosis and treatment, causing delegitimization of the illness, may actually be the root cause of frequent medical visits and “doctor shopping” seen in chronic pain sufferers (2244; see also the section on stigma; on doctor shopping, see for example Kleinman 1988; Garro 1992; Morley 2008:28-29). Glenton describes this in-
between state, as the patient strives for the sick role, as being “with illness but without sickness... inhabiting a liminal space, being both well and sick, and being neither” (2244, citations removed).

Thinking of chronic pain as a disease in itself may be the best way to deal with providing proper access to legitimacy and the sick role, and there is reason to believe that it will head in this direction (Thernstrom 2010:183-191; Loftus 2011:225-226; Goldberg and McGee 2011:770; Hilbert 1984:369; Encandela 1993:784, 787). The medicalization of other disorders has indeed done much to legitimate conditions, as in the case of depression. However, the pain-as-disease model runs the risk, as with many instances of medicalization (see Jackson 2000:187), of reducing to biology suffering that is actually indexical of what Farmer (1999) calls “structural violence.” The relationships between power, legitimacy, and medicalization is a key area of study for sociocultural sciences (see, for example, Scheper-Hughes 1991 on the medicalization of hunger); the same should certainly be true of pain.16

Stigma

Goffman (1963) describes stigma as “a special kind of relationship between attribute and stereotype” (4; see also Phelan et al. 2008). Glenton points out that there are many ways that the stigmatization (or fear of stigmatization, since chronic pain fits Goffman's notion of the discreditable, in which stigma is not immediately obvious, rather than the discredited, in which it is) of pain sufferers match those delineated by Goffman's description of character blemishes, including “weak will, dishonesty, addiction or mental illness” (Glenton 2003:2249; Goffman 1963:4).17 Illnesses that the patient are blamed for is stigmatizing, as well. Indeed, the chief way of delegitimizing pain is by suggesting that it is actually psychological, which amalgamates the stigmas of blame, weakness, and mental illness (especially since often the terms are of depressive disorders; see the sections on mind/body and reality/unreality). Another way of delegitimizing is through the accusation of faking or exaggerating (dishonesty) in order to acquire what the behaviorist literature calls secondary gains (here, disability payments, attention from family, permission to miss work, etc.). Even if this is considered unconscious, it still has the ring of weak will to it. This matter is also related to the stigmatic features of the mind/body dualism discussed above: “Stigma results when the mind is seen as controlling the body in an unconscious and unwanted way” (Jackson 2000:184).18

Medicines, especially when habit-forming, can cause stigma because of the fact that, as Whyte et al. (2003) point out, medicines have social lives. Very few other medicines can contend with the long social history and impact of pain medications.19 In

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16 To a very limited extent, this is already true. See the section on power and institutions below.

17 Clearly, what determines stigma is not necessarily universal. Honkasalo 2001, for instance, points out that the stigma (and shame) of a lack of autonomy is much more prominent in Finland than the US because of the high value that culture places on it.

18 This is an interesting matter, too, because of how “mind over matter” can, in other situations (notably, those with intention), actually be regarded as impressive, a marker instead of strong will.

19 Morris (1991) points out the important fact that “Probably no other drug—not even such modern
fact, opioid regulation is perhaps the most frequently dealt with issue in pain policy (and public attention: see the recent, Pulitzer-winning articles on methadone overdose by Berens and Armstrong 2011; see also Thernstrom 2010; Goldberg 2009, 2010; Goldberg and McGee 2011). Inherent to the stigma of the use of pain medication is addiction. Unfortunately, the issues of medication addiction has been little addressed in the pain literature (probably due to the fact that addiction rates for chronic pain sufferers are actually quite low; see, however, Jackson's 2000:34-35 brief discussion on it), but there have been some good discussions on the policy, meaning, and social history of opioids (Manchikanti et al. 2003; Aurin 2000; Goldberg 2009, 2010). One interesting inversion of this issue is that of taking antidepressants for pain (some have indeed been shown to have an analgesic effect, even when a depressive disorder is absent). Antidepressants are somewhat stigmatized due to the general stigma of mental illness, and many pain sufferers are uncomfortable taking them (Jackson 2000:62).

Jackson (2005) believes that, ultimately, the main source of stigma in chronic pain is inappropriate pain behavior (339-340). This, naturally, includes several of the areas already discussed. She also comments on the strange paradox of pain behavior. On the one hand, as a subjective experience, pain can only be expressed to others through behavior. On the other hand, too much behavior can itself delegitimize the process, where the sufferer may be accused of exaggerating or otherwise not having “real” pain (340).

Dworkin (1994:S79) notes the interesting relationship between having access to the sick role, where one is permitted to increase doctor visits and medication consumption, and some of the stigmatizing (“dysfunctional”) pain behaviors, especially in regards to narcotics use. According to Hilbert (1984), chronic pain is not itself clearly stigmatized, but the process of disclosing or concealing pain can be (372-373). This argument is related to Goffman's (1963) observation that stigmatic attributes can be divided into two categories: discredited (where it is clearly stigmatic) and discreditable (where stigma must be disclosed) (4). The stigmatizing aspects of pain behavior may, then, be rooted in the dialectic of concealment and disclosure. In fact, that pain is invisible (discreditable and not discrediting) is itself a source of stigma because it is so difficult to prove its existence.

The literature by no means ignores stigma (Buchbinder 2011a:461-462; Kleinman 1988:158-160, 1992:181; Jackson 1992:160; Bendelow 1993:282; Hansson et al. 2001:290; Encandela 1993:788; Goldberg 2010). As I have mentioned in many other sections, however, it should be a key factor in many areas of further research because of how intricately it relates to subjects like the mind/body divide, legitimacy, and pain behaviors. Goldberg (2010) notes that stigma reduction has been somewhat successful for other illnesses, but that it has not been achieved to any great degree in chronic pain (431-434). If social scientists can make a meaningful contribution to the management of chronic pain on the ground level, it will be by understanding exactly how these mechanisms function together and to help develop methods of preventing and reducing stigmatization.

Self, identity, and demoralization

Issues of legitimacy and stigma, along with the sheer agony of chronic pain, culminate in a confusing, liminal state that can become nothing less than an “ontological assault” on the perception of the self and identity (Garro 1992:104). As Goldberg (2009) says, “pain simultaneously exiles and separates the sufferer from their local worlds, but also swells to inhabit the geography of the world” (64). Kugelmann (2003) notes, “Pain is an unwelcome mode of being, one that I reject, and in my rejecting, I interpret the painfulness of pain. My very being, my ownmost, my existing, is repulsive to me in pain. How could it not raise the question of identity?” (45). There are three ways that this is spoken of in the literature: depression (Yılmaz and Weiss 2000; Gamsa 1994a:8; Gamsa 1994b:19-20; Kleinman 1988:69; Jackson 2000:44, 62; Bendelow 1993:280; Eccleston 2001; Morley 2008; Von Knorring and Ekselius 1994; Laird et al. 2009), demoralization (Kleinman 1988, 1992; Jackson 2005; Osborn and Smith 2006:220), and anomie (Hilbert 1984; Kleinman et al. 1992:5; Encandela 1993:785). The middle term is perhaps the most neutral, as the first has certain psychological connotations (as well as moral ones; see the sections on mind/body and reality/unreality) and the last has philosophical baggage, but all three may be useful in their own right. For our purposes, though, I believe they can all be thought of as names for violence towards the self.

All three are related to the consequences of the processes that delegitimize chronic pain as an illness, such as stigma, lack of access to the sick role, and how badly it matches everyday and biomedical understandings of the nature of both the body and pain. The Durkheimian concept of anomie, though, is most closely related to what Hilbert (1984) calls the acultural dimensions of pain (see also DelVecchio Good et al. 1992:205). Chronic pain is outside of culture because culture lacks the resources to understand it, and the chief institution that would otherwise legitimate it, biomedicine, does little to do so. Narrative plays a role here because of how it reclaims the self: “I do not merely communicate something about my past, though that is doubtless part of what I do. I also enact the self I am trying to describe; the narrative ‘I’ is reconstituted at every moment it is invoked in the narrative itself” (Butler, quoted in Buchbinder 2010:116; see also Scarry 1985; Bendelow 1993:288).

There are some specific ways that identity is brought into question. Jackson (2000) noted that many of the patients at the New England pain clinic she studied spoke of a

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21 These terms deserve some unpacking, but unfortunately space prohibits a full consideration of its anthropological and ontological status. In short, it is clear that the way the self is experienced is not universal (e.g. Geertz 1972; Honkasalo 2000, 2001). What I refer to here is of the notion common in many modern Western cultures of a continuous self (whose boundary is the skin) with qualities of interiority and individual agency. Identity is even more idiosyncratic. Here, I separate them in the same general sense of the “lived self” and the “biographical self,” but for long-term purposes, this is unsatisfactory and reflects a bias toward psychological models, e.g. those discussed in Becker 2007 in relation to pain and trance.

22 The argument has been made, of course, that this is inverted, that pain can be the language of depression, demoralization, or anomie. The distinction is important in a clinical and political economical sense, but perhaps less so phenomenologically, where patterns of disease or suffering merge in the lived experience, even if they are classified as discrete events. I suggest that both ways of thinking about it are useful but that neither is universal.
“loss of self-esteem, to the point of actively disliking the person one had become” (42). Eccleston (2001) elaborates on this, noting that it is apparently the degree to which negative, critical judgment is directed to the self as a consequence of the pain, so called “negative self-enmeshment,” that is the best predictor of depression (147; see also Morley 2008). The experienced “pain-full” self contrasts with previous or future selves, and a before/after quality emerges alongside a sense of disruption (146; Honkasalo 2000; Jackson 2000:146-147). On the one hand, previous capabilities are inhibited. In fact, Eccleston (2001) also points out that depression has a higher correlation with level of disability than with pain intensity (146). The pain sufferer’s “real” self is suspended in the past (Morley 2008:28; Honkasalo 2000). As a way of coping, pain patients may “map routes for making a comeback, hoping to recapture the past” (Hellström 2001:88).

Because these goals may be unrealistic at the person's actual age or level of disability, failure and frustration are common. Morley (2008) believes that this contributes to “doctor shopping” (28-29). On the other hand, futures “once planned for, desired, hoped for, or feared” are frozen, “Futures that are now impossible but which exist as imaginary alternatives to the future now perceived as realistic” (84).

The literature on self and identity is in one sense well-developed. As is clear, the fact that chronic pain, one way or another, affects identity is well documented. Yet there is a second, related area that is underdeveloped. Little work has been done on how pain affects identity, or on the strategies for its management (although Richardson et al. 2007 note that the strategies in family settings are often to normalize the situation: 353, 357; see also Morley 2008). Narrative studies can only be of so much help in this area. Risdon et al. (2003) and Osborn and Smith (2006) both call for the need for further, longitudinal studies on the management of identity and the effects of pain on it. While this type of study design might be seen more often in psychology, long-term methodologies are under-appreciated in the sociocultural sciences, and an interdisciplinary approach is probably most appropriate, considering the unique, polysemic nature of pain.

Sociocultural sciences have much to add on the social aspects of remoralization and how it occurs (or doesn't occur) in the clinic (Kleinman 1988, 1992:193; Richardson et al. 2007:361; Trnka 2007:393; Loftus 2011:219; Buchbinder 2011a:472; DelVecchio Good 1992:69).

A second path that is possible for further inquisition into identity/self and pain is through the lens of liminality. Liminality is a key feature of the pain experience. As various writers have pointed out, it is a consequence of how pain frustrates the mind/body divide, how easily its reality is doubted, how the pain sufferer is neither sick nor well (or, as Glenton put it, has “illness” but not “sickness”), and how the chronicity of chronic pain (and the tension between acute understandings of it), as well as its status as stigmatized, prohibit easy access to the sick role. Countless ritual studies based on the work done by Victor Turner, Edmund Leach, Arnold van Gennep, and others have demonstrated that the strange-making of liminality helps transit a person from one status to another (e.g. Turner 1969; David-Floyd 1992). Jackson (2000) argues that the mystification of pain and confusion of liminality is one of the key aspects of whether or not a person accepts the new model of pain presented in the pain clinic she studied (102-105, 135-140). Liminality’s “shiftiness” is dangerous, however (Turner 1969), and for this reason I

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23 She also utilizes the literature on religious conversion to think about the “converts” to the clinic's model in a very interesting way (see her chapter on converts: Jackson 2000:109-142).
believe that future studies should ask further questions about the relationship between liminality and demoralization (or depression or anomie).

Time and space
Finally, I would like to consider the experience of time and space as they relate to pain. As I have already mentioned, temporality plays key roles in narratives and explanatory models of pain (i.e. how experience is arranged, what the nature of pain and its duration is), as well interfering with access to legitimacy and the sick role (because of pain's ambiguous state as neither chronic nor acute yet both), contributing to stigma and liminality. The relationship with oneself is also temporal in nature through recalled past and conceived of future selves that are compared to the present self, the person-in-pain. In this narrative sense, pain is a disruption of otherwise continuous time, while narrative time serves to remake and redefine its discontinuity (Honkasalo 2000:04; Darghouth et al. 2006:281; Kirmayer 2007:383). Indeed, Leder (1990) uses the metaphor of centrifugal force to describe how time and space—the building blocks of everyday life—are reorganized through the experience of pain, changing “our relations with others and with ourselves” (Bendelow and Williams 1995:148; Jackson 2000:164).

For many pain sufferers, the immediacy of their pain and the grounding effect it has in time cause a strange sort of phenomenology: personal time (or “bodily time,” as Darghouth et al. 2006 call it: 282) is agonizingly slow—the pain doesn't seem like it will ever end—while social time seems exceptionally fast, giving a dual feeling of being left behind while being entrapped in the present (e.g. Good 1992:41-42). For some patients, there is a third dimension of feeling thrown ahead, older than they are (e.g. Kleinman 1988:183). The “clock-and-calendar time” of medicine is also a profound mismatch of temporal experience (Hellström 2001:79). Being-in-pain is not, after all, “mere presence, but a structure of presence and absence, opening up a future and recalling a past” (Kugelmann 2003:34) where “experience is overwhelmed, suffused with a disordered chaotic version of time, where 'time' in its chronological sense seems to lose its bearings altogether” (Darghouth et al. 2006:282). Kirmayer argues that pain, because of its evolutionary purpose of avoiding harm in the long-term, is at its nature oriented in time (383-385; see also Jackson 1992:140). Indeed, memory (at once operational, cognitive, and embodied), grounds pain in time, while both affecting it and being affected by it (Johansen 2002:324; Cole 2004; Coker 2004:24-25; Jackson 2000:163;)

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This seems the most appropriate spot to note the mundaneness of this observation. Really, the temporal experience of all chronic illness is one layered on top of the other: chronic, mostly continuous symptoms of varying intensity overlaid with acute flair-ups. Pain also follows this pattern, yet assumptions about its nature prohibit this rethinking and make the relationship appear more complicated than it is.

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See Becker 2007:175-177 for a brief description on how slowing neural processing also slows time.

26

Hellström (2001) describes time empathy, a term borrowed from Frankenberg, almost as a clinical skill (89).

27

Chronic pain patients often complain of concentration and memory issues. See Eccleston 2001:148.

Throop (2010) gives significant thought to time, attention, and pain. He notes that he began his study assuming, with much of the literature, that granular time, “mere experience” that is simply lived, and coherent time, “an experience” that is demarcated, are the primary modes of the human experience of time and remembering—but only through one mode or the other (7). In studying pain, which can clearly be both granular and coherent, in the state of Yap in Micronesia, he concludes that, to the contrary, this dichotomy is too simplistic (13, 268). The experience of temporality, and its remembrance, can certainly be one or the other alone, but following Leder's (1990) appropriation of the Freudian concept of complemental series—that the absenting or presenting of one end of the spectrum precludes the opposite response of the other end—to describe how attention focuses upon the body, Throop suggests the “organization of attention is directly implicated in the dynamic structuring of what becomes either foregrounded or backgrounded” (268).

Throop also discusses time in a ritual sense. He observes a father encouraging his daughter through the use of repetitive, everyday languages of support (255-259). Repetition modifies the temporal experience by providing a sense of near-end for the pain in the long present of its immediacy. It also grounds the experience in an intersubjective metric, like the ticking of a clock. The father’s repetitive speech becomes a “temporal object,” present yet retaining and anticipating. This interesting concept may explain why breathing exercises like the Lamaze method work so well to relieve the pain of birth, and it would certainly be worth investigating whether and how the repetition of everyday talk is already at work in chronic and acute pain experiences.

The attention to space in the literature on pain is more limited, as it is in the sociocultural study of health and illness as a whole, and generally refers to what Coker (2004) calls, “somatic space,” referring to how pain is localized in the body (34). Darghouth et al. (2006), in their study of women with headaches from several communities in Peru, are perhaps the only ones to give thought to space and pain in the way it has traditionally been studied in anthropology and sociology. Headaches, for many of these women, occurred in “spaces of solitude ... delineated tangibly by the boundaries of the home, and tacit by the emptiness of the marks left by absences and death” (286). Often, the inside of the home was the locus for depression and pain, while leaving the home was a movement towards a soothing, pain-free sociality. This boundary points also to gender and moral modalities: women are expected to maintain acceptable emotional behavior in the public sphere. In a less traditional approach to space, Honkasalo (2000) conceives of the embodiment of pain as a type of movement (a “posture”) towards the world and embeds this in a notion of spatiality derived from Merleau-Ponty that defines space as a set of overlapping relations rather than isolated places (205-206; see also Kirmayer 2007:375-376; Kugelmann 2003).

Space is more in need of further research than time both in this area and in the medical anthropology and sociology in general. With the strong heritage in anthropology of studying space and place (e.g. Hall 1968; Low and Lawrence-Zúñiga 2003), the lack of work in this area is disappointing. Most often, when it is mentioned, it comes packaged with time, which then takes up the bulk of discussion. Certainly, Darghouth et al. (2006) provide an excellent example of how pain has geography, but more studies can and should take advantage of the rich work on space to study pain as well as health and illness in general, especially if Kugelmann (1999) is right when he says that “Dwelling attenuates pain” (1671).
Additionally, this approach can be used to understand better lay and biomedical models of localizable pain (alias specificity theory); in this model, pain is an object that has spatiality. As Wittgenstein points out, though, it is a strange sort of spatiality (2009:146-148). He invokes the image of a toothache: if I take my finger and move it closer to a tooth, we say that the finger is closer to the tooth, but if I take my finger and move it to a tooth that aches, we do not say that the pain is near our finger. The study of time and pain also has a few gaps. First, it is clear that time is not experienced the same way universally, and its definition, nature, and measurement differ across cultures and history. Zborowski (1969) acknowledged this fact, but only gave serious consideration to time orientation (e.g., present-oriented Italians, future-oriented Jews) and not to how Western temporal structures influence pain (45-47). Darghouth et al. (2006), in a more post-colonial frame, note that the headaches experienced by Peruvian women they studied were imprinted with pre-Hispanic cosmologies, where time is conceived of as a non-linear series of worlds that end and begin catastrophically and healing is a sort of reversal of time (282). Throop’s (2010) attention to time in Yapese culture is compelling but is less comparative. This gap, which is certainly also true of space, is related to the significant lack of cross-cultural studies in pain (see below).

III

Encandela (1993) pointed out six areas in need of further investigation in the study of pain: the relationship between pain and other variables besides ethnicity (age, gender, race, class, religion, occupation, etc.); institutions and power; definitions of pain; pain as a disease; ethics; and co-morbidity. Clearly, the sociocultural literature on pain has a few robustly developed areas, and several of the six that Encandela discussed have been developed upon since. Throughout the review, I have suggested some areas that could be developed further within the themes that already exist. Before concluding, I would like to discuss a few ways that gaps, including some that Encandela suggested, could be filled and expanded upon.

Cross-cultural studies

In 1980, Kleinman suggested that more cross-cultural work needed to be done in the areas of depression and pain. Sadly, few heeded his call. Depression has received a little more attention than pain from the cross-cultural perspective (e.g. Kleinman and Good 1985), although there are certainly some good studies on pain in Micronesia (Throop 2010), China (Kleinman 1980, 1988, 1992), Peru (Darghouth et al. 2006), Japan (Ohnuki-Tierney 1977), Fiji (Trnka 2007), India (Van Hollen 2003), and on immigrants from Somalia (Johansen 2002), Sudan (Coker 2004), and Turkey (Yilmaz and Weiss 2000). Most of the works cited in this review take place in North America and Europe, especially the US, the UK, Scandinavia, and France. Additionally, these works often subsume the cultural aspects of their studies under the category of “Western” culture, a useful but problematic term (see Wolf 1982), and one that certainly does not include the idiosyncrasies of local cultures. For instance, Honkasalo (2000) concludes that her study of Finnish pain sufferers challenges Leder’s (1990) concept of temporal distortion in pain. She does not, however, consider that, while she might be correct that they are different, local, non-American orientations to time may also be at play. As Goldberg (2009) says, there is not a phenomenology of pain but phenomenologies (3). It is clear that if chronic

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28 On a related note, Zborowski 1969, wondering about how consistent the experience of pain is,
pain is to become a global public health priority, as Goldberg and McGee (2011) say it should, then a prelude would have to be an examination of local modalities of pain. Chronic pain in general needs to be studied, but one area that would be of special interest for medical anthropology would be to study pain in the context of so-called culture-bound syndromes, e.g., the headaches related to nervios, an illness found in some Latin American cultures.

Community studies
The study of pain has a proclivity towards staying in the pain clinic, or at least in the doctor's office. Surely, this is a useful pursuit, and likely one that is produced in part by privacy and funding restrictions, as well as convenience. This may be why many of the existing community-based studies are also the existing cross-cultural studies (Van Hollen 2003; Darghouth et al. 2006; Trnka 2008; Throop 2010; Coker 2004), although there are some works about on-line communities (Emad 2003; Glenton 2003) and through the lens of therapeutic communities (Jackson 2000). Still, much of the approach to the literature excludes the fact that pain has an element of everydayness to it, both in the sense of being a part of and influenced by everyday life and in the brutal, violent sense that Scheper-Hughes (1992) used it (Trnka 2007; Osborn and Smith 2006; Aldrich and Eccleston 2000; Darghouth et al. 2006; Zola 1966; Throop 2010; Jackson 2000:161, 164; Kleinman et al. 1992:7; Good 1992:38-39, 42; Garro 1992:103; Kleinman 1992:193; Baszanger 1992:204; Hunt and Arar 2001:349, 355, 361; Bendelow 1993:291). As noted, lay models of pain, specifically those of non-pain sufferers, are need of further study if the destigmatization of pain is going to have any success (Goldberg 2009). The best way to do this—and to study the everyday world of pain—is through community studies.

Throop (2010) masterfully demonstrates how giving attention to the community and its local moral structure can reveal much about pain. Using Csordas’s (1993) concept of “somatic modes of attention,” Throop points out that, for sufferers in Yap, pain is likely to point to a whole array of moral concepts and expectations, including land, kinship and social structure, food, gender, and obligations to the community, and he shows exactly how this is over the many chapters he dedicates to these concepts. In fact, only the three chapters in Throop’s book deal with pain itself, yet the degree to which these chapters are contextualized make the rest of the book indispensable. Even the extensive work that has been done in Western cultures could easily be expanded upon through this method.

Age and other variables
While some areas, like gender, have received more attention since Encandela, others have not. Indeed, class, religion, and occupation have sparked so little study that there is no major work to revolve a discussion around. Buchbinder (2010, 2011a, 2011b) is the only person to give serious attention to age in the sociocultural study of pain. Her studies actually created a side experiment in which he separates patients into two groups: one group with the same illness and another with diverse illnesses. Inexplicably, Zborowski never explicates the results. To date, I have not seen a study designed to test this; in qualitative research, it seems to be assumed that the phenomenology of pain is roughly the same no matter the cause, although frequently there is an implicit divide between cancer and non-cancer pain, as well as, occasionally, headache and non-headache pain (these divisions presumably originate from the medical literature, where they exist prominently). I should also note that pain is commonly talked about as undifferentiated in everyday life. See Hilbert 1984.
of pediatric pain clinics do much to illuminate the very deep differences between the experience of pain across the developmental span (as well as the methodological and ontological implications for physicians and researches in that children come inevitably with guardians). On the other end of the developmental spectrum, however, little attention is given to how being elderly affects the pain experience, even though there is clearly a generational gap in that the elderly are much less likely to self-report pain (Goldberg 2009; Encandela 1993:787). End-of-life is also ignored. Encandela (1993) suggested that these variables could be used as a lens to observe other cultural phenomena, in the way that Zborowski (1969) used pain and ethnicity to examine acculturation (or the way that Bendelow 1993 used gender to look at the mind/body dualism). In terms of methodology, as well, these factors have not been controlled for, if even considered.29

Power, political economy, and institutions
Political economy, the distribution of power, and institutions that are involved with the treatment or study of pain all have considerable influence upon the experience of pain. To some degree this has been given attention, especially through the lens of biomedicine-as-hegemonic, sometimes thought of in terms of the “clinical gaze,” but also through more individual power structures, such as gendered ones (Aldrich and Eccleston 2000; Johansen 2002; Kleinman 1988:47, 50, 84; Jackson 2000:13, 79, 98, 177, 191; DelVecchio Good et al. 1992:203; Hunt and Arar 2001:350; Eccleston et al. 1997:700, 706; Encandela 1993:783-784; see especially Kleinman's interesting, albeit interpretive, concept of resistance: Kleinman 1992, 2007:19; Darghouth et al. 2006). In large part, this area of study is important to better understand the processes of legitimation and delegitimation. It should be clear that the stigma involved in having “unreal” pain can affect the self, causing significant issues for the pain sufferer's wellbeing. But studying power, institutions, and political economy is also important for understanding and reckoning with the “structural violence” that appears in everyday life (Farmer 1999; Scheper-Hughes 1992). Therefore, further studies need to be done relating experience to these macro factors that are evident in the studies that have already been done (Goldberg and McGee 2011; Darghouth et al. 2006; Buchbinder 2010, 2011a; Jackson 2000:7; Kleinman 1992:186; Hunt and Arar 2001:359; Encandela 1993:786-787), as well as new studies on the subject itself. This would certainly mean building on the work done on disability and its legal implications (Turk and Okifuji 2002; Osterweis et al. 1987; Dworkin 1994; Kleinman 1988:57, 1992:169; Kleinman et al. 1992:10; Jackson 2000:26; Encandela 1993:784, 788; Hansson et al. 2001:286, 290-293).

Diagnosis and heterogeneity
There are two areas involved in the process of help-seeking that need to be further addressed. One is in the clinic—the heterogeneity of the many practitioners and fields of medicine that a pain sufferer encounters between or often within a clinical setting—and the other is both in and out of the clinic—the process of diagnosis. Diagnosis has received little attention in the literature on health and illness in general (Jutel 2009; Jutel and Nettleton 2011), but it is clear that this dynamic, multi-sited process is important for the

29 In this vein, studies also tend towards having very small sample sizes, as in the case, for example, for many the essays in DelVecchio et al. 1992. There are times, of course, when small samples are appropriate, but too little attention is given to the value of statistical significance.
legitimacy of the pain sufferer's condition, which is likely why it is so commonly brought up (although not thoroughly discussed) in the literature (Ong and Hooper 2006; Kugelmann 1999; Manchikanti et al. 2003; Trnka 2007; Aldrich and Eccleston 2000; Honkasalo 2001; Buchbinder 2011a, 2011b; Turk and Okifuji 2002; Gamsa 1994b:2; Kleinman 1988:16, 129, 1992:174; Hilbert 1984; Throop 2010:185-186; Jackson 2000:39, 40, 78; Kleinman et al. 1992:4; Good 1992:30; Hansson et al. 2001:289). Because pain is treated from a multidisciplinary perspective, it is apt for the study of what Halpin (2011) calls “translation.” Translation here refers to the ways that historically and conceptually divergent disciplines speak with each other about the same subject (e.g., in Halpin's article, how psychiatrists and neurologists talk about the symptoms of Huntington Disease). Kleinman (1988) appears to be the only person to have taken a look at the problems of heterogeneity directly, although others have encountered its effects (Jackson 1992:149, 158-159, 161, 2000:11, 26-28, 61, 137, 2005; Kleinman 1988:16, 52, 73-74, 172-182; Baszanger 1992:185, 210-211). From his reflection on his experience being the psychiatrist in such a multidisciplinary setting, it is clear that there are deep problems at work in translating one field's concepts and intentions into the language of another (Kleinman 1988:172-182). Rather astoundingly, professionals (and lay people) using completely different models of pain, talk about it as if they are using the same terms and referring to the same thing, what Mol (2009) calls “coordination” (see also Gardner et al. 2011; indeed, clues about how pain is multiple can be seen in Loftus 2011; Ong and Hooper 2006; Aldrich and Eccleston 2000; Kugelmann 2003; Coker 2004; Hunt and Arar 2001). More studies, from both an ontological perspective and a practical, communication-oriented perspective would be useful, as would more community-based examinations of diagnosis (which starts well before the physical examination).

Co-morbidity and patterns of disease
The final areas I would like to suggest for further research pertain to illnesses in addition to (not instead of) pain. As Encandela (1993) noted, the study of pain in some instances should not be separated from its disease, like cancer or HIV/AIDS (785). This is certainly true, and not much attention has been given to single diseases over pain in general, a presumption as to the ubiquity of pain that is assumed rather than confirmed. However, it also opens up opportunity to study patterns of disease, rather than sole diseases, which is something medical anthropologists have been calling for for many years (e.g. Joralemon 2006), but that has had disappointing follow-through. Pain is an excellent starting point for this admittedly cumbersome process because of the extent to which it is co-morbid with another illness, such as depression, diabetes, or heart disease (Goldberg and McGee 2011; Turk and Okifuji 2002; Hansson et al. 2001:294; Encandela 785, 788; Goudas et al. 2005; von Knorring and Ekselius 1994; Yilmaz and Weiss 2000; Laird et al. 2009). Qualitative studies from the sociocultural sciences should take advantage of data and techniques from fields like epidemiology (e.g. Andersson 1994) in order to better set these important patterns into context.

Conclusion
The study of pain since Zborowski (1969) has made some rather astounding progress in the areas of ethnicity, gender, narrative, explanatory models, mind/body and real/unreal dichotomies, the sick role, stigma, the self, and time and space. Its further study has a number of possible directions. As pain becomes endemic, truly a global public health concern, sociocultural scientists should feel compelled to pursue certain key areas, such
as cross-cultural and community studies and destigmatization. The works cited here should demonstrate that the sociocultural fields have much to offer biomedicine and psychology for understanding many of the processes involved in the treatment and nature of pain. In moving forward with the study of pain, sociocultural scientists will have to become more cognizant of the pitfalls of certain otherwise productive methodologies, like narrative analysis, and become more rigorous with the application of others. Meanwhile, studies and techniques from fields like biomedicine and epidemiology, along with considerations for other macro factors, should be melded together, taking advantage of the strengths of all of these techniques to place pain in context. The sociocultural sciences have the rather potent ability to confirm validity and understand local logics, and it is clear that there are many areas in need of this ability.

Pain is ambiguous and polysemic. In moving forward, sociology and anthropology can contribute to key areas that psychology, biomedicine, and other disciplines cannot. Pain, by its biological and neurological mechanisms, is inherently social. It is a “somatic mode of attention” that organizes full schemas of cosmologies of the world, lived and moral, in the body of the sufferer and through his or her behavior. The study of pain reveals these embodied schemas, as well as the cracks and gaps that inevitably appear with its actual application to ambiguous conditions like pain that resist categorization, providing important information about the treatment of the person in pain.
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