“Morus per se?”: Pain and its Treatment in Thirteenth- and Fourteenth-century Europe

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Introduction

In the United States, we are in the midst of a “War on Pain.”[1] Advertisements on buses and subways, television, radio and the printed media rail against the existence of pain and hawk various treatments. The medical community has served as both a source of the painful din and a fountain of its treatments. The rise of the "pain clinic," a medical clinic which brings together an interdisciplinary team to treat the multi-faceted generators of pain, has itself generated a small, but lucrative industry in which expensive therapies are offered, such as spinal cord stimulators and epidural injections.

US culture is struggling to identify appropriate sociological means of managing pain. Under the current system, severe and chronic pain are considered disabilities,

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[1] Fishman, Scott, The War on Pain: How Breakthroughs in the New Field of Pain Medicine are Turning the Tide Against Suffering (New York: Harper-Collins, 2000).

entitling the sufferer to enter the "sick role"[2] and to derive social benefits like absence from work and disability compensation.

But such a "tear" in the social fabric as is ripped by the nearly forty-five percent of Americans who sufferer from a chronic pain during their lifetime accentuates scholarly debates. While some argue the "war on pain," others, like Valerie Hardcastle, champion "the myth of pain."[3] Hardcastle argues that the mind-body duality of Descartes has allowed for the rise of 'psychogenic' origins of pain. For her, all pain is fundamentally biological and must be treated so. The multidisciplinarity is not necessary.

Yet of the many medical conditions that face human beings, pain is one of the most valuable to study from a sociocultural perspective. As Rick Deyo noted in the *New England Journal of Medicine,*

> some physicians, patients, and policy makers conceive of illness in purely biologic terms. According to this view, social, economic, and legal forces are irrelevant to symptoms and behavior; only tissue injury and healing matter. However, ... external factors have an important influence on the behavior of patients that is independent of biologic factors.[4]

Pain can be methodologically difficult to study. At once reactions to pain are universal and yet the experience is fundamentally solitary and isolating. In this mixture of the global and individual, pain behaviors and responses become heavily inflected by the surrounding cultural milieux from century to century and from culture to culture. We can never truly understand the pain of the person standing next to us any more than

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[2] For a reconstruction of Talcott Parsons' argument, see Talcott Parsons: Theorist of Modernity, Robertson, Roland and Turner, Bryan S. (eds.), (Nottingham: Nottingham Trent University, 1991).

[3] Hardcastle, Valerie Gray, The Myth of Pain (Cambridge: MIT Press, 1999).

[4] Deyo, Richard A., "Pain and Public Policy", *New England Journal of Medicine*, 2000; *342*: 1211-1213 and the companion article, Cassidy, J.D. et al., "Effect of Eliminating Compensation for Pain and Suffering on the Outcome of Insurance Claims for Whiplash Injury", *New England Journal of Medicine*, 2000; *342*: 1179-1186.

the individual writing about it two millennia ago. Often then, more can be made of the communal reaction than of the individual. This pertains particularly to the medicalization of pain.

As medicalized as the phenomenon of pain has become in the West over the past century, I would argue that a valuable place to begin our search for meaning in contemporary social grappling with pain is at the root of our medicalized cultures: the thirteenth and fourteenth centuries.

With the invention of the medical universities in Bologna, Paris and Montpellier in the late twelfth and early thirteenth centuries, Europe began to generate a number of learned, elite medical scholars who gradually argued for special rights and responsibilities to members of their group. Their arguments for such social privileging derived from their "superior" knowledge of medical theory and consequently of the diseases that afflicted the populace of each city and country where they sought sponsorship. The result was a gradual "medicalization" of many illness-associated phenomena.[5] Pain was just such a phenomenon.

While the Cartesian challenge of Hardcastle and other modern investigators did not exist in the Middle Ages, it was replaced by three other conundrums: was pain mediated by the soul or the body? When could pain be resisted or seemingly eliminated? And was pain a disease or a symptom? In the arguing of such questions, medieval scholars, such as theologians, lawyers, and particularly physicians, created a culture of pain which reverberated through their wider society, and, for some, medicalized pain sufficiently to put much pain care within the province of the physician or authorized health care provider. Just as social and professional institutions are created today to

[5] Schalick, Walton O., *Add One Part Pharmacy to One Part Surgery and One Part Medicine: Jean de Saint-Amand and the Rise of Medical Pharmacology in thirteenth-century Paris*, PhD dissertation, Baltimore: The Johns Hopkins University, 1997 and McVaugh, Michael R., Medicine Before the Plague: Practitioners and Their Patients in the Crown of Aragon, 1285-1345 (Cambridge: Cambridge University Press, 1993).

mend the social fabric, so too were medieval institutions.

Medieval Pain

It is a truism, that one of the distinctions of "modern man" is a heightened sensitivity to pain. In effect our progenitors living pre-anesthesia survived in such cruel conditions, such malicious milieux, that they didn't even notice pain. Biologically, of course, this makes no sense. Socioculturally it is a weak theorem too, since, as a consequence, all of the current social and cultural reactions to pain would be created by modern man, earlier generations having little pain to which to react.

The truism stems in part from our own ignorance. As a subject, we still know comparatively little about medieval pain.[6] In her epochal book of 1993, Roselyne Rey, titled her chapter on pain in the Middle Ages, "The Middle Ages and Pain: A World to Investigate." Of the book's three hundred and thirty-seven pages, only four and a half consider the subject. The chapter end with the words, "we really do not know ... what people actually did in the Middle Ages when they were suffering."[7]

In the intervening years, only two other scholars have investigated medieval pain in a more substantial way. Fernando Salamón described the theological contributions to

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[6] See also Duby G., "Réflexions sur la Douleur Physique au Moyen Âge" en Geneviève Lévy (éd.), La douleur 'Au-delà des Maux' (Paris: Éditions des Archives Contemporaines, 1992): 71-80; Keele, Kenneth D., Anatomies of Pain (Oxford: Blackwell, 1957) and de Moulin, Daniel, "A Historical-Phenomenlogical Study of Bodily Pain in Western Man," *Bulletin of the History of Medicine*, 1974; 48: 554-60. More incidental, but exceptionally scholarly discussions occur in: Demaitre, Luke E., Doctor Bernard de Gordon: Professor and Practitioner (Toronto: Pontifical Institute of Mediaeval Studies, 1980) at pp. 53, 84, 126 and 138; Siraisi, Nancy G., Taddeo Alderotti and His Pupils: Two Generations of Italian Medical Learning (Princeton: Princeton University Press, 1981) at pp. 222-6 and Ottosson, Per-Gunnar, Scholastic Medicine and Philosophy (Naples: Bibliopolis, 1984) at pp. 239-46.

[7] Rey, Roselyne, The History of Pain, Louise Elliott Wallace et al. (tr.) (Cambridge: Harvard University Press, 1993): 49, first published as: Histoire de la douleur (Paris: Éditions La Découverte, 1993).

medical theories as a context of pain in the thirteenth and fourteenth centuries.[8] And Esther Cohen has tried to contextualize pain in medieval culture more broadly.[9] In what follows, I will present some of their work as well as my own, which explores the medical context in particular.

At the outset, I should note that very little written evidence survives, describing the medieval individual's response to pain. For whatever set of reasons, few medieval literati described their painful sensations on any of the surviving written pages. Slightly more common was the 'biographer's' reference to the suffering of their subject.

As an example, the tenth-century bishop, Asser, described several painful episodes in the life of Alfred the Great (r. 871-899), *rex Angul-Saxonum.* On Alfred's wedding night, according to Asser, the king was afflicted.

> When, therefore, he had duly celebrated the wedding ... and after the feasting which lasted day and night, he was struck without warning in the presence of the entire gathering by a sudden severe pain that was quite unknown to all physicians. Certainly it was not known to any present ... nor to those up to the present day who have inquired how such an illness could arise. ... [It continued for] many years without remission, from his twentieth year up to his fortieth and beyond. Many, to be sure, alleged that it had happened through the spells and witchcraft of the people around him; others, through the ill-will of the devil, who is always envious of good men; others, that it was the result of some unfamiliar kind of fever; still others thought that it was due to the piles, because he had suffered this particular kind of agonizing irritation even from his youth.[10]

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[8] Salamón, Fernando, "Academic Discourse and Pain in Medical Scholasticism (Thirteenth-Fourteenth Centuries)" in Kottek, Samuel S. and García-Ballester, Luis (eds.), Medicine and Medical Ethics in Medieval and Early Modern Spain: An Intercultural Approach (Jerusalem: The Magnes Press, 1996: 136-153.

[9] Cohen, Esther, "Towards a History of European Physical Sensibility: Pain in the Later Middle Ages", *Science in Context*, 1995; *8*: 47-74; "Physicians' Pain, Patients' Pain: Learned and Popular Pain Relief in the Middle Ages" [Hebrew], *Theory and Criticism*, 1997; *10*: 133-44; and idem, "The Animated Pain of the Body", *American Historical Review*, 2000; *105*: 36-68.

[10] Alfred the Great: Asser's *Life of King Alfred* and Other Contemporary Sources, Keynes S. and Lapidge M. (trs.) (New York: Penguin Books, 1983): 88-9.

As described in the text, this "severe pain" was actually a substitution for another illness, which the king had prayed for to help liberate him from the carnal desires of adolescence.[11] As paralyzing an event as this must have been on Alfred's wedding night ("his fear and horror of that accursed pain would never desert him, but rendered him virtually useless -- as it seemed to him -- for heavenly and worldly affairs"[12]), he went on to repel Viking raids on his nascent kingdom and to create a smaller version of the Carolingian Renaissance in early medieval England.

The bulk of scholars have more or less accepted Asser's descriptions at face value and attempted to assign biological meaning to his descriptions of the king's condition. Nevertheless, Alfred's most recent biographer, Alfred P. Smyth of the University of Kent, has offered a rigorous challenge to the notion that Asser was a contemporary biographer of the king. Rather, he suggests, the author of *Life of Alfred* was a later propagandizer with stronger Continental ties. Following this inversion of previously accepted scholarship, Professor Smyth then significantly reexamines much of Anglo-Saxon history around this time. For Smyth, a critical reinterpretation surrounds the illness narrative of Alfred. No more should the king be viewed as frail and helpless at times. Rather, he should be recast as the vigorous warrior-king he would have had to have been to repel Viking raiders. In this reframing, Professor Smyth is dismissive of the descriptions of illness, arguing that, "the story of King Alfred's illnesses was indeed invented by his biographer" and the traditions of his piety "distorted out of all recognition into a tale of perpetual 'martyrdom.'"[13]

As so often happens with historical revisionism, Professor Smyth goes a bit too far

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[11] Ibid.: 89-90.
[12] Ibid.: 90.
[13] Smyth, AP, King Alfred the Great (Oxford: Oxford University Press, 1995): 202. For a discussion of the "doctor's dilemma," between treating pain in a political leader and not treating, but thereby preventing drug induced impairments, see Post Jerrold M. and Robins, Robert S., When Illness Strikes the Leader: The Dilemma of the Captive King (New Haven: Yale University Press, 1993): 64-7.

in divorcing the tale of illness from Alfred. For in seeking to reverse centuries of accepted knowledge about the King, he ignores the fact that the illness narrative was written by a medieval author and is still a window into the image of pain in the Middle Ages. Thus, I propose to use the above description as a guide for medieval reactions to pain.

In doing so, a form of differential diagnosis may be unpacked from the text. As (Pseudo-) Asser described it, "Alfred's" illness could be explained by any of four etiologies. The most theologically driven system saw the pain deriving from "the ill-will of the devil." A second acknowledged the more terrestrial mediator of the "spells and witchcraft of the people around him." The third and fourth played off each other as two sides of a medical system: the experiential or practical explanation (that the king was ailing from a disease from which he had suffered before) and the theoretical ("the result of some unfamiliar kind of fever"). It is through these three lenses -- the theological, the terrestrial (legal) and the medical -- that I would now like to view medieval pain. As the individual's description of painful experiences is rare, much of what we can know comes from the texts written by theologians, lawyers and physicians.

To begin this discussion, though, we must first focus on a fundamental difference between modern and medieval views, namely of the body. Today, Western cultures see pain, and the other senses as a function of the body. Neuro-receptors convert light, sound, chemical taste, chemical smell, and pressure and temperature into neuro-impulses which are conducted via nerves to the brain, where the impulses are interpreted as sensations. Pain, we believe, works similarly.

Not so the the understanding of sensation and pain in Antiquity and the Middle Ages. "Physical" pain, as we conceive it, was seen as a function of the soul. The body was not the privileged entity, but required the agency of the more ethereal soul to appreciate sensation and pain. One statuary from Ancient Rome carried with it the

association of guilt, that of Laocöon who rebelled against the will of the Gods and so suffered torment.[14] Guilt and fear were the province of the soul. But the precise meaning of 'soul' varied from intellectual context to context. Thus the theologians viewed the soul one way, the lawyers and physicians other ways.

Theological Pain

For the Christian theologian, pain centered on three foci: Hell, martyrdom and the Crucifixion. In Hell, the damned existed as souls, not as bodies. As Dante said in *The Divine Comedy*, "The more perfect, the more keen, Whether for pleasure's or for pain's discerning? Though true perfection never can be seen. In these damnèd souls, they'll be more near complete After the Judgment than they yet have been."[15] By which he meant, the souls of the damned in Hell or the saved in Heaven, imperfect as they are, would be made more perfect on Judgment Day; and on that day, their more perfect souls, would feel more keenly either pain or joy, depending on the judgment.

Saint Augustine of Hippo argued in the fifth century: if there is no life, there is no pain; thus dead bodies do not suffer. But souls are eternal and can suffer forever. It is this tradition which motivated Dante's poetry above. For Augustine, this reasoning led to another problem. If one could die because of severe pain, why was it connected to life? In resolving this conundrum, Augustine settled on the soul as the agent of pain. "For pain belongs to the soul, not to the body, even when the cause of its pain is derived from the body which is when the soul's pain is felt in a place where the body is hurt."[16]

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[14] With a mingling of irony, the Laocöon appears on the cover of the heavily biomedicalized text which revolutionized Western pain medicine in this century, John J. Bonica's The Management of Pain, 2nd ed. (Philadelphia: Lea & Febiger, 1990).

[15] Dante Alighieri, The Divine Comedy: Hell, Dorothy L. Sayers (tr.) (New York: Penguin Books, 1981): 106-7 (Canto VI, ll. 94-99).

[16] Cohen, "The Animated Pain of the Body": 42. See also Cohen, "Pain in the Later Middle Ages": 54-5.

To Augustine this made sense. If a thorn stuck into your toe the soul sensed pain where the thorn stuck in the body. But likewise, suffering could be felt where there was no injury to the body.

Augustine's argument was read and largely upheld for more than 800 years by scholars like Peter Abelard, of Abelard and Héloise fame in the twelfth century, and Thomas Aquinas in the thirteenth. One scholar reasoned further that people suffer in their sleep, suggesting that the soul, not the body, perceived pain and suffering. Another argued that one does not fear fire in itself, but rather one fears the pain inflicted by fire. If fire did not inflict pain, there would be no fear of it, thus it is the fear that causes the pain; the perception of the torture that imprints upon the soul causes pain.[17]

I should note here an important clarification. In Ancient science and philosophy, there were two schools of thought. The followers of Plato, felt, roughly, that there was a body and a soul. The body handled all things physical, including sensations. The soul was more ethereal. The followers of Aristotle argued that there is a body and a spirit (*spiritus*), but also a soul (*anima*). The difference between the spirit and the soul was one of function. The spirit engendered more of the platonic soul; the Aristotelian soul acted between the *spiritus* and the *corpus*, as a conduit of sensation. When the new Christian religion began wrestling with such ideas, as those embodied in Augustine, the more Platonic system of body: soul duality was adopted, but sensation was kept within the province of the soul, and thus within a theological framework.

Following the collapse of the Roman Empire in the fourth and fifth centuries, Aristotle's work was lost to the scholars of the West until the thirteenth century, when translations were made into Latin. Because the Augustinian ideas of pain had taken such firm hold, the great scholastics, who otherwise eagerly embraced the genius of Aristotle, relied instead on the soul-mediated understanding of pain.

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[17] Cohen, "The Animated Pain": p. 44. Some of the followind discussion derives from pp. 45-7. See also, "Pain in the Later Middle Ages": 59-62.

But such theories helped explain much in a heavily religious world, which could itself be painful. There were three puzzles for the theologians around pain, relating to how one reacts to pain. First was the martyr's ability to withstand pain. In most of the descriptions of martyrdom, these holy men and women often withstood torture and events which would cause great pain in a normal person. In order to have this make sense, theologians decided that because the martyrs did not feel fear, being enraptured by the knowledge of God, they did not feel pain.

One curious spinoff of this theory is in the lists of miracles worked by the relics of saints on the pilgrims who came seeking solace from illnesses. This literature is usually full of the cases from the Middle Ages that the medieval doctor could not heal. Oddly pain is a rare object of such healing. Thus, where we might think that the 'placebos' of religious suggestion and superstition would help the most, there is no reference to its efficacy.[18] In this theorizing, at least, the theologians did not directly affect cultural practice.

The second problem related to the Virgin Mary's lack of the pains of childbirth. Here too, fear, and guilt were called upon. Theologians concluded that since Mary was guiltless and fearless, she felt no pain. Ultimately, these two puzzles reinforced the idea of eternal torment.[19] The damned are consumed by guilt and by fear and so feel

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[18] See, for example, Figure 3.1 in Finucane, Ronald C., The Rescue of the Innocents: Endangered Children in Medieval Miracles (New York: St. Martin's Press, 1997): 97 and the accompanying text. See also Lett, Didier, L'enfant des miracles: Enfance et société au Moyen Âge (XIIe-XIIIe siècle) (Paris: Aubier, 1997): 194ff. Pain is also noted little in companion works in the field, *vide* Hannawalt, Barbara A., Growing up in Medieval London: The Experience of Childhood in History (Oxford: Oxford University Press, 1993), Shahar, Shulamith, Childhood in the Middle Ages (London: Routledge, 1990), Schultz, The Knowlege of Childhood in the German Middle Ages, 1100-1350 (Philadelphia: University of Pennsylvania Press, 1995) and Goodich, Michael E., Violence and Miracle in the Fourteenth Century (Chicago: The University of Chicago Press, 1995).

[19] Such effects of guilt and fear were known to physicians and used in their arguments about pain. See Lawn, Brian, The Prose Salernitan Questions (Oxford: published by Oxford University Press for The British Academy, 1979): 342, question R 7: (my translation) "why a swan near death emits a most delicate cry? ... knowing fear, death and anguish of death ...."

extreme pain in Hell.

But Mary's guiltless anesthesia stood in stark contrast to the other medieval feminine paradigm, Eve. Eve was seen as the root of all pain.[20] In biting the fruit of the Tree of Knowledge and convincing Adam to do so too, Eve brought down God's curse, "for I will multiply your troubles and you will bring forth your children in pain."[21] Likewise, Adam was punished with toiling in the fields. In a sense, when God condemned Eve to the pain of childbirth, he also condemned Adam to the pain of work.[22] In the high Middle Ages, pain and work were, if not synonymous, at least cognates. For the medievals, thus, pain, like work, was feminine and base. In coming to this cultural conclusion, the nobleman of the eleventh and twelfth centuries embraced impassivity, which had not been known in the West since the days of the Roman Stoics. The expression of pain was contemptuously regarded as the province of the women and slaves, not the free, elite male. Indeed pain's only positive value was as an instrument of correction and redemption, but this idea only grew in the West in the theological struggles with another puzzle.

This third puzzle came to the forefront of theology and Western culture from the thirteenth century onwards. Unlike the martyrs and Mary, Jesus was believed to have suffered pains in taking human form. To the great professor at the University of Paris, Thomas Aquinas, Jesus suffered in all five of the senses, including the pain of blows to his skin.[23] By sympathy, if you will, his mother, Mary, also began to be associated with pain in the thirteenth century.

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[20] Salamón, "Scholastic Approaches to Pain" at pp. 139-42.

[21] Genesis 3:16 and 17; Biblia sacra iuxta vulgatam versionem, Robert Weber (ed.) (Stuttgart: Deutsche Bibelgesellschaft, 1983): 78 and The New English Bible with the Apochrypha, Oxford Study Edition, Samuel Sandmel (ed.) (New York: Oxford University Press, 1972): 4.

[22] Duby, "Réflexions sur la Douleur", p. 73-4.

[23] That Aquinas could use pain (*dolor*) and suffering/sadness (*tristitia*) sometimes interchangeably, see A Latin-English Dictionary of St. Thomas Aquinas, Roy J. Deferrari (ed.), (Boston: Daughters of St. Paul, 1986): 322 and 1051-2.

And thus many of the greatest of Western images of Jesus and Mary show them with tears and gestures of pain. With the secularization of literature from the fourteenth century onward, came a secularization of society, and a diminution of the role of chivalry, which had made pain feminine and base. Because of the concentration on the pains Jesus endured in his physical manifestation, the imitation of Christ was proposed as a way of living. By the fifteenth century, pain had changed its form from the Laocöon to the figure of the Pieta.

Simultaneously, medieval culture developed outlets for social concern over pain and suffering: hospitals, a significant growth in works of charity. Thus with a change in the scholar's understanding of pain came a change in society's tools for dealing with it.[24]

In part, scholars accepted this change, by believing that Jesus had accepted the burden of pain in his role of savior; the martyrs did not need to do so, for their death was the final object. In essence, the new theology affixed great meaning to pain and great value to suffering. No longer relevent was the Old Testament Job's question of why should a just and blameless man suffer. The meaning was found in the imitation of Jesus. The just found value in being tested like Jesus, the unjust received their own reward. And the role of the soul was in deciding how to evince that pain. That the soul would feel the pain transmitted from the outside world was certain; that the soul would then return some gesture or verbalization of the sensation back to the outside world was

[24] Owsei Temkin has noted that in naming a disease (or a cultural entity) a transformation takes place. "The individual may not think of himself as being ill or dis-eased. By thus labelling him, his friends, physician, or society, have classified his experience. ... But the introduction of the label has also determined the reply [of the patient to society]. The person's experience has become the sickness of X." (Temkin, Owsei, "The Scientific Approach to Disease: Specific Entity and Individual Sickness" in his The Double Face of Janus and Other Essays in the History of Medicine (Baltimore: The Johns Hopkins University Press, 1977): 441-55 at p. 442); see also Grmek, Mirko D., Diseases in the Ancient Greek World (Baltimore: The Johns Hopkins University Press, 1991)). Similarly, scholarly categorization of a new phenomenon of dolor, alters society's "experience" in the new labelling. This process becomes important in the medicalization of the late thirteenth and early fourteenth centuries.

another matter.[25]

Legal Pain

Unlike Theology, Law dealt with pain as augury. In other words, invariably, either by interrogating or by punishing, the law tried to cause pain and then interpret its meaning. In the mid thirteenth century, a practicing Italian judge, Albertus Gandinus wrote an entire treatise about criminal law, the first such volume in the Middle Ages. Pain did not enter his discussions of punishment, but it did appear in discussions of judicial torture. Torture, or in Latin, *quaestio*, was "an inquisition performed in order to extract the truth by way of torment and bodily pain." Pain was thus the way to discover truth. If the theologians felt pain came from the soul, among the lawyers it was less clear. Some jurists felt that the word *tormentum* came from *torquere mentem*, 'to torture the mind,'' but the body was always felt to be integral to the process.[26]

That the lawyers believed confession extracted under fear of torture was just as good as under torture itself speaks volumes about how they blended mental and corporal pain. But they also used mental anguish to their advantage. In choosing which of a series of co-conspirators to torture first, they always chose the one whose pain would be felt most by the others. For example, if a father and son were accused of stealing a chicken, the son would be tortured first while the father watched, "for thus you must say that also the father will confess faster, for he is the greater sufferer." On the other hand, a woman would be tortured before a man, "because the man has greater constancy and will take longer to confess, and the woman will do so faster, for her heart is sudden and inconstant."[27]

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[25] Cohen, "The Animated Pain": 47.
[26] Cohen, "Animated": 50
[27] Ibid.: 50-1.

The greatest difficulty around pain as a "diagnostic agent" for the jurist was in its failure, namely people who did not confess under torture. If there was no confession under torture, the jurist was left with one of two possibilities. Either the accused was innocent, and this was felt unlikely as torture was not allowed unless heavy burdens of proof were met, or the accused was guilty, but managed to resist the pain of torture. Unlike their theological brethren, the jurists looked not to God, but in the other direction for explanations. The silence of witchcraft was a ready explanation, often invoked in the pre-modern era. But popular medicines, like those made from mother's milk or from the ashes of an unbaptized baby's body were felt to be other reasons.[28]

Curiously, with this later medieval reliance on torture, when necessary, came a new terminology. Where "dolor" meant "pain" and "passio" meant "suffering," "poena" "came to mean" both "pain and retribution," with all of its French, German and English derivatives. Before the thirteenth and fourteenth centuries, the connection between punishment and pain was fairly rare. Thus to the Middle Ages we have another debt. But our bill grows longer, with medicine.

Medical Pain

Medicine dealt with pain differently.[29] In medical knowledge, the tradition of Aristotle was not lost as it was in theology and ethics. The learning of Ancient medicine was conveyed through the physician of the Roman emperors, Galen, of the second century, whose writings were enormously influential throughout the Middle Ages.

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[28] Cohen, "Pain in the Later Middle Ages": 62-6 and idem, "Animated": 51.

[29] For other discussions of pain and medicine, see Souques, A., "La douleur dans les livres Hippocratiques", *Bulletin de la Société Française d'Histoire de la Médecine,* 1937, 36: 209-44 and 279-309; 1938; 37: 179-242; 1939, 38: 37-48 and 131-44 and Voigts, Linda E. and Hudson, Robert P., "A drynke þat men callen dwale to make a man to slepe whyle men kerven him: A Surgical Anesthetic from Late Medieval England" in Sheila Campbell et al. (eds.), Health, Disease and Healing in Medieval Culture (New York: St. Martin's Press, 1992).

Physicians, thus, believed that pain was felt by the soul, but also maintained a heavily organic association, along the Aristotelian lines. In particular, Aristotle's idea of soul or *anima*, was felt to be conducted by nerves, which could be an agent of disease. Thus where an injury occurred, if there was no 'nerve damage' pain would be less; if nerves were crushed or cut, the pain could be excruciating.[30]

Etiologically, pain either came from an imbalance of the humors which make up the body, or it came from an external trauma. But this was a complex issue. For pain could be seen as a symptom, a sign or a disease. Consequently, in what follows, I am going to concentrate on the history of headaches, because, as a phenomenon, headache could include all of these elements, and it was often judged to be serious enough for either a surgeon or a physician to study it.[31]

In the early Middle Ages, when the great majority of the medical learning of Antiquity was lost, headaches were discussed in the practical manuals of treatment. Thus herbals would list pain of the head as one condition which was treated by a certain remedy. In general, treatments for any kind of pain were variable, often of a traditional nature, and very practical. In this sense, there was little or no theory to the use of such remedies. Remedies could include plants, as in a depiction of a cure for internal pains using gladiolas, or animal substances, like goat's milk.[32] I've tabulated more than 100 substances of these kinds used for headaches in early medieval treatises. Most of these medicines were ingested. But other treatments could be delivered by inhalation, such as one for a toothache.[33] Fumes held another importance in headaches, for some

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[30] See Julius Leopold Pagel, Die Chirurgie des Henrich von Mondeville (Hermondaville) nach Berliner, Erfurter und Pariser Codices (Berlin: Verlag von August Hirschwald, 1892) [hereinafter, "Pagel"] at pages 194-7.

[31] Another rich topic for investigation and comparison is that of *colic*, or intestinal pain, which was likewise felt to have multiple medical meanings.

[32] MacKinney, Loren, Medical Illustrations in Medieval Manuscripts (Berkeley: University of California Press, 1965): 227, figure 41.

[33] Ibid.: 253, figure 93.

headaches were thought to derive from vapors, either from environmental substances, like a heavily scented tree or of vapors from poorly digested food in the stomach, which ascended to the head.

A treatise said to have been drawn up for a prince of the Welsh in the fourteenth century, but deriving its contents from oral traditions dating back 400 years and more included such "proven" cures as laying beef about the neck. Still, some of the remedies included agents which might have had some effect, like applying distilled rosemary in wine to the head in fever accompanied by headache. The wine would have evaporated quickly, cooling the skin and reducing the impact of the fever. Others employed agents with known effects, but the effects of which probably would not have altered a headache, as when foxglove leaves were pounded with milk and mutton suet, and then applied as a plaster to the head; the digitalis-like effects would probably have done little for the headache.[34] And another distilled rosemary in wine and applied it to the head in a fever accompanied by headache.[35]

Often remedies were more magical, as in a remedy shared by Pliny, Marcellus and the Anglo-Saxon Leechbook of Bald, written around the 10th century, perhaps at the request of King Alfred the Great. The stem of crosswort, madder or ivy was placed against the head and wrapped with a red fillet. The red color of the fillet was noted to be particularly important to the cure.[36]

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[34] The Physicians of Myddfai, John Pughe (tr.) (Felinfach: Llanerch, 1993): 336. For a curious "scientific" approach to educing verifiable medical effects from ancient and medieval pain therapies, see Prioreschi, P., et al., "A Quantitative Assessment of Ancient Therapeutics: Poppy and Pain in the Hippocratic Corpus", *Medical Hypotheses*, 1998; 51: 325-31. For a more balanced approach, see the collection in Holland, Bert K., Prospecting for Drugs in Ancient and Medieval European Texts: A Scientific Approach (Amsterdam: Harwood, 1996).

[35] Ibid.: 441.

[36] Cameron, M.L., Anglo-Saxon Medicine, *Cambridge Studies in Anglo-Saxon England 7* (Cambridge: Cambridge University Press, 1993): 37. The great surgeon John of Arderne, who lived from 1307-1370, is credited with being the first surgeon to instill truly practice-based and proven medicine on paper. He recommended similar cures for headaches in his book of medicine and surgery (*De Arte Phisicali* of John of Arderne, Surgeon of Newark, D'Arcy Power (tr.) (London: John Bale, Sons & Danielsson, 1922): 2-3 and 31). But he also suggested

Another variety of treatment was more invasive. Surgery could be applied if the headache was from a fracture. But surgery could also be used when there was no trauma. If a headache persisted, trephanation or the burring of a hole into the skull, might be performed. Thus, a tenth-century manuscript tells of a monk who had a severe and chronic headache, who underwent this kind of procedure.[37] It is still performed in some parts of sub-Saharan Africa, even today, without anesthesia. The argument was that evil spirits or humors would be released, thus relieving the headache.

A final remedy was one we are more familiar with, poppy derivatives or opium.

In a Salernitan treatise of the eleventh and twelfth centuries, the Herbal of Pseudo-Apuleius, the herb *papver silvaticum*, a form of poppy, was listed which helped in "emigraneum or dolor capatis." It was also used for sleep.[38] Another four remedies for headache were interpolated into a manuscript of Pliny's book on medicine, as the Roman did not discuss headache. The prescriptions were collections of medicines, at least one of which included opium.[39] Marcellus in the early fifth century spent 5% of a book on medicine listing pharmaceutical remedies for headache, including one for a headache in a man, adolescent or child occurring on the seventh day of the seventh month. This remedy also included opium.[40] But more frequently, Marcellus recommended curing by either a flux through the nose or through the mouth, which

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phlebotomy.

[37] MacKinney, Loren C., Early Medieval Medicine with Special Reference to France and Chartres (Baltimore: The Johns Hopkins University Press, 1937): 41.

[38] Antonii Musae De herba vettonica liber, Pseudoapulei Herbarius, Anonymi De taxone liber, [et] Sexti Placiti Liber medicinae ex animalibus, Howard, Ernest et Sigerist, Henry (ed.) (Lipsiae et Berolini: B.G. Teubner, 1927): 104.

[39] Onnerfors, Alf, Plinii secundi iunioris qui ferruntur de medicina libri tres, *CML 3* (Berlin: Academia Scientiarum, 1964): 100-102.

[40] Niedermann Maximilianus (ed.), Marcelli de medicamentis liber, *CML 5* (Lipsiae: Teubner, 1916): 26 and 36-7. Marcellus was praised by one of his patients, Libanius for cure the latter's severe headaches (Thorndike, Lynn, A History of Magic and Experimental Science, vol. I (New York: Columbia University Press, 1923): 584-5).

would relieve a surfeit of humors.[41] This flux would be signified either be a very runny nose or vomiting.[42]

As I' ve noted, theory was relatively sparse in such treatises. A rare, somewhat learned exception was the Bishop Isidore of Seville who wrote a work on medicine and medical definitions in the early seventh century. He defined headache as *cephalea*, a chronic disease named from its cause, namely a pain of the head.[43] His descriptions were later used by the medical teachers at the first school of medicine in the West, the famous School of Salerno.[44] In Salerno, physicians inquired as to the cause of pains. Using questions presented orally and transmitting the answers to their students, the teachers suggested that headaches came from a variety of causes including, superfluities of humors, like phlegm in the head, or of fumes descending from nut tree while you are sleeping or from fumes arising from your stomach after you have drunk too much wine.[45]

As we can see from these examples, pain in the Early Middle Ages was dealt with very practically by physicians, what little theory which was applied, was simple humoral theory, compounded by material theory, like the fumes I just mentioned. Little distinction was made between pain as symptom, sign, or disease.

But by the end of the thirteenth century, a revolution in pain theory and management had occurred. Up until the end of the twelfth century, most medicine was practiced by a general kind of healer, who would collect and distribute herbs for remedies, like a pharmacist, treat internal diseases, like an internist, and perform

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41 Niedermann, Marcelli: 26.

42 MacKinney, Early Medieval Medicine: 41.

43 Sharpe, William D., Isidore of Seville: The Medical Writings, *Transactions of the American Philosophical Society, 54*, part 2 (Philadelphia: The American Philosophical Society, 1964) : 57.

44 Isidore was known to the Salernitans (see Lawn, Salernitan Questions: 252-3 (question P 124), citing Isidore, *Etym.* 17.7.21).

45 Ibid.: 288-9 (question N 14: "With the strongest wine ... heat in stomach ... [will elevate] fumes to the head and headache follow").

rudimentary surgeries, like a surgeon. The pyramid of medical practitioners was fairly flat. Most medical knowledge was maintained either orally, by tradition, like the red fillet mentioned before, or in the few books which were left in the West and kept by monks or monastic orders. This knowledge was contained in the remnants of the works of Galen in the second century or Hippocrates in the fifth century BC.[46] Little of Aristotle or Plato was maintained except what was passed on through the scraps of Galen in the West.

However, in Arabic countries from the fifth to the twelfth centuries, authors like Avicenna, Rhazes, and Serapion, read Greek texts maintained from antiquity and reformulated that knowledge with their own experience, then casting it into Arabic. As the West recovered from the fall of the Roman Empire, gradually it began to trade with the Arabic World and came to learn to read their books. The culmination of this effort was the great waves of translations of the eleventh, twelfth and thirteenth centuries in places like Monte Cassino, Italy and Cremona, Spain.

There the works of Hippocrates, Galen and the Arab masters were slowly translated into Latin. And so a flood of information, not unlike the molecular biology revolution of the last half century, began. The product was a pile of manuscripts full of words and ideas which were foreign to Western readers.

Slowly, as in Salerno, scholars who specialized in interpreting these texts grew up in Bologna, in Montpellier and in Paris. Here in particular, some of the scholars concentrated on medicine. As they attracted students, it became necessary to protect both the teachers and the students from the townsmen, with whom they often got into altercations. This is the origin of the fabled town-gown relationships and also the genesis of the universities. For the universities and their medical schools were inventions of the Middle Ages. Intended to protect the rights and to lobby for special

[46] For a summary, challenging at times, of Galen's perspectives on pain, see Siegel, Rudolph E., Galen on Sense Perception (Basel and New York: S. Karger, 1970): 183-93.

privileges, the universities have been one of the most enduring benefits of the Middle Ages. And with the growth of learning, the physicians differentiated themselves from the more menial surgeons, who worked with their hands, which was felt to be base.

To "angle" out a pyramid, other health care providers were also distinguished, including herbalists and pharmacists, as well as barbers, who performed very lowly tasks like cutting hair and phlebotomy. For phlebotomy was thought to be an appropriate way to relieve a surfeit of humors.

In the medical marketplace, such theories and procedures, like phlebotomy, could be very potent forces.[47] As the physicians distinguished themselves by their learning, they also sought to control the practice within the marketplace around them. In petitioning the kings and potentates, they argued that their knowledge allowed them to direct pharmacists with prescriptions and surgeons with orders. Thus the professor at a medical university knew enough about humoral theory to direct when a curative action should take place.

To return to headaches, and continuing to focus on Paris, as an example.[48] As I have suggested, before the late twelfth century, medical understandings and treatments

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[47] See the work of Pedro Gil-Sotres for developments around phlebotomy at this time ("Introducion" in Arnaldi de Villanova Opera Medica Omnia, IV: Tractatus De consideracionibus operis medicine sive de flebotomia, Luke Demaitre (ed.) (Barcelona: Publicacions de la Universitat de Barcelona, 1988): esp. pp. 77-9; "Derivation and Revulsion: The Theory and Practice of Medieval Phlebotomy" in García-Ballester, Luis et al., Practical Medicine from Salerno to the Black Death (Cambridge: Cambridge University Press, 1994): 110-155; and *Scripta minora* de Flebotomia en la tradición médica del Siglo XIII, *Cátedra de Historia de la Ciencia I* (Santander: Universidad de Cantabria, 1996)).

[48] Where Cohen's medical arguments unravel somewhat in her jumps from locale to locale (and sometimes decade to decade), without awareness to the changes occurring in the medical marketplace. See in particular her, "Physicians' Pain, Patients' Pain: Learned and Popular Pain Relief in the Middle Ages" [Hebrew] at pp. 137-9. Salmón does not stray as much, but does not have the local details to make the mechanical connection between the theoretical writings and the market changes. In the following argument, the presence of four authors who were intimately linked, university and royal pronouncements on practice, and Mondeville's commentaries on market practice provides unusual insight into the role of theory and practice in medieval medicalized pain.

of headaches were scattered, often traditional, and only distantly motivated by medical theory. With the reception of translations of Greek medical learning by way of the Arabic authors, that changed. Central to this process was Avicenna.

His great work, the *Qanon* or *Canon*, had a seminal influence on medieval medicine. One of the earliest parts of Avicenna's *Canon* to be absorbed by the young medical professors was in the first book. It dealt with pain, and particularly headaches or *as-suda*.[49]

For the new interpreters of Avicenna's work, pain was a conundrum. As they tried to teach it to their students, they had difficulty classifying it. The traditional texts which physicians had used for centuries listed illness from head to toe. In that fashion, headache was one of the first and so seemed to be a disease. But pain was also often associated with other kinds of illness: fever, trauma, swellings from infections. Was pain a disease or a symptom of a disease? The interpreters of Avicenna, the medical faculty of the late thirteenth and early fourteenth centuries, had to grapple with this question.

The first professor we know to have commented upon Avicenna was Jean de Saint-Amand (c. 1240-1303).[50] He came from modern-day Belgium, but probably studied medicine in Paris at the University, gradually rising to a faculty position. He has left us over 1,000,000 words about medical education and medical pharmacology.[51]

Jean de Saint-Amand was most influential in collecting all of Galen's known works and dividing them up into a concordance, or list of quotations by topic. The notion of a concordance had only been devised by the theologians in Paris some twenty

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[49] For the linguistic challenges around translating *as-suda*, see Jacquart, Danielle, "Note sur la traduction latine du Kitab al-Mansuri de Rhazès", *Revue d'Histoire des Textes*, 1994; *24*: 359-74 at p. 365.

[50] Nancy Siraisi, "Renaissance Commentaries on Avicenna's *Canon*, Book I, Part I, and the Teaching of Medical *Theoria* in the Italian Universities", *History of the Universities*, 1984, *4*: 47-97 at p. 69, n. 2.

[51] Schalick, *Add One Part Pharmacy to One Part Surgery and One Part Medicine*.

years before Jean's work appeared.[52] Because there were so many newly translated texts, it was hard for the medical student or scholar to absorb them all. For example, Galen referred to headaches in more than a dozen books in a variety of places. Jean collected all this information in one place. Later authors used this collected material to argue their points.[53] But Jean's influence was not merely by textual collation.

Roger Baron, an enigmatic physician practicing in thirteenth-century Paris, in his *De medicamentis*, *Rogerina minor* or *Summa minor*, devoted a long section to clysters, suppositories, and laxatives.[54] This treatise circulated separately, indicating its appeal.[55] The section on laxative medicines begins,

> Since, however, the medical arts are of two parts, namely theory and practice, and they are believed to be integral in care, practice determines its entire utility. Indeed the attention of practice is twined around the rules and orderly arrangements of medicinal laxatives and the coinciding exhibitions of opiates more strongly and closely. Whence, for all practical use that laxative medicine ought to be preferred which is weak and debilitated rather than the robust and

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[52] Rouse, Richard H. and Rouse, Mary A., "The Verbal Concordances to the Scriptures", *Archivum fratrum praedicatorum*, 1974-5: 5-30.

[53] Sorbonne 133, fo. 1v-46r, *Canon, liber IV Avicennae/Additiones ad Tacuinum de curis morborum*, at fo. 2r: "this ordering of tables from word to word Master Jacob Parens of Tornai from Avicenna in the book o fthe Canon in the year 1308 received. Likewise it ought to be known that in the lower margins under the tables are contained the additions of Jean de Saint-Amand in Pabula canon of Tournai who also added additions on the causes and signs and *sigil* and cures and especially on the common cures of these things by distinction of the added *tacuinum* through the sayings of Avicenna can be placed for all things manifestly." The tables are 44 in number on a sequence of diseases each with an 8x11 table with rows of diseases and columns of complexion, season, time, geographic region, *salvatio* or *timor*, cause, sign, evacuation, *cura regalis* and *cura senis inventionis* on the left doublet page and on the right a single column of explication with super and subvening commentary on the Canon by Jean.

[54] Yale Medical Library, Paneth Codex, fo. 510r-584v. The section on purgatives et alia runs from fo. 578r-584v.

[55] E.g. Vatican Pal. lat. 1253, fo. 203ra-204va, as *De clysteribus, pessariis, suppositoriis*, "Clisteribus et pessariis multum indiget ars medicine...", TK 228, Schuba notes it is fo. 84va-85va of Vat. Pal. lat 1084, his *Summa minor*; Schuba, Die medizinischen Handschriften der Codices Palatini Latini: 296.

> strong in any quantity and substance, at any time and for any causes.[56]

This passage is important, because it shows that opiates, just before Jean de Saint-Amand wrote, were still largely treated as practical matter rather than as topics for theory. It also shows that a concern for the appropriateness of opiates use in patients was rising. Interestingly, this example comes from the only contemporary Jean actually cited.

In the preface of his *Areolae,* probably written in the 1290s, Jean described the purpose of his work.

> Thus said Galen in the first book of *De simplicibus medicinis*, chapter 8, at the end, "It is not possible for a man to receive well a compound medicine, use, according to the manner he ought, a medicine made by another for him, and competently compound it, unless he knows the virtues of simple medicines." The cause of this, however, is according to Avicenna in his Vth book and Serapion in his VIIth, because from the mixture and fermentation of simple medicines comes a certain form in the compound and this form cannot be exactly appreciated, unless we understand the virtue, the substance and complexion of simple medicine and their appropriate doses.[57]

The individual actions of the simples were important for Jean, and opiates, being a paliative medicine, were a necessary topic of instruction in the university.

In a commentary on tables made from Avicenna's Canon, Jean discusses, *soda,* the gross transliteration for *a-ud',* the Arabic for headache. The majority of his commentary

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[56] "Cum autem medicinalis artis due sint partes scilicet therica et practica et credantur esse integrales cura practicam consistit fere eius utilitas tota. Practica vero circa laxativarum medicinarum rectas et ordinatas actiones et opiatarum competentes exibitiones fortior et propinquor versatur intentio. Unde ad omnem practicam utilitatem quod medicine laxative delicatis et debilibus et robustus et fortibus in qua quantitate et substancia in quo tempore et contra quis causas" (Paneth Codex, fo. 579v).

[57] Pagel, Julius, Die Areolae *des Jo*hannes de Sancto Amando (13.Jahrhundert) (Berlin: Georg Reimer, 1893): 1.

stresses medications which will produce an evacuation of humoral excesses, much like his writings on laxatives. Later he indicates that phlebotomy of the face will eliminate the disease. The location of the pain dictates where the phlebotomy should be performed; if the humoral excess is throughout the body, then bleed from the basilic vein, if only in the head, then from the cephalic, because the name is like "cephaleas," a gross approximation of head. On the whole, however, Jean seemed to prefer pharmaceuticals to phlebotomy.[58]

A coincident work was written by Dudo of St. Quentin; Dudo was originally from Laon, and rose to become physician and priest to King Louis IX. Indeed, as his personal physician, he accompanied the king to Africa on campaign, and attended the Louis on his deathbed. Subsequently, he became physician to King Philip the Hardy and King Philip the Fair. He was still alive in 1298, when he was a canon at the Cathedral of Notre Dame.[59] Dudo wrote a treatise on diseases from head to toe with many of the same tables from Jean's commentary, suggesting it too is a commentary on Avicenna's book 1. Regarding headaches, *soda*, he created a table in which *soda* had a variety of causes, from the ingestion of hot foods to a surfeit of blood and bile. But in his commentary on this table, Dudo preferred to discuss that headache was often an indicator of other diseases, particularly fevers. He did note that there was much new information which was conflicting, but that some now said that phlebotomy was the optimal therapy.[60]

A third physician who worked in Paris, eventually dying there was, Guglielmo da

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[58] Sorbonne 133, at fo. 16r *infra*, "Et notandum quod felbotomia frontis egritudinem extirpat. Iten regula: Si est replitio omnium humorum aut solius sanguinis in toto corpore fiat phlebotomia de basilica. Si autem in capite solo fiat ex cephalica. ... Cephaleas fiat ex sanguine fiat phlebotomia de cephalica."

[59] Wickersheimer, Ernest, Dictionnaire biographique des Médecins en France au moyen-âge, t. I (Paris: Droz, 1979): 123-4.

[60] *Supposiciones et additiones Magistri Dudonis super Tacuinum*, Arsenal 708, fo. 157v-216r at fo. 176v-177r in the lower margin.

Brescia (c. 1274-1326). Although he spent much time in Paris, he was also physician to several popes. One of the few of his works which survives is *Practica* from the first decades of the fourteenth century which was actually a highly theoretical exposition of diseases, their causes and treatments.

Of all the authors I consider, Guglielmo was the most sophisticated, benefitting from the work of the others. He argued that by reading all of the ancient and arabic authors, the doctor learned that headaches had various names, and that sometimes headaches were a sign, sometimes a symptom and sometimes a disease. The intelligent physician had to learn all of this material in order to treat a patient appropriately. In the main, he considered that headache, *soda*, was a disease, but he acknowledge that at times it was a sign or symptom of another disease. He also argued that where headache was a disease, phlebotomy was often the treatment of choice. Nevertheless, he listed a great number of other treatments, distilled from Arabic and Ancient authors.[61]

It would seem from this progression of authors that over approximately fifty years, the Parisian theoretical literature had assimilated a large volume of translated sources and gradually identified headaches as a disease, with a variety of cures. Phlebotomy, nevertheless was among the first choices. But did this shift from pharmaceuticals to phlebotomy alter practice?

To answer that question, we turn to the fourth author, Henri de Mondeville, who was a royal surgeon from 1298-1327. Henri was encouraged to write his masterpiece, the *Chirurgia*, by Guglielmo da Brescia. And he knew Jean de Saint-Amand's work, because he cited him twice. Finally, as royal surgeon to Philip the Fair, he undoubtedly also knew Dudo de St. Quentin, the royal physician.

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[61] *Excellentissimi medici Guielmi brixiensis aggregatoris dictorum illustrium medicorum ad unamquamque egritudinem a capite ad pedes practica* ... (Venice, 1508), fo. 7r-10v, esp. at fo. 8r-v (8r: "Evacuatio materiae quod non indiget digestione nisi valed raro et pauca est flebotomia vel sanuinis subtractio materia etiam colerica furiosa.") At another point, where he is differentiating which veins to bleed from he notes, "si solus languis dominat sola flebotomia sufficit," citing the authority of Avicenna (idem).

Perhaps because of his awareness of such professorial authors, Henri was cautious not to encroach on their territory. For example, while discussing pains from external causes, such as headache, Henri indicated that he could write much more. But he was concerned about such an undertaking, first because was trying to concentrate on pure surgery in the text, second because he felt his knowledge was inadequate, but third, because he was nervous the medical faculty at the University would be angered. [62]Thus headaches were becoming the province of the physician alone. The carefully created categorization of headaches by physicians gave them the authority to restrict others from caring for those patients. But what of treatment?

All four of these doctors can be linked by a kind of network through the royal court and the medical faculty and so they were all probably aware of each others work at one level of time or another. Paris thus forms a unique nexus of medical activity around pain. Consequently it is not surprising that the Parisian physicians also sought to legislate in matters of pain therapy.

Medical opiates were one of two medications which the physicians lobbied for control over in the late thirteenth and early fourteenth centuries.

Pharmaceutical Regulation

In the wake of the founding of the medical faculties in the early thirteenth century and a burgeoning of translation of ancient medical texts into Latin, medical theory and university-based medical practice blossomed. Particularly in Paris, with a broad base of competition between educated and uneducated practitioners, and with variations in patient demands, came a need for regulation of the marketplace. A sequence of university and royal edicts were enacted to place pharmaceutical sales increasingly

[62] Pagel: 397.

under the purview of university physicians. Specifically, via oaths and monitoring, imposed through the guild structure in place for *apothicaires*/*épiciers* (apothecaries/spicers), academic physicians were able to assert their authority upon the basis of their superior ability to manipulate textually-based medical information. But some remedies were singled out for special regulatory attention.

In a 1271 university statute, a pharmaceutical progression was outlined. Certain medicines could be dispensed free of a physician's supervision, not unlike our modern over-the-counter remedies. The examples given were, *sucura rosata*, *dragia communis*, and *aqua rosacea*. Following these medicines, in increasing order of concern to the Faculty were laxative medicines and then alterative or comforting drugs, like opiates.[63] Fifty years later, in a 1322 university edict, laxative and opiate medicines were more specifically targeted. In a 1336 royal ordinance, laxative drugs and opiates were again singled out. Finally, in 1352, a royal ordinance listed the following kinds of medicines as under the purview of medical regulation: alterative, laxative, syrup, electuary, laxative pills, clyster, opiate, and laxative clysters. But where it might seem that a variety of active medicines was being regulated, I would argue that the intent was to specify various alterative (opiate) and purgative (laxative) preparations. The Latin reads,

> ...aliquam medicinam alterativam, [medicinamque] laxatviam, sirupum, electuarium, pilulas laxativas, clisteria qualiacumque, propter timorem mortis, ex flux vel malis sinthomatibus pregravativis, in quibus non est verisimile eos prefatos scire remedium adhibere, oppiatam seu quacumque aliam decetero faciat seu fieri consulat ministrareve audeat medicinam...[64]

In particular, when placed alongside the earlier comment,

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[63] Denifle, H. et A. Chatelain (éds.), Chartularium Universitatis Parisiensis, t. I (Paris: Imprimerie, 1889): 488-90. See also, Saunier, Annie "Le pauvre malade" dans le cadre hospitalier médiéval: France du nord, vers 1300-1500 (?: Éditions Arguments, 1987): 144.

[64] Denifle, H. et A. Chaelain (éds.), Chartularium Universitatis Parisiensis, t. III (Paris: Imprimerie, 1889): 16.

> ignari scientie medicine ignorantesque complexiones hominum, tempus ac modum minstrandi ac virtutes medicinarum, potissime laxativarum, in quibus jacet mortis periculum, si ipsas contigerit indebite ministrari, ipsas medicinas etiam alterantes, omnino contra rationem et artem medic ine, flebotomias et clisteria multum laxativa et alia eis illicita...,[65]

these statements suggest that opiate and laxative remedies, whether they be syrup, electuary, or pill-based were too dangerous to be administered by anyone in general. They may also indicate that opiates and laxatives were being frequently and indiscriminately sold by apothecaries, herbalists, surgeons, and many others.

Medieval, Parisian authorities were not alone in their concern.[66] In Montpellier, the University statues decreed that two of the oldest masters were to admonish the apothecaries that selling laxatives without their advice was not permitted, unless they held a license for practicing medicine from the bishop of Maguelone and two parts of the masters.[67] Sicilian regulations also mention a laxative prohibition.[68] In Aragon, Michael McVaugh suggests that optimally a physician should oversee the use of purgatives.[69]

Guglielmo da Brescia too was concerned about the use of purgatives. Noting that purgatives were both dangerous and prematurely aging, he argued that there were less

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[65] Ibid.

[66] For modern governmental guidelines on laxative research, see U.S. Food and Drug Administration, Guidelines for the Clinical Evaluation of Laxativ e Drugs (Washington, D.C.: Government Printing Office, 1978).

[67] "XII. De visitandis appothecariis. Item, statuimus quod, quolibet anno, eliganture duo Magistri ex antiquioribus, qui moneant appothecarios, ut non vendant medicinas laxativas alicui de villa, nisi de consilio alicujus ex Magistris Stuidi istius, vel habeant licentiam practicandi a domino Magalonensi episcopo cum duabus Magistrorum partibus." (a. 1340) Cartulaire de l'Université de Montpellier (Montpellier: Ricard Frères, 1890): 344. See also, Alison Klairmont Lingo, *The Rise of Medical Practitioners in Sixteenth-Century France: The Case of Lyon and Montpellier*, Ph.D. diss., University of California, Berkeley, 1980: 135.

[68] Henry E. Sigerist, "Bedside Manners in the Middle Ages: The Treatise *De cautelis medicorum* Attributed to Arnald of Villanova" in Felix Mart-Ibanez (ed.), Henry E. Sigerist on the History of Medicine (New York: MD Publications, 1960): 131-40 at p. 139.

[69] McVaugh, Medicine before the Plague: 151-2.

potentially deadly means of expelling surfeit humors, including regimen, massage, gentler medicines, and phlebotomy. In cases where purgatives should be used, he stressed, the physician should consider all alternatives first. Then when forced to use them, he should find ways to mitigate their effects:

> Likewise if we can use a safer means, then pharmacy should not be used but we can use the safer means for evacuating humor such as by a good regimen and massage and relaxing medicines and strong medicines should not be given.... Likewise if we can use a safer means we should not use the more dangerous, but the safer way is phlebotomy... that is made clear through Galen in the second of the *Regimen*, for he said that phlebotomy is the safer means for evacuating; pharmacy is dangerous.... [70]

Interestingly, Guglielmo saw phlebotomy, the rising star of therapy, as the much safer alternative for *purgatio*. While patients were demanding more rapid cures, physicians were trying to maintain the older, less radical therapies. In a competitive marketplace, apothecaries could easily accede to the requests of patients and so take business away from the physicians.

Physicians like Jean de Saint-Amand, in adopting the texts of the Arabs, accentuated the dangers of medications. In pre-Arabic texts, the dangers of laxatives were only noted in on average ten percent of the time, in Jean's work it rose to forty-six percent. Thus Jean also cautioned about the constipative and sedative effects of opiates. Similarly, Guglielmo da Brescia singled out opiates in his long list of cures as having dangerous side-effects. "Beware the juice of the poppy and mandragora because of its

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[70] Guglielmo da Brescia, questions/commentary on *Canon* 1.4 Padua, Biblioteca Universitaria, MS al numero provisorio 202, fo. 121v: "Item si possumus uti via securiori non debemus uti farmacia sed possumus uti via securiori ad evacuationem humorum ut bono regimine et fricationibus et resolventibus et medicinis non dando medicinas fortes.... Item si possumus uti via securiori non debemus uti periculosiori, sed via securior est flobotomia... apparet per G[alenum] secunduo regiminis, dicit enim quod flobotomia est via secura evacuanda farmacia autem periculosa...," as quoted in Nancy Siraisi, Taddeo Alderotti: 254, note 38.

strong soporific effect." Vigilance was the watchword when it was used.[71]

On the other hand, Jean de Saint-Amand also stressed that their properties changed with time.[72] In a 1336 ordinance of the king, the length of time opiates were kept in an apothecary shop was made a key part of what the Medical Faculty would inspect when they visited an pharmacist's shop for certification of its safety. In these actions, the role which physicians like Dudo or surgeons like Henri played at the royal court clearly became important. And pain and the fear of pain too played a role.

But phlebotomy also became a source of contention. As I have noted, as the physicians separated themselves from surgeons, they handed off physical procedures as being too menial. With time, the surgeons tried to show that they were above the 'riff-raff' as well and so passed phlebotomy to the barbers.[73] By the mid-thirteenth century, the scholarly "gadfly," Roger Bacon complained in his diatribe against the deficiencies of doctors,

> the fourth deficiency is that they do not observe the heavenly bodies upon which every change of the lesser ones depends; laxative drugs and **flebotomy and other evacuations and constrictions** [of which opium was one] and the whole system of the medical art is affected by atmospheric changes caused by the heavens and the stars.[74]

That the elite physicians had left phlebotomy to the surgeons and barbers had also meant that its application was no longer 'scientifically' guided by astrological signs.[75]

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[71] *Excellentisimi* (1508), fo. 9r, "Sed cave a succo papaveris et mandragore propter fortem stupefactiones [sic] utriusque. Si non cogat vigiliarum instantia vuti utrisque."

[72] For later arguments which fit into the continuum of elite (appropriate) v. quack (inappropriate) uses of opium, see Tröhler, Ulrich, "Pain: Historical Changes in Therapeutic Views and Physiological Explanations of a Pathological Symptom".

[73] Gil-Sotres, "Medieval Phlebotomy": 121-2.

[74] Wellborn, Mary Catherine, "The Errors of the Doctors According to Friar Roger Bacon of the Minor Order", *Isis*, 1932; 18: 26-62 at p. 31.

[75] Jean's consideration of laxatives and opiates rarely refer to astrological concerns.

But with the reception of Avicenna's Canon, phlebotomy was found to be a crucial therapy, in particular for headache. Suddenly the surgeons and physicians realized they had to get control back over revitalized therapy. But it was not easy in a competitive marketplace.

As Mondeville noted, if you treated a patient with a cold complexion, who had a pain which derived from a cold quality, then caution was indicated, as Avicenna taught. The reason is that the severe pain moved the humors more vigorously. When phlebotomy is started, the humors are attracted to the painful place even more, especially just at the moment when the phlebotomy was stopped. But Galen, seemed to indicate the contrary, when he noted that there is nothing better than phlebotomy for a severe pain.

Henri found a possible solution to this conflict of authorities in Avicenna, where he indicated that phlebotomy was appropriately administered up to the point of fainting, not to the point of the complete removal of the abundant humor. So the solution was to bleed the patient til they fainted, not til their pain went away.[76]

But in practice, Henri found conflict in the marketplace with this issue. As he noted, doctors and consulting surgeons felt conflicted about this use of phlebotomy, and

> they give this reason: that if they recommend a phlebotomy in an excessive pain and the patient dies, the assistants impute to the doctor the patient's death. And if the doctor counsels either in a case of strong or mediocre pain that phlebotomy be administered until the pain eases, thereafter the patient does not wish to be phlebotomized, because the phlebotomy will be useless for a pain which is already alleviated.[77]

In essence you either got blamed for a patient's death or the patients would no longer seek your services. The result with both alternatives was a reduction in your practice.

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[76] Pagel: 396-7.
[77] Ibid.: 397-8.

The medical marketplace was no place for the faint-hearted, either among the patients or their doctors!

Conclusion

Medieval physicians had difficulty unifying their understanding of pain. But as we have seen, their social grappling with pain had fundamental implications for the creation of cultural institutions, from hospitals to legal practices from elite impassivity to pharmaceutical regulation and medical practice. As *dolor capatis*, under the influence of the interpretation of Avicenna and Arabic authors, became *soda*, headache became a disease, which could be more securely kept under the control of one kind of practitioner, the university physician. And with that control, came an easier argument for control over therapeutic modalities, including legislation of opiate usage. Nevertheless, the transition to the control of such activities by physicians was not without difficulty within a competitive marketplace.

Thus, where theological debates produced a cultural shift from pain as a base sensation to a mode of salvation, which has reverberations even to today, and legal debates brought about alterations in torturing of prisoners, medical debates about pain altered the context of the medical marketplace. What remains to be uncovered is how the elusive struggle of the medieval individual with pain interacted with these society level changes.