Review

"Psychogenic" Pain and the Pain-Prone Patient*

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IN the past fifteen years, at two university medical centers, I have studied a large number of patients with pain. The great majority of these patients were seen in my role as a medical attending physician on the medical wards, teaching students and house officers, and as such included the usual variety of diagnosed and undiagnosed painful disorders ordinarily encountered on a medical service. A few patients were referred to me by colleagues who knew of my interest in pain. In addition, I have had random opportunities to observe the appearance and disappearance of pain during the course of psychoanalysis of patients with neuroses and psychosomatic disorders. The veiws about pain presented in this paper have evolved out of this clinical experience.

THE THEORETICAL PROBLEM

Pain is a cardinal manifestation of illness, and the relief of pain is probably the most common demand made by the patient upon the physician. In spite of this importance of pain, it is astonishing how little we understand pain, but how confident we are of our knowledge of pain. Perhaps familiarity breeds contempt. Every physician has his own personal experience with pain and it began long before he ever became a physician. This is in contrast to other complaints which we learn about only while studying medicine. The medical student, when asked what pain is, feels at once that pain is something familiar, although he may have great difficulty defining it in scientific terms. What he means is that he himself has experienced pain and hence "knows" what pain is. When he is taught that there are pain receptors, pain fibers, pain pathways, and a center for pain perception, his concept of pain becomes scientific. To the comfortable familiarity that comes from personal experience are now added these simple "facts" and from this a relatively simple concept of pain is constructed. Pain is the sensation which arises when pain receptors are stimulated and it is transmitted via its own fibers and pathways to the thalamus where it is perceived or experienced. The more thoughtful student usually notes that whatever is transmitted from the periphery must also somehow or other be perceived in consciousness, otherwise it is not pain. He may also note that people seem to respond differently to whatever it is that they perceive as pain. This insight then leads to the familiar formulation that pain has two components—the original sensation, and the reaction to the sensation. There the matter usually rests. When a patient complains of pain, it is taken for granted that pain end organs somewhere in the body are being stimulated, presumably by a pathological process. That this often proves to be the case provides repeated and comforting support to those who hold this centripetal point of view. When no such explanation is found, it is assumed that a pathological process is there nonetheless but simply has not yet been discovered. Rarely this too proves to be so. Or it is postulated that something is affecting the nerves ("neuralgia"), or the nerve pathways, or even the thalamus, producing so-called "central" pain. If no other explanation is forthcoming, the patient is told in one way or another that his pain is "imaginary," often meaning that the physician does not believe it exists, in spite of the most tangible evidence that the patient is suffering just as intensely as the person who has a visible and palpable painful lesion. In more recent years the term "psychogenic" pain has come into use and is generally applied by exclusion to those

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instances in which no other cause of pain can be demonstrated. For many this is a vague and mysterious concept since the commonly accepted concept of pain provides no room for such a notion. How can there be pain if pain end organs are not being stimulated?

I emphasize these points because unless you can relinquish the notion that pain must originate in peripheral receptors and nowhere else, it is virtually impossible to understand what is referred to as "psychogenic" pain. Perhaps we need to ask first: What is pain? A definition of pain is elusive at best, if possible at all. As observers we cannot even recognize pain. Indeed, pain can only be experienced and for our information about pain we are totally dependent upon the report of the person experiencing it. As Szasz has pointed out, pain falls into the category of private data—experience which cannot be simultaneously shared and reported by anyone other than the person experiencing it [*1*]. It can only be reported. This is different from some varieties of experience, such as vision or hearing where what impinges on the sense organs can also be experienced by other observers and hence some consensus can be achieved as to what was seen or heard. Hence we have had no difficulty in discovering that occasionally persons may report seeing or hearing things in the absence of recognizable visual or auditory stimulation. One thinks at once of the hallucinations of psychotic people. However we should not overlook the fact that visual and auditory experiences in the absence of the corresponding peripheral stimulation are part of our daily life. Our dreams, for example, are predominantly and at times brilliantly visual in character—perhaps less often auditory. Some persons have a capacity for vivid visual and auditory imagery during the waking state. During complete sensory deprivation, including pitch darkness, there may be brilliant visual hallucinations [*2*]. A variety of chemicals, e.g., mescaline and lysergic acid, characteristically produce visual images [*3*]. Penfield has reported on the auditory experiences in temporal lobe epilepsy and during direct brain stimulation [*4*]. I make these points to emphasize that when it is possible to verify the presence or absence of a peripheral source of stimulation in studying sensory experiences, we have no difficulty in identifying a host of examples in which no peripheral stimulation takes place and yet the person clearly experiences sensation. Arguing by analogy alone, I contend that the same must also hold true for pain.

What significance, then, are we to attach to the undoubted fact that there are pain pathways and that pain *can be* evoked by stimulation of parts of the body that are so innervated? Certainly it makes clear that in whatever manner we may conceptualize pain, one way in which it can be evoked is by appropriate stimulation of this peripheral sensory system. This does *not* justify the additional, usually inferred postulate that pain can *result only* from the stimulation of such pathways. But it does permit us to study and to identify characteristics of pain which are dependent on the neurophysiological characteristics of the peripheral system, an important consideration since this enables us to identify a pain process originating in muscle as compared to skin, for example. The peripheral distribution of pain-sensitive receptors has another importance in terms of how the individual's concept of pain develops. Pain belongs to the systems concerned with protecting the body from injury. We may assume that from birth on the individual builds up a library, so to speak, of pain experiences, originating from the variety of peripheral painful stimulations which he experiences during the course of his life. As we will show later, these are importantly concerned with the person's over-all development. Thus, from the developmental side we presume that the capacity to experience pain in the first place develops from numerous peripherally induced experiences but thereafter pain experience, like visual or auditory experience, may occur without the corresponding stimulation of the end organ.

There are still other reasons that compel us to question the purely centripetal concept of pain. We have already noted that only the sufferer knows whether or not he has pain and we may then ask: How does he know? Obviously *consciousness* and *attention* are necessary. Actually, the most successful technics for relieving pain, namely, general anesthesia and hypnosis, are not directed to pain *per se* but to consciousness and/or to attention. We know that the grievously wounded soldier in the heat of battle may experience no pain until the action is over.

Now, how do we know "pain" when it reaches our attention? We know it only by its quality and from this point on language fails us. It is completely impossible to describe pain accurately. We can describe it only in terms of experiences which evoke pain. Thus we may

describe it as "sharp," thinking of a cut or a quick blow; or "dull," thinking of some slow pressure; as "burning," "tearing," or like a "pin-prick" or "toothache," and so forth. Obviously these are not descriptions of pain—these are descriptions of circumstances under which pain actually was experienced, or our imagination of how it would feel were something of this sort to be experienced. The man with a coronary occlusion may say it *feels like* his chest is being crushed, even though he may never have experienced actual compression of the chest and were he to experience it he would discover that it did not resemble his pain of coronary occlusion at all.

When we scrutinize more carefully the identifying quality of pain we note that it includes an affective tone. Pain is never neutral. It is usually unpleasant, but it may also be pleasant, if only in a relative sense. This effective quality brings pain into a very central position in terms of psychic development and function. Thus pain acquires special meanings for the individual as follows:

(1) Pain warns of damage to or loss of parts of the body, and is part of the system for protection of the body from injury. It is, therefore, intimately concerned with learning about the environment and its dangers on the one hand, and about the body and its limitations on the other. We presume that what causes pain and the part that hurts are permanently registered in the central nervous system. We may, therefore, speak of "pain memories"* and of a "body pain image," the latter referring to parts of the body which have been sites of pain in the past.

(2) In terms of development, pain is very much involved in human relationships (object relations). From infancy, pain leads to crying and to a response from the mother or some other close person. The association of pain → crying → comforting by a loved person → relief of pain, is an important determinant of tender love relations and helps to explain the "sweet pleasure" of pain. It is not the pain that is pleasurable, but the anticipation of reunion with a love object and the relief of the pain that are enjoyed. Certain individuals function as if the pain is worth the price.

(3) Fairly early in childhood, pain and punishment become linked. Indeed, in many languages the two words spring from the same root. This establishes another kind of communication between the child and adults, namely, pain is inflicted when one is "bad." Pain thus not only may come to signal that one really is "bad," and thereby become a signal for guilt, but also pain may become an important medium for expiation of guilt. Some children as well as adults welcome pain if it means expiation and forgiveness and, hence, reunion with the loved one. If pain serves to relieve guilt, pleasure in a relative sense is again involved.

(4) Pain also early becomes closely associated with aggression and power. The child quickly discovers the effects of inflicting pain on others and on himself. We will learn how by suffering pain one may control one's own aggression. The pleasure of the aggression is retained, but one's self is taken as the target.

(5) Closely related to the preceding is the connection between pain and real, threatened or fantasied loss of loved persons. Especially when there is also guilt for aggressive feelings toward such persons, pain may provide a psychic means of expiation. Further, as Szasz points out, the patient succeeds in reducing the feeling of loss by experiencing a pain in his own body which he then substitutes for the lost person [*1*]. He suffers more from the pain than the loss, so to speak. Later we will see how the patient's ideas of pain actually or presumably experienced by the lost person will determine the location of the patient's pain. The psychic logic of this is revealed in our language when we speak of a "painful loss."

(6) Pain may also be associated with sexual feelings. We know that at the height of sexual excitement pain may not only be mutually inflicted but actually enjoyed. When this becomes the dominant feature of the sexual activity, we recognize it as a perversion, sado-masochism. We will also discover some persons who prefer to experience pain rather than have sexual experience, the latter existing only at the level of unconscious fantasy.

When we examine the full gamut of circumstances, from the simple peripheral stimulus to the complex psychological components, we

* One is not able to re-experience a pain at will, but one may have memories about the pain. This is true of affects in general. Hence, the term "pain memories" refers to the ideational complexes, conscious and unconscious, associated with past pain experiences, stimulation of which may later give rise to pain. This pain is not the "old" pain anymore than the joy evoked by certain memories is the same joy that was felt on the occasion of the original joyous experience.

must acknowledge that pain in final analysis is a psychic phenomenon. The two-component concept of pain, which speaks of the pain sensation and the reaction to pain, is misleading because it implies that pain can originate only from a "pain" receptor. Gooddy goes so far as to say: "There can be no pathways nor nerve endings for *pain*. The notion of pathways for pain is but a figment of the observer's mind." [*5*]. Instead he suggests that disordered patterns (rate, amplitude, time and space) in nerves or neural centers provide the neurophysiological conditions which may be experienced as pain, but they do not by themselves account for pain. Certain characteristics of the impulse patterns may influence the quality of pain, but they will not in themselves determine that it be pain. This certainly is consistent with the clinical observation that one can identify qualities associated with colic, for example, as differentiated from a toothache, qualities which arise from the properties of the particular anatomical system giving rise to the disordered impulse patterns. Thus such patterns originating in the periphery contribute certain qualities to the pain and determine where the patient locates the pain, but the total pain experienced is always a psychic phenomenon.

This brings us then to "psychogenic" pain. While the pain experience is only and always a psychic phenomenon, it is nonetheless of both practical and theoretical importance to know whether or not what is being experienced as pain includes disordered patterns originating in nerve endings, just as we need to know whether or not a visual experience originated from light waves striking the retina. But the fact of a peripheral process does not necessarily mean pain, for we know that pathological changes may be associated with the most excruciating pain in one person and with little or no pain in another. By hypnosis, or with placebos, we may eliminate or induce pain without modifying to the slightest the nature of the pathological lesion [*6,7*]. The practical clinical problem really has to do with how the individual experiences pain. Clinical observation reveals that there are people who seem to experience pain with unusual intensity and frequency. With peripheral lesions they seem to suffer more pain than most people do, but often they suffer pain without any peripheral process. Among such patients the presence or absence of a peripheral disorder is not well correlated with the presence or absence of pain. Indeed we often find that the discovery of the lesion and its removal or cure does not alleviate the pain, which may persist or even recur at a later date. In other words, there are certain individuals, whom we shall call "pain-prone," among whom psychic factors play the primary role in the genesis of pain, in the absence as well as in the presence of peripheral lesions.

Clinical psychologic studies of many pain-prone persons have by now provided us with a fairly good understanding of the determinants of this susceptibility to suffer pain [*1,8–13*]. The key comes through understanding how pain may yield pleasure. It is pleasure in a relative sense, that is, in place of something even more distressing. Beginning from a primitive protective system, pain evolves into a complex psychic mechanism, part of the system whereby man maintains himself in his environment. Both as a warning system and as a mechanism of defense, pain helps to avoid or ward off even more unpleasant feeling states or experiences and may even offer the means whereby certain gratifications can be achieved, albeit at a price. If we can understand this adaptive role of pain in the psychic economy, we can begin to comprehend how it is that certain persons actually seek pain, even to the extent of creating it as a purely psychic experience if no peripheral stimulus is available to evoke it.

THE CLINICAL PROBLEM

Let us now examine pain in terms of the problem as it is actually encountered by the physician, namely, a patient seeks medical aid because he is suffering from pain. I propose that we approach each patient with the following questions in mind.

(1) Are there pathological processes affecting nerve endings and leading to disordered patterns in nerve pathways which are being experienced as pain? (2) If such processes are present, can the character of the pain experience reported by the patient be fully, partially, or not at all accounted for by the distinctive characteristics of the peripheral pathological process? (3) How are psychological processes operating to determine the ultimate character of the pain experience for the patient and the manner of its communication to the physician?

All three questions are pertinent with every patient, although circumstances as well as patients differ in respect to how much attention each

question requires before our problem is solved. They acknowledge the principle that a peripheral factor may or may not be operating and that when it is operating it may not fully account for the pain experience. Further, they permit us to explore in more practical clinical terms the precise criteria which should enable us to make accurate interpretations. For example, if a man complains of epigastric pain, neither a normal gastrointestinal x-ray series nor one showing some irritability of the duodenal cap will, by itself, provide the explanation for the pain. The patient may or may not have a duodenal ulcer, and if he has a duodenal ulcer this may or may not account for the pain which he experiences. When we examine what is called the typical "ulcer pain" we realize that there are distinctive characteristics of the pain associated with duodenal ulcer which we can recognize as the qualities conferred upon the total pain experience by the type of the disordered impulses arising in the nerve endings in the region of the ulcer. It is these qualities which permit us to identify duodenal ulcer as compared to biliary colic. Our first concern, then, must be with how the patient describes his pain.

The Description of the Pain. The peripheral signature: The relatively good concordance among individuals as to the kinds of pain associated with particular pathological processes gives us our first clue as to what differentiates the peripheral contribution to pain experience from the rest of the pain experience. Gooddy spoke of "disordered patterns," referring to rate, amplitude, time and space, and we immediately recognize that what enables us to identify a particular pain experience as being associated with myocardial ischemia, or renal colic, or a perirectal abscess, or a bone metastasis, concerns how the specific anatomic and physiologic characteristics of the diseased part gives rise to these disordered "patterns" [*5*]. Wolff's meticulous study and demonstration of the varieties of pain evoked by stimulation of various parts of the head provides an excellent demonstration of the consistency of the signature conferred on the pain experience by anatomical and physiological factors [*14*]. With a stone in the ureter, we can predict with a high degree of confidence where the patient will locate the pain and we will recognize in the colicky character of the pain the rhythmic contractions of the ureter in its attempt to pass the stone. Further, once we understand the anatomy and physiology of the structure involved we can also predict that certain movements, postures and behaviors of the patient are chosen because they are associated with pain amelioration, while others are avoided because they are associated with the intensification of the pain.* While this is common knowledge, I stress it because the precise elucidation of such correlations between anatomical and physiological characteristics on the one hand, and pain experience on the other hand, provides the most certain evidence that processes originating in the periphery are initiating a particular pain experience. Conversely, deviation from these understandable anatomical and physiological principles should immediately caution the physician that peripheral disordered patterns either play no role or their influence is being obscured by other factors. The patient, for example, with acute myocardial infarction who continues to experience the same pain unremittingly for a week arouses our suspicion. Does this indicate a further extension of the infarct? This is an unlikely possibility and would have to be established by means other than the pain itself. Could it be that pain that originated in relationship to the myocardial infarct now has established an existence independent of the changes taking place in the myocardium? Finally, could it be that the pain never was related to the myocardial infarct, but rather to something else which again may or may not be affecting nerve endings? The incongruity between the pain characteristics as described by the patient and the known pathophysiological and pathoanatomical processes is in itself sufficient grounds to question the accuracy of the interpretation which explains all on the presence of the allegedly demonstrated peripheral disorder. Here I would warn especially against the commonplace practice of describing such situations simply in terms of the pain being "atypical."

The individual psychic signature: As we listen to the patient's account of his pain, we first attempt to detect and identify pain qualities associated with stimuli arising from the periphery, as just described. All the other features of the pain description are understandable in terms of what we might call the individual's "psychic signature," as contrasted to the "peripheral signature." What are some of the varieties of

* In the two person field we may also note that certain movements, postures and behaviors are utilized by the patient with pain because of their value in communicating to others the need for help.

pain description that are not understandable in terms of a peripheral process, even when the latter is present? I have already mentioned discrepancies in respect to what would be predicted from anatomy and physiology. We need to pay attention to pain location in terms of the patient's concept of his body image as contrasted to pain location determined by the distribution of nerves. For example, the patient who locates his pain in the region of the left nipple or the apex beat may at some point indicate concern about heart disease. The doctor should consider the possibility that some idea about heart disease accounts for the location of the pain, although not for the pain itself, rather than the pain giving rise to the idea of heart disease. Actually, patients with heart pain often prefer to explain the pain on the basis of something non-cardiac, such as indigestion.

Patients' private concepts of how their bodies function may influence their description of pain. For example, the person who entertains an autointoxication theory may get pain relief from cathartics or colonic irrigations, such relief not indicating in any way colonic disease. The intensity of pain reported by patients is a highly individual matter. Clinical experience is a useful guide but, in general, gross deviations in either direction inform us more of the psychic state of the individual than of the existence or nature of a peripheral lesion. Libman's test for pain sensitivity by styloid pressure is a useful way of evaluating quickly how a patient deals with a painful peripheral stimulation [*15*].

In general, the more complex the ideation and the imagery involved in the pain description, the more complex are the psychic processes involved in the final pain experience. In part this is a matter of reality testing. When the pain experience is initiated from the periphery and this is the primary factor responsible for its presence, and when the function of the pain is to signal to the patient damage or injury to a part of his body and nothing else, the pain description is likely to be economical and relatively uncomplicated. Terms such as "sharp," "dull," "aching," "throbbing," and the like are relatively easily applied and the relationship to physiological processes relatively easily identified by the patient. On the other hand, vague descriptions as well as more elaborate imagery are reflections of the degree to which the pain is entering in psychic function in a more complicated fashion, now serving purposes far beyond the simple nociceptive function. While the patient almost always initially presents his complaint as a pain, an ache, a headache, a backache or some such symptom, request for elaboration will sometimes, but not necessarily, bring out a vague description, as "a sensation," "an unpleasant feeling," "I just can't describe it"; or descriptions such as "being jabbed with an icepick," "burning like a red-hot coal," "bruised and torn," "like my face is being eaten up," "electric shocks burning me," and "just too horrible to describe." Or "headache" may become "a sort of pressure as if the top of my head would come off." A backache may become "a pulling or drawing as if the cords of my back were being pulled at." Sensations described as boring, gnawing, biting, penetrating, crawling, twisting and tearing are particularly meaningful. Now these varieties of description are extremely valuable in identifying the presence or absence of a peripheral process. In general, however, while we can be fairly confident of a peripheral lesion when the description is not only crisp and economical but also concordant with anatomical and physiological processes, we cannot conclude that the patient who gives us the more complex, the vague, or the vivid type of description does not have a peripheral lesion. Such descriptions reflect the characteristics of the individual and if he is suffering from a peripheral lesion, the disordered patterns arising from it are subjected to the most complex psychic distortion and elaboration so that at times the peripheral qualities may be totally obscured.

This now brings us to explore *who* are the patients disposed to use pain in this fashion and under what circumstances do they do so. For convenience we shall refer to them as the "pain-prone patients."

The Pain-Prone Patients. For the most part these patients repeatedly or chronically suffer from one or another painful disability, sometimes with and sometimes without any recognizable peripheral change. There are also patients who may have only a single or occasional episode of pain, among whom essentially the same psychic mechanisms are operative. Such patients by no means constitute a homogeneous group and yet they have many features in common. By recognizing and understanding the clinical expressions of the psychodynamic processes underlying this type of psychic function of pain, the physician will be able to recognize the patient who uses pain in this fashion and hence more correctly interpret each pain experience for which he is consulted.

The choice of pain as symptom: pain as punishment: I mention this component first because clinical observation leads me to conclude that guilt, conscious or unconscious, is an invariable factor in the choice of pain as the symptom, as compared to other types of body sensations. Clinically we should expect to find either a long-term background of guilt and/or an immediate guilt-provoking situation precipitating pain. The clinical characteristics of the chronically guilt-ridden person are not difficult to recognize, if one appreciates the role of penitence, atonement, self-denial and self-depreciation as means of self-inflicted punishment to ease the feeling of guilt. The patient who uses pain as a means of self-punishment and atonement almost always manifests other psychological and behavioral devices which serve the same purpose, and their recognition will alert the physician to the likelihood that this patient is indeed using pain in this fashion.

Some of these individuals are chronically depressive, pessimistic and gloomy people whose guilty, self-depreciating attitudes are readily apparent from the moment they walk into your office. They seem to have had no joy or enthusiasm for life and, indeed, some seem to have suffered the most extraordinary number and variety of defeats, humiliations and unpleasant experiences. You may first be inclined to pass this off as a consequence of the pain they are suffering or as just a matter of bad luck. But it quickly becomes apparent that many of these difficult situations have either been solicited by the patient or simply not avoided. They drift into situations or submit to relationships in which they are hurt, beaten, defeated, humiliated and, to our astonishment, seem not to learn from experience; for no sooner out of one bad spot they are in another in spite of the most obvious danger signals. At the same time they conspicuously fail to exploit situations which should lead to successes and, indeed, when success is thrust upon them they do badly. This provides the clearest proof that these characteristics are not the result of the pain, for we note often that it is just when life is treating them worst, when circumstances are the hardest that their physical health is likely to be at its best and they are free of pain. Paradoxically, when things improve, when success is imminent, then a painful symptom may develop. Unconsciously they do not believe that they deserve success or happiness, and feel that they must pay a price for it. A common kind of statement is, "When I was having such a hard time, I felt good; but now, just when I should be able finally to enjoy myself, this terrible pain has to come." Even though they complain of the pain, for them the pain is almost a comfort or an old friend. It is an adjustment, a way of adaptation acquired through psychic experience. We are often struck by the disparity between the intensity of the pain and suffering they describe and their general appearance of well-being. Some patients may describe a terrible pain with so little evidence of current suffering that you may be surprised to discover that they are speaking of a present pain. This stoical behavior may express the need to see oneself and be seen as a martyr who tolerates suffering. Other patients display intense suffering, behavior which also has psychic determinants, including a need to appear as the suffering person, to be pitied, or to be succored. Some patients seem to experience a secret joy in their pain while others appear literally to be persecuted by it. Many of these patients are unusually tolerant of pain inflicted upon them by nature or by the physician in the course of examination and treatment. In their histories we discover an extraordinary number of injuries and operations and more than the usual number of painful illnesses and pains, the latter usually described in medical jargon as "pleurisy," "kidney attacks," "sinus," "lumbago," "appendicitis," and the like. Careful history will usually render doubtful that such terms actually correspond with the diagnosis in more than a few instances. We soon realize that what many of the patients solicit from us is the infliction of further pain, usually in the form of surgery or painful diagnostic or therapeutic measures. Treatment that is not painful or a hardship may be rejected. Physicians may be surprised at how well these patients tolerate painful procedures. Indeed, the patient who is very fearful of such painful procedures is not likely to be found among this group at all.

The following cases are illustrative:

A sixty-one year old man had suffered intense pain intermittently for twenty-five years in the region of the right ear. This pain had lasted for several days at a time and was described as "raw and burning." The patient's mother had died when he was seven and a half years old. His father and stepmother had treated him harshly, and "boxing the ears" was a frequent punishment from both, a procedure to which he had submitted passively, although his younger brother had not. Characteristic of this man was that he had allowed himself to be struck by his father until his

twenty-first birthday, feeling that he had no right to protest until he was legally an adult. However, he did not leave home until he was twenty-six years old and up to that time had contributed the major share of his earnings to his father. Face pain began about this time.

Although of superior intelligence, he had done heavy manual labor for many years. Later he had gone into business with a partner. The business was a success, but his partner had soon cheated him of all the profits and he had ended up losing everything. Like other events in his life, he had accepted this without a struggle.

Six years before examination, he had suffered a myocardial infarction and since then had experienced severe angina pectoris decubitus. The face pain became less severe from that time on.

A fifty-three year old unmarried school teacher had had severe dysmenorrhea and headaches since the age of eighteen. At various times in her life she had had severe pains in her head, cheeks, teeth, abdomen, back, legs and hips. The low back pain had been described as "like a raging toothache—sometimes like something is moving or crawling down my legs." She described a fantastic career of suffering, of which the following sequence is typical:

She had worked hard for almost thirty years, depriving herself of all comforts in order to build herself a house in which to retire. In the meantime she lived with an old woman who suffered from senile dementia and who made excessive demands. Finally the long-awaited day arrived and she moved into her new home. She soon began to feel guilty enjoying this all by herself, so she advertised for a roomer. She took in a young couple with two small children who soon spread out to occupy the whole house, the patient retiring to a single bedroom. When the new tenants complained that she interfered with their privacy, she had obligingly moved out, sold them the furniture at a loss, rented them the house for a ridiculously small sum and had returned to live with the senile lady.

With many of these patients we will be struck by the dramatic fashion in which they describe both the hardships of their lives and the extent of their suffering from pain, illness, and the slings and arrows of misfortune. Indeed, this very dramatic quality and the relish with which they recount the story, often an almost unbelievable one, should immediately alert the physician that this is a person for whom pain and suffering are unconscious sources of gratification.

A forty-four year old woman had a host of painful symptoms beginning in adolescence. At various times they included "appendicitis," "arthritis," "pleurisy," "kidney colic," "heart" pain, face pain, back pain, headaches and pains in the extremities. She had had fourteen major and minor operations and at least five painful injuries. Everything in her life was described in dramatic terms. The patient's relation to her mother had been a very ambivalent one, while towards her father she had felt most affectionate as a child. She had especially enjoyed resting her face on his shoulder. She recalled an occasion when she was twelve years old when her mother had had severe pain in the face due to a tooth infection. Although she was extremely frightened of the dark, she ran a considerable distance at night to get a doctor.

Early in childhood she felt her mother favored her four siblings. She deliberately provoked her mother by misbehaving and when her father came home from work she expected to be punished and indeed often was. This was actually a pleasurable experience because, after the spanking, her father would hold her on his lap and fondle her. She had many fears in childhood and would find these an excuse to jump into her father's bed for comfort. When she first began to menstruate she thought she was bleeding to death. When she was twenty-two years old she married a boy she hardly knew and her life with him was a nightmare. They lived with his mother who treated her as a servant. He drank, beat her, and openly brought prostitutes to the house and required his wife to wait on them. Occasionally she would leave her husband for a few months at a time but she always returned. At these times she lived with her well-to-do physician brother and his wife where she functioned essentially as a servant. When her father and later her mother became ill, she undertook the complete responsibility of their care.

Her father died in her arms when she was thirty. Following his death the mother became depressed, and this depression lasted several years. The patient undertook her care and never left her alone. The first and only time the patient went out, her mother took the opportunity to commit suicide by throwing herself in front of a train. The body was badly mutilated and no one was permitted to see it. The patient repeatedly attempted to reassure herself that her mother's face had escaped mutilation. After her mother's death she finally brought herself to divorce her husband. At the age of forty she married a sixty-year old man. Commenting on this marriage, the patient stated that she would be content to settle for ten years of happiness. She called her husband "Daddy." No sooner had she entered what she called the first happy period in her life, when she quarreled with her sister-in-law and physician brother. Then the face pain developed which already had robbed her of the first four of her hoped-for ten years of happiness.

The development and backgrounds of the pain-vulnerable patients: For practical clinical purposes it is usually not necessary to elucidate all the

factors predisposing to these developments. Suffice it to say that we often find that aggression, suffering and pain played an important role in early family relationships. These may include: (1) Parents, one or both of whom were physically or verbally abusive to each other and/or to the child. (2) One brutal parent and one submissive parent, the former sometimes an alcoholic father. (3) A parent who punished frequently but then suffered remorse and overcompensated with a rare display of affection, so that the child became accustomed to the sequence, pain and suffering gain love. (4) A parent who was cold and distant but who responded more when the child was ill or suffering pain, even to the point that the child invited injury to elicit a response from the parent. (5) The child who had a parent or other close figure who suffered illness or pain for which he came to feel in some way responsible and guilty, most commonly because of aggressive impulses, acts or fantasies. (6) The child who was aggressive or hurting until some event suddenly forced an abandonment of such behavior, usually with much guilt. (7) The child who deflected the aggression of a parent away from the other parent or a sibling onto himself, usually an early manifestation of guilt. Some of these backgrounds are illustrated in the following excerpts of the histories of pain-prone patients. It is consistent with their psychological characteristics that these patients readily provide the physician with such information if only he indicates his interest to hear it. This eagerness to tell of such distressing life experiences is in itself of diagnostic value, and it is not of crucial importance whether such descriptions are factual or fanciful. In either event, the fact and manner of telling betrays the wish of the patient to present himself as long-suffering and abused.

A thirty-two year old married woman had cruel, impulsive parents. The father was a chronic alcoholic and the mother unpredictable and sadistic. She had vivid memories of being hit hard across the face and back by both parents. Mother would slap her face suddenly and without warning as insurance against future misdeeds. When the patient was seven, all of mother's teeth were extracted; the patient remembers the severe face pain suffered by the mother.

A thirty-four year old married woman witnessed the death, by accidental burning, of her two year old sister when she was five. This little girl's clothes caught fire from a wood stove and her face was badly burned. Later the parents separated and she was placed with an older couple. The foster mother frequently beat her about the face and head and pulled her hair. The patient said, "I often think of her when I have my pains."

A twenty-seven year old married mother had pain in the head, face and eyes. As a child she frequently witnessed her brutal, alcoholic father slap her mother across the face. Her sister, seven years younger, was born blind in one eye. The patient blamed the father for this and also accused him of preventing the girl from receiving proper medical attention. She herself undertook to obtain this care for her sister at the expense of great personal hardship.

A forty-one year old unmarried woman, a school teacher, had severe sharp pain involving the entire left half of the face and head. Since childhood she had always maintained the strictest control over the expression of any aggression. As a child, however, she had had a reputation of being a little "spitfire." This period came to a close when, in a fit of anger, she threw a pair of scissors which stuck in the left cheek of her little cousin. The mother warned her that retaliation in kind would befall little girls who throw things and put people's eyes out. From that time on she never actively expressed aggression externally.

Alternating with the face pain had been back pain. When she was sixteen her father was killed in a mine accident. That day he had awakened with a backache and although his wife urged him to stay home and rest, he went to work and as a consequence was killed.

Under what circumstances does the pain occur?: Many of these people have had repeated episodes of pain, so that this question has two aspects: when did the patient first have pain and when did each episode occur? Quite a number have their first significant painful syndromes in adolescence. This is especially so among women patients whose story may begin with painful menarche, dysmenorrhea, or headaches, especially premenstrual. A very important clinical finding is the history of "appendicitis" and appendectomy. These episodes do not fit the usual clinical picture of acute appendicitis, but usually involve chronic or intermittent abdominal pain of quite varied nature and severity, sometimes associated with a variety of other symptoms. Such attacks usually begin in the age range fourteen to eighteen years, eventually leading to appendectomy. When surgical records are available we find the appendix reported as "normal" or "chronic appendicitis." Curiously, this pain usually disappears after

surgery, although it may soon be replaced by other pains often related by the patient and some physicians to the scar or to adhesions. This "appendix" syndrome is much more common among girls than boys and its presence in the past history provides a valuable clue for the interpretation of later pains [*16*].

The onset of pain syndromes in adolescence also reflects the important psychological changes occurring in this period of life and especially the sexual conflicts that may be involved in the genesis of pain. Both guilt about sexual impulses and an unconscious sado-masochistic concept of sex are important. Pain may occur in lieu of or may prevent sexual activity, and hence under circumstances in which sexual impulses might be aroused, in fact or in fantasy. Frigidity, dyspareunia and varieties of impotence are common accompaniments. Or the patient may enjoy some sexual pleasure if he is hurt (masochism). Along these same lines we may discover painful, mutilating and destructive concepts of pregnancy and labor, among men as well as among women.

We may now consider some of the circumstances under which individual episodes of pain may occur, remembering that this may also include pain precipitated by unconsciously motivated accidents or injuries. While our discussion so far has focussed on the patients with the most pronounced pain vulnerability, we should keep in mind that there are also persons among whom the specific psychodynamic constellation conducive to pain may be activated on only a few occasions in their lives.

(1) *When external circumstances fail to satisfy the unconscious need to suffer:* We have already commented on the patient in whom pain develops when things begin to go well. These are always individuals with an exaggerated need to suffer who may remain relatively pain-free as long as external circumstances make life difficult. When the environment does not treat them harshly enough or they cannot get it to do so, it seems almost as if they inflict pain upon themselves.

A forty-five year old woman had at various times abdominal pain ("chronic appendicitis"), back pain, and finally severe pain in the left side of the jaw, left ear and left side of the temple. She described the latter as "like a jab with an icepick." Although she came from a wealthy and socially prominent family, at the age of twenty-five she married a ne'er-do-well who cruelly mistreated her. She was humiliated by the divorce three years later. She remarried twelve years later and although this was a good marriage it was marred by a series of distressing deaths, injuries and illnesses in her family. In spite of the fact that small children irritated her, she adopted two little boys in rapid succession when she was over forty years old. She was always getting sick. Her face pain began just at a time when things finally seemed to be going well for the first time, and after she had consented to allow her paralyzed mother-in-law, whose care she had undertaken at great personal sacrifice for many years, to go to a nursing home.

A thirty-two year old woman married to a brutal, alcoholic man who frequently beat her and the children, and who provided for her most inadequately, struggled hard to maintain herself. She began to suffer a series of painful disabilities when her husband underwent a religious conversion, gave up drinking, and became the model of a conscientious and considerate husband and father. Just when she had everything to live for, her pain prevented her from enjoying it.

Such precipitating circumstances are easily overlooked if the physician fails to recognize that for certain persons, success and good fortune are stressful in that they mobilize intolerable feelings of guilt [*17,18*]. These persons really feel that they do not deserve happiness or success and they must suffer to achieve it.

(2) *As a response to a real, threatened, or fantasied loss:* Following the death or any permanent loss of a loved person, or during the period of anticipation of such a loss, the survivor may develop pain during the period of mourning and sometimes on anniversaries of the mourning. Szasz has pointed out how the mourner may take a part of his own body as a love object in place of the lost person and by experiencing pain in this part, symbolically assure himself of its continued presence [*1*]. He designates pain as an affect that warns of the danger or threat of loss of a body part. I agree with this formulation but find it incomplete, for it does not sufficiently include the affect of guilt. While following the loss of a loved person one becomes more self-centered and sometimes more aware of body sensations (or also at times less aware), this is not experienced as *pain* by the sufferer unless there is also a strong element of guilt, most often related to ambivalence toward the lost person. In a study of patients with ulcerative colitis we observed that if a relationship with a love object was threatened by some overt or unconscious aggressive act or fantasy and the patient responded with guilt, then pain (usually headache) developed; if the patient responded

with feelings of despair, helplessness or hopelessness, activation of the colitis was the more usual response [*19*].

A classic illustration of pain in response to a sudden loss is illustrated in the following case:

A forty-two year old woman had a brief attack of sharp pain in the left anterior chest. In the interview she almost immediately began to speak of how upset she had been since the shotgun murder of her brother-in-law one week earlier. He was shot in the left side of the chest. His body was taken South for burial, but she had to remain home to care for the children. She cried when thinking or speaking of this event. She greatly admired and was very fond of this man who was a stable and successful man in the community. In contrast, her husband (the victim's brother) was irresponsible and abusive. In fact, exactly one year earlier, while drinking, he brutally beat her and then threatened to shoot her with a shotgun. She averted this by clutching her infant to her chest and jumping out the (ground floor) window. She preferred charges against him and he was currently on probation. Further interview strongly indicated a guilty wish that the victim had been the husband rather than his brother.

While many episodes of pain occur in direct relationship to the loss of a loved person, as in this case, many more occur in relation to threatened losses, anniversaries of losses, or fantasied losses. Thus we may find pain developing in relationship to the illness or impending departure of important family members or friends, where the patient responds with, or had previously experienced aggressive feelings toward such persons. Or the patient may experience the loss or its anniversary as a painful reminder of guilt, and actually suffer with it in the form of pain.

(3) *When guilt is evoked by intense aggressive or forbidden sexual feelings:* There are some individuals for whom any expression of aggression is unacceptable and even the threat or possibility that aggression might be expressed provokes guilt. Some of these persons instead experience pain, sometimes without any aggression being expressed and sometimes remorsefully after it has been expressed. After the pain develops, the provoking situation may be forgotten or only vaguely remembered or the patient may recall it remorsefully, consciously accepting the pain as a punishment and as a warning against future expressions of aggression. Some patients observe that their pains occur when they do not control themselves.

A thirty-two year old woman, who also had had ulcerative colitis, was compulsively clean and always kept close rein on any expression of aggression. Her two and a half year old son defecated in his crib and smeared the feces. She became furious and immediately spanked him. A few hours later a severe headache developed. She felt remorseful for her outbreak of temper and resolved not to do so again. The headache was considered a deserved punishment.

When the provoking situation involves sexual impulses, these, in contrast to the aggressive impulses, are almost always at an unconscious level and must be inferred by the examiner. In general, they involve situations which might normally be expected to be sexually exciting, but are not so recognized by these patients, who instead experience pain; or more subtle situations in which the precipitating stimulus has special symbolic meaning to the individual, generally reminiscent of some childhood sexual conflict. Pains so experienced follow the classic model of the hysterical conversion mechanism, in which the pain simultaneously expresses symbolically the forbidden impulse and at the same time successfully prevents it being acted upon. When the conversion symptom is pain, we find that along with the sexual impulse there is always a strong aggressive component and guilt. The sexual fantasy is a sado-masochistic one.

A twenty-six year old woman with a variety of hysterical manifestations had several episodes of pain and burning at the end of urination. The urine examination was always negative but she referred to it as "my cystitis." One episode occurred during her first year of marriage. Her husband proved less capable sexually than she hoped for and she felt both frustrated and angry. As a child the bathroom was the scene of many sexual fantasies and of masturbation, which included poking things in and around the urethra. These symptoms recurred briefly during the course of psychoanalysis when her husband had a severe case of flu and was sexually inattentive for several weeks. She developed fleeting sexual fantasies about the analyst and then her "cystitis" recurred. The painful dysuria promptly disappeared when these transference sexual feelings were brought up during the analytic hour and connected with the childhood fantasies and masturbatory activities.

The location of the pain: The patient usually describes the pain as occurring in some part of his body, whether it originates there or not. When no peripheral factor is operating, the

patient still assigns a location to the pain. This choice of site of the pain is determined by one or more of the following:

(1) *A peripherally provoked pain experienced by the patient sometime in the past:* In essence, the patient revives unconsciously a past pain experience and by mechanisms not understood suffers again from pain of the same character and in the same location as the original pain. This may be the pain of a past injury, an operation, or any physical disorder which had occurred at a time when the pain could fulfill, directly or indirectly, a psychic regulating role for the patient. It may have been punishment or it may have been the vehicle whereby a relationship was re-established. Some postoperative and post-traumatic pain syndromes are of this sort.

A young man had repeated bouts of severe searing shocks of pain in the right side of his forehead. These came on with explosive suddenness, sometimes associated with a sensation of flashing light and staggering, and were followed by a dull, throbbing pain of growing intensity.

When he was twelve years old he prepared a homemade bomb, one of numerous aggressive act unconsciously directed toward his stern and punitive father. The bomb exploded prematurely and he suffered a depressed skull fracture as well as the loss of several fingers of his left hand. He felt extremely guilty and considered the accident a deserved punishment. The location and character of the head pain exactly duplicated the original accident. The pain characteristically occurred in settings in which anger toward authority figures was blocked by guilt. Sometimes he could terminate the pain by an attack of blind destructive fury against some inanimate object, such as a piece of furniture.

The widest variety of painful disorders in the past may provide the basis for future pain experiences and a careful history often will uncover the original painful incident as well as the psychological factors operating at the time. When the current pain, which may be described in terms identical with the original pain, is not also accompanied by the appropriate physical or laboratory findings, especially when this occurs in a person with the other characteristics of the "pain-prone" population, the diagnosis is strongly suggested. This is illustrated by the patient with ear pain who in the past had otitis media; the patient with throat pain who once had a peritonsillar abscess; the patient with painful dysuria and frequency and normal urine who once had acute cystitis.

(2) *A pain actually experienced by someone else or a pain the patient imagined or wished the other person experienced:* This is perhaps the most common and the most important determinant of the site of the pain. It involves several important psychologic mechanisms. First of all, the other person is important to the patient and is one with whom the patient is in some (usually unconscious) conflict or from whom he has been or may be separated. Secondly, it involves the psychic mechanism of identification, meaning that the patient unconsciously becomes like the other person, notably in terms of suffering like him. We have already mentioned real, threatened or fantasied losses and guilt for forbidden impulses as precipitating factors. We can now add that the location of pain may be determined by the real or fantasied location of pain in the other person(s). It must be emphasized that this is unconscious. The patient is unaware of a connection between his pain and the pain of the other person and if directly questioned will never consciously make the connection, although he may unconsciously reveal it by word or gesture. On the other hand, if the physician meticulously explores the history of pain and illness of all the important persons in the patient's life he will usually uncover without much difficulty the model for the patient's pain. To do this the patient is asked to describe the symptoms of each person, paying particular attention to the patient's idea of the pain.

A forty-two year old man complained of severe stabbing pain in the region of the left nipple. This occurred while he was out hunting and just taking aim at a buck deer. He felt fearful, had difficulty breathing, became lightheaded and collapsed. The patient's father had died of a "heart attack" the previous fall. The medical student who took the history assumed that the patient knew his father's pain had been substernal. When asked where his father's pain was the patient said, "I don't know," but he pointed to the region of his own pain.

Sometimes we know the other person's illness to be painless, only to discover the patient thought otherwise. Thus edema of the ankles may be assumed to be painful, or dyspnea may be thought to be an expression of pain. In such cases the patient may describe the pain he believed the other person to have suffered in the same terms he used to describe his own pain. There is little chance of overlooking such relations if one always gets the patient's description.

One may even ask, "What did you imagine it was like?" The cases already noted have provided a number of examples of this mechanism. The following cases offer additional data.

A forty-one year old unmarried woman, a teacher, lived with and took care of her ailing mother for many years until her death one month before the beginning of the patient,s face pain. She slept in the same bed as her mother. On the night of her mother's death she had awakened to find that the right side of her mother's face was drawn and a short time later it became blue. She was breathing heavily and the patient *believed* her to be suffering great pain. She called for help but when unable to secure any climbed back into bed only to realize that her mother was dead.

She had been engaged to a man for many years but had not married because she could not leave her mother. However, upon her mother's death, she first felt emancipated, and bought a house, but then pain developed in the right side of her face and because of it she gave up both her home and fiancé. She expressed remorse at her feelings of emancipation after her mother's death and consciously considered the pain as punishment, a sign that she was being inconsiderate of her mother's memory.

A forty-seven year old married woman had experienced strong guilt when her only daughter was born twenty-two years ago with a cleft palate and harelip. She felt that this was the result of her husband's practice of coitus interruptus. When her doctor implied that this might have resulted from clumsy attempts at abortion, she said, "That was just like a slap in the face to me." The patient's mother also had indicated by innuendo that she believed her daughter was in some way responsible for the baby's defect. The mother suffered from erysipelas of the face fifteen years ago and the patient took care of her. The mother has had face pain from time to time since then. The patient's face pain began one month after the daughter underwent the first of a long series of plastic operations on her face. The patient commented, "I am doing the suffering for her." The patient imagined that her daughter suffered great pain from these procedures, although actually this was not so.

In this last case we note how the choice of location may be overdetermined, here involving not only the daughter's facial deformity and operations, but also the "slap in the face" and mother's erysipelas and face pain.

A thirty-one year old married woman had severe pain in the right side of the neck and throat, radiating into the shoulder, right eye and cheek. This had developed while she was taking care of her mother who had suddenly acquired erysipelas of the face. It began while the patient was undergoing treatment from the chiropractor who was taking care of her mother and who had recommended a chiropractic treatment as a prophylactic measure. When asked what part of her mother's face was involved by the erysipelas, the patient was unable to recall, but placed her hand over the painful area of her own face.

Among other symptoms, a twenty-three year old married woman had severe throbbing pain in the temporal regions radiating into the eyes. Her soldier husband had been injured in combat. He had sent her a photograph of himself in which he had cut out the left eye with scissors, indicating that this was the extent of his injury. The patient's symptoms began a week later. It developed that just before he went overseas she had learned that he had been involved in an extramarital affair. She was so angry that she struck him violently in the eye, knocking him down. Under pentothal hypnosis she told how much she wanted him punished. "I wanted him to get as much hurt as I was. I hoped he would get his leg or his foot, or his privates shot off." While he was overseas she had a brief affair, over which she felt very guilty. It was shortly after her lover had left her that she received the news of the husband's injury and the photograph. She was tremendously concerned at his possible retaliation for her infidelity and her pain began when she received word that he was being shipped home.

Sometimes the site of the pain is determined by a conscious or unconscious wish that the other person suffer pain. This may have appeared only as a fleeting thought or may not have been associated with the person at all. This is illustrative of the intrapsychic operation of lex talionis, the patient inflicting on himself exactly what he wished on the other person.

We can understand these determinants of pain location in terms of the importance of object relations (interpersonal relations) in the maintenance of health and of psychic balance. They are expressions par excellence of attempts to maintain object relations, albeit at a price. It is as if the patient says, "If I can't continue to have this relationship and get from it what I want and need, I will become like him in some way." This is a generally used mechanism to deal with a real or threatened loss, but in these cases, mainly because of guilt and the role of pain in past relationships, the patient experiences the object's pain, real or fantasied. By such a psychic experience of pain the patient simul-

taneously denies the intensity of the loss and atones for his guilt.

Psychiatric diagnosis: While similar psychodynamic features may operate, these patients do not constitute a homogeneous group in terms of psychiatric nosology.

(1) *Conversion hysteria:* The largest number of these patients satisfy the requirements for the diagnosis of conversion hysteria and their histories usually reveal many other conversion symptoms, such as globus, fainting, aphonia, sensory or motor disturbances. They manifest the relative indifference to or exaggerated display of symptoms, as well as the dramatic, exhibitionistic, seductive or shy behavior so common among hysteric persons. They are suggestible and may have intense emotional involvements with the physician, often associated with dramatic remissions and relapses of symptoms. To varying degrees they may have been involved in acting out behavior, including drinking, use of drugs, and sexual promiscuity. The men patients are often relatively passive and have feminine identification, usually with the mother. A peculiarly intense interest and preoccupation with hunting, especially solitary hunting has, in my experience, been a common finding among the men. The hysterical patients with pain generally differ from those without pain in the prominence of sadistic and masochistic elements in their sexual developments, usually with pronounced guilt.

The following case is a classic example of conversion hysteria with pain as a prominent manifestation. It is presented in detail because patients with conversion hysteria constitute the largest percentage of the pain-prone population and a thorough study of this case protocol will be richly rewarding in illustrating the characteristic features of hysterical patients with pain. Interpretative comments, in brackets, call attention to some of the characteristic features of psychogenic pain and the pain-prone patient discussed in the body of this paper.

A twenty-seven year old married woman, a singer by profession, had suffered from pain in her face and head for many years. She was first seen in February 1945. She felt she could distinguish at least three kinds of pain. At about the age of eleven or twelve she began to have attacks of pain in the right side of the face. This pain became extremely severe during a pregnancy which ended in a spontaneous abortion at three months in October 1944. The attacks usually began as a dull ache over the right eye, and rapidly progressed to a severe throbbing pain involving the entire right side of the head and face, and radiating into the neck and shoulder. This was associated with tearing of the right eye, stuffiness of the right nostril, and at times flushing and hyperesthesia of the right side of the face. The pain was made worse by movement and noise, and when severe was associated with nausea and vomiting. Such attacks lasted a day or more.

A second type of face pain consisted of sudden brief shooting pain of moderate intensity involving the right cheek and followed by a dull aching pain. This pain had been present intermittently for about a year.

The third pain was of several years' duration and consisted of a sudden sharp, burning pain arising at the angle of the right jaw, radiating into the teeth, along the ramus, and into the ear. This pain generally came on when she was about to eat. It was associated with increased salivation. Generally it lasted several minutes and then subsided, permitting the patient to go on with her meal. She was examined for salivary duct calculus but none was found. Detailed examination, including neurologic, roentgen and dental study, revealed no abnormalities.

At first the patient stated that her general health was and always had been good and that if it were not for the face pain she would be entirely well. It soon became evident that this was not so. She also suffered from attacks of nausea and vomiting; she was "sensitive" to many food items which induced nausea, vomiting and urticaria a few minutes after ingestion and sometimes simply on sight; she had attacks of bloating and swelling of the abdomen; she had shaking chills, with chattering of the teeth; and a subjective feeling of great coldness, during which her hands and feet would blanch and become icy cold; she had attacks of breathlessness, dizziness, and numbness and tingling, during which she occasionally lost consciousness; paroxysms of cough occurred which could not be explained on the basis of any respiratory tract disease, although she had had two to three attacks of rather typical bronchial asthma in her life; she had dyspareunia and was totally frigid; she suffered with urinary frequency and urgency. [Other hysterical conversion symptoms.]

The patient, an only child, was born in Chicago in 1918. Both parents were exceedingly neurotic persons. The mother was a successful business woman at the time of her marriage, although it was rumored that her success was partially accounted for by being the mistress of her employer. Unable to get him to marry her, she impulsively married her present husband as a spiteful gesture. He at this time was a rather inconsequential but handsome man, who so far had been quite unsuccessful in establishing himself as a business man. His wife paid his debts, set him up in business, and thereafter never permitted him to forget her role. For a period he was quite successful, but in 1928 he

lost all his money and went heavily in debt. Since then he has held only small jobs and tends to use alcohol to a considerable degree. [Aggressive, controlling mother; relatively passive father.]

The patient felt the parents' marriage to be entirely devoid of any love or affection. They quarrelled frequently and violently. The patient always felt in the middle. She recalled one occasion when her mother threw a hammer at her father, and another occasion when he hit her mother with an ash tray. Not infrequently she had witnessed them strike each other in the face during quarrels. [Prominence of aggression in early family relations.] During such scenes the little girl felt she had to separate the two combatants "lest the quarrel end in murder." She consciously directed the parents' anger toward herself in order to avoid their hurting each other. On one occasion she scratched her father's face to "bring him to his senses." [As child, deflects aggression to herself.]

The patient said the mother avoided any sexual contact with father and besides she believed he was impotent anyway. "Mother could scare anyone into impotency." She was not born until the parents had been married nine years, when they were thirty-five years old. The mother carried on a constant harangue against her father. She repeatedly warned the patient to have nothing to do with men and especially to avoid sexual contact. Even after the patient's marriage mother continued to urge her to have a separate bedroom as she herself had. [Mother's hostility to men and fear of sex.]

In 1938 the father was discovered to have cancer of the urinary bladder. The mother openly taunted him with the diagnosis and expressed pleasure that she would now be free of him. [Mother's sadism.] A subtotal cystectomy was performed and the father recovered, although he was left with frequency of urination. More recently the father had had a heart condition and was short of breath. [Factors in patient's "choice" of respiratory and urinary symptoms.]

During the early contacts with the patient she was most bitter toward her mother, whom she described as argumentative, domineering, nasty and hypercritical, with no love for her. After such attacks on the mother, however, the patient would have the impulse to call her on the phone, and then would feel remorseful because her mother seemed more kind and interested than she had described her to be. [Hostility to mother, guilt, and submission.] On the other hand, she first described her father as "sweet and nice." He had beautiful curly hair and he would let his little daughter play hairdresser and fuss with his hair for hours. Later on, statements changed and she said he was "wishy-washy, inconsistent, and an opportunist," that he "always disappointed me." "My dream castle is nothing but a backwoods shed," was her comment after a visit from father. [Disappointment with father.]

As a little girl she had tried to get close to her father, but her mother would never permit this. Mother would either make fun of any show of affection between the two or would fly into a rage and accuse them of conspiring against her. On many occasions the mother threatened to leave home and when father and daughter begged her to stay, she ridiculed them. Several times the mother spent all day in a movie to simulate such a threat. [Mother's sadism.] The little girl was heartbroken. Father always dealt with mother's threats by giving in. He wanted peace at any price.

The patient described herself as a difficult child to take care of. She devised various technics to provoke or exasperate her mother. One was to hide her mother's prized possessions, tell her she had hidden them but not where. This generally led to a spanking. [Patient's use of pain and punishment as way of relating to mother.]

At a very early age she demonstrated unusual ability in singing. The mother had a "magnificant voice" and cultivated her little daughter's talent, functioning for a period as her teacher. When she was nine she won a singing contest and made her debut with a nationally known symphony orchestra. Following the concert her mother pointed out that Mozart had made his debut at an earlier age. [Mother's depreciating and rivalrous attitudes.] Thereafter the patient concentrated on her singing, studied with well known teachers, and made several public appearances. She progressed rapidly in school, finishing high school at fifteen, and college at twenty. For a while in college she lost interest in a career as a singer; but after graduation she joined a light opera company which toured the country. She often had the leading soprano role and received good press notices. Her mother, however, always depreciated her performances.

Her early sexual education was very strict. Her mother depreciated all things sexual, and warned the child against any sexual activity. She kept her from wearing attractive or feminine clothing, opposed her fixing her hair, and insisted that she wear glasses although she had no need for them. In high school and college she was known as "Prudence Prim." Her mother would not permit her to go out alone until she was twenty-one years old, saying only bad girls went out. She was not permitted to live away from home. In early adolescence she fought hard to get away and mother let her go to boarding school. After a few months mother brought her home because she thought she was having too good a time. [Mother's depreciation of femininity and sexuality. The patient submits.] Her menses began at eleven, two weeks after an auto accident (which will be described in detail later). Although she had been told about menses, she thought they were the result of the accident.

The patient was married in August 1942. She had not previously gone out with many men, although she

enjoyed their company on an intellectual basis. She liked to be with a group of men on a "man to man basis." She had had no sexual experience until marriage. [Patient's masculine identification and sexual inhibitions.] She had gone with her husband about two months when they became engaged; they were married six months later. He was in the army at that time and stationed near Boston awaiting embarkation. Immediately after the ceremony coughing and wheezing developed which became so severe over the course of the next two weeks that she felt compelled to go home to Chicago. [Asthma in response to first real separation from mother.] As she stepped from the train and was met by her mother her asthma ceased and did not recur. The next day her husband was shipped overseas and she felt guilty that she was not there to see him off.

The patient worked in a war plant during her husband's absence and held a rather responsible position. She lived with her parents. In the fall of 1943 her husband returned to the United States to convalesce from an attack of pleurisy and she joined him. In June 1944 she became pregnant and felt disgusted in spite of the fact that she had been trying to get pregnant for several months and was beginning to worry about sterility. During the pregnancy she had a great deal of nausea and vomiting and almost continuous severe head and face pain. She remained very active and "heaved furniture around." [Patient's self-destructive behavior.] Three months later she aborted while visiting her mother. She first felt very panicky and then became somewhat depressed. [Guilt.] She had the thought that she had not long to live and that her husband would be unhappy if she died. She behaved provocatively toward him and deliberately irritated him. " . . . so that he would hate me and would not miss me and could remarry." Several times she made the gesture of packing her bags and leaving. At other times she provoked the neighbors, sometimes by her singing, and she often got herself into unhappy situations with tradespeople and friends. [She provokes attacks on herself.]

During the period of therapy there occurred a number of experiences during sleep which her husband wrote down and brought in for discussion. The patient had complete amnesia for these experiences but was able to bring important associations. Two such episodes were particularly revealing.

(1) One night she said while asleep, "He hit me in the face with a buckle. I was a naughty girl." This recalled an incident at age four. She had been naughty and mother insisted that father punish her. He was undressing. As he pulled his belt from his pants he suddenly struck her violently in the face with the buckle end. [Determinants of the face as location of pain.] "I remember hating him violently after that." Once, at eighteen, during a violent quarrel between the parents, the patient thought, "If he hits me, I would murder him." Just before her husband was discharged from the army she impulsively threw all his belts into an incinerator. They made her feel very uncomfortable, but as she watched them burn she had a happy feeling of triumph. This reminded her that mother had often used father's belt to strike her. [Unconscious association between father and husband. Aggression and guilt.]

Later she brought up that on two occasions she had provoked her husband to the extent that he had slapped her face. A severe exacerbation of face pain resulted on both occasions.

(2) The most dramatic episode concerned the auto accident to which she had briefly alluded in the first interview. At the time she merely said that she had been in an auto accident at age eleven, and that she suffered a fractured kneecap and was in a cast for a year. She did not mention any injury suffered by mother. [First face pain began when the patient was eleven or twelve.]

While asleep the patient tossed restlessly and began talking. [Reliving a traumatic episode.] "I know he didn't have any lights on. He turned them on after he got to the middle of the street. We never start to cross the street without looking." She cried out in pain, "My knee, my knee! That morphine makes me see the lights all over again. That car is rolling mother down the street and it isn't going to stop. I can't stand that car rolling her. I see her face full of blood. The eye is cut. She is dead. My face, my face, my face hurts." [Injury to mother's face as determinant of site of pain.] The patient beat on the bed. She awakened and appeared terrified. "I have to get up and see if I can walk." She struggled with her husband to get up, but was unable to. Her teeth chattered violently and she had a shaking chill at this point. "I am cold like I was sitting in the snow that night." The husband observed: "She was breathing rapidly and her arms and legs were icy cold. There was decided swelling of the right cheek which was red and hot over the area of pain. I sensed this temperature change by contrasting the two sides of the face. She writhed, clutched, and gasped, so intense was the pain. A cold object pressed against the pain area produced a shocking feeling in the face. "Light hurt her eyes." In referring to the shortness of breath the patient commented, "It feels as if someone is sitting on my chest." [Origin of other conversion symptoms.]

The patient was then able to describe the accident in more detail. It occurred in a suburban district at night where it was quite deserted. It was a cold wintry night, 13°F. below zero with snow on the ground. Mother and daughter stepped from the streetcar and started to cross the street. Suddenly they realized a car without lights was bearing down on them. Just before striking, the headlights were turned on and glared in their eyes. Mother raised her hand to protect her face. She was struck by the car and dragged a half a block. The patient was knocked to her knees and found herself alone in the dark sitting in

the snow. She screamed; she felt alone and deserted. She shivered with the cold and it seemed endless before anyone picked her up. When she saw her mother, her face looked "like someone had beaten it with a hammer." Mother was coughing up blood. The patient was brought to a hospital where she received morphine and had repetitive frightening dreams of the accident. Her mother, who recovered quickly, brought violets, which remain the patient's favorite flower. The patient remained in a cast for a year and was taken care of at home by her mother. She described this as a not unhappy time. "I was completely helpless. Whenever I have been ill, mother has been good to me." [Love from mother when she suffered.]

(2) *Depression:* Another group of patients suffers predominantly from depression. The generally depressed appearance, the retarded or agitated behavior, the content of speech, the expressed affects of sadness, guilt and shame, all identify the depression and this is usually documented by history. Some patients, it will be found, have had previous episodes of depression without pain and some are the chronically gloomy and depressive characters already described. A common error by the physician is to assume that the patient is depressed because he has pain. Investigation will usually make clear that the experience of pain serves to attenuate the guilt and shame of the depression. Indeed, in some instances the pain is clearly protecting the patient from more intense depression and even suicide. This group of patients in particular may become addicted to drugs.

(3) *Hypochondriasis:* The hypochondriacal patient experiences and communicates his pain or other body sensations in a distinctive way. One quickly notes its peculiarly intense and persistent quality. It may not be as severe as it is inescapable, annoying and bedeviling, and the patient is made desperate by the pain. As the physician listens to the patient's description he immediately notes the urgency with which the patient seeks relief and his tremendous concern as to what the pain means. He often seems more concerned with the interpretation of the pain, is it cancer or some terrible infection, than with the pain *per se*, and he is little or not at all reassured by the doctor's examinations. There is often a distinct quality of being persecuted by the pain. At the same time it will be found that the patient lavishes all varieties of attention and care on the painful part, somewhat in contrast to the relative indifference of the hysteric patient or the long-suffering attitude of the depressive patient. Some of these patients are prepsychotic.

(4) *Schizophrenia:* Closely related to the hypochondriacal patients are those who are psychotic and whose pain represents a delusion. Many of these patients are not recognized as psychotic simply because their complaint is pain. But the alert physician will note the following qualities. The patient truly feels persecuted by his pain and he seeks help with a desperation that is impressive. It is not so much that it is painful as that it is unrelenting, annoying and inescapable. The description of the pain may include bizarre ideas which are expressed as vivid analogies or as actualities. A pregnant woman had pain in the lower part of her abdomen. She ascribed this to being poked by the erect penis of her unborn child who she knew was a boy. Little further inquiry was needed to establish the diagnosis of schizophrenia. Patients express convictions that certain extraordinary changes have taken place in their bodies, the very bizarreness of which makes their delusional quality evident. A fifty-five year old man with repeated attacks of abdominal pain said with conviction that his intestines were "twisted like a mop" and had to be untwisted, and begged for surgery. He also was convinced that there was some strange object in his abdomen, perhaps left in during previous surgery. Such patients usually manifest other paranoid qualities, including suspicious accusations against other physicians as being responsible for the pain. Or they may ascribe the pain to various outside influences, including rays and vibrations. A very important clinical point is the patient's tendency to associate the pain with nasal or rectal difficulties. Indeed these patients often first approach otolaryngologists or proctologists, or they may have sought treatment with colonic or nasal irrigations. The diagnosis will rarely be overlooked if the patient is given sufficient opportunity to present his explanation for the pain. This usually proves to be a complicated delusional concept.

It is perhaps important to mention here that often the schizophrenic patient either experiences no pain or does not complain of it when an ordinary painful disorder develops. An acute coronary occlusion or a perforated appendix may be entirely silent as far as the observer is concerned. Actually, pain is experienced in a delusional fashion by the schizophrenic relatively infrequently.

SUMMARY

The general principles formulated in this paper may be summarized as follows:

1. What is experienced and reported as pain is a psychological phenomenon. Pain does not come into being without the operation of the psychic mechanisms which give rise to its indentifiable qualities and which permit its perception. In neurophysiological terms this also means there is no pain without the participation of higher nervous centers.

2. Developmentally, however, pain evolves from patterns of impulses arising from peripheral receptors which are part of the basic biologic nocioceptive system for the protection of the organism from injury. The psychic experience, pain, develops phylogenetically and ontogenetically from what was originally only a reflex organization. This may be compared to the necessity for functioning eyes and ears to receive light and sound waves before the complex psychic experiences of seeing and hearing can evolve.

3. Once the psychic organization necessary for pain has evolved, the experience, pain, no longer requires peripheral stimulation to be provoked, just as visual and auditory sensations (hallucinations) may occur without sense organ input. When such are projected outside the mind (in contrast to a painful thought or a painful frame of mind) they are felt as being in some part of the body and are to the patient indistinguishable from pain arising in the periphery.

4. Since the experience, pain, and the sensory experiences from which it evolves are part of the biologic equipment whereby the individual learns about the environment and about his body, and since this has a special function as a warning or indicator of damage to body parts, pain plays an important role in the total psychologic development of the individual. Indeed, pain, along with other affects, comes to occupy a key position in the regulation of the total psychic economy. We discover that in the course of the child's development, pain and relief of pain enter into the formation of interpersonal (object) relations and into the concepts of good and bad, reward and punishment, success and failure. Pain becomes par excellence a means of assuaging guilt and thereby influences object relationships.

5. From the clinical viewpoint we discover that disordered neural patterns originating in the periphery confer certain qualities on the pain experience that permit the physician to recognize their presence and hence make a presumptive diagnosis of an organic lesion.

6. Clinical psychological studies of all varieties of patients with pain reveal that some individuals are more prone than others to use pain as a psychic regulator, whether the pain includes a peripheral source of stimulation or not. These pain-prone individuals usually show some or all of the following features:

(1) A prominance of conscious and unconscious guilt, with pain serving as a relatively satisfactory means of atonement.

(2) A background that tends to predispose to the use of pain for such purposes.

(3) A history of suffering and defeat and intolerance of success (masochistic character structure). A propensity to solicit pain, as evidenced by the large number of painful injuries, operations and treatments.

(4) A strong aggressive drive which is not fulfilled, pain being experienced instead.

(5) Development of pain as a replacement for a loss at times when a relationship is threatened or lost.

(6) A tendency toward a sado-masochistic type of sexual development, with some episodes of pain occurring in settings of conflict over sexual impulses.

(7) A location of pain determined by unconscious identification with a love object, the pain being either one suffered by the patient himself when in some conflict with the object or a pain suffered by the object in fact or in the patient's fantasy.

(8) Psychiatric diagnoses include conversion hysteria, depression, hypochondriasis and paranoid schizophrenia, or mixtures of these. Some patients with pain do not fit into any distinct nosologic category.

CONCLUSION

I would like to close with a historical note. It is astonishing how little discussions of pain in standard textbooks of medicine have changed in a hundred years. In a textbook published in 1858 Wood discusses pain in terms which differ only in details from what appears in Harrison's "Principles of Internal Medicine" published in 1954 [*20,21*]. These details mainly concern more recent knowledge about the anatomy and physiology of nerve pathways. In both sources it is taken for granted that pain arises from the

periphery or in the nerves themselves. The most modern explanation of chronic pain is that "recurring painful stimuli from the periphery set up reverberating circuits related to the central activating system which influence, and are in turn influenced by the cerebral cortex so that there may develop a syndrome or chronic pain" [*22*]. In all these writings, psychological processes are relegated to a purely subsidiary role, such as reinforcing the reverberating circuit, or are simply dismissed by saying that the neurotic (or, in 1858, the "nervous") patient is less tolerant of or has a lower threshold for pain, clearly a cultural prejudice for which there is no scientific evidence. It is all the more remarkable that this state of affairs should continue to exist when, as early as 1895, Breuer and Freud in "Studies on Hysteria" published detailed case histories demonstrating convincingly pain as a psychogenic manifestation [*8*]. In contrast to much of Freud's later writings, this early work includes a wealth of case material. The modern physician, regardless of his knowledge of or attitudes toward psychoanalysis, will find it richly rewarding to read these case histories, for in them he can learn for himself the nature of the data and observations which permitted Freud to discover how pain may develop as a purely psychic phenomenon. Freud himself was not primarily interested in pain, but it happened that among many of these patients pain was a common and prominent manifestation, as were a great number of other somatic symptoms which also proved to represent hysterical conversions. Indeed, one might be justified in saying that psychoanalysis came into being through the clarification of the mechanism of some of these mysterious pain syndromes.

This leads to an interesting question, namely, how is it that this contribution to the understanding of pain has had so little influence on medicine in general, even on psychoanalysis. I believe the explanation is to be found in the peculiarities of medical practice. Freud began his practice as a neurologist and, in Vienna in the 1880's, undiagnosed pains were considered to be forms of neuralgia, an affection of nerves, concerning which the neurologist was the expert. As long as Freud was known primarily as a neurologist and his technic was not recognized as a form of psychotherapy, many such patients were referred to him and most went willingly enough. As he evolved into a psychoanalyst and the technic of treatment became increasingly recognized as a psychological one, there must have occurred a change in the categories of patients who were considered suitable for referral. Further, patients with conversion hysteria, who suffer primarily from somatic symptoms, are reluctant to seek psychological help. In general, they regard their symptoms as organic in origin, a belief in which they are often supported by their physicians. The pain patients in particular are among the most reluctant to accept a psychiatric referral and to participate in psychotherapy if they do so. As time went on, Freud's practice consisted more and more of patients with the classic neuroses and with few exceptions this trend away from patients with somatic symptoms, including conversion hysteria, has continued to date. It is of interest in this respect that in Freud's early works, pain is referred to frequently, but later on one rarely finds any mention of pain. In the current scene, the analyst or psychiatrist is rarely consulted directly by a patient because of pain and only infrequently are such patients referred, and when they are many do not accept the referral. Thus the analyst and psychiatrist have had little opportunity to study this problem, which remains as common and difficult as ever. A large percentage of patients who consult physicians of all types belong to the group of "pain-prone" patients and are seeking help for painful disorders such as I have described in this paper.

This brings me also to the technic of investigation of these patients. Again, let me refer back to the original case histories of Breuer and Freud. These patients were not psychoanalyzed in the sense that we now understand the term. Every physician is free to rediscover for himself what Freud discovered about pain if he follows two simple principles: permit the patients to talk freely and take seriously what the patient says. If, in addition, he has some understanding of the psychic function of pain as I have outlined it in this paper, he will have no difficulty in confirming the observations of Freud as well as of those who followed him. This is not the place to discuss *in extenso* the technic of medical interview. Suffice it to say that an interview technic which permits the patient to speak of himself, his family, and his relationships as well as of his symptoms, which does not force a separation between what is regarded as organic and what is regarded as psychological or social, will be tremendously productive in clarifying the patient's illness. We have learned now that when

one knows what one is looking for, this can be accomplished in a remarkably brief time. I have seen some patients in whom the basic dynamics of the pain, including an explanation of the choice of the pain and its location, could be worked out in as little time as thirty minutes; with a great number of patients an hour's interview will suffice. But even when more interview time than this is required, this is more economical in time and expense for both the physician and the patient than the currently traditional technic of "ruling out organic disease" and attempting to establish a diagnosis by exclusion. Such interminable diagnostic procedures may not only be a waste of time and money but may also render virtually impossible the establishment of correct diagnosis simply because the patient himself becomes increasingly oriented towards this type of approach and less spontaneous in revealing personal and psychological data which the physician, by his approach and behavior, has made him feel are completely out of place. Needless to say, the physician whose technic of interview does not permit the patient spontaneously to reveal personal and psychological data along with his symptoms will not succeed in confirming the observations reported in this paper. But neither, for that matter, will the physician who uses only Sabouraud's medium to examine urethral discharges succeed in confirming the relationship between the gonococcus and some cases of gonorrhea. As in all matters scientific, the application of the appropriate method is indispensable.

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