

EMOTION *and the* **CONTRACTILITY FACTOR**

**A New Model for the Formation of
Psychosomatic Disorders**

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Discovery of the role that involuntary contractility plays in the evolution of psychosomatic disorders came from observing the effects of hundreds of SHEN® Therapy sessions on a wide range of these disorders. SHEN physio-emotional release techniques induce deep, local relaxation at the body sites where they are applied. It was noted that applying these procedures at the bodily sites of psychosomatic symptoms quite often elevated repressed emotion and forgotten memory associated with the disorder to awareness. Following this it was observed that there were marked decreases in, or complete cessation of the original psychosomatic symptoms. These symptom reductions continued.

The term "Psychosomatic" is applied to a large and varied group of disorders, all of which defy conventional medical or psychological treatment. Psychosomatic, according to Mosby, means "the display of an emotional problem through physical disorders". Personally I think that "emotional condition" would be a better term than "emotional problem" but Mosby's is a reasonable enough definition. In any event, it is clear enough that emotion lurks in the background of many, if not all, disorders presumed to be psychosomatic. Unfortunately in researching the cause/effect relationship of these disorders from the usual psychological perspective, the major focus has been on the mental aspects involved rather than the emotional components. That focus has been supported by the widely held belief that these disorders are the result of subtle intention, sometimes willful, sometimes subconscious.

Now it is quite true that many people can and do work themselves into real illnesses because of a subconscious desire to be ill, either in order to gain sympathy or to show the world how much they have been mistreated. But it is completely unfair to suggest that this is the primary causal factor in the large group of well defined disorders that are usually labeled "psychosomatic". Astute psychological questioning of most of the sufferers in this group simply does not reveal any such wish. On the contrary, many present just the opposite posture. Besides, the idea that the brain would wish to punish the body or distort its normal function because it has been emotionally hurt in the past is totally counter to everything we know about the brain and its innate drive to move the body towards health.

The idea that they may be instigators or at least accomplices in their illness, by subconsciously desiring to be ill, is so strongly resented and disavowed by most patients that the term "Psychosomatic" has fallen out of vogue, at least in the presence of the patient. However, even though the term is fading from use, the implication of intention being causal in the psychosomatic process lingers on, and in lingering has affected the direction of the research into the etiology of psychosomatic disorders. After all, if the brain/mind is thought to be subtly controlling and/or causing the disorder, it follows that there would be a connection between the brain/mind and the physical body that would implement the intention. Considerable attention has been given to unraveling the mystery of the psychosomatic phenomena by focusing on the most obvious mind/body connection, the neurological.

It has been relatively easy to hypothesize neurological pathways to account for emotionally caused physiological symptoms when the symptoms are global in nature, such as the rashes, hives and cold hands or feet that often accompany the peak performance jitters of stage fright. Neurochemical transmitters and activators that pervade the body systems can be shown that would account for most, if not all, of these effects. It is generally accepted that the extra abundance of the neurochemicals, produced by the stress of "gearing up" to face the tense situations, would circulate in the body, impacting globally on body tissues in discernible and fairly logical ways. But it is not so easy to show a mechanism that keeps up the constant

production and release of these chemicals, nor to discover why the body isn't screaming "Stop" in response to the overload. And it is not so easy to show how global neurotransmitters could be involved in the many syndromes where specific psychological factors are observed to cluster with specific physiological symptoms, symptoms that appear in only one region of the body.

Many investigators have noted that these disorders frequently have common psychological triggers. They observe that the body dysfunctions in fairly specific ways upon being caught up in adverse psychosocial situations and that often these disorders clear up if the external situation is remedied. For example, migraines and/or stomach upset may be noted to begin before or during a visit to one's parents. It may also be noted that the migraines or upset cease after the visit. Here the psychosocial connection is obvious, but how neurochemistry is involved in what is considered to be a vascular disorder remains baffling. With other migraineurs the psychosocial situations may be less specific, although situations involving stress, which is founded on emotional distress, is often implicated. In spite of exhaustive effort, no clear neurological pathways have been found.

Occasionally the theoretical connection between mind and body in these disorders appears so simple as to lead to an unsupportable conclusion, a conclusion that quickly dissolves when it is thought out. A good example is of the rape victim who loses sensory perception in the genital region. We can understand well enough how the memory of the event might repel the victim from further participation in sexual activities and it is easy enough to postulate how the brain might wish to "shut down" sensory perceptions in that region. But it is not so easy to discover the mechanism by which that happens. Why is not all sensory perception shut out, why just that region, and how is it singled out from among the others when the neurochemicals involved are global in nature? And it is certainly difficult to explain why the same mechanism could produce the opposite result, constant pain in the same body region, which it does in so many similar cases. I know of no evidence that shows an overabundance of different chemistry to be present in either of these two cases with common ancestry but opposite results. And it is most puzzling that any chemistry that was

set in motion by the originating trauma could continue unsupported after the originating event ends.

With still other psychosomatic disorders the connection with specific psychosocial situations may be doubtful or non-existent, but the majority of the population presenting the specific dysfunction have a common set of psychological parameters. As examples, sufferers of premenstrual syndrome have a high incidence of poor self image and so do sufferers of chronic low back pain without organic cause. It is rare to find specific psychosocial events that connect with the origin of these complaints, although it is often noted that current adverse psychosocial events exacerbate them.

Here, as before, it is difficult to implicate global neurological factors. What neurological factors are there that can selectively strike at the ovaries in the one case and the lower lumbar discs in the other? The second example is the most pointed because, since there is nothing inherently different between the discs in the upper and lower spine, we have to ask, why are only the lower discs attacked and not the upper ones? (We are not speaking here of purely physical problems caused by low back overload but about chronic low back pain without organic cause.)

So we have two basic unresolved issues: How and why would the body's neurochemistry consistently single out certain body parts for dysfunction and not others following adverse emotional events and why do the physical/emotional symptoms of the syndrome remain long after the originating event has ended. The information gathered about the neurological pathways so far is just not sufficient to explain either of these questions. I believe the reason that these questions have not been answered is because the wrong question is being asked. It seems to me that searching for neurological connections in psychosomatic disorders is rather like trying determining where the roads go between New York City and Los Angeles instead of trying

to find out why the two cities are connected. I believe that focusing on the mental aspects of psychosomatic disorders and searching for neurological mediators has blinded us to the paramount question: Why does emotion affect the body at all? What is there in the nature of emotion itself that would cause such devastating responses?

I suspect that the answer to these questions is more simple than one would think. I believe that emotion affects the body because emotion (or at least a major aspect of it) occurs in the body, specifically, in the torso where the psychosomatic disorders present their greatest symptoms. I am quite aware some will disagree, arguing either that emotion occurs entirely in the brain or that at least one or another emotion is perceived only in the brain. So far in my experience, I have noticed that those taking that position are not emotionally open people, or are known by their colleagues to be closed to certain emotions. Among those who demonstrate emotional feeling states readily and fully, all agree emotion is perceived in the body. (They may, of course, have been taught that this is incorrect, as it is popular to treat emotion entirely as a brain function. This may cause them to doubt their perceptions, or at least not think about their significance.)

According to most theory, what we experience as emotion in the body is merely a reflection of something that actually occurs in the brain and is reflected in the body through various neural and/or biochemical activities. This is a convenient supposition but one that wobbles badly in the face of serious questioning.

Now the fact that we "feel" emotions in the various torso locations does not prove that they are indeed there and perhaps they are not. But I notice that with other perceptions this relationship between site of sensation and site of origin is accurate. If I feel a sharp pain in my finger I look at my finger to see why it hurts. If I cut my ankle I feel it in my ankle. The fact that I observe and record the event in

my brain does not prevent me from recognizing that the event occurred outside my brain.

Why should I not suppose that this relationship is accurate for the emotions as well as for other bodily sensations? Either the brain/body sensory perception of location is consistent or there are two systems, one that is accurate and one that is consistently confusing us with false perceptions as to the origin and loci of the emotions.

Looking at it from the other perspective, we could ask; "If I am experiencing something that is occurring in my brain, why do I not perceive it to be in my brain? Is there a reason for me to experience it elsewhere?" But there seems to be no such reason. It is clear, to me at least, that emotion is much more than neurological responses to brain chemistry and that the mental process is only one facet of the experience that we call emotion.

So we have two principle facets to the emotional experience, the mental: emotionally charged thoughts, and somatic affect^{*}: the emotional feeling states in the body, and we cannot arbitrarily rank one above the other. And we cannot say which one produces the other because while thought sometimes seems to precede somatic affect at other times the opposite is true. Sometimes we feel an emotion but no associated thought arises and we begin to cast about for a reason for feeling the emotion.

However, from either perspective, mental thought or somatic affect, we can classify emotions into two major groups: those that are pleasant and and those that are painful. The

* Affect means mood or feeling state.

a: Somatic Affects are the specific bodily sensations and feelings in the torso that are caused by the emotions. Somatic Affect is differentiated from bodily expression of emotion i.e. facial expression, limb and extremity movement.

b: The Somatic Affects of the several emotions are mutually different i.e., the somatic affect of sadness is different from the somatic affects of anger, of shame or of the other emotions.

c: Some Somatic Affects are pleasant (i.e. love, joy) others are unpleasant and painful (grief, shame, etc.).

body and the brain each react differently to the two groups. The brain tries to hold onto pleasant emotional thoughts because it likes them but it dislikes painful emotional thoughts to the extent that it tries to shut them off. The body likes the feeling of pleasant emotions and usually exhibits little reaction except to relax and enjoy it when one occurs. But when the body feels a painful emotion it reacts exactly as it reacts to physical pain; it contracts and it does this automatically, without conscious intent. It is this contraction to painful somatic affect is the hidden cause in biophysical disorders that stem from emotional conditions.

Involuntary Contractility

Involuntary contractility is a fundamental physiological action and the only bodily movement that does not utilize muscle tissue for its process. This automatic response to pain is inherent in all living creatures from the amoeba to the human. It is most easily studied in the amoeba, which, when touched from any quarter, withdraws by contracting into itself. (It is important to note that a neural/muscle process does not cause contraction in the amoeba because the amoeba does not have ordinary muscle tissue.)

Now, it could be argued that since the amoeba has no muscles and must necessarily contract in order to withdraw and that since humans are not limited by the lack of muscles, automatic contraction need not occur in human beings. However, this is not so as the effect is readily noted in humans and is quite easy to demonstrate. Just slip up behind someone and poke them in the side and watch how their body pulls into a hunched over posture. Notice that the action you see is one of collapsing around the poked site, not one of moving away. Slap them on the back and their body contracts as well. Contractility did not disappear during evolution as the need for it became less necessary but remains an innate human physiological reaction. The human being, of course, is more complex than the

amoeba and with humans contractility appears in more complex forms.

One human contractile phenomenon is the "splinting reflex" that occurs when a bone breaks and the muscles surrounding it become rigid. This phenomena is considered to be helpful by protecting the break from further damage and is often presented as an example of innate somatic intelligence. But the assumption of somatic intelligence is inaccurate because this reflex is not always beneficial. The pain of a dislocated shoulder triggers the splinting reflex also, only this time it is harmful because immobilizing the shoulder prevents the shoulder from returning to its normal position. Clearly the splinting reflex is not an intelligent reaction, it is simply a blind, automatic reaction to pain.

There are many other common examples of contraction around physical pain. For example, most of us have experienced contractility when a sudden painful bubble of gas in our abdomen caused our abdomen to contract around that painful bubble. Unless we were specifically noticing it, we might not be aware that the contraction occurred without our conscious intention.

The body's responses to the splinting reflex and the gas attack demonstrate another important characteristic of contractility. The sensory mechanisms in the body are unable to discriminate between external pain and internal pain. The sensing mechanism that triggers the contraction is much like an electric fence which sounds the alarm if approached and touched from the outside but will sound the alarm just as rapidly when touched from the inside.

Another characteristic of contractility, the one that makes it significant in psychosomatic disorders is that it is unable to discern the type of pain. Contractility responds equally to physical pain and to the pain of emotion. The emotions of sadness, fear, shame for example, generate somatic affects in the torso that the physical body experiences as painful. Those

feeling sensations hurt us physically, when the body experiences them it contracts. Unfortunately for the body, the contraction squeezes the pain inside.

There are five specific centers, or regions, where the various somatic affects of emotion are experienced. These are the heart, solar plexus, navel, pubic and perineum (junction of the legs) regions. The first four are also the sites of the organs, glands or other tissues that dysfunction in psychosomatic disorders.

There are few of us who at one time or another have not been aware of how the feeling of sadness pains the heart or how the pain of shame stabs the lower gut. Often these are transient pains that dissolve almost instantly into the next emerging emotion. But they may not be so brief, they may remain to trouble us for a long time by hampering our normal response to life and can, if held long enough, slowly convert into physical dysfunction by impinging on the body tissue in the region of the contraction.

There is no question that these contractions are powerful and that they interfere with normal body function.. Probably all of us, at one time or another, have seen a small crying child who is trying to breath at the same time. The child is usually gasping and seems unable to draw a full breath without cutting it off. Any school teacher or parent knows how difficult it is to coax such a child into breathing. Now breathing is clearly needful, and the brain knows that, so why is every breath cut off just as it starts? Simply because the pain of sadness is experienced in the middle of the chest. Every time the child expands the chest by drawing in a breath the pain expands and the chest automatically contracts, cutting off the breath as it does.

With older people the stab of grief that is denied physical experience can soon develop into an angina and the angina into more serious heart problems if the grief is not released. This situation will often be compounded because the fear often

experienced as a result of the angina will increase the contraction. Some sources indicate that perhaps as many as sixty percent of patients in cardiac units suffered a major grief within six months to a year prior to a heart attack. With most of these patients further investigation reveals that they never completed the emotional grieving process. This is not meant to imply that all heart attacks are emotionally caused events. And it is certainly not to say that constricted arteries are not the major predisposing factors. It seems more likely that the combination of the two conditions is the culprit, with the contraction of the grief compounding the already lessened blood flow caused by the narrowed arteries.

The heart is not the only organ affected by grief. In 1977, Bartrop, et al., published the results of a study that showed lowered T cell activity (but not activity of other immune factors) in grieving, surviving spouses. Why T cells and not the other immune factors? Because the grief contractions around the heart on the thymus which is close to the heart, and the thymus is the activator of the T cells.

The Solar Plexus is the region where anger and fear are experienced. Repressed anger has long been suspected as a causal factor in stomach ulcers. Anger turned inward eating on one's self instead of the outward antagonist seems quite apt.

Difficulty in breathing is also seen in the frightened person who is running from an attacker and desperately trying to breathe. Obviously full breathing is vital to provide for the sudden increased need for oxygen but the person's diaphragm is half paralyzed with fear and unable to expand. What paralyzes it is simple. The center of the somatic experience of fear is at the Solar Plexus which is also the location of the diaphragm. As the diaphragm relaxes in order to expand and take in air, the somatic experience of fear increases. This triggers the body's contractile mechanism in an attempt to contain the painful somatic affect. A normal body movement, breathing,

has become painful because of a painful emotion. This response to pain occurs well below the conscious level and is so imbedded in the basic biological structure that it is extremely difficult to deactivate with conscious effort. Anyone who has tried to draw a full breath while filled with fear will attest to the difficulty.

The validity of this was brought home to me rather forcefully. Recently I was on a white-water rafting expedition and was thrown from the raft when we hit a partially submerged rock. As I was thrown, I grabbed a rope fastened to a tie point on the raft. Somehow my finger caught between the rope and the raft and dislocated as the raft and I went our separate ways. There I was, frightened of drowning because I do not swim well, fearful for my turned around finger, bobbing through the rapids, banging on rocks and desperately trying to breath. And desperately was exactly the right word because every breath took a real, concentrated effort. Each time I tried to draw a breath the fear increased dramatically and my body tried to stop it by contracting around it. I could feel the contraction squeezing me like an iron band. Every breath took a major conscious effort to force that band to open. Similar effects are noted for the other painful somatic affects.

The navel region is the center where the bodily experiences of shame, confidence, worthiness, and/or embarrassment are normally experienced and/or repressed. This region contains both the uterus and the ovaries. The joint relationship of bodily location of these emotions and their associated organic dysfunction is illustrated in a recent pilot study designed to test the effects of SHEN Therapy at the navel/pubic region on women presenting with symptoms of premenstrual and/or menstrual distress.

Eleven of the thirteen patients who had SHEN performed during the premenstrual or menstrual phase reported a decided lowering of symptoms. Twelve reported that emotions of being violated, victimized, panicked, embarrassed, sexually aroused, happy, sad,

hysterical, fearful, anxious, depressed and/or feelings of self abasement occurred during the session. Five reported that memories of psychically debilitating childhood events surfaced during the SHEN session (some of these memories had not previously been available for recall). Twelve reported a feeling of well being following the treatment. Months later most reported that their symptoms were still dramatically reduced.

Another psychosomatic disorder in which somatic affects experienced in the lower abdomen are a factor is irritable bowel syndrome. Some patients with this disorder report an increase in colonic contractions during stressful situations. This effect has been successfully demonstrated in at least one study. Most obviously this is an involuntary action, one that the embarrassed sufferer is fighting to overcome. Detailed examination of the emotions being experienced show that fear, shame and the feeling of inadequacy are dominant. Unfortunately, it has usually been presumed that these feelings are the result of the contractions, not the cause.

That these contractions can be extremely long term is amply demonstrated by these cases. If these contractions were transient there would be little likelihood of their causing long-term dysfunction in the body. A fleeting moment of contraction would be of small concern, it would pass and its effects would pass. So what keeps the contractions from ending, what changes them from a brief reaction to a flash of emotional pain into constant tension that can go on for years?

It is this. When and as the contraction eases and the region relaxes, the unresolved painful somatic affect re-emerges, and re-triggers the contraction. Thus, a simple feedback loop is created which causes constant tension in the region while it traps the emotional pain inside. The existence of this mechanism is supported by the many body therapies whose application frequently triggers the releases of such emotions. It is not hard to believe that this

constant tension would have to adversely impact on organ function.

Biological Results of Contractility

The main purpose of this paper has been to establish that a cause/effect relationship exists between bodily repression of emotion in specific body regions and the physical disorders that later result in that region. While it was not intended to precisely define and prove the biological processes which would produce the organic symptoms of these disorders, it seems prudent to show that candidates for such a biological process do exist.

It has already been shown that the epicenter of contraction is not the center of body mass, but the center of the emotion being experienced and repressed. The effects of contraction are not spread evenly across the body, but are focused around the particular somatic affect with the greatest distress occurring at the center of the contraction. Thus, if a single body-wide biological process exists that is locally affected by contractile tension, we would have the culprit.

There is much about how tension affects the body that is not known but it is clear that it affects more than just straight muscle tissue. One major process quite obviously affected by tension is blood perfusion. The person who goes pale under the tension of anxiety, repressed grief or emotional shock is exhibiting a large reduction in blood perfusion to the skin. This reduction of blood is not caused by contraction of straight muscle tissue because straight muscle tissue does not control blood perfusion.

In perfusion, blood is distributed through the capillaries. Flow through the capillaries is controlled by single, ring shaped, smooth muscle cells. These ring cells are normally contracted, keeping the capillaries closed. The ring cells are not directly connected with the neurological system. The ring cell relaxes and opens the capillary when demanded by the

nearby tissue cells, which signal the ring cells with chemical messengers that relax them. Tension appears to impact these ring cells by a process that is largely outside the neural system.

Tension that occurs surrounding painful emotion would likely reduce local perfusion, just as overall tension produces an overall loss of blood to the skin. It would be most likely that a loss in local perfusion would reduce the blood supply to any glands, organs or tissue in the vicinity.

Adequate perfusion is necessary for the functioning of all organs and glands as well as all other body tissue. For this reason blood availability is usually more than adequate. However, the range of normal activity for most organs varies widely, from idling to maximum effort. Since the blood needed would be less during idling, we could expect that the effects of reduced perfusion would be most noticed when the organ or gland was required to operate at peak activity. This seems to be the case. It would explain why the sufferer of premenstrual distress would have maximum symptoms during and shortly after ovulation and fewer, if any, symptoms during the rest of the cycle.

It is possible that tension impacts locally on the lymph system also, but, since movement through the lymph channels is slow, it is not so easy to understand how tension would interfere with the normal lymphatic process and cause the dysfunction.

There is a third possible process, though it is at present even more obscure than the lymphatic. This would be possible direct effects of tension on cellular activity. It has been noted that when the amoebae contracts the fibrillar proteins in its cytoplasm fold and contract. If tension causes the same contraction in organ tissue cells, organic function might be affected because of inability of the fibrillar proteins to function normally.

In any event, there is at least one biological system which fills the theoretical requirements. Blood perfusion is general in nature but specific when affected regionally by tension. Thus, it could be accountable for a large number of disorders. This is quite reasonable. It is much more likely that one process common to all body regions would be the culprit in psychosomatic disorders rather than several individual processes. The next step is to devise laboratory methods to test the effects of local tension on local perfusion.

Considerations in Therapeutic Approaches

It is usually true that little can be done in healing a disorder until the mechanism that causes that disorder to occur is discovered. Once the mechanism is revealed, the path to recovery is revealed also. To be effective, healing techniques must be responsive to the theory.

Obviously, if local tension in the body is the culprit, the usual medical approaches will not be successful (as indeed they are not) in psychosomatic disorders. Psychological approaches to these disorders have been equally unsuccessful. Such approaches are oriented towards the mental and would have little or no effect on physiological reactions that are not under direct control of the upper brain.

It is possible that biofeedback techniques may be of value with these disorders if the usual techniques of relaxing the extremities are reoriented to relaxing the body region that is in discomfort. Hypnotherapy may have possibilities, also, and the same considerations would apply. However, since the contractile impulse lies well below the conscious and subconscious, effectiveness of these approaches would be open to question. These techniques are certainly worthy of investigation though, as they require little special effort or new equipment.

Psychoneuroimmunology is a process that is intended to work below the ordinary conscious and subconscious levels. Imagery techniques used in this work have largely been focused on combating organic disease states through the immune system and not on psychosomatic disorders. It is possible that redesigning the technique to involve images such as the releasing of bonds around the affected region might prove worthwhile with these disorders. As with the previously mentioned possibilities, little cost or equipment would be required.

One field that has had some success in releasing somatically repressed emotion and associated memory is the rather large field of bodywork. Practitioners in all the bodywork systems, from massage to deep tissue work to "energy healing" have reported occasional releases of this sort as a result of their work. Even though not principally directed towards the relief of psychosomatic disorders, these procedures have occasionally resulted in the serendipitous relief of psychosomatic symptoms.

Within this group SHEN Therapy is one that intentionally focuses on physio-emotional release instead of on skeletal or muscular change. Work in SHEN has consistently demonstrated rapid and considerable effectiveness with disorders rooted in forgotten painful emotional trauma and with chronic pain that continues after the organic cause has ended. SHEN Therapy is a process of augmentation and manipulation of the human energy field. This is done without physical pressure or manipulation. Obviously, there is a great need for serious scientific research into the human energy field and measurement of its physiological effects. This research is underway, as is research in improving current techniques. In the meantime, work in this modality has uncovered the missing link in psychosomatic disorders, the contractility factor.

In Summation

It appears that, in psychosomatic, somatoform or other physiological disorders which are founded on an emotional condition, the emotion generated by the psychosocial situation impacts directly on specific body regions through the medium of involuntary contractility. Long term tension resulting from this contraction directly affects physiological and biological function of the local glands, organs and body tissue. And, because the upper brain was not the initiator of the contraction and has little control over the contractile process, the sufferer is unable to offset the contraction and end the resultant dysfunction.

This model not only answers the questions left unexplained by the neurological approach, but applies equally well to all physiological disorders that manifest from emotional states and/or psychological factors. It has been clinically demonstrated and proven in a wide range of cases that release of this tension both releases the pent-up emotional components and ends the physical symptoms.

The answer to the question, "Why does emotion affect the body", is simple: Emotion affects the body because emotion is in the body. When the body is pained by the emotion, the body reacts. Continued suppression of unwanted, painful emotions by contractile tensions affect the body's organic functions; release of these tensions will restore proper organic function.

From this perspective it can be seen that the psychosomatic patient is in the worst kind of bondage, trapped inside the body's own defense mechanism. The defense mechanism against pain has inverted and become a jail or, more exactly, an iron maiden. Unlike most medical healing which is aimed at returning the patient to health, freeing the psychosomatic sufferer from the bondage of contractile tensions, and teaching them not to block future emotional pain from completing, will empower them to take charge of their

lives in ways previously unattainable. Thus, not just a return to normalcy but an real improvement in physical health, psychological well being and psychosocial functioning is possible.

Richard R. Pavek,

Some Unresolved Questions About Emotion

Many people, if not most, think of emotion as being either a process of thought or at least a derivative of thought, not existing until the thought occurs. Common misuse of such terms as "nervous breakdown" for emotional upset, and "I must be losing my mind" following an emotional outburst bear this out. However there are a great many observations about the emotional experience that suggest that much of emotion is not mental at all.

Some of the more puzzling are:

- 1. Why can emotions spring forth without any triggering thought?*
- 2. If emotion is just a byproduct of thought or mental action, why can't we just think it away?*
- 3. If emotion is a mental action why do we not feel it in our brains, why is it only felt in our bodies?*
- 4. If emotion is merely a mental process, why do different emotions feel different from each other?*
- 5. If emotions are just mental, why are some pleasurable and some painful and why can't we readily reprogram the painful ones into pleasurable ones ?*