

THE HEALING POWER OF METAPHOR

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1. INTRODUCTION

When it comes to one's state of health, it is often awkward or difficult for both doctor and patient to communicate with one another directly. In these often profound circumstances, people usually resort to indirect means of communication. Of all the indirect means of communication, metaphor is probably the most powerful. (Carter and McCullough 1989:9). It therefore makes sense to examine the meanings and implications of metaphor and then to choose those which will be the most beneficial to the situation. (Carter and McCullough 1989:12).

2. METAPHOR REVISITED

Traditionally, metaphor has been regarded as a truncated simile, a stylistic device more suited to rhetoric than scientific discourse. Many contemporary philosophers and linguists still regard metaphor as a matter of language, not thought; that our everyday conventional language is literal and not metaphorical. (Lakoff and Johnson 1980a:322/323).

This traditional view has been challenged by a number of people. According to Lakoff and Johnson (1980:5), for instance, "The essence of metaphor is understanding and experiencing one kind of thing in terms of another." They have also found evidence that metaphor is used automatically, not only in language, but in thought and action. In other words, our ordinary conceptual system, in terms of which we think, what we experience and what we do every day, is structured by metaphor. (Lakoff and Johnson 1980:5).

Metaphor is a mode of understanding by which we project patterns from one domain of experience in order to structure another

domain of a different kind. In this way, abstract concepts can be understood in terms of metaphors that relate the new concepts to known experiences or concrete events. (Hoffman referring to Lakoff and Johnson in Paprotté and Dirven 1985:338).

The field of medicine is primarily abstract. That is why the language used is fundamentally metaphoric. Many medical metaphors are instinctively drawn from the familiar outer world of the senses. For example, pain is described as *burning*, *stabbing*, *knifelike*, *vicelike*, *crushing*. In this way, metaphor makes tangible the intangible activities of the mind. (Donnelly 1989:133).

Patients routinely use metaphors. Many of these have to do with spatial orientation. For example, when we feel healthy, we are

- 1(a) in *tip top* condition,
- 1(b) in the *peak* of health,
- 1(c) on *top* form,
- 1(d) on *top* of the world or
- 1(e) in *high* spirits.

When we become ill, we

- 2(a) *fall* ill,
- 2(b) feel *down* in the *dumps*,
- 2(c) we *sink* into a coma,
- 2(d) go *downhill* or
- 2(e) *drop* dead.

(Some of the examples are from Hodgkin 1985:1820, Hughes 1987:87 and Way 1991:7).

Sickness is thus orientated down, while health is up. These concepts are rooted in physical experience and are based on Lakoff and Johnson's "good is up/bad is down" metaphor. The physical basis is that serious illness forces us to lie down.

It is on the basis of these examples that Lakoff and Johnson (1980:17) argue that most of our fundamental concepts are organised in terms of one or more spatialisation metaphors.

Physicians also use metaphors routinely. Hippocrates talked of the violence of a disease. Early physicians believed that the human organism was being assaulted or attacked from without. (Burnside 1983:2091). The belief that illness is something that comes into us from the outside as a type of hostile organism is so ingrained in us that we naturally depend on outside forces to fight it and evict or "get rid" of it (Hodgkin 1985:1820). Few of us have any faith in the body's own ability to fight disease. (Cousins 1983:228).

This belief that disease is an external force that must be conquered and driven out has given rise to the military metaphor. There is a mapping of structure from a source domain (war) onto a target domain (medicine). The proposition MEDICINE IS WAR' is a name for a "complex web of connections in our experience and understanding by this mapping across domains of experience" (Johnson 1987:7).

This metaphor was first used widely in the 1880s when bacteria were identified as the agents of disease. Bacteria were said to invade or infiltrate. (Sontag 1977:66). The use of the war metaphor in medical communication thus has a long history. The following are a few examples:

- 3(a) we wage war on disease;
- 3(b) patients suffer attacks of the disease;
- 3(c) the body [has a] defence system.
- 3(d) We talk about the ravages of disease
- 3(e) and some treatments are aggressive.

The war metaphor in medicine illustrates how metaphor not only organises one concept in terms of another, but whole systems of concepts are organised with respect to one another². (Lakoff and

Johnson 1980:14). Not only is disease referred to in terms of a battle, but the metaphor is used to describe other related aspects of the world of medicine, such as the immune system, where there is talk about white blood cells *demolishing* cancer cells. This metaphor is also extended to the treatment of disease, where antibiotics are described as *magic bullets* which attack the *invaders*. The language of warfare thus becomes the controlling metaphor in descriptions of disease. (Sontag 1977:64).

The war metaphor is not the only metaphor to organise whole systems of concepts in medical language. There are other metaphors in medicine that are also structured with the same systematicity. However, scientists, physicians, patients and journalists all use the militaristic metaphor when referring to disease. (Cairns 1985:31). This is the natural and ordinary way of talking about medicine and the use of this metaphor is automatic. The metaphor is not merely in the words that are used, but in the very concept of disease and illness. In other words, we actually believe we can win or lose the battle against disease. We talk about medicine in this way, because we conceive of medicine in this way, and we act according to the way we conceive things. (Lakoff and Johnson 1980:5). We thus, to borrow an expression from the title of Lakoff and Johnson's book (1980), "live by" this metaphor.

3. DANGERS OF METAPHOR

The automatic way in which we use metaphor, however, hides the inherent dangers in its use. Metaphors have entailments through which they focus on one aspect of a concept, and, at the same time, obscure other aspects of the concept that are either inconsistent with that metaphor (Lakoff and Johnson 1980:10/156)

or do not reflect the attitude or moral values of the speaker. The metaphoric process works like a filter, with the associated aspect of one subject hiding, highlighting or organising aspects of the other subject. (Black 1962:41 and Black in Way 1991:48). Metaphorical structuring is thus partial, not total. If it were total, one concept would actually be the other, not merely understood in terms of it. (Lakoff and Johnson 1980:12/13).

It is therefore important to examine the underlying assumptions of metaphor. (Carter and McCullough 1989:9). Once the "blinders" are removed, many interesting and potentially important questions are open to us. (Carter and Gatens-Robinson 1983:1841).

For example, by illuminating some aspects of the topic and obscuring others, the MEDICINE IS WAR metaphor can create the role that the physician must play. (Hodgkin 1985:1820). If physicians wage war on death, it permits the delusion that they may be victorious (Burnside 1983:2091): the physician is the victor, the one who conquers disease as well as pain and suffering. (Reich 1989:90). This view has been encouraged by society because it fits the notion that physicians are in charge. (Burnside 1983:2091). When there is a war, the generals give the orders. However, one could beg the question: exactly who is the enemy? (Donnelly 1986:83).

The MEDICINE IS WAR metaphor has other serious implications. The patient is forced to take a passive role and the main protagonists are physicians and diseases. Patients become containers into which medicine may be poured or from which organs are removed. The patient becomes less important than the disease itself. (Hodgkin 1985:1821). S/he also fails to take responsibility for his/her own health.

The full complexity of the patient is lost by the BODY AS MACHINE/BODY AS CONTAINER metaphors (Carter 1989:158) because the subjective dimension of disease is hidden. (Rossman in Sheikh

1984:233). The patient becomes the machine (Hodgkin 1985:1820); the physician does the searching, locating and curing, while the patient is reduced to the organ which is diseased: the "kidney failure in room 206" (Diekema 1989:20) or the "pump or liver in room 47" (Ibba 1991:607, Diekema 1989:21, Carter 1989:158). This type of medicine supports the Cartesian mind-body dualism, where the body can be treated as a separate entity, ignoring the patient's feelings, emotions and spiritual well-being. The physician's role is dictated by these metaphors: s/he becomes a mechanic, modifying and adapting the motor to regain functioning (Achterberg and Lawlis 1984:1) whereas the patient becomes a "problem" (Carter 1989:159) or a "case" (Diekema 1989:20). The distinction between the patient and his/her disease becomes blurred with the patient reduced to a mosaic of organs and the disease an obstacle to their functioning. (Donnelly 1986:83).

Should the metaphor be changed, however, to something like the BODY AS HOMEOSTATIC ORGANISM, the recognition that every bodily response serves some function and that the body can regulate and control a steady healthy state, might hopefully receive some consideration. (Johnson 1987:131). With this metaphor, different questions will be asked and symptoms will be regarded differently.

A metaphor that respects the patient's humanity has to be preferred. (Diekema 1989:21). However, seeing the body as a machine can also be useful. The heart operates like a pump and understanding it as one can provide many insights. The way in which medicine is talked about can thus limit people's thinking in one way, yet also advance it in another. (Ross 1989:39).

One should not forget that "medicine has the obligation not only to treat disease, but also to relieve suffering" (Rossman in Sheikh 1984:233). If one does not examine these metaphors to discover their underlying assumptions, the quality of health care must suffer. If the patient sees him/herself as a helpless

victim of a hopeless problem, the nervous system might receive the message to give up. (Achterberg and Lawlis 1984:17).

4. METAPHOR AS A SOURCE OF HEALING

There is no doubt that words can have a lethal power⁸ (Bernard Lown in Cousins 1983:13). People can "think" or "imagine" themselves ill with organic manifestations. There is little argument about the negative power of the imagination on health. Many people seem to have acknowledged at least a tentative connection between causal factors emanating from their state of mind and the subsequent observation of colds or infection or other evidence of diminished resistance to disease. (Achterberg 1985:3). Those in the behavioural sciences have for some time been aware of the mind's role in the etiology of certain somatic complaints such as headaches, ulcers, allergies, etc. (Vollhardt 1991:35).

This brings me to the main thrust of my paper. If words have the power to kill, or if words can produce feelings of despair and defeat, surely the reverse must also be true? If our minds can make us ill, we must surely be able to make ourselves well too. (Achterberg 1985:3). The right words should also be able to mobilise a patient's will to live. (Cousins 1983:131). It must be remembered that the patient's hope is a powerful force of medication in itself as the body has a way of following the mind's expectations. (Cousins 1983:213). Some metaphors thus have the potential of healing, (Carter and McCullough 1989:12) and these could be manipulated to everyone's benefit in the medical field. (Carter 1989:163). The possibilities are well illustrated by the following example.

All therapeutic means had been exhausted with a critically ill heart patient whose cardiac muscle had been irreparably compromised. He overheard one physician commenting to another that his heart had a "wholesome, very loud third-sound gallop", which is actually a poor sign denoting the heart muscle is

straining, leading to heart failure. The patient recovered slowly and quite unexpectedly. Later, he explained that he had thought the end was near and that the physicians had given him hope, but then, on listening to his heart, had seemed pleased with the findings. When he heard that his heart had a "wholesome gallop", he reasoned his heart had a lot of kick. He then knew he would live. (Lown in Cousins 1983:15/16). It is therefore the responsibility of the healer to instil hope as words have a healing power. (Hoffman in Honeck and Hoffman 1980:414)

It is natural for both physicians and patients to refuse to go down without a fight⁷. For some patients, the metaphor of fighting cancer or death is life-affirming: the fight is not with death, but for life. (Temoshok and Dreher in Ten Have-de Labije 1991:90). Metaphors that promote a positive outlook should thus be used as a source of healing.

People's perceptions about diseases not only determine the way in which they act towards them, but the way in which they speak about them.⁸ Because many people have lost a loved one to cancer or heard about the horrors of cancer, they assume that cancer is a strong and powerful invader capable of ravaging the body. (Simonton, Matthews-Simonton and Creighton 1978:31/32). These are the metaphors in terms of which cancer is spoken about. This is the popular misconception about cancer which has resulted in the word "cancer" becoming a metaphor for death.

According to cellular biology, the popular beliefs about cancer are misconceptions: a cancerous cell is not a "strong invader" but a "weak and confused" cell. Also, the body's natural defences, the immune system, recognise these cells and destroy them or wall them off so that they cannot spread. (Simonton, Matthews-Simonton and Creighton 1978:31/32). It might help, therefore, to re-educate people about cancer by re-wording metaphors used to describe the disease.

The belief-systems of the physician can also affect the emotions

the patient. (Simonton, Matthews-Simonton and Creighton 1979). Their thoughts about the treatment and the patient's ability can influence the outcome of the disease, just as the expectations of a teacher can influence the pupils. When the physician's belief system supports the metaphor that the disease comes from without, that it is synonymous with death, that the treatment is inadequate, and the patient has little or nothing that s/he can do to fight the disease, the physician may give up and say: "there is little or nothing that can be done." (Simonton and Simonton 1975:32). This pronouncement must cause the patient to give up too.

It is not the diagnosis that kills (or cures), but the expectations and images accompanying it. It is not what the patient is told that is so critical to health, but how s/he is told and how s/he is assisted in dealing with the diagnosis. (Achterberg 1985:81).

Aristotle was among the first to suggest the connection between mood and health (also in Vollhardt 1991:35); Charles Darwin supported this view. Sir William Osler, the turn-of-the-century physician described as the "father of modern medicine", said that the care of tuberculosis depended more on what the patient had in his head than what he had in his chest. (Hall 1989:66). If this impressive trio are correct in believing that there is a connection between mind and body, emotions and health, then metaphor can be used as a therapeutic tool.

Imagination is a powerful instrument in the practice of medicine. (Charon 1989:137) and plays a vital role in both mental and physical health. (Sheikh 1984:5). A new discipline, psychoneuroimmunology⁹ (or PNI), has emerged, offering sound experimental evidence for the role of the brain in the immune response. (Achterberg 1985:162). PNI is an inter-disciplinary field concerned with relationships among the nervous, endocrine and immune systems. In this field, research on the role of the imagination in health has been most clearly delineated using

scientific methods. (Achterberg 1985:162).

It has been discovered that behavioural intervention may directly or indirectly modulate the immune system. (Gruber, Hersch and Hall 1993:20, Zachariae et al 1994:74). A number of studies have shown that a positive attitude can have a positive effect on health. (Kiekolt-Glaser and Glaser 1992:569-571, Hall 1989:70, Schlebusch 1990:249). Treatment should therefore focus on altering a patient's belief system from negative to positive. For example, it is negative to believe that cancer is synonymous with death. Cancer is a disease that may or may not be fatal. It is therefore important to believe that cancer is not the enemy but that the immune system is actually the mortal enemy of cancer. (Simonton, Matthews-Simonton and Creighton 1978:80).

On the basis of the relationship between psychological factors and disease, Dr Carl Simonton, an American radiologist, and his psychotherapist wife believed that people with cancer could help to heal themselves through guided-imagery techniques as an adjunct to conventional methods of treating cancer. Their treatment consists of a procedure of guided-imagery.

Their patients are invited to visualise their disease, treatment and response by their immune systems metaphorically. They are asked to see their cancer as raw, broken up hamburger meat or something like a cauliflower (Pelletier 1977:260), or anything else that is not solid. It is important to see the cancer cells as being "weaker and more confused" than normal cells. (Hall in Sheikh 1984:160). Part of the treatment is to neutralise the patients' feelings about cancer. They are therefore encouraged to colour the cancer cells a neutral colour like "gray" in their mind's eye rather than black or red. (Simonton, Matthews-Simonton and Creighton 1978:146-8).

Their patients are then asked to visualise their treatment in metaphoric terms too: radiotherapy as "tiny bullets of energy", hitting all the cells in the area of the tumour. The normal

cells can recover, but the cancer cells do not generate so easily. They perish. With chemotherapy, the chemical distributes itself through the blood which is picked up by the cancer cells which think it is food. These cells are poisoned rather than nourished. With chemotherapy, the normal cells can resist the damage. (Pelletier 1977:260).

Finally, the 'surveillance team' or white blood cells in the form of a great army perform the function of transporting the dead cancer cells through the blood, liver and the kidneys - out of the system. (Pelletier 1977:260). The procedure is concluded with patients picturing their bodies as healthy and normal, with the cancer tumours decreasing in size. (Pelletier 1977:260, Hall in Sheikh 1984:160, Simonton, Matthews-Simonton and Creighton 1978:133).

The Simontons contend that seeing the battle against disease metaphorically is not a method of self-deception but self-direction. It allows patients to become actively involved in their own treatment. (Simonton, Matthews-Simonton and Creighton 1978:144/5). Until every conceivable therapeutic approach has been attempted, no one should be told: "Nothing more can be done." (Bresler 1984:212). The use of metaphor allows the patient to view the abstract workings of cancer and the body's immune system in concrete terms. If the metaphor is positive, the patient is making a clear mental statement of what s/he wants to happen. By believing in the strength of the metaphor, the patient can begin to expect the desired event to occur and begins to act in ways consistent with achieving the desired result. (Simonton, Matthews-Simonton and Creighton 1978:144/5).

The Simontons regarded it as important to monitor the metaphors used by their patients. In all of their cases, when they rated the patient's attitude as negative or positive, it corresponded exactly with the response to treatment: good or poor. Because response to treatment was good, it may have led to a positive attitude, but the point is not whether the issue of causality is

involved or not. There is clear, empirical evidence that psychological and physiological factors interact in cancer. (Pelletier 1977:258).

The Simontons' guided-imagery technique was received at the time with a great deal of scepticism. Unfortunately, their early studies had no untreated control groups. They also did not correlate the improved prognosis with specific changes in the immune system. Thus, few data existed to support the popular claim that imagery boosted the immune system. (Gruber et al 1993:2). However, the Simontons tested their procedure on 159 patients diagnosed with medically incurable cancer, and achieved remarkable results. (Hall in Sheikh 1984:160). Whatever the criticism, the Simontons did manage to give their patients reassurance and a greater awareness of themselves. (Simonton and Simonton 1975:36/7).

Followers of the Simontons, Achterberg, a psychotherapist, and Lawlis, her physician husband, believe that each cancer patient has certain ideas about his/her condition and that all health professionals help create this picture through their words and even what they leave unsaid. They also believe that what the patient believes will happen directly influences the outcome of the disease itself. (Achterberg and Lawlis 1984:11).

Their Image-Ca technique¹⁰ is similar to the Simonton's method, but, unlike the Simontons, their imagery is not guided: patients are allowed to create their own metaphors. (Achterberg and Lawlis 1984:28). They are then asked to draw what they have visualised which is then scored according to vividness, size and activity. Achterberg (1985:189) maintains that by analysing the patients' description of their cancer cells and how their immune systems fight the disease, she can predict with 100% certainty who would either have died or shown significant deterioration and with 93% certainty who would be in remission. It is the metaphorical quality of the images themselves that so accurately predict the future.

This visualisation procedure opens up realms of communication and allows the patients to tell their stories in a new way. The physician can travel the difficult road of life-threatening disease with them, glimpsing for an instance, their metaphors. These metaphors are as much a part of the patient's life as the symptoms are part of the disease. The symptoms are metaphors, the metaphors symptoms: "a concrete or tangible object that stands for an intangible idea" (Achterberg 1985:191).

Achterberg and Lawlis have found that a few patterns emerge: good prognoses are associated with strong metaphors and vice versa. Strong metaphors are archetypal figures or animals with killer instincts (sharks, bears, dogs). (Achterberg 1985:191). Vague, weak, amorphous objects like snowflakes or clouds representing the immune system are weak metaphors. (Achterberg 1985:191). Patients who visualise their fight with cancer strongly usually respond favourably to treatment. (Achterberg and Lawlis 1984:88). If the cancer is seen as a clawing, clinging, grabbing object (crustaceans, octopus), the prognosis is exceptionally poor. The word "cancer" is derived from the Latin word for "crab", the traditional association being based on a similarity of physical resemblance between the legs of a crab and the tumour. (Achterberg and Lawlis 1984:90). It seems ironic that if the cancer is seen as a crab, the prognosis is especially poor. The patients with the poorest prognoses spend more energy visualising the cancer cells, perhaps as a way of masking their horror and anxiety associated with the disease. The patients with more favourable prognoses usually invest more energy in their projections of immunological mechanisms. (Achterberg and Lawlis 1984:90).

We do not yet fully understand the underlying mechanisms by which imagery can alter cancer or immune function. It has been argued that the positive effects observed when imagery techniques are employed may have nothing to do with underlying immunological changes. Thus, these clinical improvements in cancer may have resulted from some other unknown process. However, there is much

suggestive evidence that imagery can influence the immune system. (Howard Hall in Sheikh 1984:164). This hypothesis is currently being tested in the field of PNI.

Since these early studies, a number of investigations have employed similar techniques in an attempt to either manipulate the immune system and/or improve the health status of patients with chronic disease. Laboratory findings of tests done on animals as well as observation of humans, suggest that a variety of behavioural interventions can have an impact on the health of the individual. These include the use of social support (Kiecolt-Glaser et al 1985), guided imagery and relaxation (Gruber, Hall, Hersh and Dubois 1988) as well as exercise (Simon 1990).

Ronald Glaser and Janice Kiecolt-Glaser have done studies of first-year medical students showing that during periods of academic stress (just before or during exam week), the immune function suffers both in numbers of cells and in the ability of cells to perform. When the students returned after their summer holiday, normal vigour had returned to the immune system. "It suggests," says Kiecolt-Glaser, "that even commonplace events that we associate with emotional arousal or discomfort can be associated with [decreases] in immune functions." (Hall, S S 1989:70; Kiecolt-Glaser et al 1986:5).

In another experiment with the computer games program, PacMan, a group of children suffering from cancer, were told to imagine that the PacMan was their immune system gobbling up their cancer cells. Blood counts were taken regularly. This group of children showed a significant increase in the number of white blood cells in comparison with a control group receiving only conventional treatment.

Susan Sontag (in Hall in Sheikh 1984:166) has criticised psychological approaches to cancer, such as the use of imagery, on the grounds that they place blame on the patient for the

development of his/her illness. I disagree with her. Firstly, a clear distinction between culpability and responsibility must be drawn. It is not true that if we accept responsibility, we are to blame. Secondly, one of the major problems with this type of argument is that it assumes that imagery techniques have no effect on cancer, and this has clearly not been demonstrated. (Hall in Sheikh 1984:166/7).

Every physician knows the benefits of treatment which use only a sugar pill or other medicineless preparations. This is known as the "placebo effect". A patient is told that a prescription will produce a certain beneficial side effect - and it does, even though there is no medication in the pill that can produce it. The only active ingredient in the treatment appears to be the power of the belief - the positive expectations - patients have that they have received helpful treatment. (Simonton, Matthews-Simonton and Creighton 1978:22).

5. CONCLUSION

There is thus sufficient data to warrant pursuing a psychological approach with the help of metaphor, together with medical treatment, in the best interests of patients with malignancy. (Jemmott 1986:505). For some time, it has been recognised that physicians need to learn to speak an inter-disciplinary language that spans medicine, psychology, immunology, biochemistry and physics. (Achterberg 1985:175). I believe that, for the reasons cited above, another discipline should be added: that of linguistics.

NOTES

1. Lakoff and Johnson indicate conventional metaphors by means of CAPITAL LETTERS. I have employed the same convention.

2. Metaphorical concepts thus form a single system based on subcategorisation. "These subcategorisation relationships characterise entailment relationships between the metaphors" (Lakoff and Johnson 1980:9).

3. For example, Achterberg (1985:169) describes the immune system as "defending" itself against cancer in the military language of science fiction:

Certain white blood cells, called T-cells, are targeted to identify and demolish any and all cancer cells they encounter in a wonderful way. Picture a mighty midget, full of lethal toxins, stalking its prey. Finding the dreaded cancer cell, it thrusts itself inward like a missile, releasing its chemicals ... and, within a millisecond, the cancer cell explodes into oblivion. The macrophages (the giant-eater white blood cells) are called onto the scene as part of the clean-up team: they swell up, join forces, and head for the site of the destruction, programmed to digest any remaining pieces.

In medicine, this is called the 'surveillance' theory of cancer. (Achterberg 1985:169; also Simonton, Matthews-Simonton and Creighton 1978:41). Normally the body's immune system keeps a close watch out for any abnormal or aberrant cells and destroys them. It is only when the prowling defenders fail to recognise or effectively kill the enemy that cancer cells are allowed to multiply into full-blown disease. The reverse is also true: the cancer will go into remission if the defending horde has successfully outflanked the tumour. (Achterberg 1985:169).

Hall (1989:69) also describes the workings of the immune system in militaristic terms. He likens the immune system to a branch of the armed services which maintains a varied corps of task-specific cells in a perpetual state of vigilance and readiness. Some cells (monocytes) act as sentinels; others (antibodies, natural killer cells and cytotoxic T-cells) as infantry (or in Ross' (1989:41) terms: "field generals making up the field command structure which rouse or mute the general alarm"). Others (macrophages) come around to clean up the battlefield and cart off the results of the carnage. Hall (1989:69) describes the macrophages as the "garbage collectors" of the immune system. The immune system is geared to attack "foreign invaders" (Ross 1989:41 refers to "hostile invading germs"). (Hall 1989:69).

4. Treatment of disease also has a military flavour. Antibiotics are magic bullets that attack the invaders. If host defences are weak, they may be overwhelmed. (Caster and Gatens-Robinson

1983:1641). Radiotherapy uses the metaphors of aerial warfare: patients are *bombarded* with toxic rays. Chemotherapy is *chemical warfare*, using poisons. Treatment aims to *kill* cancer cells. (Sontag 1977:65).

5. "Case" used to refer to a disease, but today, some dictionaries list "case" as a medical or surgical patient.

6. A dramatic example is an account of a woman who was in low-grade heart failure but whose condition was not critical. She overheard her physician telling someone that she had "TS", meaning Tricuspid Stenosis. She immediately became very distressed, thinking that she was in a "terminal situation", hence the reference to "TS". She died from intractable heart failure the same day. (Lown in Cousins 1983:14/15).

7. Defeat is deferred and deflected by various means. The use of metaphor is one of them. It seems to be a common reaction among people with cancer to see the cancer part of the body as the "enemy" and that you must cut yourself off from the diseased part. (Grendlin and Grindler 1984:278 and 280). One patient spoke about "have[ing] the offending lump removed" (Hughes 1987:131). Patients direct their anger against the DISEASE AS OBJECT: "How dare it invade my body ... I wanted to destroy it." The body has betrayed them by getting sick and threatening their lives. They feel alienated from it and mistrust its ability to combat their disease. (Simonton, Matthews-Simonton and Creighton 1978:125). Current thinking suggests that a better prognosis might be obtained if the patient could learn to accept the cancer as part of him/herself. However, there are many people who believe that a better outcome can be expected when acceptance and adjustment to the cancer is the poorest. (Achterberg 1985:192).

8. If expectations contribute to outcomes, then prevailing social beliefs have a negative effect. Cancer represents a dreaded disease that is associated with disfigurement, pain, nausea and fatigue, fear of eventual death and often adverse side-effects from the treatment itself. (Schlebusch 1990:253; Hughes 1987:vii). Cancer, more than any other life-threatening disease, conjures up primordial images. These images integrate and express cultural perceptions of cancer. (Schlebusch 1990:253/4).

9. Robert Ader coined the term: psycho (the mind), neuro (the nervous system) and immunology (the workings of the immune system). He trained rats to associate an initial stimulus with a subsequent event. In this case, they "learned" to depress their immune system. This experiment supported S I Metal'nikov's precept that the central nervous system could influence the vigour of the immune system. (Hall 1989:66).

10. With the Image-Ca technique, after relaxation, a tape is played to the patient which explains, by means of the military metaphor, how their immune system works: the body is a marvellous machine with built-in devices for protecting itself.

It has white blood cells that attack and kill the cancer or abnormal cells that enter it. The white blood cells, which help to protect the body against disease, are very powerful, becoming active and guarding and protecting the person by attacking all abnormal cells and the tumour. They must be seen doing their job, like experts, destroying the cancer cells, keeping the body healthy and disease-free.

11. The term "remission" is used to describe a situation where the symptoms of the disease have disappeared and the patient appears to be cured.

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