



## Psychological Adjustment to Illness and Injury

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A career in clinical medicine entails thousands of consultations with patients who are in various states of emotional distress. Some consultations are relatively superficial, others can be life-changing. Some doctor-patient relationships last a few minutes, others may continue for many months or years.

During and prior to these many consultations the patient is often in a state of considerable concern and uncertainty about the condition of their body or their mind. So these consultations involve communication exchanges that are inherently emotional. Patients seek the expertise of a doctor or surgeon to reduce their uncertainty and help diminish the threat and discomfort posed by the illness or injury. However, it is an unusually skewed relationship in terms of knowledge and power, and patients sometimes entertain elaborate wishes and fantasies about their doctor. Perhaps this is not surprising, given that the outcome of this encounter may well have important implications for the patient and their loved ones.

In General Practice it has been estimated that between fifteen and thirty per cent of primary care consultations effectively result in a diagnosis of *'Medically Unexplained Symptoms.'*<sup>1</sup> In other words, the doctor is unable to reliably explain the patient's symptoms. That itself is an interesting issue for doctors to have to deal with. Thankfully, of course, a lot of the time doctors are able to reduce the patient's uncertainty by providing them with helpful information and helpful interventions for their condition. But there are also occasions when doctors have information for the patient that will cause them catastrophic distress and uncertainty, and that may quite possibly change their lives. This paper provides my understanding, as a clinical psychologist, of how illness and injury psychologically impact on patients and their families, and what they and healthcare professionals can do in response.

The diagnosis of course is only the beginning of the relationship, and many doctors, such as oncologists, end up having a long relationship with their patients, so it is important that these relationships get off to a good start. At their first consultation, patients may already have formulated some initial thoughts and ideas about their condition. Back in 1980, Howard Leventhal<sup>2</sup> succinctly summarised these assumptions as follows:

- **Identity:** the label or name given to the condition and the symptoms and images the patient associates with it
- **Cause:** the patient's ideas about the perceived cause of the condition ('why I got this')
- **Time-line:** beliefs about how long the condition is likely to last. Is it likely to be acute or chronic?
- **Consequences:** assumptions about how the condition will impact on the patient (and others) physically and socially
- **Curability:** beliefs about whether the condition can be cured or not, and how much control the patient can exercise over its course

From the doctor's point of view, the patient's assumptions about their condition may or may not be correct. So, when speaking to patients, doctors must always start from what the patient knows and understands, not from their own understanding. The communication challenge for the doctor is to gradually close the gap between what the patient understands and what they themselves understand. These moments, when life-changing diagnoses and prognoses are being conveyed, sometimes give birth to a daunting series of person transitions for the patient and their loved ones.

Transitions involve psychological and emotional processes of adjustment that occur over time. These processes of mental adjustment are the subject of this paper. I hope to convince you that mental adjustment is at the centre of mental life. So these clinical conversations require as much skill and sensitivity as doctors routinely apply to their medical or surgical work. Many doctors and surgeons show remarkable skill in communicating

with their patients. However, my own patients have occasionally described experiences with doctors that have left them unnecessarily brutalised and psychologically damaged, if not traumatised.

It is obviously not enough to declare: *"You have Stage Four cancer, and that I'm afraid means that it's incurable"* and then walk out of the room, no matter how honest or accurate the information may be. This would clearly be *too 'clinical'*, in the vernacular sense that a person's clinical skills have eclipsed their empathic concern. In my experience, doctors and surgeons are extraordinarily generous with their compassion and care, but a few seemed to have retreated to a disconnected impersonal stance, one that is experienced as brutal from the patient's point of view. This is often the result of burnout<sup>3</sup>, though presumably sometimes a reflection of personal characteristics of the doctor.

### Personal transitions and mental adjustment

When someone becomes seriously ill or injured, the psychological trajectory of their life goes off course. Becoming sick or damaged threatens the person's basic assumptions about their immediate, and sometimes long-term future. As a result, other pre-existing assumptions also suddenly become vivid, and this 'wake-up call' naturally evinces a great deal of emotion. The following text is from a diary kept by someone newly diagnosed with cancer. You will note that there is more than a whiff of trauma about it as the woman describes the 'parallel universe' that she is now living in.

*"It felt like a bad dream. One minute life was chuntering on. The next – well, someone switched the reels... Somewhere, in some parallel universe, life was continuing to chunter on; here, in this one ... where I was unaccountably stuck after some through-the-looking-glass moment... mammograms, ultrasound, core biopsies, sitting in a square at Bart's weeping, apologising, on my partner's shoulder in the soft rain, the world suddenly upside down, guilty, I or my body had let us down – him, the kids, me..."*<sup>4</sup>

You will probably have noticed that she



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is not thinking only of her own mortality, but of the impact that her illness will have on her loved ones: *'him, the kids'*.

Her life has indeed gone off course, but the implications of her diagnosis may be far-reaching and may yet take considerable time to reveal themselves. This is only the beginning of many transitions that she will need to negotiate.

Indeed, psychological transitions are rarely one-off events but unfold over time. Here are a few others:

- From blissful naivety to realising that, as a result of the diagnosis, life will never be the same again (*"It has robbed me of my peace of mind"*)
- Learning to live with uncertainty.
- From feeling that you have an unlimited future, to knowing that your life is finite.
- From looking one way, to feeling 'disfigured' for the rest of your life.
- From having felt fully abled, to understanding that you will always be disabled (and/or infertile, in pain, desexualised...).
- From seeing yourself as someone who is able to support other people, to feeling helpless or even a burden on them.
- From being an 'ill person', to being a 'survivor' and fully re-engaging with life, however it has changed.
- Facing up to the end of your life.
- Learning to live in a world where someone you loved and depended upon is no longer there.

Over the course of their lives, human beings experience many transitions (so-called 'life events'), and happily most of them do not concern illness – leaving home, getting married, moving house, having children, starting a new job, retirement, getting through a bereavement, etc. Of course, some of these transitions are stressful and exhausting, and not always the result of personal choice but determined by the social context and the effect that this has on the person's emotional and physical wellbeing (e.g. unemployment, abuse, lack of education, deprivation, discrimination, etc.). The way that social Power operates in someone's life, the Threat that this represents for them, and the Meaning that they ascribe to what has happened to them, all determine the emotional wellbeing of the individual.<sup>5</sup> Illness and

injury can similarly be powerful in their effects, pose a real threat, and mean very different things to different people.

## Minds and Brains - a short guide

To understand something as elusive and ineffable as the mind, it may help to start from how minds biologically come to exist at all. Minds emerge from brains, and brains exist within bodies that evolved. Other animals are able to mentally represent the world and react to it on the basis of what they have learned, but (with relatively trivial exceptions) they appear to do so without thinking about or reflecting on it. Their reactions and behaviour are an expression of their genes and instincts, and from operant and associative learning during their lives. Much of human behaviour is forged in this way too, but a human mind is also entirely different. A human mind is able to symbolically represent the world beyond and including itself in complex and abstract ways. Humans are able to conceptualise, to mentally manipulate a symbolic language.<sup>6</sup> One important survival advantage of this is that minds are able to generalise from experience, to model the world, and to imagine and anticipate the future in sophisticated ways. A related survival advantage of meaning-making minds is that people are, within limits, capable of regulating their drives and emotions,<sup>7</sup> affording humans a measure of self-control.

The extraordinary thing, from an evolutionary biology point of view, is that this type of cognitive mental life is a very recent evolutionary development. Archaeologists broadly agree that after millions of years when little had changed in the way that Homo lived and behaved (e.g. the design of hand axes had not changed for well over a million years), Homo fairly suddenly began thinking in entirely new ways just 50,000 years ago.<sup>8,9</sup>

This cognitive revolution spawned what is known as *'behavioural modernity'*, a time in which human creativity, technology, and population growth suddenly took off, a time when jewellery, burial mounds, cave paintings, and, indeed, new hand axe designs suddenly appear in the archaeological record. This, many would argue,<sup>10</sup> was the birth of the modern, model-making mind that,

over the subsequent fifty millennia has seen an acceleration of knowledge and technology, and a burgeoning of beliefs, religions and cultural ideas, and all of it the result of our very modern minds.

Several theories have been put forward for how behavioural modernity came about (e.g. trade<sup>11</sup>, better nutrition, group size leading to language development<sup>12</sup>, etc.) but, whatever the reason, two essential advances were necessary for modern minds. These were first, the development of language, and second, a significant improvement in working memory. Language requires being able to hold a train of ideas (symbolic representations of the world) in mind long enough so that they can be manipulated. These trains of ideas are what we call thinking. Working memory provides the temporary cache, or memory store, in which information flows into it and information drops off the back of it. It allows people to understand the present moment in terms of the immediate past, and enables them to still remember words from the beginning of a sentence by the time they get to the words at the end of it. That, by the way, was a forty-word sentence.

Working memory is not unique to humans (other primates certainly use it) but humans make far better use of it. All that new technology (painting, jewellery, etc.) would have been impossible without the combination of a more complex language (symbolic representations) and a more effective working memory.<sup>14</sup>

## Mental architecture

In *The Descent of Man* Darwin stated that "Man cannot avoid looking backwards and forwards, and comparing past impressions." He was pointing to this species-unique survival advantage. Only human brains are able to symbolically represent the world in terms of ideas, and then manipulate those ideas to form a new idea. A cognitive mind is able to model the world and base conclusions on past experience, just as Darwin said.

About a hundred years later, in 1976, another evolutionary biologist, Richard Dawkins, also referred to our model-making minds in his classic book *The Selfish Gene*.<sup>15</sup> He used the term



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‘survival machine’ to mean a species, and in this passage he is referring to human survival machines.

“Survival machines which can simulate [i.e. imagine or model] the future are one jump ahead of survival machines who can only learn by trial and error ... The evolution of the capacity to simulate seems to have culminated in subjective consciousness.”\* (page 63, paperback edition)

\* [I have added the text within the square brackets]

In 1997, the evolutionary neuroscientist Steven Pinker put it more directly when he wrote:<sup>16</sup>

“Humans achieve their goals by complex chains of behavior, assembled on the spot and tailored to the situation. They plan the behavior using cognitive models of the causal structure of the world. They learn these models in their lifetimes and communicate them through language, which allows the knowledge to accumulate within a group and over generations.” (page 186)

All psychologists would probably agree that humans do indeed construct ‘cognitive models of the causal structure of the world’. These mental models exist within and emerge from the physical wetware of the brain and nervous system. An individual’s mind is fed by the rich social and physical environment around it, as well as by his or her own memories, which take the form of cognitive models that have been transcribed into neural pathways. These neural pathways hold the memories and models from past experience and exist entirely between the eighty-six billion neurons that make up the physical brain. These models are being continuously created, elaborated and modified throughout a person’s life.

In this sense, human brains are information processing systems, albeit freighted with highly physiological emotions (we will come to those). Computers are also information processing systems, but they use binary data and work in an entirely different way. However, both are *computational* in that they both use a temporary memory or storage area in which computations take place, RAM (random access memory) in the case of computers, and working memory in the case of brains and minds. People’s minds are able to hold thoughts in working memory long enough to manipulate them and sometimes come up with a new one.

<b>Symbolic representations</b>	<b>Freud, Melanie Klein</b>	<b>1920s</b>
<b>Mental models</b>	<b>Kenneth Craik, (Johnson-Laird)</b>	<b>1940s</b>
<b>Cognitive or mental maps</b>	<b>Edward Tolman, (Domasio)</b>	<b>1950s</b>
<b>Construct systems</b>	<b>George Kelly</b>	<b>1960s</b>
<b>Internal working models</b>	<b>John Bowlby</b>	<b>1970s</b>
<b>The assumptive world</b>	<b>Murray Parkes</b>	<b>1970s</b>
<b>Schema/core beliefs</b>	<b>Aaron Beck, Albert Ellis</b>	<b>1980s</b>
<b>Core assumptions</b>	<b>Michael Horowitz, Janoff-Bulman</b>	<b>1990s</b>
<b>Propositional representations</b>	<b>Power and Dalglish</b>	<b>2000+</b>

Table 1.

## Model-making minds

This core idea, that minds symbolically represent the world in the form of models and assumptions is almost as old as psychology itself, and it has been called many things by many distinguished authors within the discipline (see table 1). Despite each author’s different emphasis, they are all broadly pointing to the same thing: the idea that the human mind is able to model the world and use these models to understand and anticipate the world. During our unusually long childhoods<sup>17</sup> and beyond, people learn by osmosis, absorbing ideas and behaviours from the intricate social and cultural world around them, learning from the people in their particular family, friendship group, community and society. The result is that each person individually accumulates a vast unique storehouse of knowledge about the world, but it is rare that the individual is consciously aware that they have acquired it, or even that they know what they know. This is what psychoanalysts call the *unconscious*, cognitive scientists call *implicit knowledge*,<sup>18</sup> and what Colin Murray Parkes called the ‘*assumptive world*’.<sup>19</sup> One huge area of the assumptive world concerns the ‘*internal working models*’, John Bowlby’s term for the assumptions that people develop about other people: their relational assumptions.

All this background implicit knowledge is vital to each person’s ongoing experience of reality, which is to say their consciousness. The assumptive world is not always rational and contains many biases<sup>20</sup> but these unconscious models and assumptions do a pretty good job at predicting what happens from moment to moment, enabling the individual to feel that their existence is coherent and continuous and that everything somehow

fits together. Most of the time moment-to-moment reality does indeed seem coherent, continuous and plausible, because the brain is able to bind together the different inputs from the senses, thoughts, emotions, drives, memories and fantasies, into coherent trains of thought. These switching trains of thought are the stuff of consciousness, and all of it is held together in working memory. This creates ‘*reality*’ as you know it.

When life is reasonably predictable, people are largely able to function on the basis of these taken-for-granted assumptions about what is happening and what is expected of them. In fact, people often adjust quickly, establishing routines and shortcuts, and soon operate as if on automatic pilot (e.g. having a shower). This is a far less taxing way to live and frees up the controlled mind to focus on other priorities. Only when something unexpected happens is a person forced to switch from this *automatic* way of thinking, to *controlled thinking*.

Controlled thinking concentrates attention (and working memory) on solving problems. In the face of change, controlled thinking tries to solve the discrepancy between what had been assumed and what reality has actually delivered. So, there are these two aspects of the mind: automatic thinking and controlled (analytic) thinking.<sup>21</sup> People are paid good money to use their controlled thinking in the service of others, while repetitive routinized tasks are generally less well rewarded.

The social world that humans have made for themselves is so complex that the mind simplifies the world by using heuristics,<sup>20</sup> customs, and habits, and by making models or assumptions about how things generally work (the ‘causal structure of



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the world'). And because people rely upon (and are invested in) these mental models, they usually prefer that they remain uncontested. It would be alarming, for example, if your sense of reality suddenly became entirely unfamiliar, and began to feel like a 'parallel universe'. That is the stuff of psychological trauma.

A person's consciousness only *seems* relatively continuous, and appears to make sense, because their moment-to-moment experience is reasonably consistent with their assumptive world (the automatic, taken-for-granted assumptions they have developed over their lifetime). This means that unexpected, threatening events can be traumatic, precisely because they lack this continuity and coherence with existing mental models of what is expected. In psychological trauma, the assumptive world is unable to immediately comprehend what is happening, particularly if what is happening fundamentally disconfirms or violates the expectations that were active at the time. If, instead of being told you have bronchitis, as you thought, you are told you have lung cancer, you may be temporarily unable to comprehend the implications of this new information. Indeed, you may feel compelled, consciously or unconsciously, to keep the information at bay so that you are not overwhelmed by your emotions. This form of temporary denial or disavowal is of course a perfectly normal and functional defence mechanism. All the more reason that doctors know how to break bad news in a way that is sensitive and psychologically informed.<sup>4</sup>

## Emotional minds

Illness and injury provoke a great deal of emotion, so it also helps if doctors have a working understanding of emotions and their relationship to thoughts. One reason that the words 'psychological' and 'emotional' are so often used interchangeably (e.g. "He has emotional/psychological problems") is because thoughts rarely occur without emotion. The mind is essentially an *emotional* information processing system; most thoughts and memories are tagged by emotional associations, and emotions tend to provoke a lot of thoughts (e.g. consider the emotional and psychological complexity within interpersonal relationships).

The English word 'feelings' tends to capture this amalgam of thoughts and emotions.

Cognitive minds (and modern human culture) may only be 50,000 years old, but emotions, which are common to all mammals, evolved about 180 million years ago. The primitive function of emotions is to maximise the survival of the animal, so they tend to become aroused when basic needs require satisfying or are threatened.<sup>22</sup> As such, primary emotions are automatic, non-conscious, and much faster than cognitive thinking when reacting to the environment. The body simply takes over and assumes control, and the mind often struggles to catch up. However, while it is easy to see how fear, anger and disgust aid survival, it can be harder to discern what could possibly be adaptive about sadness, the emotional response to loss.

Sadness is a bit of a scientific conundrum, but it seems plausible that depressive withdrawal represents the need to withdraw to a place of safety in order to ruminate about the loss before re-engaging with the world. In the face of loss, it may be in your best interests to reflect awhile, reassess your safety within the world, take stock of your remaining resources, and consider what possible changes you will need to make in order to manage in the world with all the new uncertainties that have resulted from the loss. Your models may need to adjust. It takes time to 'learn to live in a world where someone you loved and depended upon is no longer there'. Such adjustments are often exhausting, and when people are emotionally and mentally exhausted they can often seem to be at a low ebb and depressed. 'Clinical depression' is physiologically indistinct from sadness, but arguably occurs when someone gets stuck in the withdrawal phase of sadness and is no longer able to access the mood-enhancing feedback that engagement with the world provides – i.e. having things to look forward to and things to achieve. So palliative care, for example, tries to maintain hope by engaging patients to work towards realistic goals.

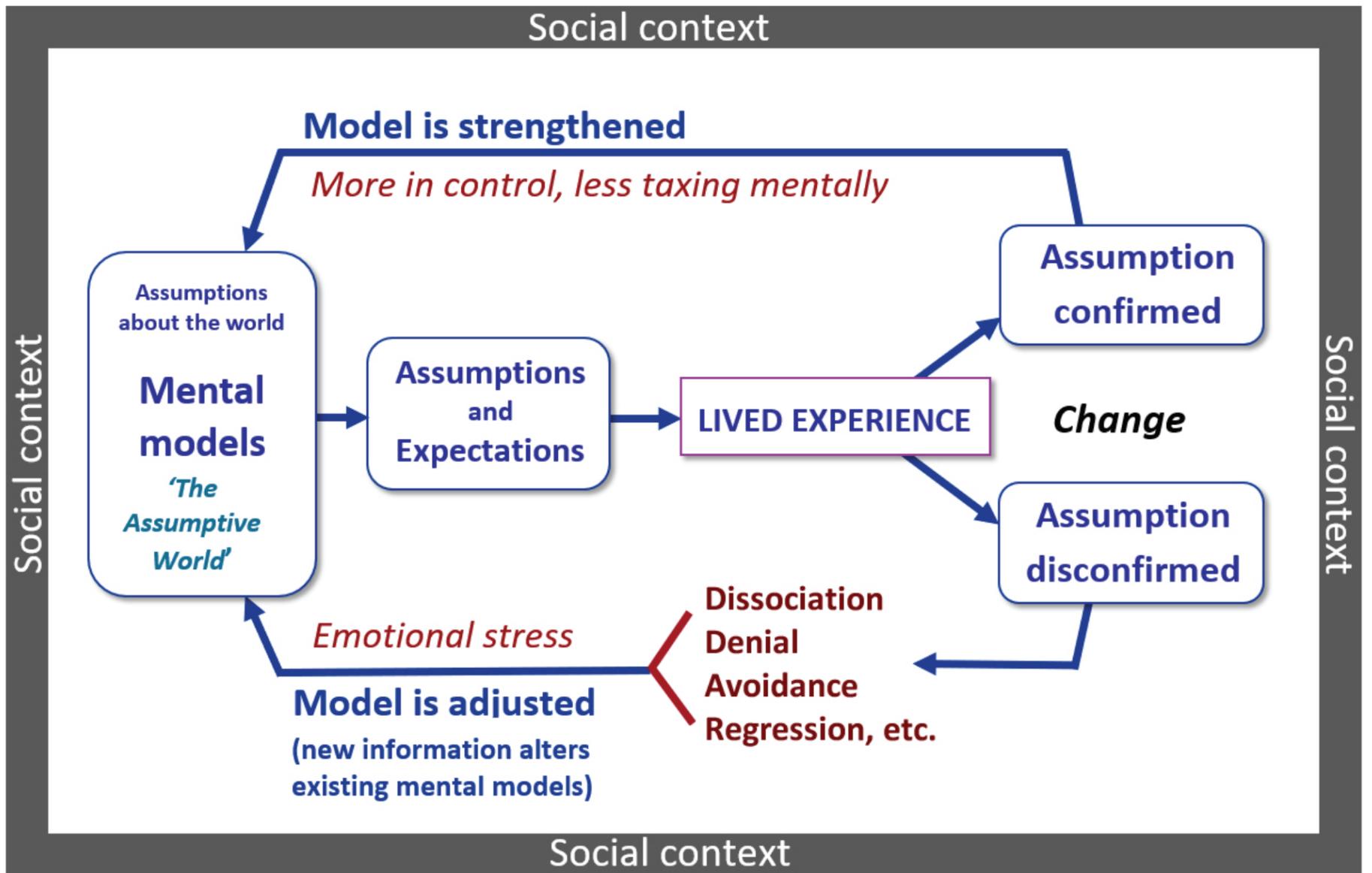
You are having a shower and the door suddenly opens. Emotions are evoked whenever there is a mismatch between what you expect or *assume* to happen,

and what reality delivers. In such circumstances, automatic thinking is no longer sufficient, so your attention is drawn to the issue in question. Emotions engage the controlled conscious (analytic) mind to sort out the anomaly so that the person can recalibrate the mental models that gave rise to their previous expectations or assumptions. It is obviously biologically adaptive for human minds to alter their mental models in response to change, because it enables people to be better prepared for anticipating and negotiating the world in the future. 'Comparing past impressions', as Darwin said, in order to be able to 'look forward'.

## How minds adjust to change

Change (and illness and injury are nothing if not change) requires people to alter their mental models of the world. As we have seen, however, people are invested in the assumptions they hold (particularly as they age), so they have a natural psychological resistance to having to change mental models that they feel have served them well in the past. The "grooves of thought" can become so worn<sup>24</sup> that new ideas are unable to bypass existing assumptions and there is a resistance to the new information. A person's core assumptions, their assumptive world, after all, provide them with a feeling of safety and coherence, so it is little wonder that people often show resistance to new information, particularly if the news is traumatically shocking and unexpected.

In 2001, I published a model of mental adjustment<sup>25</sup> that illustrates many of these ideas. It starts from the premise that human ideas are socially constructed and determined by the social conditions of a person's life. Starting from the far left of the diagram, the models you hold at any moment determine your current assumptions or expectations. These are either confirmed or disconfirmed by experience. If confirmed, existing models are strengthened. However, if disconfirmed, existing models will need to accommodate the new information and thereby become recalibrated so that they are better able to anticipate the future. Altering mental models is taxing and stressful, however, so it creates resistance, such as denial and avoidance.



## Social-Cognitive Transition (SCT) Model of Adjustment

One of the interesting advantages of this adjustment model is that it explains not only the distressing effects of change, but also the positive ones. Why it is that people so commonly talk about ‘personal growth’ as a result of the changes they have been through? It seems that despite the stress of mental adjustment, people often learn something useful about their lives. For example, almost regardless of where the trajectory of their illness takes them, many cancer patients learn to deeply value the time that they have in this world, and come to treasure the lessons they have learned from having confronted their mortality. They describe their new appreciation of life as an insight that they vow to cherish, a lesson they wish never to forget.

Another advantage of this model is that it explains why some patients take considerable time to adjust to their illness and find it exhausting. Change is stressful because a reorganisation of mental models (that previously provided predictability) is required. Such ‘emotional processing’

and mental adjustment takes time. The implications of a life-threatening illness are often very complex and not always immediately obvious (or welcome), so they may well take time to reveal themselves, both to the patient and to their loved ones (who are also going through their own transitions). In principle, this also holds true for organisational change, or even social change.

Denial and avoidance are simply ways of maintaining the coherence and consistency of existing models of the world. Defences like these helpfully slow down the rate at which the patient has to absorb the implications of what they have been told. Denial is typically a short-term defence mechanism, albeit a functional one, though the alternation between denial and acceptance sometimes continues for a prolonged period, and sometimes people become stuck in their adjustments.

Incidentally, the psychoanalytic idea of transference is very evident when a person’s life is threatened because people frequently feel helpless and unconsciously seek out a ‘parental’ figure of benign authority who will take charge of the situation and lead them to safety.

Doctors naturally fulfil this symbolic role, whether they like it or not, but while it may be reassuring for the patient to feel that the doctor has a plan and will take care of them, it is important for the doctor to ensure that this temporary parental role does not drift into paternalism.

## Helping people to adjust

So, what can doctors be expected to do in the face of the psychological distress they so regularly see among their ill and injured patients? Most computer problems are to do with the complexity of the software, not the basic hardware. Minds may not be computers but they are computational, yet there has been an unfortunate historical tendency within medicine to apply the medical model as if the mind were simply another physical organ, rather than a sophisticated emotional information processing system that happens to be housed within the physical brain, the nervous system and the body more generally.

Whether encouraged by the promises of Big Pharma or driven by simple expediency, the result has been that doctors



have tended to prescribe far too many anti-depressants (and previously anxiolytics) in response their patients' distress.<sup>26</sup> This 'medicalisation' frames distress as if it were something pathological, rather than as a function of the human condition and as part of a natural adjustment process that requires time, talk and support. Moreover, given the right conditions, humans are able to heal themselves emotionally and psychologically, just as they often can physically. Mental adjustment is facilitated by human connection and talking, not pharmacology.

So this overprescribing is particularly unfortunate because, for the most part, antidepressants seem to function as a sort of emotional analgesia, non-selectively suppressing all emotions, not simply sad ones. Yet emotions serve a vital and very normal function, providing an important source of information about the world at large, oneself, and other people. Equally importantly, as mentioned earlier, emotions tend to occur when there is a change that needs to be attended to, such as a threat or loss, so it is generally helpful if emotions are not suppressed. There may occasionally be a place for emotional analgesia within medicine (e.g. sometimes in end-stage palliative care) but a person's emotions are an important and functional part of their mind and personhood.

Many core assumptions can be violated (disconfirmed) following a diagnosis of cancer, and within these adjustments lie the seeds that sometimes germinate into 'emotional problems'. However, the concerns that patients quite naturally find themselves thinking about are so understandable at a human level that most members of the healthcare team can provide support, not just psychologists. Once again, many of the following transitions involve mental adjustments that may take considerable time.

### Some core assumptions that are often violated by illness and injury

- *Life trajectory* – from assuming you were going to be alive in, say, a year's time, to adjusting to the uncertainties of a foreshortened life expectancy (almost regardless of objective prognosis). Learning to live with uncertainty. Difficulty making plans for fear of tempting fate, leading to loss of goals and meaning ('what's the point?') and stuck in depressive withdrawal. The

threat of hopelessness.

- *Relational bonds* – concerns for the future welfare of dependants; role and relationship changes; 'family members' protecting one another; conspiracies of silence; men and women struggling to transact care; premature emotional withdrawal in light of the expectation of death, etc.)
- *Body* – not only change of body image and appearance, but also sensation, reliability, disability, fertility, sexuality, dignity, etc. Guilt at having 'caused' the illness/injury and/or not reporting it earlier.
- *Self* – identity and worth – illness frequently leads to role changes (e.g. going out to work, being able to care for others, etc.), resulting in loss of self-esteem, control, social power, autonomy, self-worth, confidence and social identity.
- *Existential beliefs* – confronting mortality and the meaning of one's life and death. The "wake up call" as to what is important. Violation of the belief that life is fair and rational: "Why me?" Spiritual doubt or renewal. Existential isolation.

### Why it helps to find the words

Had you seen a road traffic accident earlier in the day, there is every chance that by now you will have told someone about what you saw, and even what you felt. It is doubtful that you would be looking for an antidepressant or an anxiolytic. When people are confronted with information that violates their expectations, their instinctive reaction is to tell someone. And it is the telling of the story that is helpful.

*"When you are in your thoughts your mind can go all over the place and I sometimes have the most frightening thoughts about the future. But when I talk about it in words, logic kicks in and it feels easier to handle."*<sup>4</sup>

People are driven to develop a plausible account of their experiences, and ascribe meaning to the events and relationships of their lives. 'Talking about it in words' is a very special human skill that no other animal possesses. Language of course is the main currency of conceptual thought, the ability to manipulate ideas in the mind. Turning experiences into words enables people to create stories about their lives, whilst at the same time absorb new information and recalibrate the

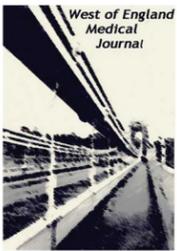
mental models of their assumptive world. Speaking or writing words helps people congeal otherwise nebulous experiences into trains of thought and identifiable ideas, and it helps to disentangle 'logic' from fantasy. In the process, the person creates new mental models, or modifies existing models, that better account for the new information and leave the person feeling more in control again.<sup>27</sup>

So it really helps if people can talk, whether to another person (including the doctor) or themselves. It helps to put experiences into words and ideas. Talking to a friend or relative, talking to a volunteer in an information centre, engaging in solitary personal reflection, meditation or prayer,<sup>28</sup> and writing about it.<sup>29</sup> All these responses serve the cognitive and emotional need to remodel the world, to reconstruct what you have been through, or going through, into a more plausible and coherent story that makes sense. In fact, it seems likely that all 'psychologically-based' therapies rely upon the power of this process.<sup>30</sup>

Therapists can help people recognise the *power, threat and meaning* of past and current events, and in the process help them understand their own behaviour, thoughts and emotions in response to these events.<sup>5</sup>

In addition, clinical psychologists draw on theoretical models, such as the adjustment model described in this paper, to try to help sick or injured patients acknowledge and make sense of the implications of their changed world. In the course of co-formulating with the patient an understanding of what the illness or injury means to them, it reveals not only *assumptions* that the patient is currently drawing upon, but also sometimes assumptions that they have been using for much of their lives without realising it.

These insights and revelations are unique to each person we meet, and they can be distressing in their own right, but they can also often lead people on the road to personal growth. We encourage patients to reclaim personal resources and qualities that have not been lost. After months of gruelling medical treatment, this can sometimes mean reviving an identity that has been stripped bare by the illness. We encourage patients to re-engage with their changed world and develop new meaningful goals for the future, however long or short it is. Many of these aims we share with palliative medicine.



Like palliative care, psychologists try to contextualise the patient's distress. Rather than seeing the patient as the primary source of their emotional and psychological distress, and trying to 'cure' them with antidepressants, we have learned that it is more fruitful to consider the patient's social conditions, their interpersonal context, the nature of the changes that they are negotiating, and the assumptions they are making. Like all clinical consultations, we must start from what the patient understands, but by relinquishing our expert position for a while and listening to the patient's concerns, we can learn whether there is movement in the patient's adjustment process, or whether they appear to be stuck and in need of extra support.

Mental adjustment may take time and be emotionally exhausting, but it is necessary, psychologically restorative, and even useful. And it is going on all the time.

*"Just something about the word makes you think of the end. I'm thinking of all the things I have done, I really do appreciate what I've got from life, but I also want a lot more, not material things, just ordinary things like enjoying my garden, the birds, playing hide and seek with Harry in the garden... I really appreciate the simple things in life now, things we normally take for granted. It's a pity we have to go through something as awful as this to bring you back down to earth and start life – looking through different glasses – almost like a child, learning all over again."*<sup>4</sup>

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30. Non-verbal therapies, such as art, music and movement therapies presumably work at a more unconscious level, but also alter assumptions and emotional associations.