The first part of the book places health psychology in its social and economic context. The first chapter introduces health psychology as a new field of inquiry. The concept of health is introduced from a historical perspective. We review theories of need-satisfaction as a foundation for health. The definition, scope and rationale of health psychology are discussed. Two epistemological approaches are described: natural science and human science. A framework for the study of health psychology is described. Finally, we critique the use of evidence-based practice as a paradigm for knowledge in health care, and suggest ideas for further research.

In the second chapter we use a wide-angle lens to explore the context for health experience internationally. We introduce the demographic, economic and societal factors that impinge upon health experience. Profound population and environmental changes add complexity to the economic and social conditions of human behaviour and health. Population growth, increasing poverty, and lack of resources, especially water, are bringing a worsening of health globally in spite of the advances in medicine. Universal gradients for health experience persist over time and space. Progress in reducing poverty and inequality has been slow and concerted, meaningful action is required from intergovernmental policymakers and planners.

There is substantial evidence linking poor social conditions with ill-health. The explanations for this include material, behavioural and psychosocial factors. Chapter 3 considers the extent of social inequalities in health within developed countries, the competing explanations and the role of health psychology in creating a healthier society. The explanation of health inequalities creates many important challenges for theory and research in health psychology.

The way people think about health, become ill and react to illness is rooted in their broader health belief systems that are in turn immersed in culture. Chapter 4 provides some examples from the work of historians and anthropologists who have investigated how health belief systems vary across time and space. We consider some of the different expert health belief systems that have existed historically in Western society and contemporary popular belief systems. We also consider
several non-Western health belief systems and discuss some of the issues related with the rapid
cultural changes in today’s modern society and the interpenetration of cultural groups and belief
systems.

Finally Chapter 5 presents a basic A–Z of research and methods within health psychology. Not
all letters have a method, but those that do generally fall into one of three categories: quantitative,
qualitative and action research. Quantitative research designs place emphasis on reliable and
valid measurement in controlled experiments, trials and surveys. Qualitative methods use inter-
views, focus groups, narratives or texts to explore health and illness concepts and experience.
Action research enables change processes to directly feed back into improvement, empowerment
and emancipation.
Outline

This chapter introduces health psychology as a new field of inquiry. The concept of health is introduced from a historical perspective. We review theories of need-satisfaction as a foundation for health. The definition, scope and rationale of health psychology are discussed. Two epistemological approaches are described: natural science and human science. A framework for the study of health psychology is described. Finally, we critique the use of evidence-based practice as a paradigm for knowledge in health care, and suggest ideas for further research.

The desire for the prolongation of life we may take to be one of the most universal of all human motives.

Kenneth Arrow, 1963: 75
WHAT DO WE MEAN BY ‘HEALTH’?

It seems natural to discuss what we mean by the term ‘health’ in a book about health psychology. Otherwise, how do we know what the subject is really about? To understand the word ‘health’ we need to take a quick dip into etymology, the study of the origin of words.

Many of the words we use today have common roots in a Proto-Indo-European language. ‘Health’ is one of them. The word ‘health’ is derived from Old High German and Anglo-Saxon words meaning whole, hale and holy. The etymology of ‘heal’ has been traced to a Proto-Indo-European root ‘kailo-’ (meaning whole, uninjured, or of good omen). In Old English this became ‘hælan’ (to make whole, sound and well) and the Old English ‘hal’ (health), the root of the adjectives ‘whole’, ‘hale’, and ‘holy’, and the greeting ‘Hail’. The word became ‘heil’ in German (unhurt, unharmed), ‘heil’ (good luck or fortune), ‘heilig’ (holy) and ‘heilen’ (to heal). In Old Norse there was ‘heill’ (health, prosperity, good luck). Today, ‘Hello’ in English, ‘Hallo’ in German, or ‘Hi’ in US English are well-known greetings.

Thus, links exist between health, wholeness, holiness, hygiene, cleanliness, sanitariness, sanity, saintliness, goodness, and godliness. An emphasis on health as wholeness and naturalness was present in ancient China and classical Greece where health was seen as a state of ‘harmony’, ‘balance’ or ‘equilibrium’ with nature. These beliefs are found in many healing systems to the present day. On the other side of the coin, there are strong associations between these words: disease, disorder, disintegration, illness, crankiness ('krankheit’ in German), uncleanliness, insanitariness, insanity, badness, and evil.

Galen (CE 129–200), the early Roman physician, followed the Hippocratic tradition in believing that hygieia (health) or euexia (soundness) occur when there is a balance between the four humours of the body: black bile, yellow bile, phlegm and blood. Galen believed that the body’s ‘constitution’, ‘temperament’ or ‘state’ could be put out of equilibrium by excessive heat, cold, dryness or wetness. Such imbalances might be caused by fatigue, insomnia, distress, anxiety, or by food residues resulting from eating the wrong quantity or quality of food. For example, an excess of black bile would cause melancholia. The theory was closely related to the theory of the four elements: earth, fire, water and air (see Table 1.1).

In wintertime, when it is chilly and wet, we worry about catching a cold, caused by a build up of phlegm. In summer, when we are hot and sweaty, we worry about not drinking enough water because we could otherwise become ‘hot and bothered’ (bad tempered). Some common beliefs today are the descendents of early Greek and Roman theories of medicine.

Mass media which are pervaded by stories about health and medicine fuel a universal fascination with health and illness. There is a torrent of content about health, medicine, and illness, especially the ‘dread’ diseases. The Internet offers instantaneous updates on every
A search with two popular search engines revealed more than 12.5 billion items containing the term ‘health’ – *almost two items for every person on this planet.*

It is almost impossible to find a single definition in the massive literature that exists. However, in 1946 the World Health Organization (WHO) defined health as: ‘the state of complete physical, social and spiritual well-being, not simply the absence of illness’. One doubts whether ‘complete physical, social and spiritual well-being’ can ever be reached by anyone. In reality, the state of incomplete physical, social and spiritual well-being, with the presence of illness is more familiar to many people. Apart from its idealism, the WHO definition misses key elements of human health and well-being. We would insist that *psychological, cultural and economic* aspects should be included in any meaningful definition of health. Psychological processes, behaviour, cognition, imagination, volition and emotion are all mediators of health experience in different ways (the main subject of this book). These processes are all embedded in our social interactions with others. For this reason, the term ‘psychosocial’ is used to describe the way in which human behaviour and experience help to mold wellness and illness. The role of wealth/poverty in health is evident on a wide scale. A person who knows a healthy diet should include fruit and vegetables (‘5 a day’) but cannot afford to buy such items. Pork is an affordable meat but against religious edicts for many. Spiritual well-being, for many people, is a primary element of what it means to be human.

With these thoughts in mind, we define health to take account of all of its key elements (see Box 1.1).

---

**Table 1.1  Galen’s theory of humours**

<table>
<thead>
<tr>
<th>Humour</th>
<th>Season</th>
<th>Element</th>
<th>Organ</th>
<th>Qualities</th>
<th>Personality type</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood</td>
<td>spring</td>
<td>air</td>
<td>liver</td>
<td>warm &amp; moist</td>
<td>sanguine</td>
<td>amorous, courageous, hopeful,</td>
</tr>
<tr>
<td>Yellow bile</td>
<td>summer</td>
<td>fire</td>
<td>gall bladder</td>
<td>warm &amp; dry</td>
<td>choleric</td>
<td>easily angered, bad tempered</td>
</tr>
<tr>
<td>Black bile</td>
<td>autumn</td>
<td>earth</td>
<td>spleen</td>
<td>cold &amp; dry</td>
<td>melancholic</td>
<td>despondent, sleepless, irritable</td>
</tr>
<tr>
<td>Phlegm</td>
<td>winter</td>
<td>water</td>
<td>brain/lungs</td>
<td>cold &amp; moist</td>
<td>phlegmatic</td>
<td>calm, unemotional</td>
</tr>
</tbody>
</table>

---
In this definition, health is never seen as ‘complete’, more like something we strive for. This definition includes the key ingredients for a recipe for health, including factors that must be considered in assessing a person’s state of health. To be really useful, it needs further unpacking. In the next section we discuss what philosophers and others think it means to be ‘healthy’. Then we unravel the implications for health psychology theory and practice.

Different people would describe health in a multitude of ways. A fashion model in New York, a young dairy farmer in Somerset, an 80-year-old pensioner living alone, a hunter-gatherer in Southern Africa, or an abalone diver in Polynesia will quite possibly prioritize different things. Yet, people might struggle to describe the difference between health and illness, and what needs to be in place for human beings to thrive, not simply survive.

Maslow’s (1943) hierarchy of needs provides initial guidance (see Figure 1.1). One is healthy if all of these needs are satisfied, starting with the most basic needs for air, food, water, sex, sleep, homeostasis and excretion. Then as our need-satisfaction moves toward the top of the pyramid, we become more and more ‘satisfied’, and thus physically and mentally healthy. But do human needs really fall into any such hierarchy? For example, a participant in extreme sports such as mountain climbing puts ‘esteem’ and ‘self-actualization’ well ahead of ‘safety’. Also, key elements are missing from Maslow’s hierarchy, for example, agency and autonomy – having the freedom to choose – and spirituality – the feeling that not all of experience is created by the physical world.

Philosophers have tried to improve upon Maslow’s hierarchy in a variety of ways. Doyal and Gough (1991: 4) argue ‘that “health” and “autonomy” are the most basic of human needs which are the same for everyone… all humans have a right to optimum need-satisfaction … For this to occur … certain societal preconditions – political, economic and ecological – must be fulfilled.’ The satisfaction of three basic needs – physical health, autonomy of agency, and critical autonomy, to achieve the avoidance of serious harm – is a universal goal in all cultures. If or when a person has reached this universal goal, he/she will then be able to experience ‘minimally disabled social participation’ (1991: 170) and be free to participate.
in his/her chosen forms of life. The form of the latter will depend upon culture, interests and education.

There are different ‘courses for horses’. If I am a Laplander I want to be free to herd reindeer and follow them on their great march through the Arctic. If I am a football fan I will want to follow my team through the various stages of the league and cup competitions. If I am a mother I will want to give my baby all the nourishment, security and comfort that I possibly can. For anybody to participate freely in their chosen ‘forms of life’, Doyal and Gough list 11 intermediate needs:

1. Adequate nutritional food and water
2. Adequate protective housing
3. A safe environment for working
4. A safe physical environment
5. Appropriate health care
6. Security in childhood
7. Significant primary relationships with others
8. Physical security
9. Economic security
10. Safe birth control and child-bearing
11. Appropriate basic and cross-cultural education
Rejecting the WHO definition, Doyal and Gough decide that health can only be defined negatively – as the minimization of death, disablement and disease. They also define autonomy negatively – as the minimization of mental disorder, cognitive deprivation, and restricted opportunities. Seedhouse (1997) advocates another approach – the ‘Foundations theory of health promotion’ (1997). This theory of health promotion is based on this premise:

A person’s (optimum) state of health is equivalent to the state of the set of conditions which fulfil or enable a person to work to fulfil his or her realistic chosen and biological potentials. Some of these conditions are of the highest importance to all people. Others are variable dependent upon individual abilities and circumstances. (Seedhouse, 1997: 136)

Seedhouse defines ‘basic needs’ as food, drink, shelter, warmth and purpose in life. All except the last appears in the lists of Maslow, and Gough and Doyal. ‘Purpose in life’ is a primary concept in Antonorsky’s (1979) ‘salutogenic’ theory. So far so good – familiar ground, one feels. Then among the foundations that Seedhouse considers ‘are of the highest importance for all people’ are:

1 Information ‘Access to the widest possible information about all factors which have an influence on a person’s life.’

2 Literacy and numeracy skills ‘People need to be able to understand how the information applies to them, and to be able to make reasoned decisions about what action to take in the light of that information.’

3 Sociality ‘…an awareness of a basic duty which follows from living in a community.’

Seedhouse suggests, in addition to universal foundations, specific foundations for different individual situations depending upon living conditions and circumstances. A person with an illness, a person in a damp and dilapidated house, a prisoner, an athlete, a terminal patient, or an expectant mother will each have specific requirements and priorities. For Seedhouse, ‘the devil is in the detail’. There are only four generic foundations, and a set of special foundations tailored to individual circumstances on a case-by-case basis. Any effort at health promotion therefore involves an act of discovery, to find out what any individual or group must be given to fill the gap between what they aspire to and what they currently have. Health policies must be designed to ‘bolster the foundations of all’ and health services need to work towards ‘improving the lot of everyone’ (1997: 145–6). But such idealism may be difficult to implement in real world settings.

Seedhouse compares two options that, to him, are ‘fairly easy to decide’. He asks us to imagine deciding between funding a campaign to improve road safety and a life-extending treatment for Alzheimer’s patients which produces no increase in the patients’ quality of life. Seedhouse claims foundations theory would dictate opting for the road safety campaign which, he claims, effects every road-user, and ditching the treatment for Alzheimer’s patients because they would only live longer, not gain any improvements in quality of life. The fact that road users outnum-ber Alzheimer’s patients is a reason for opting for the road safety campaign. However, to others, this example may well be contentious. Road users who have a family member with Alzheimer’s would most likely disagree that this makes a ‘fairly easy’ decision. Indeed they might well feel
that deliberately withholding a life-extending treatment would be unethical. Who actually wants to live to a 100 anyway? Ask a 99-year-old and you may get a positive answer.

This example gives perfect illustration of the political assumptions that underlie all decision-making in health care. Contrasting points of view about resources will tend to emerge from different social groups, i.e. whether they are young or old, have aging parents with dementia, use a bus, bicycle, or walk to work. What is advocated as the best approach depends on who is making this decision, whose values and interests are held in mind, and who will be most affected by the decision.

THE NATURE OF HEALTH PSYCHOLOGY

The importance of psychosocial processes in health and illness is increasingly recognized. For example, evidence on the role of behaviour and emotion in morbidity and mortality is accumulating. Much research has been conducted to investigate the possible role of stress and psychological characteristics on the onset, course and management of physical illness. Advances in genetics, medicine oncology, and immunology are all offering exciting new challenges to health psychology. It is therefore unsurprising that health psychology is growing rapidly and health psychologists are in increasing demand in health care and medical settings. Psychologists have become essential members of multidisciplinary teams in rehabilitation, cardiology, paediatrics, oncology, anaesthesiology, family practice, dentistry, and other medical fields. In the UK and Europe, health psychology is a new profession alongside clinical and counselling psychology.

Although the primary focus for health psychology has been clinical settings, interest is now also being directed towards interventions for disease prevention, especially with reference to sexual health, nutrition, smoking, alcohol, inactivity and stress. The traditional view of Western societies is an ideology of individualism which views individuals as ‘agents’ who are responsible for their own health. A person who smokes 40 a day and then develops lung cancer is held responsible for causing a preventable, costly and terminal illness. Traditional health education has consisted of campaigns providing a mixture of exhortation, information and advice to persuade people to change their unhealthy habits. By telling people to ‘Just say no’ policymakers expect people to make the ‘right’ choices and change their unhealthy choices into healthy ones. Health education has succeeded to a degree. Supported by services offering treatments and techniques for behaviour change, improvements in public health have definitely been achieved. Tobacco control provides a benchmark for what may be achieved through health education and behaviour change. However, the major approach to tobacco control has been pharmacological. Millions continue to smoke because these treatments are only marginally better than no treatment at all (see Chapter 9). There is little room for thinking that we have the necessary technology to produce behaviour change on an industrial scale. However there is the potential to do so if the human side of health care is strengthened. Health care systems would become more efficient and evidence based if the benefits of scientific medicine are complemented with psychosocial and other evidence-based approaches. This could ultimately lead to a wholistic system offering ‘health for all’.
Against the view that keeping ourselves healthy means making responsible choices, there is little convincing evidence, beyond the example of smoking control, that people who change their diet or lifestyle actually do live longer or have more quality of life than people who ‘live and let live’ and make no real attempt to live healthily. Consider a hypothetical example: an epidemiological study shows that vegetarians live longer than meat eaters. Such a study normally proves very little. This type of study usually falls well short of being a randomized controlled trial, the closest thing we have to a controlled ‘experiment’. The vegetarians may differ from the meat-eaters in many ways other than their choice of diet, e.g. religious beliefs, use of alcohol, social support. A second issue is that a statistical association between two variables such as a vegetarian diet and longevity never proves causality or allows a prediction about any particular individual case. A vegetarian could still die of stomach cancer and becoming a vegetarian will not necessarily lengthen the life of any specific person. Epidemiology is purely a statistical science – it can never tell individuals what will happen if they do X, Y or Z, but only provide a statistical or probability statement.

Yet the assumption that we must ‘live well to be well’ is prevalent in contemporary society. The moral aspect of this assumption also leads to victim blaming. If people get ill it is often seen as ‘their own fault’ because they smoke, drink, eat a poor diet, fail to exercise or use screening services, do not cope with stress in a healthy way by joining a gym and so on. Health policy is run through with the blaming and shaming of individuals for their own poor health. The ‘smoking evil’ has been replaced by the ‘obesity evil’. A person who smokes, eats fatty foods, drinks alcohol and watches TV for many hours every day is represented as a ‘couch potato’. Fitzpatrick (2001) compares disease with sin, and health with virtue. Medicine is thereby portrayed as a quasi-religious quest against gluttony, laziness and lust. Diets are seen as moral choices, in which a ‘balanced’ and healthy diet is a moral imperative.

We may like to believe in the fiction that we are free agents with self-determination. To what degree the people who are the targets for healthy eating campaigns have the resources to choose what they eat is a matter of concern. The majority of human activity is influenced by the social and economic environment, role models among family, friends or in the mass media. The herd instinct is as strong in humans as in bees, birds or sheep. Christakis and Fowler (2007) report evidence that there is a person-to-person spread of obesity. They evaluated a database containing a social network of 12,067 people from 1971 to 2003 and found clusters of obese persons at all time points, and the clusters extended to three degrees of separation. A person’s chances of becoming obese was increased by 57 per cent if he or she had a friend who became obese in a given interval. Network phenomena appear to be relevant to the biologic and behavioural trait of obesity, and obesity appears to spread through social ties. Social imitation in social networks seems to be as an important determinant of health as any individual decision to live a healthy life. A successful approach, social cognitive theory, is based on this assumption (Bandura, 1995).

The built environment, the sum total of objects placed in the natural world by human beings, is equally important to the social one. The ‘toxic environment’ propels people towards unhealthy behaviours and causes large amounts of mortality and illness (Brownell, 1994). People become overweight and obese because they inhabit an obesogenic
environment which contains affordable but nasty, fatty, salty or sugary foods. For example, ‘hot dogs’ made with mechanically recovered meat can contain 0 per cent real meat. Chicken nuggets can contain 0 per cent real meat. The ready availability of such items offers consumers little real choice when income levels are low and living costs, rents and house prices are high. The poisoning begins very early in life. Garbarino (1995) discusses the ‘socially toxic environment’ in which: ‘Children’s social world has become poisonous, due to escalating violence, the potentially lethal consequences of sex, diminishing adult supervision, and growing child poverty’ (Garbarino, 1997: 12). Toxicity can be extended to all of the major determinants of health and well-being.

In this book, we present evidence and arguments on different sides of the ‘freedom and choice’ debate. We accept that our present understanding of health behaviour is far from definitive. However we also believe that a critical position toward the discipline is warranted. Health psychology as it is currently structured as an academic discipline is based on an ideology of individualism based on interests and values embedded in mass culture. Educational or behavioural approaches based on internalized processes within the individual are often ineffectual and too small in scale (Marks, 1996, 2002a, 2002b). The necessary infrastructure for mass dissemination of such approaches through the health care system is lacking. The medical model remains the foundation of health care and is likely to remain so well into the future. The more wholistic approach of biopsychosocial health care is becoming more evident. Health psychologists can work within this approach at different levels of the health care system: carrying out research; systematically reviewing research; helping to design, implement and evaluate health interventions; training and teaching; consultancy; providing and improving health services; carrying out health promotion; designing policy to improve services; and, last but not least, advocating social justice so that people and communities are enabled to act on their own terms.

In the latter domain, a communitarian perspective to health work can lead to more effective interventions. In working towards social justice and the reduction of inequities, people’s rights to health and freedom from illness are a life and death matter, a responsibility of all planners, policymakers and leaders of people wherever they may be (Marks, 2004). We return to this subject in the chapters that follow.

We suggest a definition of health psychology in Box 1.2. In discussing this definition, we can say that the objective of health psychology is to promote and maintain the well-being of individuals, communities and populations.

**Box 1.2**

**Definition of health psychology**

Health psychology is an interdisciplinary field concerned with the application of psychological knowledge and techniques to health, illness and health care.
Health psychologists generally hold a wholistic perspective on individual well-being. While the primary focus is on physical rather than mental health, in reality it is acknowledged that these are ‘two sides of a coin’. When a person has a physical illness they can experience anxiety or depression. When a person has a mental illness their behaviour or treatment may well lead to a deterioration in physical health. Feeling well involves mind, body and spirit. At a practical level, the health psychologist is concerned with the behaviour and experience of the individual, the interface of the individual with the health-care system, and with society as a whole.

**RATIONALE AND ROLE FOR HEALTH PSYCHOLOGY**

There is a strong rationale for developing the discipline of health psychology: (1) the behavioural basis for illness and mortality requires effective methods of behaviour change; (2) the search for a wholistic system of health care requires expert knowledge of the psychosocial health needs of people. Firstly, in relation to point 1, findings from epidemiology suggest that all of the leading causes of illness and death in Western societies are behavioural. This means that many deaths are preventable if we can find effective ways of changing behaviour. The mortality rates for different conditions in younger and older people are shown in Table 1.2.

**Table 1.2** Leading causes of mortality among adults worldwide, 2002

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause</th>
<th>Deaths (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality: adults aged 15–59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>HIV/AIDS</td>
<td>2279</td>
</tr>
<tr>
<td>2</td>
<td>Ischaemic heart disease</td>
<td>1332</td>
</tr>
<tr>
<td>3</td>
<td>Tuberculosis</td>
<td>1036</td>
</tr>
<tr>
<td>4</td>
<td>Road traffic injuries</td>
<td>814</td>
</tr>
<tr>
<td>5</td>
<td>Cerebrovascular disease</td>
<td>783</td>
</tr>
<tr>
<td>6</td>
<td>Self-inflicted injuries</td>
<td>672</td>
</tr>
<tr>
<td>7</td>
<td>Violence</td>
<td>473</td>
</tr>
<tr>
<td>8</td>
<td>Cirrhosis of the liver</td>
<td>382</td>
</tr>
<tr>
<td>9</td>
<td>Lower respiratory infections</td>
<td>352</td>
</tr>
<tr>
<td>10</td>
<td>Chronic obstructive pulmonary disease</td>
<td>343</td>
</tr>
</tbody>
</table>

Mortality: adults aged 60 and over

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause</th>
<th>Deaths (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ischaemic heart disease</td>
<td>5825</td>
</tr>
<tr>
<td>2</td>
<td>Cerebrovascular disease</td>
<td>4689</td>
</tr>
</tbody>
</table>
Table 1.2  (Continued)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Cause</th>
<th>Deaths (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Chronic obstructive pulmonary disease</td>
<td>2399</td>
</tr>
<tr>
<td>4</td>
<td>Lower respiratory infections</td>
<td>1396</td>
</tr>
<tr>
<td>5</td>
<td>Trachea, bronchus, lung cancers</td>
<td>928</td>
</tr>
<tr>
<td>6</td>
<td>Diabetes mellitus</td>
<td>754</td>
</tr>
<tr>
<td>7</td>
<td>Hypertensive heart disease</td>
<td>735</td>
</tr>
<tr>
<td>8</td>
<td>Stomach cancer</td>
<td>605</td>
</tr>
<tr>
<td>9</td>
<td>Tuberculosis</td>
<td>495</td>
</tr>
<tr>
<td>10</td>
<td>Colon and rectum cancers</td>
<td>477</td>
</tr>
</tbody>
</table>


**KEY STUDY  The Global Burden of Disease study**

An important epidemiological perspective comes from measures of ‘disability’ or ‘disablement’. The Global Burden of Disease (GBD) study projected mortality and disablement over 25 years. The trends from the GBD study suggest that disablement is determined mainly by ageing, the spread of HIV, the increase in tobacco-related mortality and disablement, psychiatric and neurological conditions and the decline in mortality from communicable, maternal, perinatal and nutritional disorders (Murray & Lopez, 1997).

The GBD uses the disability-adjusted life year (DALY) as a quantitative indicator of burden of disease that reflects the total amount of healthy life lost, to all causes, whether from premature mortality or from some degree of disablement during a period of time. The DALY is the sum of years of life lost from premature mortality plus years of life with disablement, adjusted for severity of disablement from all causes, both physical and mental (Murray & Lopez, 1997). The GBD study prepared figures by age, sex and region for 1990 and 2020 (see Table 1.3).

While various cancers feature highly in the causes of mortality (see Table 1.2), they do not appear in the top ten causes of disablement (Table 1.3) because people with untreatable cancer die fairly quickly with the condition. However, diseases of the cardiovascular system cause many deaths and also a large proportion of disablement. Many patients with cardiovascular disease live for a long time. The contribution of communicable maternal, perinatal and nutritional disorders to the GBD is expected to decline from 44 per cent in 1990 to 20 per cent in 2020. Meanwhile the contribution from non-communicable diseases is expected to rise from 41 per cent in 1990 to 60 per cent in 2020.
Health Psychology in Context

The data in Table 1.4 indicate that nearly 30 per cent of the total global burden of disease is attributable to five risk factors. The largest risk factor (underweight) is associated with poverty (see Chapters 2 and 3). The remaining four risk factors are discussed in Part 2 (see Chapters 6–10).

Table 1.3 Rank order of DALYs for the ten leading causes of disablement, World 1990–2020

<table>
<thead>
<tr>
<th>Position</th>
<th>1990 Diseases or Injury</th>
<th>2020 Diseases or Injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lower respiratory infections</td>
<td>Ischaemic heart disease</td>
</tr>
<tr>
<td>2</td>
<td>Diarrhoeal diseases</td>
<td>Unipolar major depression</td>
</tr>
<tr>
<td>3</td>
<td>Conditions arising during the perinatal period</td>
<td>Road traffic accidents</td>
</tr>
<tr>
<td>4</td>
<td>Unipolar major depression</td>
<td>Cerebrovascular disease</td>
</tr>
<tr>
<td>5</td>
<td>Ischaemic heart disease</td>
<td>Chronic obstructive pulmonary disease</td>
</tr>
<tr>
<td>6</td>
<td>Cerebrovascular disease</td>
<td>Lower respiratory infections</td>
</tr>
<tr>
<td>7</td>
<td>Tuberculosis</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>8</td>
<td>Measles</td>
<td>War injuries</td>
</tr>
<tr>
<td>9</td>
<td>Road traffic accidents</td>
<td>Diarrhoeal diseases</td>
</tr>
<tr>
<td>10</td>
<td>Congenital anomalies</td>
<td>HIV/AIDS</td>
</tr>
</tbody>
</table>

Source: Murray and Lopez, 1997

The statistics on death and disablement provide a strong rationale for health psychology. If the major risk factors are to be addressed, there is a need for effective methods of behaviour change. The mainstream ideology of individualism assumes that individuals are responsible for their own health. Health psychology is at the ‘sharp end’ of the quest to produce...
health behaviour change on an industrial scale. The fact that people are highly constrained
by their circumstances often militates against such changes. There are constraints on the
ability of health-care systems to influence health outcomes at a population level because of
the significant social and economic determinants that structure the health of individuals and
communities.

A second rationale for health psychology is growing recognition that a purely medical
approach to health care is failing to meet the psychosocial needs of many patients. This has
led to a search for an alternative perspective which values the wholistic care of patients and
attempts to improve services through higher quality psychosocial care. In spite of their very
high costs (see Figure 1.2), health-care systems are often perceived to be inefficient, ineffec-
tive and unfit for purpose. This is especially the case in the US where the largest per capita
expenditure is producing some unimpressive outcomes. Longevity in the US is lower than
in the majority of countries in the Western world. One wonders why? The dominance of the
medical model has been criticized since the 1970s (Illich, 1976). While medicine wants
to take the credit for the decline of disease in the twentieth century, critics have suggested
that health improvements are due mainly to better hygiene, education and reduced poverty
(McKeown, 1979).

High costs, dissatisfaction and disenchantment, together with a growing awareness
of psychosocial influences, led to concepts such as the biopsychosocial model (Engel,
1977; see Chapter 3). Since that suggestion, health psychology has developed distinctive
approaches.
DIFFERENT WAYS OF STUDYING HEALTH EXPERIENCE

Epistemology is concerned with theories about how we can acquire knowledge. Traditionally, there are two major approaches to acquiring knowledge and understanding of human behaviour and experience. An approach to acquiring new knowledge is termed an ‘epistemology’. The first of these is the natural science approach that analyses behaviour and experience in a manner similar to the way in which physicists, chemists or biologists conduct experiments to search for a single, ‘true’ account of reality. For example, by observing a chemical reaction in a test tube the chemist is able to use induction and extrapolate by using general laws to the whole of the natural world. Human behaviour often does not fit comfortably within the test tube model of science and another approach is found to be more illuminating. This has led to the conception of the human science approach that explores human behaviour and experience using a variety of methods, including qualitative ones. This approach focuses upon understanding the underlying personal meaning of events, trying to see how the world looks from the perspective of one individual, one group or one culture.

Both traditions have been influential. Table 1.5 presents contrasting features of the two approaches. From a pragmatic point of view, the two epistemologies are complementary, not mutually exclusive. The natural science approach aims to identify causal relationships between variables. It asks ‘does x cause y?’ and attempts to generate accurate predictive models from an objective, ‘third-person’ perspective. By contrast, the human science approach aims to analyse meanings and reasons. It asks ‘how does y feel about x?’ or ‘what does y mean to x?’ and produces detailed accounts of human action from a subjective, ‘first-person’ perspective. Both approaches deliver descriptions and explanations of what has happened in the past, and make predictions about what can be expected in future. One ‘size does not fit all’. In many situations it is possible to apply both types of description. The degree of fit between each approach and a given event depends on its nature.

The natural science tradition is represented by the medical model. Health and illness are complex physical states of the body and brain. The mind is neural activity in the cerebral cortex. Engel (1977) challenged the traditional medical model by proposing a biopsychosocial model which assumed that health and illness have physical, psychosocial and cultural determinants. Critics have suggested that the biopsychosocial model is essentially the medical model ‘with knobs on’, that it is not a proper theory which is capable of making testable or refutable predictions (Armstrong, 1987; Marks, 1996). Many textbooks have advocated the biopsychosocial model as a viable alternative to the medical model. The biopsychosocial model has been a kind of ‘Trojan Horse’ with which to establish health psychology as a distinctive discipline. However, the fact that the biopsychosocial is not a coherent theory makes it an unsuitable choice for the foundation of a scientific discipline.

The second epistemology, the human science tradition, is represented by research on discourse, narrative and social representations. People’s accounts of health and illness are an illuminating topic of study in its own right. Much of the research on health and illness narratives has been influenced by social constructionism (Stainton-Rogers, 1991). From this
perspective, there is no single, fixed ‘reality’ but a multiplicity of descriptions or ‘drafts’, each with its own unique pattern of meanings. Mulkay (1991: 27–8) suggests the existence of ‘many potential worlds of meaning that can be imaginatively entered and celebrated, in ways that are constantly changing to give richness and value to human experience’. One of the more popular ways of studying ‘worlds of meaning’ has been to analyse the social psychological functions of people’s accounts using discourse analysis (Potter and Wetherell, 1987). Discursive psychology was influenced by Berger and Luckmann (1966), who argued that ‘reality’ is a social construction. Earlier intellectual forbears were Pascal, Marx and Nietzsche, who believed that conscious thinking is strongly influenced by the thinker’s socio-historical context.

Social constructionists continue to engage in a lively debate regarding the extent to which social constructions are grounded in material reality (see Parker, 1998). Some are relativists, in which there is no single reality at all, while others are critical realists in which there is one reality giving rise to different descriptions or perspectives. Relativist social constructionists, inspired by Nietzsche, emphasize the flexibility of discourse and the sense in which language can be said to construct reality. Critical realist social constructionists, inspired by Marx, acknowledge that discourses construct different versions of reality, but they argue that the material world cannot accommodate all constructions equally well. Some accounts are more useful than others.

### Table 1.5  Contrasting the natural science and human science approaches to health psychology

<table>
<thead>
<tr>
<th>Aspect</th>
<th>Natural science</th>
<th>Human science</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>Identifying causes: Does X cause Y?</td>
<td>Identifying meanings: What does X mean to Y?</td>
</tr>
<tr>
<td><strong>Epistemology</strong></td>
<td>Realism: only one true description of nature (reality)</td>
<td>Social constructivism: many descriptions (plurality)</td>
</tr>
<tr>
<td><strong>Ontology</strong></td>
<td>Everything has a physical structure (mind = body)</td>
<td>Psychological experiences (subjectivity, consciousness, etc.) are not reducible to physics (mind ≠ body)</td>
</tr>
<tr>
<td><strong>Model</strong></td>
<td>Medical model (3 Ds: disease, diagnosis, drugs)</td>
<td>Biopsychosocial model (3 Ps: people, prevention, psychology)</td>
</tr>
<tr>
<td><strong>Research methods</strong></td>
<td>Quantitative methods: observation, experiments, randomized controlled trials</td>
<td>Qualitative methods: discourse analysis, grounded theory, interpretative phenomenological analysis, narratives, diaries, art and performance</td>
</tr>
<tr>
<td><strong>Interventions</strong></td>
<td>Physical (surgery), pharmacological (drug treatments), behavioural (lifestyle change)</td>
<td>Social, psychological, cognitive, phenomenological</td>
</tr>
</tbody>
</table>
Whatever approach we choose, both are interested in developing an improved understanding of health in body and mind and the relationships between the two. We suggest that we can actually have the ‘best of both worlds’ by accepting the value and benefits in attempting to understand the objective and the subjective aspects of health and illness.

A CROSS-CULTURAL PERSPECTIVE

In addition to wide variations in health beliefs between cultures, there is significant within-culture diversity. Folk beliefs, knowledge and practices among individuals from different communities and social groups rub shoulders with each other and with those of health-care professionals in a Tower of Babel. These diverse beliefs meld with practices and lifestyles in accord with people’s worldviews and values.

Theories in health psychology provide accounts of how psychosocial processes affect individual health experience. In reviewing such theories (see Chapter 6) it must be acknowledged that they are principally products of the USA and British Commonwealth, together with inputs from Continental Europe and Scandinavia. Many of health psychology’s theories are adaptations of US/European cognitive and social psychology from the last 50 years of the twentieth century. The resurgence of research in laboratory environments used structured psychometric instruments, questionnaires and performance tests designed to reveal the mechanisms underlying human behaviour. These methods lacked ecological validity, or, in other words, that the findings could not be generalized to the world that lies outside the laboratory. Critics have suggested that the laboratory experiment and the questionnaire are subject to more bias than their proponents are willing to admit (Harré, 1979).

Anglo-centric theory can be viewed as one large-scale indigenous psychology that is inapplicable to cultures outside (Heelas & Lock, 1981). This view was supported by Lillard (1998) who catalogues evidence that ‘European American’ folk psychology shows major differences from the folk psychologies of other cultures. One example of a cultural value that is embedded in Western societies is individualism, which dictates that individuals are responsible for their own health. Over-concern with personal responsibility for health can lead to guilt and stigmatization. Brownell warned that the ‘tendency to overstate the impact of personal behaviour on health’ could feed the victim-blaming ethos that is already strong in western societies (Brownell, 1991: 303).

Cross-cultural psychology emphasizes cultural diversity and casts a sceptical eye over the ethnocentrism of contemporary Western psychology. It considers national or large group samples as the unit of analysis rather than individuals. Research has focused primarily on mental health (e.g. Dasen et al., 1988) and relatively little attention has been paid to physical health. A truly cross-cultural approach to health psychology is at an early stage of development.

This study reveals how the individualistic nature of mainstream health psychology is not applicable to settings in Africa. The mainstream Western approach assumes a worldview in which the causes of illness are attributed to atomistic, physiological processes within the individual. This construction of reality is associated with a view of a person as an individual with his/her own internalized assumptions that he/she is a separate individual. In African cultures, however, each person is seen as interconnected to other people, including living relatives and dead ancestors, and also to places and spiritual forces. Markus, Mullaly and Kitayama (1997) refer to cultural assumptions about selfhood as ‘selfways’. Selfways include what it means to be a good or bad person, and what causes us to become healthy or ill.

Adams and Salter give as an example of African selfways the idea of ‘enemyship’ – the belief that hatred of another can lead to bad things happen to one. The belief in the power of malevolent others is manifest through such practices as divination, infant seclusion, sorcery and witchcraft. They quote the following example: ‘I don’t know my enemies, but I know that I have them. One day something will happen to me, and then I will know that this person has been after me all along’ (Adams & Salter, 2007: 541).

There are implications of selfways for health-care provision. In the west we assume that social support and caregiving are generally a source of comfort and coping. Indeed, social support is a major focus for health psychology research and services. We need to consider how intimate family members could also be viewed as a source of danger, stress, worry and depression. In highlighting enemyship, the selfways of African cultures show social embeddedness is an ‘inevitable fact of social existence’ (Adams & Salter, 2007: 542).

A FRAMEWORK FOR HEALTH PSYCHOLOGY

Theory in health psychology consists of three broad types that vary according to their level of generality: these are frameworks, theories and models. Frameworks have some of the characteristics of paradigms (Kuhn, 1970) as they refer to a complete system of thinking about a field of inquiry. Paradigms explicitly state assumptions, laws and methods. Frameworks are much looser than paradigms but they are a way of organizing information about a field. Figure 1.3 shows a framework about the main influences on the health of individual human beings. It has been adapted from the work of Dahlgren and Whitehead (1991) and we call this the ‘Health Onion’.
The ‘Health Onion’ has a multi-layered structure with the individual at its core, surrounded by four layers of influence:

**Level 4:** general socio-economic, cultural and environmental conditions (covered by Part 1 of this book).

**Level 3:** living and working conditions (covered by Part 3 of this book).

**Level 2:** social and community influences (covered throughout this book).

**Level 1:** individual lifestyle (covered by Part 2 of this book).

**Core:** age, sex and hereditary factors (covered throughout this book).

The Health Onion has seven characteristics:

1. It is wholistic.
2. It is concerned with all health determinants, not simply with events during the treatment of illness.
3. The individual is at the core with health determinants acting through the community, living and working conditions, and the socio-economic, cultural and physical environment.
4. It places each layer in the context of its neighbours, including possible structural constraints upon change.
5. It has an interdisciplinary flavour that goes beyond a medical or quasi-medical approach.
Some believe we have a paradigm for all of health care in the form of evidence-based medicine or evidence-based practice (EBP). In EBP randomized controlled trials are used to produce conclusions about the effectiveness of different methods and treatments. In theory the approach sounds wonderful. In practice it is far from perfect. Evidence on effectiveness in EBP is assumed to have an objective, inviolable status that reflects ‘reality’. It is given an iconic status. In some undefined ways this evidence about ‘reality’ not only aids decision-making, but also determines it. In truth, evidence is never absolutely certain. It consists of negotiable, value-laden, and contextually dependent items of information. Evidence (= knowledge) for a technique or treatment in health care is not an accident, but the outcome of a series of ‘gates’ or ‘filters’ that must be passed before the technique is deemed to be kosher (Marks, 2005).

Consider the sequence of processes from conception to application through which evidence must pass if it is to be considered admissible in EBP. The filtering is so selective that, typically, systematic reviewers will be able to find only a dozen or less of primary studies which fulfil the inclusion criteria from a field of several thousand. Oakley (2001) described a systematic review of peer health promotion for young people that found 5,124 citations of which exactly 12 (0.234 per cent) were judged to have carried out ‘sound’ outcome evaluations. She compared this search process to ‘finding needles in haystacks’ (Oakley, 2001, p. 22–4). Another analogy is making a pot of filter coffee – the stronger the filtering, the less fresh and flavourful the coffee. EBP is somewhat similar – there are no guarantees the end-product will be fit-for-purpose. The filtering process of EBP is illustrated below:

(Continued)
1. Current knowledge, theory and paradigms taught in universities & schools
2. Funding priorities of government, industry & charities
3. Hypotheses considered important by the funders
4. Methodology approved by funders
5. Journal publication
6. Systematic reviews
7. EBP

To be judged ‘sound’, evidence must pass through all seven of the filters which are disposed towards the preservation of existing practices, traditions and myths. In confirming the ‘sound’ status of the chosen techniques, which have passed through the filters, the ‘unsoundness’ of the unfiltered techniques is established by default. Undeniably, this filtering of evidence is systematic and evidence will be considered ‘sound’ or ‘unsound’ according to established criteria.

However, EBP is contentious on a number of grounds. Firstly, it is wasteful that so much evidence is ‘thrown away’. Many unfiltered techniques are quite possibly as effective as techniques that have been filtered. Secondly, the filtering process gives a high weighting to techniques which conform to beliefs and values of the knowledge establishment. For example, pharmacotherapy will be established ahead of psychological therapies (pharmaceutical industry sponsorship at filters 1-4), quantitative techniques will be preferred to qualitative techniques (filters 5-6), and patient treatment care will be about outputs and outcomes, rather than feeling they have been cared for as human beings (filters 7). Thirdly, innovation may have difficulty breaking through.

In this book we review the results of many studies using the approach of EBP. We also review observational studies not based on the assumptions of EBP. Many such studies were situated in settings where EBP would be unethical, impractical or impossible to carry out. We also recognize the contribution of qualitative studies where the information obtained illuminates the psychosocial experience of health and illness.

FUTURE RESEARCH

1. Research is needed at a basic conceptual level to unravel the biopsychosocial model and specify it more clearly so that it can be turned into a genuine theory.
2. Transcultural studies of health, illness and health care are needed to facilitate communication and understanding of systems of healing among different cultural, ethnic and religious groups.
3. Apart from smoking cessation, there is no strong evidence that lifestyle changes cause positive changes to life expectancy and quality of life. That evidence needs to be gathered.
4. Innovative methods of evaluation are needed to provide an alternative to evidence-based practice.
Summary

1. Health is a state of well-being with physical, cultural, psychosocial, economic and spiritual attributes, not simply the absence of illness.
2. To be healthy in body and mind a person’s biological needs must be satisfied and also their needs to interconnect with others and to act autonomously.
3. Interests and values condition all health work. A social orientation is necessary if we are to understand health behaviour and experience in context of society and culture. Such an orientation focuses upon health as much as illness, preventive care as much as cure, and considers families, groups and communities as much as individuals.
4. Health psychology consists of the application of psychological knowledge and techniques to health, illness and health care. Its primary purpose is to understand and improve the well-being of individuals and communities.
5. Health psychology is growing rapidly because: (a) there is increasing evidence that much illness and mortality are caused by behaviour; (b) there is increasing awareness of the psychosocial aspects of health and illness.
6. The Health Onion Framework is used in this book as a framework for health and illness. The core is individual health status with particular age, sex and hereditary factors.
7. Four levels of analysis (skins of the Health Onion) consist of individual lifestyle (level 1), social and community influences (level 2), living and working conditions (level 3), and general socio-economic, cultural and environmental conditions (level 4).
8. Health psychology lacks a single paradigm. Two approaches analyse health and illness in different ways: from the perspective of natural science (realism) and from the perspective of human science (constructivism).
9. Concepts about health and disease are embedded in culturally diverse selfways, which manifest significant differences between cultures and places.
10. Theory building in health psychology occurs at three levels of generality: (a) frameworks; (b) theories; (c) models. The evidence base is made up of the outcomes of evidence-based practice and observational methods which may be both qualitative and quantitative.