Phytotherapy in context

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THE ORIGINS OF HERBAL THERAPEUTICS

THE COMMON ORIGINS OF DIET AND MEDICINE

Using plants to promote healing is an ancient and global practice, referred to in our earliest texts and oral traditions:

“Spoken stories were the living encyclopedias of our oral ancestors, dynamic and lyrical compendia of practical knowledge. Oral tales told on special occasions carried the secrets of how to orient in the local cosmos. Hidden in the magic adventures of their characters was precise information regarding which plants were good to eat and which were poisonous, and how to prepare certain herbs to heal cramps, or sleeplessness, or a fever.”

Abram 2004

The search for food by early peoples inevitably led to encounters with plants that were discovered to be either toxic or therapeutic – sometimes both
(depending on the amount ingested and the constitution of the individual). The development of herbal medicine thus occurred alongside adventures in determining the diet, so that we might consider herbal medicine to represent a branch, or offshoot, of nutrition. Zysk and Tetlow (2001) have observed that: ‘The most traditional source of Ayurvedic medicine is the kitchen. It is likely that, at an early stage of its development, Indian medical and culinary traditions worked hand in hand with each other’. Beyond India, across the planet, we can suggest that the origin of the pharmacy lies in the kitchen.

The human relationship with medicinal plant chemicals is therefore a primary one. *Homo sapiens* emerged into a world long since populated with a great diversity of plant life with which our hominid ancestors already had intimate experience. To put things into perspective – we can compare the origin of our species, currently estimated at around 200,000 years ago, with the origin of the tree – and the now popular herbal remedy – *Ginkgo biloba*, which appeared some 200 million years ago. We tend to overlook, or take for granted, the fundamental essentiality of the plant–person relationship: just as we cannot live without sunlight, our health depends on plants.

The interaction between people and plants is, however, not straightforward. Rather it can be seen as a process of mutual adaptation, a dynamic evolutionary interplay. This deep engagement necessarily involves the full range of plant chemistry, running the gamut from attraction to repulsion, nutriment to poison. The ethnobotanist and professor of nutrition, Timothy Johns (1996), has described how the search for sustenance also laid the foundations for plant medication:

> The properties of plants that make them unpalatable and toxic are the same properties that make them useful pharmacologically. In exploiting plant foods it is impossible to avoid their defensive chemicals, and I believe that in adapting to them our species has made them an essential part of our internal ecology.

In this statement Johns touches on three key points:

- The connection between the sense of taste and the perception of pharmacology
- The ability of humans to adapt to and utilize physiologically potent plant compounds
- The profound degree to which the medicinal plant–person interface has evolved.

Human beings are hardwired for herbal medicine.

**MATTERS OF TASTE**

Early medical systems were founded on:

- The interpretation of sensory information personally experienced when taking medicinal substances (e.g. did the item make you feel hot or cold, stimulated or sleepy, etc.)
- The observation of the effects of these substances on others
- A close observation of nature and the environment – which provided an explanatory and integrating framework for practice.
The sense of taste is at the core, as the primary sensory engagement with medicinal substances at the point that they enter the body. In the Hippocratic tradition ‘eight qualities of taste’ are recognized: sweet, fatty, acid, bitter, pungent, salty, bilious and astringent (Ullmann 1978). These are similar to the flavours discerned in traditional Chinese medicine, where herbal agents are classed according to whether they possess such distinctions as sourness, sweetness, bitterness, saltiness, pungency, blandness and astringency. These categories are not abstract or abstruse rationalizations, but rather the representation of clear and direct sensory experience. Each particular taste is associated with certain properties. For example, in Chinese medicine: bitter herbs have ‘drying, reducing and downward-moving capabilities. (They) can dry Dampness and dissolve Phlegm ... [and] reduce Heat from the internal organs’ (Yang 2002). This is a very practical set of correspondences, based on observation and experience. The taste of the herb is associated with its sensed and observed ability to, for instance, warm (pungency, as in ginger) or cool (bitters) the body, or to be drying (astringent) or moistening (saltiness) in character. This range of information provides a pattern of activity, which can then be mapped against, and applied to, patterns of illness. When the patient has a condition that is hot and wet in its manifestation (such as a fever accompanied by sweating), then the requirement for herbal treatment that is cooling and drying is obvious. Such reasoning is at the core of ancient medical systems and constitutes the experiential origin of therapeutics.

That is not to say that classification systems of this type have ever been straightforward or unopposed! Controversy over classifications and the difficulty of making fine distinctions in diagnosis and prescribing has been in evidence since ancient times, as a Hippocratic author (from around the sixth century BCE) demonstrates:

_I am utterly at a loss to know how those who prefer these hypothetical arguments and reduce the science to a simple matter of ‘postulates’ ever cure anyone on the basis of their assumptions. I do not think that they have ever discovered anything that is purely ‘hot’ or ‘cold’, ‘dry’ or ‘wet’, without it sharing some other qualities ... It would be useless to bid a sick man to “take something hot”. He would immediately ask “What?” Whereupon the doctor must either talk some technical gibberish or take refuge in some known solid substance. But suppose ‘something hot’ is also astringent, another is hot and soothing as well, while a third produces rumbling in the belly. There are many varied hot substances with many and varied effects which may be contrary to one another._

Lloyd (1983)

Careful judgement also needs to be exercised in determining when to encourage or oppose the expression of a disease phenomenon. For example, a low grade fever may need to be provoked into an acute manifestation with warming herbs in order to be fully expressed and thereafter fully healed. Suppression of a fever at an early or mild stage may be actively harmful. Therefore, traditional medicine is not exclusively allopathic (contrary in nature) but includes homoeopathic (similar in nature) elements too. The physician’s skill lies in knowing how to modulate the pattern of the disorder, drawing on a range of capacities as required.
Returning to taste, we can say that the intensity of sensation derived from a herb or food can provide general indications as to its potency of action, its safety profile and the dosage that might be appropriate for it:

*A rough indication of the qualities of a food or herb is the strength of taste. This could be seen to represent the relative amount of Qi contained within the food or herb. Generally, mild flavoured foods are consumed as staples (grains and pulses for example), while foods and drinks with stronger taste (tea, coffee, spices and condiments, etc.) are used less frequently because they have more of a medicinal effect.*

Jilin (1995)

Mild flavours typically indicate a broad therapeutic window (i.e. a wide potential dosage range, suggesting the relatively benign nature of the substance) and hence suitability for long-term use in chronic disorders. Mildness occurs in herbal categories such as the ‘adaptogens’ (e.g. Astragalus membranaceus – huang qi) or the nervous ‘trophorestoratives’ (e.g. Avena sativa – oat straw). Strong flavours, conversely, are suggestive of a narrower therapeutic window (where the toxic dose is close to the therapeutic dose) and are more appropriate for short-term use and in acute disorders, e.g. the use of the powerfully bitter herb *Hydrastis canadensis* (golden seal) in sinus or gastrointestinal infections.

‘Mild flavoured’ foods and herbs may alternatively be classed as ‘bland’. The sinologist, Francois Jullien, has used the motif of blandness to provide insight not only into Chinese medical thinking but into the philosophy of Chinese thought in general:

*First, one accepts the paradox: that to honour the bland – to value the flavourless rather than the flavourful – runs counter to our most spontaneous judgement … But in Chinese culture, the bland is recognised as a positive quality … When the seemingly paradoxical becomes self-evident, when the value of the bland has changed signs, we begin to feel more comfortable with Chinese culture. When we begin to apprehend the stirring – beyond our ideological reflexes and cultural conditioning – of the possibility of a positive notion of the bland, we have entered China: not into its flashiest or most sophisticated realms, but into what is most simple and essential.*


Our direct sensory experience of the world shapes how we interpret it. Jullien’s study helps to demonstrate the connection between taste and worldview: between physiological taste and aesthetic taste. In this analysis, blandness is a desirable quality of foods and herbs since it denotes those that are likely to be safe and suitable to take more frequently (or at higher dosage). Bland foods (such as grains, pulses, nuts and seeds – also known as ‘earth’ foods in Chinese medicine) are considered to be staples since they are gentle, easily digested and generative of a point of stability and potential, around which smaller amounts of more pronounced flavours may be consumed. The correlation is that a bland life, which is to say a moderate life, is the most sustainable way of living and one that can accommodate occasional eruptions of disorder or intensity – either planned or unplanned. Here we detect the ‘feast’ that is at the root of ‘festival’. The traditional yearly cycle of
generally ordered yet seasonally varying routine interspersed with occasional festivals/feast days provides an opportunity for short periods of stimulation, indulgence and free expression arising from a ground of moderation. While this pattern of living can be criticized as a means of maintaining feudalism and oppressive social control, it need not be constructed to this end – it also tends to spontaneously arise in successful indigenous cultures.

It is clear that the opposite scenario (i.e. the current mode of living in the ‘developed world’ where the bacchanal has shifted from sacred event to mundane lifestyle) is unsustainable, i.e. a day-to-day life of general stimulation/indulgence interspersed with short intense periods of moderation (going on a diet; checking-in to the detox clinic), is not robust enough to persist over the long term. Seen from this position, conventional medicines can be understood as a strand of an over-stimulated culture since they share the same intense, strong, unrelenting nature – unsubtle, single-gear agents that are integral to, and which fuel and enable an unsustainable mode of living. Herbal medicines, by comparison, appear relatively bland – notwithstanding the fact that several of conventional medicine’s most potent remedies are based on plant compounds (e.g. diamorphine from the opium poppy, *Papaver somniferum*). In reality, plant medicines represent a complex spectrum of healing influences from the totally innocuous to the potentially lethal. Recent mainstream discourse on herbal remedies has tended to oscillate between the poles of this range – either plant medicines are too weak to offer the prospect of genuine healing effects or they are too toxic to be further contemplated as possibly valid medicines. Paradoxically, in societies that have drifted so far from nature and so deeply into an immoderate way of living that the continuing viability of the human (and many other) species is now threatened, herbal medicines (a potential part of the solution to an unsustainable lifestyle) are increasingly seen as wildly unpredictable and potentially dangerous entities. Yet this is not a paradox, since cultures that have distanced themselves from nature to the point of becoming nature-phobic will tend to fear and distrust the agents of nature (uncomprehending of their complexity, resistant to their meanings) such as herbal remedies.

**SHAPE-SHIFTING**

In order for herbal substances to be accommodated within the dominant nature-phobic medical culture they need to be transformed or disguised. The most radical form of transformation takes place when the multi-compound complexity of a whole herb is reduced to a single ‘active constituent’, thereby actually becoming a ‘real’ conventional drug (i.e. a single, simple chemical compound). Whole herbs are not easily included into biomedical practice but the more a herbal remedy is disguised to look and feel like a conventional drug, the greater will be its chance of acceptance. This means that it should ideally be a chemically standardized extract of a solitary herb, presented in a processed coated pill form that is branded, packaged and corporatized. Ernst and Singh (2008) paternalistically advise that herbal medicine users only take single plant remedies, making sure to avoid traditional mixtures of herbs (herbalist’s ‘concoctions’); in their view only standardized preparations of herbs are to be permitted, and these should be bought in a packaged pill
form off a pharmacy shelf. What if we were to suggest that herbs could be picked for free from the wild? Presumably Ernst and Singh would be horrified by the idea, yet their protestations would not travel well outside of the UK where they are based – it would be difficult, for instance, to persuade Danes, Germans and Italians that it is ill-advised to pick wild mushrooms! Following such drug-centric, nature-phobic advice directs one to products in which the herb tends to lose its taste and wherein it can no longer be savoured: odourless, tasteless, intangible – it ceases to have any connection with food and consequently enters into a changed relationship with the digestive system and, hence, the whole organism.

Despite adjustments in its preparation and presentation, the process of assimilating the herb into the dominant scientific medical culture cannot be completed until a corpus of evidence has been accumulated to mark the change in status from ‘herb’ to ‘drug’. In the course of undergoing research, the plant will have to inhabit the diagnostic and prescriptive territory of conventional drugs so that, for instance, Hypericum perforatum (St John’s wort) must cease to be a ‘nervine tonic’ used as an aid in depleted and exhausted nervous states and instead become an SSRI-like antidepressant, only to be used for mild to moderate depression. This type of shift in the meaning and significance of the herbal agent is seen by some as representing the rational validation of plants as therapeutic agents while others consider that it debases, diminishes and perverts the true nature and potential of herbal medicine. The transformation from traditional remedy to ersatz-drug in this type of case means that a profound opportunity is missed. In processing the plant to fit the language and classification systems of medical textbooks and prescription manuals the irony is that, while these texts do not recognize the concept of ‘nervine tonics for depleted and exhausted nervous states’, doctors and patients readily do! Doctors see people in this predicament daily but have little if anything to offer them from the conventional materia medica. Failure to consider the traditional understanding of the properties, indications and cautions for herbs, treating them instead as novel substances without a history, whether due to carelessness, ignorance or arrogance, commonly results in needlessly narrowed and warped interpretations of their capacities.

When researchers approach herbs from the perspective of positivist science, a one-way process generally follows with the herb being assimilated into the conventional model. Little or nothing is learned from the story that the herb brings with it. Typically, when attention is paid to traditional records and practitioners, or even where sophisticated original background ethnobotanical research has been conducted with native healers, pharmaceutical company funded research is only ultimately interested in generating leads that may give rise to a new and marketable drug – at which point the ‘back story’ is ditched. In his book Prospecting for Drugs in Ancient and Medieval European Texts, Holland (1996) talks of: ‘The use of folk beliefs and traditional healers as a short-cut to the discovery and isolation of pharmacologically active compounds …’, as opposed to promoting renewed use of the herbs themselves. The assumption is that herbal medicines are of no value in their own right, although they might provide clues that enable the production of ‘proper’ drugs. Why not just run trials on the herbs themselves and, if the old herbals
are proven to be correct, then promote the wider use of herbs in medical practice? In answering that question, fiscal as well as scientific bias needs to be considered.

The absolutist nature of positivist science is typified by Dawkins (2003) who asserts that there are no such entities as ‘conventional’ and ‘complementary and alternative medicine’ (CAM) but merely ‘medicine that works and medicine that does not work’. He is confident that if so-called CAM practices (such as herbal medicine) are proven to work by means of double-blind randomized placebo controlled trials (RCTs) – if they are able to ‘pass that test’ – then ‘mainstream medicine would simply adopt them’. This is a view of biomedical substance, process and assimilation of cartoon-like quality, that displays either stunning naivety or wilful perversity. In this monotheistic view, biomedicine is portrayed as the only legitimate form of medicine. It has the capacity to incorporate techniques and materials into its scope but only when these comply with its own scientific normative standards – there is no need to question these principles, only to rigorously apply them. In order for CAM practices (or aspects of them) to enter the big tent of biomedicine they merely need to show their passport at the flap – suitably stamped ‘RCT’. In fact biomedicine cannot eat CAM practices whole – they first need to be prepared into a suitably digestible form via marination in approved forms of research. Yet even long steeping of this kind may still fail to render them appetizing. Would Dawkins be surprised to find that doctors (in the UK at least) are not prescribing the heavily research-validated St John’s Wort for depression? For all its evidence-base, this herb somehow remains foreign, it fails to fit in, and meets with the kind of incomprehension and xenophobia that all too commonly characterize the position of the dominant culture in response to the immigrant. Despite what Dawkins has suggested, it appears that the world of biomedicine is not value free.

Since the dominant medical drug model is inflexible, herbal medicines must change their form and divest themselves of their attached traditional rationales if they are to be incorporated into it. We will return to this territory later as we discuss the varieties of phytotherapy and the ways in which herbal practitioners have engaged with or opposed the biomedical project.

**FOOD, MEDICINE AND PHARMACOLOGY**

In Ayurvedic medicine, as in other traditional systems, taste is central to appreciating the qualities of herbs as well as foods. Joshi et al. (2006) equate ‘taste’ with the Sanskrit word ‘Rasa’ which ‘refers to a complex totality of experience arising from all the perceptory interactions of the material with sensors in the mouth and nasal passages, taste buds, olfactory and chemesthetic receptors’. The notion of ‘Rasa’ incorporates six primary tastes, similar to those already mentioned in ancient Graeco-Roman and Chinese medicine: sweet, sour, salty, pungent, bitter, and astringent. Each primary taste is said to be composed of specific combinations of the elements and exerts particular influences on the Ayurvedic humoural system (i.e. the three ‘doshas’ of kapha, pitta and vata). For example, the sweet taste is composed of earth and water, it increases kapha and decreases pitta and vata. Further differentiations of taste are drawn in Ayurveda, including the concepts of ‘virya’ (which identifies
thermal, tactile and other effects with eight descriptions that are formed into four complementary pairs: hot–cold, unctuous–dry, heavy–light, dull–sharp) and ‘vipaka’ (which describes three types of aftertaste: sweet, sour and pungent).

Beauchamp et al. (2005) found that the drug Ibuprofen and a compound found in extra-virgin olive oil (oleo canthal) both caused a similar stinging sensation in the throat. Although possessing different chemical structures, both agents share similar anti-inflammatory activity as COX-1 and COX-2 inhibitors. Joshi et al. (2006) refer to this research, seeing it as offering modern confirmation of the value traditionally placed on taste, and suggesting that: ‘Using “taste” as an additional tool, new phytochemicals of desired therapeutic activity might be more rapidly identified’. Taste is a pharmacological detection tool, since different tastes are triggered by different chemical compounds: bitterness relates to compounds including iridioids, sourness to certain acids, sweetness to polysaccharides, astringency to tannins and so on. In this way, even the most primary, non-technological relationship between people and plants can be rendered to the service of biomedicine. Alongside the plundering of the knowledge of traditional healers and of ancient herbal texts, the very sense of taste itself can be exploited to reductive pharmacological ends. In these realms, the balance between justification and appropriation of herbal medicine is played out: proponents of herbal medicine can use traditional and pharmacological evidence to justify the validity of herbal medicine, while biomedicine can use the same means to appropriate it. This paired agenda is one of the key sites of tension in the interface between herbal and conventional medicine.

A pharmacological perspective reveals a large overlap in the types of chemical compounds found in both foods and herbal medicines. Some substances may be considered to belong in both categories, e.g. garlic and the culinary herbs and spices such as basil and cinnamon have a place in the kitchen and the dispensary. A chemically-based approach to distinguishing between plants as foods and as medicines may begin by acknowledging the considerable overlap between the two groups before making the general distinction that foods tend to be rich in primary metabolites of nutritional value (macronutrients and micronutrients), while medicinal herbs tend to contain less nutritional compounds but a high proportion of secondary metabolites (such as alkaloids, saponins and volatile oils). Foods – when carefully selected and prepared – are generally, and necessarily, extremely low in toxicity and able to provide nutrients to maintain growth, repair and the maintenance of normal physiological functions. Medicinal herbs provide a spectrum of agents from benign to toxic in effect, which can have an adaptive effect on physiology – modulating the response to challenges including those deriving from pathology. This distinction between foods and medicines is essentially the same as that made by the Persian physician al-Majusi (late tenth century), which was in turn based on the writings of Galen (bce 129–c.216?), which states that:

The drug (herbal medicine) changes the physis of the body, while on the other hand the food increases its substance.

Ullmann (1978)
Ullmann (1978) further describes al-Majusi’s distinctions between foods and medicines, which are based on how the body changes, and is changed by, these two types of substances. Al-Majusi’s perspective is divided into four categories of relationships:

1. Remedies in the absolute sense are the materials which the body at first changes but which then change the body and transform it into their temperament
2. Deadly poisons are those materials which change the body and gain power over it without the body being able to resist them
3. Remedial food materials are those which at first change the body until the body gains power over them and transforms them into its own nature …
4. Finally, the (pure) foods are those which the body changes and transforms into itself.

This systemization continues to provide a good model for appreciating the differences between, as Ullmann terms them, ‘remedies’ (i.e. herbal medicines); ‘poisons’ (certain toxic herbs and conventional medicines); ‘remedial food-stuffs’ (those possessing gentle therapeutic activity); and ‘food-stuffs’ (which build the substance of the body). The ability to distinguish between plants that are foods and those that are medicines (as well as those which straddle both categories) in this way has been crucial to human survival. This understanding is also vital in other species, as the science of zoopharmacognosy is revealing (for an introduction to this area, see Engel 2007). The importance of this knowledge is testified to by the number of documents (known as ‘herbals’) from earliest times, dedicated to listing and explaining the therapeutic properties of naturally occurring substances – principally botanical material. A stunning example is the Ebers Papyrus (discovered by Georg Ebers in the 1870s), which gives some 700 remedies for a wide variety of conditions. This ancient Egyptian text, dating from around BCE 1550, is considered the oldest medical text extant. Numerous other herbals are left to us from around the world from Ancient Greece and Rome, Mediaeval Europe, India, Central America and China.

**CO-EVOLUTION**

We might now reflect on the nature of the relationships between plants and animals, including humans, particularly with regard to how these have influenced the production of secondary metabolites, and how tolerance and utilization of these compounds has developed.

According to Wynne-Edwards (2001): ‘Evidence of coevolution of plants and herbivores is abundant’. Animals have used plants for food and plants have responded by developing mechanisms to deter them. While some plants may accrue positive gains from being consumed once they have developed seeds (the animal can then spread the seed in useful manure-wrapped deposits), they are at risk of being destroyed without benefit if eaten before this point. Some plant defences are physical (e.g. thorns) but most are chemical. Many chemical defences produced by plants taste unpleasant to us (e.g. intense bitterness) – the unpleasantness is the deterrent, while our retention
of this sense of unpleasantness helps to protect us from consuming too much. This poses palatability challenges when working with herbal medicines, and relates to such folk wisdom as: ‘The worse the medicine tastes the better it is for you’.

Animals have developed a range of strategies in adapting to plant defences, as Wynne-Edwards (2001) describes:

... mammalian herbivores often consume a diverse diet composed of sublethal doses of chemical defences or carefully consume only the tissues that are least toxic to them ... (they) can also evolve detoxification mechanisms that allow them to consume specific plants in spite of their chemical defences ...

Beyond this, animals have evolved to use plant defence chemicals to their advantage, often for the same purposes as the plants themselves. Plants, for example produce antimicrobial compounds for their own needs, which can be used by humans to destroy our bacterial and fungal infections. Plant secondary metabolites may serve multiple purposes within the plant itself, for instance: alkaloids act as a deterrent to herbivores but are also involved in absorption of nitrogen from the soil; flavonoids help to prevent infection in plants but also protect them from UV radiation and play a role in regulating growth. It is important to note that the plant–person relationship works in both directions, animals and plants adapt in response to each other. A major human cause of changes in plant chemistry is that of domestication of food plants. This has led to changes in their chemical composition, including the reduction of more aggressively acting or toxic secondary metabolites. Wild potatoes, for example, are generally too unpalatable and potentially harmful for human consumption but some of their inherent toxicity has been reduced through careful selection and cultivation.

The origins of herbal therapy then, lie very deep – through co-evolution with plants we are hardwired for a dynamic interaction with plant secondary metabolites. This relationship is not limited to the purely physical level. O’Doherty et al. (2001) have shown that both pleasant and unpleasant tastes influence the amygdala (a brain structure associated with emotional and mental activity) and the psychoactive (especially hallucinogenic) properties of some plants can be considered as a particular category of deterrent innovation that have influenced humans profoundly – shaping beliefs about the world.

Much of the literature on herbal medicine (most pertinently the growing body of texts considering herbal safety issues) seems ignorant of this primeval dance. We have learned not only to tolerate a great range of plant chemicals but beyond this we have also been successful in turning many of them to our advantage. We can utilize plant resins in stimulating leucocytosis for instance, or triterpenoid saponins from plants such as ginseng (Panax ginseng) to improve our energy, endurance and stamina. Such gains are the remarkable fruits of our long interplay with the botanical realm – we spurn them at our peril.

At a micro-level, we can discuss the relationship between people and plants in chemical and pharmacological terms: referring, for example, to triterpenoid saponins and their ability to induce intracellular generation of adenosine triphosphate (ATP) leading to enhanced energy, endurance and
stamina. The macro-tier however, has to do with the relationship between *Homo sapiens* and, in this example, *Panax ginseng*. Many herbs contain triterpenoid saponins but the particular herb in question, in each specific case, is sufficiently chemically and structurally different to be classified as a distinct and separate species. For instance, although they both contain triterpenoid saponins, *Panax ginseng* and Siberian ginseng (*Eleutherococcus senticosus*) do not have exactly identical therapeutic actions since they do not share precisely the same chemical make-up. Successful herbal medicine is practised with an appreciation of both the pronounced and the subtle distinctions between herbs that share key chemical constituents.

Some herbal authorities decry the tendency to focus on herbs at the micro-level at the expense of the macro-aspect. One does not have to choose between the two, however. Both levels of scrutiny possess their own validity and each may be impoverished when it stands alone. Some critics of the phytotherapy approach have associated it with an undue and unbalanced focus on reductive pharmacological scrutiny of the plant. This need not be the case, since it is perfectly possible to view narrow (but potentially helpful) pharmacological insights in the context of a broader appreciation of the whole plant. We will return to the discussion of phytotherapy towards the end of this chapter.

**WHOLENESS AND COMPLEXITY**

The comparison of micro-scrutiny via focus on areas such as phytochemistry with macro-perception of the plant in its entirety is pivotal in appreciating the distinctions between the conventional medical utilization of plant products and that of herbal practitioners. It is a tenet of herbal medicine that whole herbs must be prescribed rather than the isolated active constituents derived from them. This is the difference between making a medicine directly from strips of, e.g. willow bark (*Salix* spp.) itself as opposed to extracting acetyl salicylic acid (aspirin) from it. When liberated from the context of the (many) other phytochemicals present in the plant a single active constituent will not behave in quite the same way as the whole plant. Typically, the isolated constituent exhibits one pronounced quality of the whole plant (taken from among many less prominent ones) but does so more aggressively and with greater potential to generate adverse effects. Occasionally, an isolated constituent may show activity that could not be anticipated from knowledge of the whole plant. Commonly then (but by no means exclusively), use of the whole plant compared with isolated active constituents will demonstrate activity which is:

- Slower to accumulate effects
- Safer (generating no or fewer and less severe adverse effects and producing less or no tolerance over time)
- Wider ranging in the scope of effects achieved (often across multiple body systems)
- Productive of more lasting long-term improvements.

(Note: Many of the adverse effects generated by conventional drugs signify attempts at detoxification by the body – this includes many rashes, digestive
upsets, headaches, nausea and vomiting, etc. Herbal medicines are more ‘food-like’ in their complexity and are less likely to trigger pronounced elimination responses.)

This combination of attributes makes whole plant herbal medicines particularly suitable for treatment of chronic disorders.

‘Whole’ is, however, a debatable concept. If we infuse or decoct a herb in water, or prepare it in other ways such as by using alcohol as an extractive medium (in making herbal tinctures), we do not have every constituent in the resulting liquid, since there will be lots of plant material left behind in the pan or press. The only way to get every constituent into the body is to consume the whole herb, e.g. as a powder. Even then, some constituents will deteriorate or transform while the herb is being dried, processed or stored (albeit that some such changes, in particular cases, may serve to enhance the efficacy of the herb). Then again, whatever the number or quality of constituents present in the preparation, it is uncertain how many will actually cross the body’s membranes in order to exert physiological effects. Nonetheless, we can still draw a picture of differing chemical complexity between herbal preparations (which will contain hundreds of different chemical compounds) and conventional medicines – whether plant-derived or otherwise (which are generally single compounds). Herbal medicines are chemically complex, whereas conventional drugs are chemically simple.

The search for processes whereby the complexity of herbs could be reduced to release simpler and more potent remedies is an ancient alchemical one, well summarized by Paracelsus (c.1493–1542):

… what the eye perceives in herbs or stone or trees is not yet a remedy; the eye sees only the dross. The remedy must be cleansed from the dross, then it is there.

Griggs (1981)

This vision would come to pass and to fruition in modern pharmacology as alchemy gave rise to chemistry. In zeroing in on ever-finer detail however, the bigger picture is obscured: the most prominent active constituents in medicinal plants are contextualized within a package of many other, more subtly acting, constituents and co-factors that, far from being ‘dross’, may play a significant role in shaping the overall actions of the plant. Medicinal plants, the herbal practitioner contends, are not mixed ores in need of refining but, rather, the finished article.

Appreciation of the chemical complexity of the ‘whole’ plant presents pharmacological challenges both technically and conceptually. The complexity can extend to such an extent that a single herb may have a great number of different actions. For example, yarrow (Achillea millefolium) is said to be a: diaphoretic, antipyretic, peripheral vasodilator, anti-inflammatory, spasmodytic, bitter tonic, styptic (haemostatic), antimicrobial, anti-haemorrhagic and vulnerary (wound healing) herb (Bone 2003). It is only when one appreciates the great diversity of chemical composition in plants that one can understand or accept the possibility that a single herb might encompass the breadth of actions that would require assembly of a large part of the conventional pharmacy to be matched. It is in the nature of herbs, as ‘polypharmacies’ in and of themselves, to influence more than one ‘target’ at a time; their effects are
diffuse, complex and wide ranging. Such therapy enables (and, to be optimally successful, requires) a broad approach to the patient that allows for the emergence of unique healing pictures since the outcomes of this type of medicine cannot be fully predicted due to the wide variety of body systems that may be modulated. To practice herbal medicine then, it is essential to be comfortable with a degree of uncertainty regarding the form of results (but in which practice of medicine is this not also true?). The key to successful herbal practice is to be highly sensitive and responsive to the patient’s changes (no matter how subtle) at each consultation, varying the prescription accordingly. Herein lies a central feature of herbal practice: as the patient’s picture changes over time, the herbal prescription they receive will also change to reflect and positively adapt or propel these developments, since a course of professional herbal treatment is a dynamically evolving rather than static process.

A herbal medicine needs to be considered as a different type of pharmacological entity to a conventional drug. The latter are simple chemical compounds, whereas herbal medicines are, at least in terms of the whole plant starting material, highly complex organisms. In fact, it is beyond the power of current pharmacological knowledge to completely analyse and track the chemistry of whole herbs – or indeed to come anywhere near achieving such a goal. The chemical complexity of herbal medicines increases of course as several herbs are combined in a particular treatment – comprising perhaps 25 herbs in a classical Chinese medicine formula, for example. The chemical make-up, or at least the relative quantities of each compound, in individual species of herbs also varies depending on growing and processing factors, which include:

- Where the herb is grown (habitat, altitude, etc.)
- Naturally varying aspects of the growing conditions (rainfall, humidity, sun exposure, etc.)
- Time of harvesting
- How the herb is processed (drying method, tincture method, etc.).

Attempts have been made to tame the wild complexity of herbs by standardizing preparations with regard to key active constituents (it is impossible to standardize a herb on all constituents – many of which have not yet even been elucidated). Although many herbal practitioners are wary of any attempt to manipulate the chemistry of herbs, standardization in its most useful manifestation merely consists of measuring key constituents and blending different batches to provide a specified minimum level of one or two compounds. The complex nature of plant chemistry is reflected in the practice of herbal medicine with regard to the consultation. The approach to the patient reflects (and is consistent with) the nature of the medicinal materials used:

- Herbal practitioners claim to ‘use the whole plant to treat the whole person’, with allowance being made for the complexity and variability of the person, just as must occur (to some degree) with the plant.
- Typically, long consultation times in modern herbal practice provide space to explore the patient’s history across its full range, giving
credence to information that might in conventional medical consultations be considered ‘dross’.

Conventional pharmacology and medical science has forgotten, ignored or overlooked the complex nature of medicinal plant chemistry to such an extent that the following statement can be made without considering herbs:

*In searching for new and effective therapeutics, it might be useful to use a systems-chemistry approach to modify integrated outcomes rather than targeting single molecules with the hope that the desired systemic effect might be generated. In other words, it is likely that creating a ‘new homoeostasis’ will require the modification of more than one target.*

Hotamisligil (2006)

Time to step out of the lab and into the garden.

**THE DEVELOPMENT OF HERBAL MEDICINE AS A PRACTICE**

**THE NATURE OF LIFE IS CHANGE**

From earliest times, as people have contemplated life and its meaning, they have pointed to change as a central theme. Things grow and perish, the weather varies (sometimes dramatically), empires rise, fall and disappear. From the Native American tradition, we have the insight that: ‘Nothing is born, nothing dies, everything changes’ (McLuhan 1973).

Around 2500 years ago, Heraclitus (Haxton 2001) wrote:

*By cosmic rule,*
*as day yields night,*
*so winter summer,*
*war peace, plenty famine,*
*All things change.*

Living in a world that perpetually changes is challenging – it can be hard to know how to steer one’s course. Some changes are cyclical in nature however, and by discerning their repetition we gain a sense of perspective, a hold on how to work with change. Observing the turning of the seasons and the movement of the stars enables us to detect patterns of change. Practices such as agriculture are dependent on a highly developed knowledge of such patterns. Ancient and traditional medical systems also developed their rationales based on a close appreciation of the patterns in nature. Ancient Greek, Chinese and Indian (Ayurvedic) medicine, although distinct approaches, are united in devising explanatory models of health and illness that integrate change in the environment with phenomena arising in the individual. Tables 1.1–1.3 give charts of correspondences that illustrate these relationships in these three systems of medicine.

These charts reveal attempts made to connect, classify and systematize a wide variety of factors pertaining to the person and the world in which they reside, including the:
Table 1.1 Correspondences in ancient Hippocratic–Galenic medicine

<table>
<thead>
<tr>
<th>Season</th>
<th>Spring</th>
<th>Summer</th>
<th>Autumn</th>
<th>Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>The 4 elements</td>
<td>Air</td>
<td>Fire</td>
<td>Earth</td>
<td>Water</td>
</tr>
<tr>
<td>The primary qualities</td>
<td>Hot and moist</td>
<td>Hot and dry</td>
<td>Cold and dry</td>
<td>Cold and moist</td>
</tr>
<tr>
<td>The 4 humours</td>
<td>Blood</td>
<td>Yellow bile</td>
<td>Black bile</td>
<td>Phlegm</td>
</tr>
<tr>
<td>The 4 temperaments</td>
<td>Sanguine</td>
<td>Choleric</td>
<td>Melancholic</td>
<td>Phlegmatic</td>
</tr>
<tr>
<td>Development</td>
<td>Childhood</td>
<td>Youth</td>
<td>Middle age</td>
<td>Old age</td>
</tr>
<tr>
<td>Direction</td>
<td>West</td>
<td>South</td>
<td>East</td>
<td>North</td>
</tr>
<tr>
<td>Associated emotion</td>
<td>Joy</td>
<td>Anger</td>
<td>Fear/worry/grief</td>
<td>Indifference</td>
</tr>
</tbody>
</table>

Adapted from Tobyn (1997).

Table 1.2 Correspondences in Chinese medicine

<table>
<thead>
<tr>
<th>Category</th>
<th>Wood</th>
<th>Fire</th>
<th>Earth</th>
<th>Metal</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Season</td>
<td>Spring</td>
<td>Summer</td>
<td>Late summer</td>
<td>Autumn</td>
<td>Winter</td>
</tr>
<tr>
<td>Direction</td>
<td>East</td>
<td>South</td>
<td>Centre</td>
<td>West</td>
<td>North</td>
</tr>
<tr>
<td>Colour</td>
<td>Green</td>
<td>Red</td>
<td>Yellow</td>
<td>White</td>
<td>Black</td>
</tr>
<tr>
<td>Taste</td>
<td>Sour</td>
<td>Bitter</td>
<td>Sweet</td>
<td>Pungent</td>
<td>Salty</td>
</tr>
<tr>
<td>Odour</td>
<td>Rancid</td>
<td>Scorched</td>
<td>Fragrant</td>
<td>Rotten</td>
<td>Putrid</td>
</tr>
<tr>
<td>Sound</td>
<td>Shouting</td>
<td>Laughing</td>
<td>Singing</td>
<td>Crying</td>
<td>Groaning</td>
</tr>
<tr>
<td>Zang (Yin organs)</td>
<td>Liver</td>
<td>Heart</td>
<td>Spleen</td>
<td>Lungs</td>
<td>Kidney</td>
</tr>
<tr>
<td>Fu (Yang organs)</td>
<td>Gallbladder</td>
<td>Small intestine</td>
<td>Stomach</td>
<td>Large intestine</td>
<td>Bladder</td>
</tr>
<tr>
<td>Sense organ</td>
<td>Eyes</td>
<td>Tongue</td>
<td>Mouth</td>
<td>Nose</td>
<td>Ears</td>
</tr>
<tr>
<td>Emotion</td>
<td>Anger</td>
<td>Joy</td>
<td>Pensiveness</td>
<td>Sorrow</td>
<td>Fear</td>
</tr>
<tr>
<td>Development</td>
<td>Birth</td>
<td>Growth</td>
<td>Transformation</td>
<td>Harvest</td>
<td>Storage</td>
</tr>
<tr>
<td>Climate</td>
<td>Wind</td>
<td>Heat</td>
<td>Damp</td>
<td>Dryness</td>
<td>Cold</td>
</tr>
</tbody>
</table>

Adapted from Dowie (2009) and Ergil (2001).

- Cycle of the seasons
- Cycle of growth of the human from birth to death
- Physical elements of which the world is made
- Parts of the body
- Character of the person
- Variety of human emotions
- Information provided by the senses.

Amidst this web of interrelations, herbal medicines can be savoured (their pungency and bitterness; their texture and intensity) and their effects experienced – warming or cooling; clearing phlegm; soothing the stomach.
or calming our emotions. Herbal medicines stand revealed in this mesh of relationships as part of the fabric of life and wellbeing; as adaptive entities that can help the individual modulate the effects of change on the body, mind and spirit.

At the roots of Chinese philosophy is the *I Ching* (commonly referred to as ‘The Book of Changes’), a divinatory system and text originating some 3000 years ago. The book was originally known simply as *I*, the later addition of “Ching” denotes a classic text. The English translation of *I* is usually given as ‘change/s’, but this is to limit its interpretation, as Ritsema and Karcher (1994) point out:

… *I* is neither orderly change – the change of the seasons, for example – nor the change of one thing into another, like water changing to ice … Unpredictable and … unfathomable, *I* originates in and is a way of dealing with trouble … The term *I* emphasizes imagination, openness and fluidity. It suggests the ability to change direction quickly and the use of a variety of imaginative stances to mirror the variety of being. The most adequate English translation of this is versatility, the ability to remain available to and be moved by the unforeseen demands of time, fate and psyche. This term interweaves the *I* of the cosmos, the *I* of the book, and your own *I*, if you use it.

Let us also talk of the ‘*I*’ of the plant. If the nature of life is change (both orderly and chaotic, relatively predictable and wildly unpredictable), then the key to health is to have the flexibility to adapt and to flow with the currents and movements of change. Herbs are key allies in facilitating such adaptation, acting to promote fluidity as they modulate physiology, emotions and mental activity. Their potential to do this essential work (as agents enabling versatility and resilience) has been recognized and prized across world cultures for millennia.

### Table 1.3 Correspondences in Ayurvedic medicine

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Vata</th>
<th>Pitta</th>
<th>Kapha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elements</td>
<td>Air and Space</td>
<td>Fire and Water</td>
<td>Earth and Water</td>
</tr>
<tr>
<td>Qualities</td>
<td>Dry, cold, light, irregular, mobile, rough, abundant</td>
<td>Hot, light, intense fluid, liquid, putrid, pungent, sour</td>
<td>Heavy, unctuous, cold, stable, dense, soft, smooth</td>
</tr>
<tr>
<td>Humour</td>
<td>Wind</td>
<td>Bile</td>
<td>Phlegm</td>
</tr>
<tr>
<td>Taste</td>
<td>Astringent and pungent</td>
<td>Salty and bitter</td>
<td>Sweet and sour</td>
</tr>
<tr>
<td>Principal seat</td>
<td>Colon</td>
<td>Stomach</td>
<td>Lungs</td>
</tr>
<tr>
<td>Physiology</td>
<td>Responsible for all bodily movement and nervous functions</td>
<td>Governs enzymes and hormones and is responsible for digestion, etc.</td>
<td>The principle of cohesion and stability. Responsible for sexual power, etc.</td>
</tr>
</tbody>
</table>

Adapted from Zysk & Tetlow (2001) and Joshi et al. (2006).
ETHNOBOTANICAL INSIGHTS

The discipline of ethnobotany (the study of the relationships between peoples and plants) has revealed much about how early and indigenous cultures have utilized plants therapeutically. A comprehensive knowledge of the medicinal uses of a wide range of plants is a characteristic feature of such cultures. This knowledge may be more extensively appreciated and curated by certain trained and experienced individuals but it is not limited to ‘experts’ – for the most part the medicinal properties of plants are common knowledge, owned by the whole community.

Indigenous peoples have an extensive appreciation of the biodiversity of their locale and how to use and conserve it. In his monumental study of Native American plant use, Daniel Moerman (1998) has discovered that, out of the 31,566 known North American vascular plant (i.e. ‘higher plants’) species:

American Indians used 2,874 of these species as medicines, 1,886 as foods, 230 as dyes, and 492 as fibres … All told, they found useful purposes for 3,923 kinds of vascular plants.

Notice here the difference between the number of plants used as medicines and those used as foods – a far greater number of species are used as medicines than for foods. Interestingly, Van Wyk et al. (1997), in their study of indigenous medicinal plant use in South Africa found almost identical figures regarding plant species and the number used medicinally. Out of an estimated 30,000 plant species growing in South Africa, around 3,000 species are used medicinally. Hutchings (1996) gives an even higher percentage of plant species used medicinally in a smaller region. Her study of Zulu herbal medicines profiles 1,032 species, which represents approximately 25% of the flora of KwaZulu-Natal.

Who used/uses these plants? Arvigo and Balick (1998) have named and described the various types of traditional healers of Belize:

• The Doctor–Priest/Priestess: ‘have the ability to contact the spirit world to ask … spiritual forces for assistance in the diagnosis and treatment of ailments’
• The Village Healer: an experienced father or mother who looks after ‘the entire village’s health care needs’
• The Grannie Healer: cares for her own family
• The Midwife: cares for women’s and children’s conditions and utilizes ‘a vast number of herbal remedies’
• The Massage Therapist: treats musculoskeletal problems with ‘herbal baths, poultices, teas and oils’
• The Bone Setter: uses manipulation and herbal remedies to treat sprains, fractures, broken bones
• The Snake Doctor: treats poisonings from toxins and venoms, stings and bites.

Among these various practitioners, the use of plants as medicines is a common thread, although none are identified as being ‘a herbalist’ – their function is emphasized on the means they use to achieve their goals.
Outside of these specific types of practitioners, it has long been common for each person in a community to have some knowledge of plants – stemming, at the very least, from being treated themselves. Such appreciation is part of a shared heritage of basic plant knowledge and skills. Gabrielle Hatfield (1999) has studied the vestiges of this kind of individual appreciation of medicinal plant utility in the UK. She describes it as a:

... common sense approach to plant medicine, used as part of people’s everyday lives ... People did not regard this as specialist information, but took it for granted as common knowledge.

Who would not know that chamomile (*Matricaria recutita*) is good to settle disrupted digestion? Who would not know that peppermint (*Mentha piperita*) will control a fever? Traditional communities who fail to maintain such knowledge are not only intellectually impoverished but physically at risk. One of the key challenges for herbal practitioners in the modern, nature-negligent world, is to find ways of helping to re-establish this herbal knowledge base through educational work in self- and community-care. The current impetus towards bolstering the status of herbal medicine as a regulated profession (see discussion towards the end of this chapter) needs to keep in mind the traditional ubiquity of herbal knowledge.

Hatfield’s work flags up the degree to which widespread knowledge of the use of plant medicines persisted into the twentieth century in industrialized Britain, and the extent to which this tends to be overlooked. She concentrates on examining ‘domestic medicine’, which she defines as: ‘the history of self-help rather than of official medicine’. This history continues today, where the vast majority of herbal medicines consumed in the UK (and many other Western nations) are self-prescribed rather than taken on the advice of a practitioner – herbalist or otherwise.

**IN SEARCH OF ‘THE HERBALIST’**

Official healthcare developed out of traditional medical practices (which now tend to be designated, usually pejoratively, as ‘folk medicine’) but today bears little resemblance to its origins. The use of herbs in official medicine persisted as a large percentage of the conventional doctor’s *materia medica* well into the twentieth century – later than many people suspect. Official pharmacopoeias and *materia medica* attest to this fact: Southall’s *Organic Materia Medica* (Barclay 1909), for example, profiles over 200 medicinal plants from *Abelmoschus moschatus* (musk seed) to *Zingiber officinale* (ginger); The *British Pharmacopoeia* of 1948 (General Medical Council 1948) still contains a significant number of herbal medicines – some years after the discovery of antibiotics and a few years before the effective deployment of corticosteroids; and even today:

25% of modern prescription drugs contain at least one compound now or once derived or patterned after compounds derived from higher plants [original emphases]

Duke (1993)
If we turn our gaze to try to make out the ‘herbal medicine practitioner’ as a discrete entity among the diversity of medicinal plant use – the ‘herbalist’ – then we may have to look long and hard to make sense of what we see. Although modern western herbal practitioners tend to claim a heritage that includes the great male authors in the western medical cannon (Hippocrates, Galen, Dioscorides, Avicenna) it is oversimplifying matters to label these figures as ‘herbalists’. Although most of these writers have left us texts demonstrating that the prescribing of plant medicines was a central part of their practice, it is also clear that it was not the only intervention they utilized. These figures were physicians and in performing the functions of this role, they made use of any substance and strategy that fitted with their approach and which appeared to help. In the medicine of antiquity, a wide range of health-modulating factors were addressed under the heading of Diätetica. The discipline of dietetics involved more than food and drink however, it incorporated all key areas of human activity including exercise, sex, bathing and sleep (as we shall see in more detail in Chapter 6). Porter (1997) discusses the persistence of this broad and individualized approach extending into the eighteenth century when ‘diet’ still meant ‘a comprehensive ordering of life’.

Similarly, herbal practitioners today will claim that their practice extends beyond the prescribing of plant medicines to include advising on diet and ‘lifestyle’ – this being the catch-all term perhaps most commonly used today in place of ‘diätetica’. So, the distinction between an ancient physician and a modern herbal practitioner may not lie so much in the claimed scope of practice as in the insistence on the centrality and primacy of plant medicines. In antiquity, diet (in the sense of diätetica) was generally the first treatment option; preferred over drugs (which were mostly herbal), with surgery as the least desirable intervention. A restraint in prescribing herbal medicines combined with a primary focus on dietetics, including proper exposure to clean air and sunlight, connects ancient medicine with ‘naturopathy’ (itself an influence on the development of modern herbal medicine).

In traditional systems of medicine, animal and mineral substances are usually viewed as equals to vegetable remedies and although less numerous, form an essential part of the traditional materia medica. We still have the anomaly in Chinese herbal medicine (in translation) that the term ‘herbal’ can include any natural substance and is not limited to botanical material. Many western herbal practitioners have been vociferous in their condemnation of the persistence of non-vegetable items in traditional pharmacies. This has been partly due to legitimate concerns regarding trade in endangered species and around animal welfare issues but even in cases where these concerns do not apply, criticisms often persist – any presence of a non-vegetable material being interpreted as sullying or degrading the botanical materia medica. The objection to including animal parts, especially, as medicines is strongly held by many western herbal practitioners. Such a standpoint might be contended to be logically inconsistent however, if the practitioner is also advising the inclusion of animal products in the diet or prescribing, e.g. fish oil as a ‘nutritional supplement’. One practitioner’s ‘meat’ is another’s ‘potion’ …
In a previous volume, I observed that:

*Western herbal practitioners can be accused of creating a myth of herbal medicine as a pure practice. In reality, globally, herbs have always been used alongside any other substance that might achieve therapeutic benefits.*

Conway (2005)

To what extent then can we consider the practice of herbal medicine, in the modern western sense, as a discrete profession? Certainly there is evidence of professional self-organization going back a reasonable way. In the UK, the National Association of Medical Herbalists (later the National Institute of Medical Herbalists) was founded in 1864 and persists to this day. In a study examining the state of herbal practice in mid-nineteenth century Britain, Brown (1982) discovers: ‘Two types of herbalism, the traditional and the Thomsonian’ – the latter group were followers (and frequently trained ‘agents’) of Samuel Thomson, an American who developed and promoted a system of herbal medicine and who was a fierce opponent of the means and methods of conventional medicine.

According to Brown (1982):

*Traditional herbalism and orthodox medicine could co-exist without too many problems: they had developed from common roots and presumably evolved to meet the needs of different social groups.*

These herbalists mostly lived among and treated the poor, still drew on Culpeper as well as the current pharmacopoeias (which were still largely ‘herbals’), commonly had a second job and aspired to equal status with conventional medical practitioners. The Thomsonians by contrast styled themselves ‘medical botanists’ and proselytized medical reform in books and public lectures, lambasting the errors of conventional medicine to the extent that: ‘no easy co-existence was possible with the Thomsonian herbalists’. As conventional medicine increasingly focussed on aggressive treatments based on mineral products and isolated plant constituents, it became possible for proponents of herbal medicine to state their case in opposition, such that the defining features of herbal practice came to include: an insistence on vegetable medicines and a rejection of mineral ones; use of the whole plant as opposed to isolates; advocacy of natural over synthetic remedies, and so forth.

We might suggest then that, actually, the exclusively ‘herbal’ practitioner, deliberately titled, is a relatively recent construct, given the vast history of human use of medicinal plants – albeit deeply rooted and with many tangled tendrils enmeshing the entire history of medicine across the whole world. Arguably, it is this multiplicity of origins and influences, this complex and non-linear heritage, that adds most interest, robustness and potential to the role of the contemporary herbal practitioner, while at the same time making it unlikely that a single detailed definition of what it means to be such an exponent is ever likely to be universally agreed. The ‘phytotherapist’ is a complex and contentious notion of one form of modern herbal practitioner.
So why phytotherapy? As if the identity of the herbal practitioner is not already a confused one, why add another term? Does it illuminate or obscure?

The herbal practitioner as an entity (in the sense discussed above) is a relatively local phenomenon. In the UK, Australia and some parts of North America, the herbal practitioner exists as a legal or quasi-legal (but generally tolerated) healthcare provider, operating almost exclusively outside of mainstream healthcare. These practitioners have generally been trained in independent Colleges who have awarded their own, in-house, herbal practice certificates and diplomas. Increasingly, however, they are now emerging with university degrees in herbal medicine – especially in the UK. Should they wish to venture to practice in mainland Europe and beyond though, they will tend to find that their qualifications are unrecognized.

In much of mainland Europe it is common to encounter herbal medicines sold (often with advice thrown in) from market stalls and pharmacies and as a part (either large or small) of the practice of various therapists such as naturopaths and the German heilpraktikers. The specific ‘herbal practitioner’ is a rarity and may be an outlaw. In certain countries, most notably Germany and France, conventional doctors may prescribe herbs in addition to conventional medical treatment and, in doing so, they may describe or advertise themselves as phytotherapists. Some doctor–phytotherapists prescribe herbs in a manner that would be considered limited, reductionist and even ill-informed by many modern western herbal practitioners and traditional medicine practitioners.

This (stereo)type of doctor–phytotherapist tends to use single herb products (as opposed to the multi-herb prescriptions of most traditional and modern herbal practitioners), at relatively low doses, for specific named diseases (as opposed to the individualized approach of herbal practitioners) in standardized preparations (in contrast to traditional herbal preparations), e.g. prescribing *Crataegus* spp. (hawthorn) for hypertension. For these activities, doctor–phytotherapists are scorned by herbal practitioners who argue that the therapeutic potentials of herbs are substantially limited (or even perverted) by being applied within such a framework. One might counter, however, that if such an approach yields benefits (and there is a fair body of research to testify that it does) then surely this style of herb use should be encouraged, especially when the reduced burden of adverse-effects achieved by avoiding the use of conventional pharmaceuticals is factored in? While the contrasting protocols of the herbal practitioner (multi-herb prescriptions, higher doses, traditional preparations, individualized treatment) may be even more efficacious, there is less conventionally credible evidence (i.e. randomized controlled trials) available to offer in testimony to this. Incidentally, it should be remembered that many non-herbalist therapists within the CAM bracket use and prescribe herbal products in the same reductive way as just described, yet they are rarely criticized for doing so with the level of intensity directed at doctors!

Other perspectives on phytotherapy are available, however. Kenner and Requena (2001) discuss the use of ‘phytotherapy’ in France as a banner term.
that can encompass a number of approaches to herbal practice centred on the concept of ‘terrain’ which (in France): ‘is very much alive and integrated into cultural ideas of health and medicine’. Terrain refers to the biological individuality of people, the unique inner personal conditions (or environment) that determines one’s health status and physiological integrity. ‘Terrain’ is, in effect, a version of the ancient humoural approach (which assessed the state of the body’s fluids: blood, phlegm, yellow and black bile), since: ‘In the human body, the term has come to refer specifically to the fluid environment of the cells and the way in which the condition of this medium relates to health and disease’. Claude Bernard’s (1813–1878) notion of the ‘milieu intérieur’ is a terrain model that directly influenced Walter Cannon (1871–1945), the physiologist who coined the term ‘homeostasis’.

Payer (1996), in her study comparing medicine and culture in France, Germany, Britain and the United States has reflected on the meaning of terrain:

There is no really good translation for terrain in English. The old-fashioned word ‘constitution’, which has largely gone out of favor in America, probably translates it best … Many diseases result from a combination of some type of outside insult and the body’s reaction to that insult. While English and American doctors tend to focus on the insult, the French and Germans focus on the reaction and are more likely to try to find ways to modify the reaction as well as fight off the insult … Even Louis Pasteur, who is regarded as the father of modern microbiology, accorded an importance to the terrain at least equal to the specific microbe. The late Dr. Rene Dubos, himself a proselytizer for the importance of terrain, spoke of Pasteur’s views … ‘He even went as far as to suggest that the psychologic state could influence resistance to microbes’.

This last suggestion is easily accommodated within the more recent systems-view of physiology known as ‘psychoneuroimmunology’ (for a sound introduction, see Wisneski & Anderson 2005), which is part of the ongoing quest to appreciate the complexities of the interface between the internal and external environment.

Kenner and Requena (2001) maintain that:

The most common use of the word terrain is in the different nosologies and whole-system models that have been developed for clinical diagnosis and treatment in phytotherapy.

These models include some that are little known outside of France, such as:

The oligo element diatheses of Menetrier and the neuroendocrine model of Lapraz and Duraffourd. [though] Many French practitioners of phytotherapy feel that the five phase model (of Chinese medicine) is a more digestible introduction to the concept of terrain …

Here we have an insight into another dimension of phytotherapy from the ‘herbs as quasi-drugs’ stereotype outlined earlier. The terrain approach to phytotherapy has a number of features that distinguish it as a holistic, person-centred field including that it:
• Places the unique individual at the centre of the therapeutic universe
• Combines traditional and modern insights into the appreciation of patients and the uses of plant remedies
• ‘Joins up’ knowledge of physiology into whole-systems models
• Represents a continuation of the ancient humoural project.

The varieties of phytotherapy should not surprise us, since all modalities or approaches to medicine take on their own distinctive qualities according to the influences at play in the cultures in which they are situated. This includes conventional medicine, as Payer (1996) has shown. Mainstream biomedical practice is not the same all over the world; indeed in Europe, major distinctions in emphasis and approach can be apparent over the distance of a few miles. A consultation with a GP in Dover is likely to be quite a different experience to that with her counterpart in Calais – with just a short stretch of Channel between them.

Phytotherapy has developed distinctive flavours and characteristics in countries including France, Germany, the UK and Australia. Let us turn now to concentrate on the version that has developed in the UK.

**PHYTOTHERAPY IN THE UK**

In English-speaking countries, unlike much of Continental Europe and large parts of Asia, herbal medicine had, by the second half of the twentieth century, been expunged from conventional medical practice. It has now become, instead, a largely over-the-counter phenomenon with people self-prescribing herbal products of varying quality. The basis of this self-care with herbs has changed dramatically, from a tradition of community-acquired knowledge and collection of raw local herbs from the wild or by cultivation to an increasing reliance on books and media sources and accessing of non-locally grown and processed herbs. Herbal practitioners are relatively few in number, typically poorly or loosely organized and drawing on a varied range of influences and traditions.

In the UK, herbal practitioners had done well to survive in the face of a number of potential threats to their survival, including the founding of the National Health Service (from which they were excluded) and the reforming, post-thalidomide, 1968 Medicines Act (from which they were successful in gaining crucial exemptions). By the mid-1960s, however, as Mills (2000) recounts, the number of professional herbal practitioners was critically low, with membership of the National Institute of Medical Herbalists ‘down to double figures and declining’. This decline began to reverse in the next decade as herbal medicine was re-discovered as an ecological form of medicine, one that naturally belonged within the growing ‘green movement’ and which could even be used as a means of transpersonal growth. David Hoffmann (1983), one of the new generation of herbal practitioners, and who once campaigned for election to the UK Parliament as a member of the Green Party, articulated this re-framing as:

*Herbs ... are an interface within the body of Gaia. They are an interface between two realms of nature. Where humanity and plants meet, a synergistic energy can be*
created and exchanged. At such a point inner and outer ecology may resonate and become attuned.

Hoffmann (1983)

A new language was being applied to the appreciation of plant medicine, including words and terms such as: holism, New Age, consciousness, spirituality, paradigm shift. Few were successful in applying these concepts in a way that illuminated or advanced the practice of herbal medicine amidst what Mills (2000) has elegantly described as: ‘a widespread outbreak of philosophical drifting’. The lack of criticality characterizing much of herbal expression, debate and rationale formulation at this time exemplified what Pietroni (1990) characterized as the: ‘… search for simple and magical solutions’. Some practitioners feared for the mainstream credibility of herbal medicine and worried that it would be tainted by association with the woollier extreme of New Age thinking. In the face of this, the use of the term ‘phytotherapy’ came to stand for an approach that put the focus back on herbal medicine as a rigorous discipline; one that was open to research and to critical evaluation. Crucially, it did not denote a desire to take on a reductive position in regard to herbal practice, although some construed it so. Instead the group of herbal practitioners who have identified themselves as phytherapists have maintained an insistence on drawing from an informed appreciation of both traditional and biochemical/biomedical interpretations of herbal activity, practice and potentials, in the spirit of the French phytherapists. This approach to modern herbal practice has been open to understanding and incorporating modern and ancient, western and non-western, perspectives on herbal practice. The work of Simon Mills and Kerry Bone (see Mills & Bone 2000) has been particularly sophisticated in expressing this approach. Mills’ innovative attempt to develop a database that incorporates traditional and modern scientific perceptions of plant medicines (including a rigorous evidence-based ratings system for each) and which contrasts key ‘stories’ about herbs (including: ‘the research story’; ‘the human use story’; and ‘the expert practitioner’s story’) provides a Rashomon-type model showing the diversity of perspectives on medicinal plant utility.

INTEGRATION AND REGULATION

UK phytherapists have aimed to work collaboratively with colleagues in conventional medicine to the extent that the College of Phytherapy developed a postgraduate course, training doctors in herbal medicine. An aspiration has been held for plant medicine to return to its former central role in mainstream medicine via increased use by doctors combining allopathic and phytherapeutic strategies as well as by specialist phytherapists. Hopes for greater integration between CAM and conventional medicine have been viewed by some as naïve and more likely to lead to subjugation of herbal medicine by the dominant medical model, which has neither the time, taste nor capacity for more complex and subtle interpretations of health, illness and their modulation. Certainly, the journey of any so-called CAM modality from periphery to centre (or from minority to dominant models) is fraught with risks. Malcolm Parker (2003) has delineated some of these dangers in
Phytotherapy is a controversial form of herbal medicine precisely because it demonstrates this ‘blurring’ and boundary dissolution by seeking to integrate traditional and biomedical approaches and by valuing traditional and biomedical insights.

While some within both the CAM and conventional medicine categorizations might be hoping for a ‘paradigm shift’ – a revolution in the way that medicine is essentially understood and practised – on the ground the story so far is, unsurprisingly, less dramatic. Establishment literature (peer-reviewed journals) and the media, in the main, continue to call for CAM to adopt the scientific research methodology of conventional medicine and prove itself on those terms. Only then might aspects of CAM modalities be incorporated into conventional medical practice. We might adapt Parker’s assessment to suggest that this process involves:

1. Standard scientific assessment of a CAM approach or specific intervention
2. Appropriation (probably in a limited way) of the ‘proven’ parts of that approach/intervention into the existing biomedical model
3. Rejection of the ‘unproven’ parts of the approach/intervention.

In this interpretation, CAM modalities go to the research facility like lambs to the slaughter. Here they are disassembled, scrutinized and then either partially or wholly discarded in a process of appropriation not integration. It is understandable that many CAM practitioners are wary of this possibility, with some completely hostile to exposing themselves to such scientific
assimilation. Yet many feel there is no choice but to engage with standard scientific procedures, in spite of the risks, since to do otherwise is to remain, at best, marginalized. Mills (2000) has expressed the view that:

Even to survive in the modern world, let alone to be able to take its place again as the most noble form of healing, herbal medicine needs to develop a more muscular pharmacological and therapeutic case for itself. It needs frankly to take on the phenomenon of the placebo-effect, to develop new verifiable models of efficacy that satisfactorily distinguish it from the alternatives. It needs to identify the areas where it can make a valuable contribution and those where it probably has little direct benefit. It can almost certainly withstand the pressure.

Herbal medicine is a robust entity that has survived from the dawn of therapy to the present day. No sleep need be lost over its capacity to persist; the concerns of herbal practitioners need only be raised with regard to its local form. It will continue in a multiplicity of expressions including reductionist and holistic use by either conventional medics or alternative therapists, traditional use by indigenous peoples and self-care use by individuals. The legal position of practitioners already varies considerably between countries, shaping and limiting the modes of herbal practitioners. In the UK, phytotherapists are campaigning for enhanced legal recognition and professional status from an existing permissive base whereas in America, herbal practitioners have enjoyed less legal licence, instead adapting to imposed restrictions. In some parts of the USA, where practitioners are prohibited from describing their work in orthodox medical language, the notion of the practitioner as a ‘wellness adviser’ has emerged. In this conceptualization, the therapist is recast as a guide, coach or teacher – a mode that fits well with ideas in decentralized, person-focused medicine. It may be that herbal practitioners elsewhere would gain from considering new ways of doing and describing their work, shifting emphasis from professional self-interest to increasing patient-empowerment and autonomy.

However they style themselves, herbal practitioners have to consider how to engage with the dominant positivist science model. To meekly submit to this model is to allow herbal medicine to be processed into a reduced and perverted form; to aggressively reject it risks ghettoization and limitation of patient access to the benefits of herbal treatment. Rather, a strong critique of the problematic aspects of positivist science is required combined with a sophisticated and coherent justification of alternative perspectives. So far, those within the CAM categorization have had very limited success in effectively articulating a convincing alternative ethos; yet a number of other disciplines and models offer powerful perspectives and arguments that, if drawn together, could constitute a multi-faceted explanatory framework of great capacity and integrity. Examples of these include: the sociology of health and illness; studies in the history and philosophy of medicine and science; the new sciences of complexity and chaos; the new joined-up physiology of psychoneuroimmunology; work on understanding the placebo-effect as the self-healing or meaning-response; and humanistic medical models such as person-centred medicine. These strands need to be woven into the undergraduate, postgraduate and continuing education of herbal practitioners so that facility in cross-linking ideas, concepts and methods can be developed.
A process of boundary dissolution between what may be erroneously portrayed as separate fields of study needs to take place in order to enable more richly informed and diversely capacitated models of herbal practice to emerge.

Herbal practitioners in the UK, aware that their future right to practice was uncertain and fearing that they could lose access to their full materia medica, began to work together from the mid-1990s, forming the European Herbal Practitioners Association (EHPA) and agitating for statutory regulation of their practice. The minds of both herbal practitioners and acupuncturists were further concentrated on this goal when statutory regulation was recommended for these professions by a House of Lords Select Committee Report in 2000 (House of Lords 2000). At this point in time it seemed unlikely that herbal and acupuncture practitioners would be able to ensure their continuing right to practise without such regulation. The consensus in both professions remains that they must participate constructively in attempting to achieve and shape regulation or risk considerable limitations being placed on their legal ability to practise in a climate of increasing healthcare regulation.

Although the UK government initially firmly supported the House of Lords recommendations (DoH 2001) it has subsequently blown hot and cold on pressing for the achievement of regulation – which has not yet been realized as I write, some 9 years after the House of Lords Report appeared. This vacillation has been due to a number of influences, including delays awaiting the outcomes of reports concerning the reform of existing regulated healthcare professions (e.g. DoH 2006, 2007). At the time of writing, a report has recently been published detailing the proposals of a Department of Health Steering Group (DoH 2008) for the regulation of herbal medicine and acupuncture. These include the recommendations that both professions should be regulated by the Health Professions Council (HPC). The report notes that it is a requirement of the HPC that professions aspiring to be regulated by it must ‘practise based on evidence of efficacy’, returning us to Parker’s caution regarding the possible consequences arising from an ‘insistence on evidence’.

**PHYTOTHERAPY AND EVIDENCE-BASED MEDICINE**

Phytotherapy represents a pragmatic approach for herbal practitioners who both see the need to engage with the call for evidence and take a positive view of the insights and benefits that can accrue from relevant high quality research. Seen from this angle, it is not only untenable to resist calls for rigorous scientific scrutiny of herbal practice but also undesirable, since such research offers one means of enhancing the knowledge base for effective herbal treatment. This leads us to consider the question of how an ancient practice such as herbal medicine responds to the challenge of the emerging research-related practice model in biomedicine – evidence-based medicine (EBM).

Debate continues about the ways in which EBM may have beneficial or harmful consequences for patients, the degree to which it may be relevant to some practice areas, and indeed whether it actually works (e.g. Puliyel et al. 2004; Anthony 2002; Strauss & McAlister 2000). In a highly incisive piece
Klein (1996) described EBM as ‘the new scientism’ and highlighted the ways in which it could be abused by economists and managers, and how it: ‘appears to offer politicians less pain, less responsibility for taking difficult decisions and a legitimate way of curbing what are often seen as the idiosyncratic and extravagant practices of doctors’. Most tellingly (and prophetically), however, he identified what is surely the nub of the matter:

>To the extent that the new scientism, as presently conceived, appears to be a search for certainty, it is an enterprise destined for disappointment. The certainty will most of the time prove elusive, as problems turn out to be more complex than anticipated …

Nonetheless, EBM has now assumed pre- eminent status as a model for best practice in conventional medicine and inevitably impacts on the perceptions of best practice in CAM modalities too. The definition of evidence-based medicine has developed in response to criticism (see Greenhalgh & Worrall 1997) to be given as ‘the integration of best research evidence with clinical expertise and patient values’ (Sackett et al. 2000). The authors of this version explained the aspects of EBM as follows:

>By best research evidence we mean clinically relevant research … but especially from patient-centred clinical research …

>By clinical expertise we mean the ability to use our clinical skills and past experience to rapidly identify each patient’s unique health state and diagnosis, their individual risks and benefits of potential interventions and their personal values and expectations.

>By patient values we mean the unique preferences, concerns and expectations each patient brings to a clinical encounter and which must be integrated into clinical decisions if they are to serve the patient.

>When these three elements are integrated, clinicians and patients form a diagnostic and therapeutic alliance which optimizes clinical outcomes and quality of life.

Understood as such, EBM should be easily recognized as an essentially holistic approach that is likely to be compatible with the approach of holistically-minded practitioners from every camp (setting aside the not insignificant matter of what actually constitutes ‘best research evidence’ for the time being). Unfortunately however, EBM is rarely discussed or enacted in terms of such a synthesis as that outlined above. David Sackett himself (a key figure in developing the concept of EBM, and a medical practitioner) has acknowledged that:

>… we clinicians who accept the awful responsibility of caring for individual patients with their unique risks, responsiveness, values and expectations have simply failed to communicate key elements of our decision-making to some ethicists and methodologists who don’t diagnose and treat individual patients … their definition of evidence-based healthcare stops with external evidence and ignores the other 2 of its 3 vital elements: clinical expertise and patient values.

Sackett (2000)

EBM can be interpreted in differing ways and used, or abused, to diverse ends – as noted by Klein, above. Pharmaceutical companies have been accused
of manipulating evidence to achieve positive profiles for their products and therefore enhanced profits for their shareholders (e.g. Garattini & Liberati 2000; Smith 2003). Governments and their agencies have been accused of selectively drawing on evidence to cut costs, against the best interests of patients (Smith 2000). Clinicians, however, are primarily concerned with the individual before them – for them it is important that EBM has direct clinical relevance and applicability or else it may be seen as an obstacle to good practice. Phytotherapists have common cause with conventional physicians in insisting on applying EBM in its broadest and patient-centred sense.

Critics of phytotherapy, as we have noted, have often taken a rather narrow view of what phytotherapy actually constitutes. Frequently it is assumed to be a practice of herbal medicine that is reductively phytochemically based and predicated on the popular interpretation of EBM as being solely about ‘research evidence’ – leaving out practitioner- and patient-centred perspectives. Such an interpretation, we said, is associated with certain mainland European doctor–phytotherapists using herbs as ersatz drugs: yet even here the criticisms are somewhat off target. Doctor–phytotherapists are usually general practitioners (family physicians) and GPs seem to share the same types of concerns that CAM therapists may have regarding the potential pitfalls of a one-dimensional (i.e. solely research-based) approach to EBM, e.g. Tracy et al. (2003) found that doctors’ concerns about EBM included:

- EBM ‘as a devaluation of the “art of medicine” and a threat to their professional/clinical autonomy’
- ‘Issues of credibility, bias, and the trustworthiness of evidence (especially) regarding the role of the pharmaceutical industry in the funding and conduct of clinical research’
- The case that ‘patients’ preferences are often at odds with the evidence’
- The frequent lack of a ‘clear consensus within the literature’ and the occurrence of ‘directly conflicting evidence’
- Lack of fit between research aims and the realities of practice; one interviewee commented: ‘I can see lots of conflict between the goals of a study and the goals in real life’.

In the light of the foregoing discussion in this chapter, it may now be possible to see why phytotherapists might stand accused as collaborators in the colonization of herbal medicine by biomedicine. In this scenario, phytotherapists are portrayed as playing a naïve and dangerous game that risks loss of the heart and soul of herbal medicine as its traditions and deeper meaning are gradually compromised out of existence by influences such as EBM. Yet such an analysis fails to account for the complexity and positive potentials of the situation. A holistic phytotherapy has the capacity to use multiple interconnecting explanations of how herbal medicines work and how the practice of herbal medicine achieves results – to integrate various forms of evidence. Strands in this web (echoing earlier arguments) include:

- Indigenous knowledge and experience of the uses of herbs revealed, e.g. by ethnobotanical studies
- Traditional concepts (such as the thermal nature of herbs) and models (such as Chinese medicine theory)
• Reductive phytochemical profiles
• Integrative phytochemical concepts such as ‘synergism’
• Modern research from in vitro to clinical studies
• New considerations of the ‘placebo effect’ recast as the ‘self-healing response’ or the ‘meaning response’
• Insights drawn from non-medical disciplines such as the psychotherapies and the sociology of health and illness
• Models of perceiving and facilitating the therapeutic relationship such as narrative-based medicine
• Individual and collective clinical experience
• Consideration of patient perspectives, preferences and wishes.

Many of these issues, as they apply to the consultation, will be explored in the following chapters.

Weaving the varied strands of information and opinion listed above represents a continuing adaptation of herbal practice to the themes, ideas and conditioning of the times. By interpenetrating various approaches and disciplines it is harder to hold to a distinct form and shape of easily recognized ‘traditional herbal medicine’, yet the potential gains are great – updating, expanding and growing an ancient practice fit for our current era. Wahlberg (2008) has examined the accusation of colonization of herbal medicine by biomedicine and has instead argued that what is occurring is a process of normalization (framing in terms of the dominant cultural model), which:

... has addressed the ignorance, imprecisions, inconsistencies and incongruences that are seen to surround herbal remedies by attempting to right or square these. And, rather than resulting in some kind of finality or certainty, the process continues to be surrounded and informed by contestation and rectification.

There can be no single definitive model of herbal practice. Phytotherapy, at its best, offers a necessary pluralistic approach to herbal medicine, integrating perspectives and insights from a broad range of sources and critically evaluating qualitative as well as quantitative research and the views arising from the fields of the humanities as well as the sciences, including sociology and philosophy. There is every reason for herbal practitioners to engage dynamically with ideas emerging from within conventional medicine and science since many of these (psychoneuroimmunology, patient-centred medicine, etc.) offer means by which herbal medicine might reassert its relevance and utility.

**MOVING BEYOND SCIENTISM**

To engage with ‘science’, in its various meanings and forms, presents a major challenge for both CAM therapists and conventional doctors, since their training rarely orients or prepares them for such a task. Studies in the ‘philosophy of science’ offer a critical appreciation of the nature of science and its doctrines and could form a basis to facilitate informed perspectives if incorporated into practitioner education at various levels. The study of ‘scientism’ that arises in this field is particularly apposite in our review of phytotherapy.
Scientism can be described as a contention that science (meaning positivist science, i.e. an approach that only accepts as valid the observable and measurable, and which rejects metaphysics) is the only credible way of interpreting phenomena – and that other interpretive systems such as sociology, mythology, spirituality, theology and philosophy are inferior or invalid. In its extreme form, this represents a type of secular fundamentalism that fails to account for the meanings and complexities of other sense-making strategies such as mythology, to take one example, which Gray (2007) has described in this way: ‘Myths are not true or false in the way scientific theories are true or false, but they can be more or less truthful in reflecting the enduring realities of human life’.

A recent spate of books associating atheism with positivist science and aggressively critiquing religion have been published (e.g. Dawkins 2007; Hitchens 2007), with the same authors also showing a tendency to attack CAM as another example of false-thinking so that two sets of correspondences are laid out to distinguish between the intelligent and the foolish person:

- Foolish people have to do with: pseudoscience, irrational beliefs, religious conviction, use of CAM
- Intelligent people have to do with: ‘real’ science, logical opinions, atheism, support for conventional medicine and antagonism towards CAM.

A number of journalists and social commentators have subscribed to this line of simplistic and inflammatory dichotomizing, to the point where CAM modalities are now commonly lampooned in the media and an interest in, or use of so-called CAM therapies, is construed as evidence that one is illogical, irrational – a fool likely to believe in any old nonsense. The eminent journalist Francis Wheen (in his book *How Mumbo-Jumbo Conquered the World*) considers that:

> The swelling popularity of quack potions and treatments in recent years is yet another manifestation of the retreat from reason and scientific method … The alluring adjectives ‘complementary’ and ‘alternative’ are essentially euphemisms for ‘dud’…

Wheen (2004)

Such faith in reason and method is as vulnerable to critique as any other tenet of belief, however, as Feyerabend (1993) makes clear:

> The idea of a method that contains firm, unchanging, and absolutely binding principles for conducting science meets considerable difficulty when confronted with the results of historical research … one of the most striking features of recent discussions in the history and philosophy of science is the realization that events and developments, such as the invention of atomism in antiquity, the Copernican Revolution, the rise of modern atomism (kinetic theory; dispersion theory; stereochemistry; quantum theory), the gradual emergence of the wave theory of light, occurred only because some thinkers either decided not to be bound by certain ‘obvious’ methodological rules, or because they unwittingly broke them [original emphases].
Positive, nuanced, complex and synthetic messages do not play well in the media. In this zone, the simple, absolute, negative, aggressive and extreme are generally preferred. Dominant media voices are rarely (or rarely allowed to be) insightful, subtle or pluralistic therefore, although the intelligent media consumer can usually be relied upon to discern the lack of these qualities. Absolutist positions on medicine are usually stated by non-practitioners who lack experience in dealing with the complex and varied predicaments of patients and the continuing need for flexibility in helping to meet their expectations and to learn from the lessons they teach.

In challenging scientism, Okasha (2002) attempts to define the limits of scientific understanding and map out the territories where philosophy holds supreme:

… the questions that philosophy addresses include the nature of knowledge, of morality, of rationality, of human well-being, and more, none of which seem to be soluble by scientific methods. No branch of science tells us how to live our lives, what knowledge is, or what human happiness involves … [my emphasis]

This is a rather broad sweep of course – science may tell us some things about human wellbeing, even some things about happiness (e.g. the neuro-chemistry of happiness; the factors that seem to promote a sense of happiness, etc.), yet these are necessarily partial in nature. Increasing emphasis on specialization has inhibited or disabled many authorities in their ability to take on board perspectives from other disciplines, leading to the failure to take a larger view of any complex phenomenon. So where does the problem in taking a multifaceted view of a particular subject lie? With human wellbeing, for example, why can we not consider the scientific, traditional, indigenous, spiritual, theological, mythological, sociological (and so forth) explanations and insights into the nature of this subject, comparing, synthesizing and interpreting them all? We do not have to choose just one area – instead of ‘either/or’ we can have ‘and’. To move beyond the snares, errors and dead ends of a too-narrow viewpoint requires the open attitude of the pluralist, the polymath, the generalist but during the twentieth century such terms took on negative tones and were often used in a derogatory sense, suggesting ‘dabbler’. In the 1930s, the physician Alexander George Gibson, writing a treatise based on a fragment of the philosopher/physician John Locke (1632–1704), bemoaned the move towards narrow specialization:

In the age of Locke a man with any pretensions to originality was not accused of being an amateur if he wrote about studies that were not his immediate concern. Inquisitive minds did not hesitate to pursue any branch of knowledge.

Gibson (1933)

In talking about medicine in the early twentieth century, Lawrence and Weisz (1998) observed that:

In Britain around the turn of the century … many physicians regarded the medical art as built on science but not reducible to it. Such physicians often valued generalism over specialism and a broad cultural background over technical training. [original emphasis]
It is arguable that many doctors, as well as many CAM therapists, still feel the same way.

Sorell (1994) has stated that: ‘Scientism is a matter of putting too high a value on science in comparison with other branches of learning or culture’. My argument is that the most useful type of phytotherapy attempts to combine diverse models in science with other sources of perception and explanation – critically engaging with each. The holistic phytotherapist is inevitably a pluralist.

In the light of the foregoing discussion, we can assert that phytotherapy has the potential to represent a contemporary and dynamically adjusting approach to herbal practice that is open, pluralistic, synthesizing and concerned with all aspects of the art and science of plant medicine. Phytotherapists might be accused here of wanting to have it both ways and indeed of indulging in some degree of chicanery – of hijacking the term ‘phytotherapy’ to assume a veneer of authenticity and scientific respectability (implying a connection with the continental European doctor–phytotherapists) and then subverting it to our own ends – this rather exciting interpretation holds some appeal, although it implies a calculated plan which is hard to trace.

In an entertaining presentation, the phytotherapist Simon Mills characterized two world-views that polarize herbal practice (and which perform a similar role in other fields) as:

1. Romantic: Subjective: Aesthetic: How does this affect me directly?
2. Classical: Objective: Rational: What does this mean?

Through our individual nature, upbringing, education and experiences we all tend, as practitioners, to veer towards one of these poles. The further we are to one extreme, the more likely we are to view the opposite pole as an enemy – diametrically opposed to our entrenched position. The closer we are to the centre, the more we will be able to move between, or combine, the two worlds.

**PHYTOTHERAPY: A PERSONAL VIEW**

Given that we have identified phytotherapy as a contested notion within the field of herbal medicine, and one that encompasses a number of possible interpretations, I would like to end this chapter by describing more fully the particular take on phytotherapy that is under discussion in this book, beginning with global philosophical considerations and then moving to the specifics of practice.

My view of phytotherapy is one that is grounded in perceiving herbal medicine as a ‘commons’ – recognizing that herbs have been used therapeutically by all peoples throughout all times. Helping people to learn how to access (including to grow, harvest and prepare) and use herbs in order to self-treat and treat their families – and in so doing aiding preservation or rediscovery of herbal medicine as an everyday therapeutic event is a core goal. Self-care with herbs is complemented by professional phytotherapeutic care but the latter should not displace or replace the former. Medicinal plants are not ‘resources’ in the economic sense, they are part of the living environment. This means that in order to work ethically in facilitating the relationship
Phytotherapy in context

between people and medicinal plants, and to care for the physical environment in which these transactions take place, the phytotherapist will necessarily be a holist, an educationalist and an ecologist. Phytotherapy draws on the broadest possible range of perspectives and information sources in appreciating the interactions between people, plants and their environment, including, but not limited to: science, tradition, indigenous perspectives, ethnobotany, anthropology, sociology, mythology, theology and spirituality. These perspectives can be compared, evaluated and synthesized but most importantly they need to be drawn into discussion with each other. The primary aim of phytotherapy is to engender wellness in the individual and communities. The human organism is essentially self-healing and phytotherapy represents a key means that can be employed to support and promote this capacity. Specifically: phytotherapy may be employed to optimize health, prevent and treat disease and provide palliation. The phytotherapist has an appetite for complexity – in both plant and patient – and seeks to appreciate the patient’s predicament in the fullest way possible and, in doing so, aid the patient’s search for self-understanding and meaning. Phytotherapy extends beyond plant remedies to include the ancient scope of ‘diatetica’ – considering diet, balancing activity and rest and so forth. In addition to the plant the phytotherapist is, in and of himself, a therapeutic agent and seeks to apply himself as such by enabling the patient’s self-reflection, providing human warmth, care, kindness and bearing witness to the patient’s suffering.

In the light of the above conceptualization, the key focus of this book trains on the interpersonal aspects of the phytotherapist’s work.

Herbal medicine has always changed with, and adapted to, the times. In the nineteenth and early twentieth centuries, as noted in the ‘Introductory’ section, a group of American practitioners, known as the ‘Physiomedicalists’ used herbs as a primary treatment strategy. They combined indigenous Native American plant knowledge with new discoveries in physiology and disease aetiology, being especially influenced by an appreciation of the autonomic nervous system and formulating treatments to regulate autonomic tone in response. Phytotherapy continues to react and adapt to new discoveries and changing conceptions in medical science. Currently, the notion of psychoneuroimmunology (PNI) offers potential to provide one particularly comprehensive explanatory framework for appreciating the actions of herbal medicines on the body. PNI recognizes the key roles that psychology, neurology, endocrinology and immunology play as major regulating systems for the individual person. This developing concept is especially exciting because it provides a link between psychological and biochemical processes showing how influences at the ‘psyche’ level (mood, emotions, attitude, beliefs) adapt and affect biochemical and physiological activity. The wide-ranging and complex pharmacological effects of plant medicines can modulate these interactions, thereby exerting a profound degree of influence on individual wellbeing. Table 1.4 gives some idea of this net of relationships, providing examples of some herbs that can act on each of the body’s major control systems.

Cytokines are now understood to act as important mediators of biochemical responses within the PNI model (integrating neurotransmitter, hormone and immune cell activity) and a particular related area of research at this time.
is that into the influence of proinflammatory cytokines and their connection with the development of inflammatory disorders. A large number of herbs have demonstrated activity in modulating cytokine activity (Spelman et al. 2006), offering potentials to reduce inflammation and enhance immunity. As a resurgence of interest in inflammation takes place and its role begins to be appreciated in such seemingly diverse (though clearly related when seen from the PNI perspective) conditions as stress, obesity, diabetes and other metabolic disorders (Wellen & Hotamisligil 2005) herbal medicine is well placed to add a new pharmaco-physiological rationale for its use.

New broad explanatory models, and new language, to describe and diversify herbal practice continue to emerge in response to research. For example, Rangel (2005) has developed a ‘Systemic Theory of Living Systems’ utilizing herbal medicines to modulate what he proposes as the three core factors that control physiological health:

... integrity of its structure or organization, O, functional organic energy reserve, E, and level of active biological intelligence, I.

In this model: *Silybum marianum* (milk thistle) is one of the plant agents that improves O because it is one of the ‘organoceuticals that specifically enhance organ function and structure’ – here acting on the liver; *Panax ginseng* (Korean ginseng) is an example of a herb that enhances E, due to its ability to increase mitochondrial ATP synthesis; and *Echinacea purpurea* supports I since it is one of a number of ‘infoceuticals that enhance bio-intelligence on ... immune levels’.

While it is easy to ridicule the neologisms at play here, the concept is nonetheless worthy of serious study as a new interpretation of the capacities and practical application of herbal medicines.

There are several other examples of contemporary herbal practitioners constructing conceptual frameworks to explain and enable the use of herbal medicines as forms of sophisticated, complex pharmacotherapy. In this book, however, I am concerned primarily with the non-pharmacological aspects of herbal practice – with what else the herbal practitioner, or phytotherapist, does around and apart from her focus on the herbs themselves. This other aspect of herbal practice has been much less explored and it may appear to have much more to do with psychotherapy than pharmacotherapy, e.g. How does the phytotherapist facilitate the evolution of a therapeutic relationship with the patient? And to what extent does this, in itself, have a healing effect?

Before moving on to consider such questions, let us summarize and reiterate that ‘phytotherapy’ represents a continuing, though disputed, group of adaptations of herbal medicine to the times. It reveals herbal medicine as a

### Table 1.4 Examples of herbs influencing PNI systems

<table>
<thead>
<tr>
<th>Psychoneurology</th>
<th>Endocrinology</th>
<th>Immunology</th>
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<tr>
<td><em>Valeriana officinalis</em></td>
<td><em>Vitex agnus-castus</em></td>
<td><em>Echinacea spp.</em></td>
</tr>
<tr>
<td><em>Hypericum officinalis</em></td>
<td><em>Eleutherococcus senticosus</em></td>
<td><em>Uncaria tomentosa</em></td>
</tr>
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</table>
living, developing tradition responsive to its cultural setting and able to accommodate to changes in that setting – much like plants themselves as their environment changes. Phytotherapy – its concepts, categories, ideas, viewpoints and capacities – offers a cluster of models of holistic, person-centred, humanistic practice that become ever more popular and necessary as societies, changing under ecological imperatives, become more person-centred, humanistic and nature-oriented. As cultures change in this way, herbal medicine is likely to shift from periphery to centre – a position that, until very recently, it has occupied throughout human engagement with the notion of healing. Advocates of herbal medicine therefore are likely to be found increasingly among the proponents of green politics and ecologically viable alternatives to current ways of living. One such perspective is contained within the ‘transition towns’ movement which challenges local communities to plan for life after ‘the age of cheap oil’, envisaging that such a life will need to be based on cooperative activity around sustainable practices. The core ‘transition’ text (Hopkins 2008) includes ‘A vision for 2030’: an imagined report on the state-of-the-art in various areas following transition to more sustainable ways of being. Here is part of the report on ‘Medicine and health’:

Today (i.e. 2030) our idea of health – how to create it and maintain it – has changed markedly from that of twenty years ago. The Health Service had to rethink itself as the oil price made many of its practices and approaches unaffordable, and it faced the very real threat of collapsing completely … local healthcare centres are now not just about treating illness but promoting health in many diverse ways. They have forged partnerships with local schools, promoting food growing and familiarising young people with the whole food cycle from seed to salad. The wellbeing of the individual is seen as inseparable from the health of the community. Human biology is now a compulsory school subject, and has expanded to include nutrition and basic herbalism. About half of the medicines prescribed by doctors are now locally sourced, with local farmers growing certain key medicinal plants …

This scenario envisages herbal medicines (i.e. the plants themselves) returning to the mainstream, but if herbal medicine (in the form of a discrete practice such as phytotherapy) is to occupy a prominent place in future healthcare, it must make a case for itself as an approach. The remainder of this book presents part of that case.

REFERENCES

Conway P: Knowledge and myths of knowledge in the ‘science’ of herbal
Phytotherapy in context


DoH: Good doctors, safer patients: proposals to strengthen the system to assure and improve the performance of doctors and to protect the safety of patients, Department of Health, London, 2006, The Stationery Office.


Ernst E, Singh S: Trick or treatment?: alternative medicine on trial, London, 2008, Bantam.


Phytotherapy in context


Tobyn G: Culpeper’s medicine, Dorset, 1997, Element.


