

Holistic Medicine and Holistic Education

Radical side effects of acupuncture accreditation.

Paul Hougham and Allen Parrott

Introduction – the challenge of holism

Since 1990 the British Acupuncture Accreditation Board (BAAB) has been accrediting licentiate and degree level acupuncture professional courses in Britain. Its success as a rigorous regulator has been celebrated by government and even noted by other healthcare professions, but its accreditation processes have also had beneficial *educational* effects. For many years nearly all professional education and training in Britain, including the education of many teachers and health workers, has had to operate within a narrow ‘skills’ and ‘competencies’ framework. This framework, based on a technical-rational version of practice in which everything of significance in the world is assumed to be observable and measurable, is designed to ignore the complexity of professional knowledge and to reject the ‘artistry’ of professional practice. By contrast, the work of the Board has been helping the acupuncture profession to move purposefully towards a sophisticated framework of educational practice that is marked by the same holistic world view as the practice of acupuncture itself.

The holism that is espoused by most acupuncture traditions, (although there are modern forms of acupuncture that have made alliance with a less holistic and a more conventional scientific model of medicine), is not a superficial lifestyle choice or a feel-good metaphor. In the main acupuncture traditions, holism is the starting point for all theory and for all practice. It is traditional acupuncture’s underlying ontology and its required epistemology. Deep holism of this kind should not be labelled as either ‘alternative’ or ‘complementary’, but as bedrock and literal: a description of how the world is and of how it should be viewed, known and inhabited. In medical contexts, holism entails the integration and interpenetration of the life of the spirit with that of the mind and body, requiring always that the whole person be treated in sickness and in health. There is nothing irrational or anti-empirical about this holism, even though it takes practitioners into areas of reality and knowledge uncharted by mainstream medical science. This article tracks the central rhythms of the holistic education vision developed by the British acupuncture profession, explains the role of its Accreditation Board, and suggests how the vision might speak to a wider audience.

Eighteen Years of Accreditation and Holism – 1990-2008

In November 2000 the House of Lords’ Science and Technology¹ committee commended the acupuncture profession for the establishment of the British Acupuncture Accreditation Board. It commented that “establishing an independent accreditation board along the lines of the BAAB is a positive move. Other therapies with fragmented professional representation may wish

to use this as a model.” This praise had little to do with holistic education. Their lordships were applauding the Board’s constitution, its committee structure and its independence, as well as its transparent, rigorous and comprehensive accreditation processes. Accreditation of teaching institutions is an important way in which any profession can demonstrate its maturity, its capacity for effective self-regulation and its public accountability. Many features which impressed the Select Committee are still strongly in evidence today. These include:

- Good relationships with other medical bodies in the mainstream and in complementary medicine.
- The membership of the Board consists of 50% non-acupuncturists and a non-acupuncturist Chair.
- The Board operates independently of the professional acupuncture body – The British Acupuncture Council (BAcC) – which created it and which continues to finance much of its work.
- The Board has clear enquiry-led processes for accrediting acupuncture degree courses.
- The Board places as much emphasis on educational ‘development’ (i.e. fostering institutional and course developments over time) as it does on regular ‘inspections’ (i.e. checking up on the attainment of the profession’s requirements).
- The Board’s accreditation process makes extensive use not only of acupuncture practitioners, to ensure internal professional coherence and credibility, but also of education and management experts - to provide external perspectives on quality.
- The Board sets out transparent standards for a degree-level core curriculum and the clinical attainments expected of newly qualified professional acupuncturists.
- The Board also has explicit standards for its own processes and working, with a code of conduct based on the Nolan Principles.

Such a list is conventional enough and could no doubt be duplicated by other professions and their accreditation bodies. In the functioning of this Accreditation Board, however, there has been an emphasis on *educational* ideas that might not be found so strongly elsewhere. The Board’s approach over the last eighteen years has encouraged the profession to explore educational issues and western educational requirements in a confident and forward-looking manner. The core holistic philosophy that characterises the profession’s acupuncture practice is now expected in its educational practices as well. Some distinctive features of the Board’s way of working can be listed as follows:

1. Levels of dialogue. The Board entrusts much of the detailed accreditation business to a smaller ‘Accreditation Committee’ (AC), which, like the Board itself, consists of 50% acupuncturists and 50% lay members. This committee meets more often than the main Board in order to review and discuss all documentation submitted by institutions, both before and after they are officially visited, and to make recommendations to the full Board. By offering an intermediate level of evidence-based recommendations to the Board about the stage of development that institutions and their courses have reached, the

work of the AC deepens the entire process. In addition, the AC provides a regular opportunity for practitioners and educationalists to discuss current practices in acupuncture education in detail. Its members therefore become a vehicle for spreading up-to-date knowledge, both about the variety of theoretical underpinnings within acupuncture education and about how these lead to different practical approaches and emphases in the teaching institutions.

2. Signatures of diversity. The Board's educationalist members have helped to ensure that there is an ongoing and well-informed debate about educational standards within the profession. Board members and officers have been instrumental in introducing the profession to such core curriculum requirements of western higher and professional education as research-mindedness, reflective practice and criticality. At the same time, the educationalists and other lay members of the Board have had to learn about the *diversity* to be found in acupuncture's multiple traditions and the Board has always sought not just to encourage this diversity but to honour and celebrate it.

Each college, or each course team in the case of a university, is asked to provide an explicit articulation of their programme's uniqueness, i.e. a clear account of which approach to acupuncture is being promoted in their course. All institutions benefit from this exercise in clarification, while the profession as a whole benefits from a transparency that enables professional differences to be better understood and openly discussed. The best teaching institutions are also keen to define how they would expect their graduates to operate as acupuncture practitioners, and this exercise also enables them to articulate a particular *educational* philosophy for their programme: to identify the kinds of teaching and learning that they wish their students to experience, and the kinds of professional conduct that they wish their teachers to model.

3. Clarifications of unity. The diversity of acupuncture has to coexist with, and not detract from, the equally important theme of professional unity. As a way to unify the profession, the Board promotes minimum standards that are held in common across all its institutions. These detailed, transparent and comprehensive standards are set out in the Board's Accreditation Handbook. As well as protecting the interests of patients, students and teachers, the curriculum and accreditation requirements in the Handbook can function to define and protect the title of 'professional acupuncturist' within the community of practitioners itself. Unfortunately, it is increasingly apparent that this title may need such protection. The notion of 'professional acupuncturist' is being diluted, as aspects of acupuncture practice are filleted for re-packaging in a health-care market which does not have holism as a core philosophy.

4. Expectations of professionalism in teaching. All teachers of acupuncture, including clinic supervisors, are expected by the Board to regard themselves as professional practitioners twice over. Teaching itself has to become their second profession and it must be taken as seriously as their first. Teaching is seldom as simple or straightforward as non-teachers believe. The Board therefore expects policies of staff development in its accredited institutions to include courses and qualifications in teacher education,

alongside the continuing professional development that is directly related to acupuncture knowledge and its specialist practices.

5. Cultures of development. The Board affirmed its strong educational role from the start by insisting that its processes of accreditation be 'developmental' as well as 'inspectorial'. Development, whether of the individual practitioner, of the course programme or of the institution itself, is a process that can never be regarded as finished. Excellence will always remain an elusive goal to be worked towards, even by the most experienced institutions or by the most admired practitioners. For new institutions, in the early stages of thinking about an acupuncture degree course, 'development' means being helped by the Board's paid accreditation officers to achieve the profession's required standards. Later in the process, fully accredited institutions which have been through the Board's demanding three stages of accreditation and which have successfully demonstrated compliance with the Board's seventeen Essential Requirements, are nevertheless still required to review their course self-critically each year and to build further 'development' into their culture and into their way of thinking.

6. Practices of reflection. The Board's requirement that teaching institutions should themselves become self-aware and explicitly self-critical runs parallel with the related expectation that institutions will encourage a reflective mentality and life-long habits of reflective practice and critical thinking in all their acupuncture students. Becoming an effective practitioner is never just a matter of ticking off lists of skills acquired, knowledge attained or competence demonstrated. In addition, it requires each newcomer to the profession to engage in a uniquely personal process of reflection about the tradition of conduct into which they are being inducted. In these formative years when they are learning to become competent, students are likely to be learning as much from the experiences, relationships and lived values that they see around them every day – the hidden curriculum - as they are learning from the course syllabuses of the formal curriculum. A set of professional values is being conveyed to them every day, consciously or unconsciously, through the ethos of the teaching institution and the conduct of its teachers. Students need structured opportunities to reflect on their experiences of this hidden curriculum, while the best of their teachers will also be modelling a reflective approach to the subjectivities and complexities of both their teaching and their acupuncture practices.

7. Ethics of Conduct The idea that students learn about acupuncture from seeing good professional practice modelled by their teachers is familiar enough, but the Board also expects similarly ethical role modelling from its own officers and its teams of accreditation visitors. The injunction from the Board to its visiting teams can be expressed as a categorical imperative: "do not do unto teachers what you would not have teachers do unto students". The Board's accreditation teams are therefore required to conduct themselves and their enquiries with the same professionalism that they expect to find when observing teaching in classrooms and clinics. This is the same respect that the institution's senior management is expected to display in all its dealings with students and with staff. It is also the same level of sensitivity

that every member of the institution is expected to display towards patients. In this way professional values and ethics are placed at the heart of the accreditation process, and at its longer accreditation visits the Board employs its own observer to report back on the conduct of its visiting team.

8. Tensions of critical friendship. Because of its unusually rigorous expectations, the Board can be regarded as a particularly demanding 'critical friend'. The tension between criticism and friendship has frequently tested relationships between the Board and those teaching institutions which have chosen to submit courses to its scrutiny for accreditation. One or two have fallen by the wayside. But the demanding nature of the accreditation process has also empowered teaching institutions, as they strive to go beyond merely achieving minimum acceptable standards and as each of them strives to make its own distinctive contribution to the emerging acupuncture profession in Britain. The Board itself has spent eighteen years coping with the tension of being, simultaneously, a western-style inspection, quality assurance and public watchdog agency on the one hand, and a forum, sounding board and advocate for a non-western form of health care on the other.

Acupuncture Education and Holism – Into the Future?

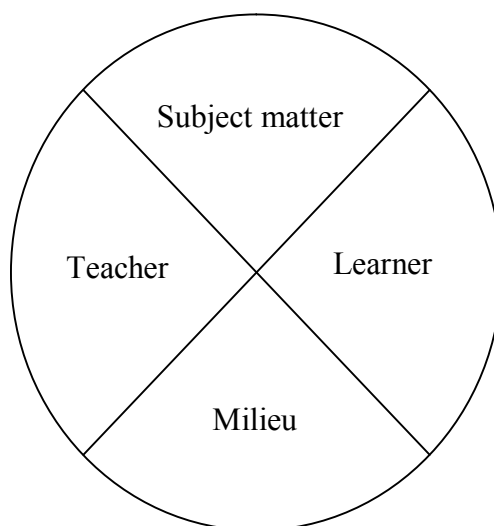
The struggle to reconcile, or synthesise, eastern and western versions of knowledge, professional practice and professional education will continue to face western acupuncture for many years yet. There are certainly some key western liberal educational values that will play a role in the Board's thinking and in its accreditation practices for the foreseeable future. It remains an article of faith, for instance, that teachers and students should share equal status as autonomous human beings, even if they are at times operating within an undemocratic master/apprentice model of teaching and learning that has been imported from the east. The Board also encourages its accredited institutions to adopt such western notions as:

- student-centred approaches and strong pastoral care systems
- activity-based and experiential learning
- overtly democratic forms of participation by staff and by students
- critical thinking and deep questioning of orthodoxy, (including the institution's own deeply held beliefs about acupuncture)
- a variety of assessment modes, including self-assessment and peer assessment
- the use of reflective practice portfolios throughout a degree
- research mindedness and some direct student experience of formal research

However, non-western streams of educational theory have also entered acupuncture courses, introducing different cultural themes. One of the Board's strengths has been a willingness to combine its unflinching demand for accredited courses to foster a research-minded and very western scepticism towards all knowledge and all authority, on the one hand, with a deep respect for the knowledge contained in eastern traditions and in the authoritative texts of the past, on the other. This is a multi-dimensional and sophisticated approach, as befits two complex professional practices like

acupuncture and education. The simple-minded opposition between 'traditionalists' and 'progressives', which has bedevilled the education debate in Britain for over a century, has fortunately been avoided in discussions of acupuncture education.

Education in practice can never be anything but multi-dimensional. The distinguished American educator, J.J.Schwab, expressed the complexity of practice in a simple fashion, when he pointed out that underlying any educational setting or issue or practical debate there are always four basic dimensions or 'commonplaces' which had to be taken into account: the subject matter; the teacher; the learner; the milieu (context). To ignore any one or more of them, or to be overly concerned with only one of them, is always to over-simplify the educational situation or problem. Educational progressives since the 1960s can perhaps be accused in general of being too focussed on learners, while educational traditionalists in every generation have tended to be over-concerned with subject matter. Each group may feel they have a plausible body of research evidence or a convincing 'theory' to call on, but Schwab pointed out that any theoretical position that does not include all four of the commonplaces will always be partial, in one or both senses of the word: incomplete and/or biased. Simple theories or apparently authoritative accounts of 'what works' should therefore be distrusted by education practitioners, because there is never going to be a single 'evidence base' giving simple theoretical solutions to complex practical problems. (Shulman 2004, p.427)².



JJ Schwab's four 'commonplaces' of education

The acupuncture profession's willingness to cope with complexity became apparent during the debates that took place about the BAAC Standards for the Practice of Acupuncture (SPA), first published in 2006 and revised in 2008. This documentation has set a new benchmark for any health-care profession that might be seeking to describe the distinctive nature of its professional

practice or to define the more subtle aspects of its specialist professional knowledge.

Acupuncture's SPA document can be contrasted with the uninspiring National Occupational Standards (NOS) that the Department for Health in recent years has required all the non-conventional branches of statutorily regulated medicine and health-care to provide. In 2004 when the government's request for NOS for acupuncture came through, acupuncturists were quick to recognise that the extreme technical-rational view of the world underlying the NOS initiative sat uneasily not just with their clinical and professional values but also with the deeply-held *educational* values that underpinned the work of their profession's accredited teaching institutions. Between 2004 and 2006 a working group comprising members of the Board, the BAoC and the acupuncture teaching profession took up the challenge of drafting a document that would more fully bear witness to the realities of professional acupuncture practice, while still paying full justice to the 'bottom lines' of practitioner competence and patient safety.

The NOS framework represents the opposite of holism, because it focuses only on the technical, the measurable and the observable aspects of any skill or job. Check-lists of generalised and measurable skills are relatively easy and straightforward to produce, but educationally they are value-less (in both senses). As an educational tool, the entire NOS initiative provides a textbook example of a theory that fails to meet Schwab's basic criteria, because it focuses entirely on 'subject matter' and ignores 'milieu', 'learner' and 'teacher'. The SPA document, by contrast, explicitly engages with the contextual complexity of all practice and also focuses strongly on the practitioner as learner, while suggesting possibilities for teaching and being taught as well. However, unlike NOS, the primary texture of the SPA document is that of a qualitative, practitioner-led inquiry. Instead of static tick-boxes, the SPA questions generate a momentum which invites practitioners to undertake an open-ended and creative developmental path of personal enquiry. These open-ended questions about a practitioner's experience seek to expand their understanding of practice as well as to provide assurance about its safety. The combination of acupuncture's intrinsic holism and a reflective practice philosophy familiar in higher and professional education has produced a sophisticated professional self-help document that practitioners in all health modalities could find relevant and useful.

Despite recent political rhetoric about moving towards pluralistic or integrative medicine, it is clear that the benefits of holistic medicine in general and the potential of acupuncture in particular are not properly understood by the medical and political establishment. Some practitioners are more equal than others. That the NOS documentation has not been required of mainstream physicians, surgeons and GPs is very revealing, for example; such a differential approach to medical education suggests that medical traditions like acupuncture are still being seen as subordinate and 'supplementary', rather than genuinely 'complementary'. If the acupuncture profession had to limit its working practices to those which are capable of being expressed in the NOS framework, its contribution to Britain's future health-care provision would be

stillborn. It may not be the intention, but the practical effect of working strictly to NOS guidelines would be the destruction of holistic acupuncture.

The SPA document with its holistic medical education synthesis may, however, be only the start of the acupuncture profession's distinctive contribution to 21st century debates on health care and education in the west. The following propositions from acupuncture's holistic tradition suggest some interesting possibilities for the future of health-care and health-related education. Although they might be contested or dismissed out of hand by many 'scientific' educators and medical practitioners, it would be foolish and irrational not to explore these propositions fully and without pre-conceptions.

- **Direct transmission from teacher to learner.** Apprenticeship remains of fundamental importance in the learning of acupuncture practice, with on occasions the aetheric transfer of knowledge from master to student in the proximity of the treatment room. Particularly within the root Daoist traditions of acupuncture, such 'direct transmission', which can also be experienced in group meditation, remains integral to the learning and the teaching of acupuncture.
- **The patient's body of knowledge.** The body contains its own wisdom and knowledge. The meridians and acu-points of acupuncture's sciences hold not only potential treatment protocols for the practitioner, but also caches of energy and knowledge for student and master alike.
- **The acupuncturist practitioner's inner orientation.** The legacy from acupuncture's root culture requires acupuncture educators to honour the body, mind and spirit of every student engaged in the learning process. The best teaching and the most meaningful learning both derive from such holistic awareness. Therefore the 'inner orientation' of both student and teacher also finds itself being articulated in the 'criteria for professional development' of modern acupuncture courses. The deeply holistic nature of human experience which lies at the centre of clinical practice must also be found at the centre of acupuncture education.

Two of the most prominent scholars of Chinese medical classics, Father Claude Larre and Elisabeth Rochat de la Vallee, have affirmed that:

The most important thing for healing is the relationship between the practitioner, the spirits and the patient. The relationship begins with the personal attitude and inner behaviour of the practitioner. Your own spirits and forces must be in a good concentration in order to be able to evaluate the patient and to be able to rectify what is wrong in the movement of his or her vitality. It is your spirit which enables you to make the diagnosis, choose the points, and give a feeling of rightness to the patient at a high level – without interfering in the patient's freedom. The treatment always takes place inside of this practitioner-patient relationship.³

Because many aspects of eastern wisdom have been appropriated as sound-bites and buzzwords, the same vocabulary of holism might today be used by a member of one of the allied health professions such as podiatry, or by a

practitioner of another complementary therapy such as aromatherapy, or even by a western trained physician. What makes the language and the holistic message uniquely significant in the acupuncture context is the notion that the personal relationship between practitioner and patient is part of the very infrastructure of healing; also, that the sophistication and complexity of an unseen and unmeasurable but nevertheless real 'spirit' can itself be part of the active agent of acupuncture's efficacy. For acupuncturists, the holism of body-mind-spirit is deeply rooted; it does not reside in the possession of a good bedside manner or in the psychological dexterity of advising patients on their lifestyle choices. Such superficial attributes or skills can indeed be applied to any healing discipline and are easily acquired by many practitioners, including charlatans. Holism, properly understood, is something deeper and different: it goes beyond words, (which is why "defining holism" is an oxymoron), into the very landscape of the human experience.

The profound characteristics of the holistic acupuncture tradition have inevitably permeated aspects of the Board's work with teaching institutions, even though the Board itself is primarily concerned with the attainment of high educational and professional standards. Holistic themes, initially quite alien to the contemporary mainstream western culture, have been discussed with due seriousness and within a multi-cultural framework. Attention has been given to the way in which such themes might have a universal relevance beyond their eastern cultural context. For example, one debate has questioned the extent to which the homoeopathy of 19th century Europe created the "body/mind/spirit" approach of 20th century holistic western thought and how far this western formulation dovetails, historically and clinically, with the ancient acupuncture distinctions of *shen*, *qi* and *jing* (spirits, breaths and essences). Where areas of scientific and cultural tension have arisen as a result of such discussion, the Board has remained neutral, choosing merely to encourage the criticality, debate and self reflection that are features of a mature profession and of good higher educational practice. The Board itself has never pushed one view or version of healthcare over any other. Yet by providing a platform, the Board has also wanted to encourage the profession's continuing engagement with the thorny creativity that such tensions can engender.

Health and safety offers a practical and a current example of this creativity. In recent years acupuncture teaching institutions have fully embraced the health and safety culture of contemporary medical practice, and the Board itself enforces the rigorous codes that are designed to ensure safe practice. The distinctive holistic perspective of acupuncture, however, encourages a deeper debate on health and safety arising from a more esoteric interpretation of 'safe practice'. When needling an acupuncture point 'safely', does the practitioner not only need to wash their hands to ensure that they are clean, but also to attend to the state of their own *qi* (breaths, energies), to their own inner orientation and to their healing intention, all of which together, for some acupuncture traditions, provide a great part of the potency and active agent of the medical intervention itself? This approach to safe practice, and by extension to good medical practice, has the potential to throw light on what

western scientific medicine chooses to call, often disparagingly, the 'placebo effect'.

As a common and well-attested human phenomenon, the placebo effect would seem to deserve open-minded investigation rather than scientific disparagement. This vast, and currently slightly taboo, area of medicine may one day become the arena for much of medicine's future efficacy. But it is already a sphere for which acupuncture can provide an infrastructure of understanding and a route towards a sophisticated model of application. The solid empirical foundations of traditional acupuncture and, in particular, the mapping of over 300 acupuncture points on the human body, offer today's clinicians not only an avenue of remedial healing for the patient but also a repository of knowledge and wisdom for the practitioners themselves and for the wider society. Such embodied forms of knowledge constitute an example of Aristotelean 'praxis', whereby active, practical knowledge is intertwined with theoretical and poetic knowledge and knowledge experienced through practice takes priority over knowledge conceived through theory. But eastern wisdom about embodied knowledge sometimes goes further than classical western praxis. For the acupuncturist of a Taoist persuasion, the body is the primary gateway and is in itself a cache of wisdom and information, holding the knowledge unmediated by intellect. As we hear from the Tao Te Ching, the kinaesthetic mode of knowledge takes precedence over the visual:

The sage is for the belly, not for the eye.

Dao De Jing ch12 (transl. DC Lau)

In a similar vein, much of acupuncture's knowledge of the body comes not from dissection but from meditation.

Acupuncture's use of 'fuzzy logic'⁴ may mean that its practical wisdom will go on being largely rejected or discarded by modern scientific medicine, which remains dominated by positivist materialism. That the actions of placebo and intention are to be found in human consciousness and in explorations of wisdom and humility – rather than in laboratories where they can be easily observed and measured - does not make them obvious candidates for research funding in the current political climate. Alternatively, acupuncture may one day be able to offer society a detailed map of how human beings can understand the action of placebo and intention in medical practice, and also how these aspects can be consciously brought into the patient-practitioner relationship and scientifically worked with. There has been a steady growth in popular awareness of mind-body connectedness and of the inescapable human inter-connections with nature, so perhaps there is an evolutionary momentum behind the silent and non-aggressive entry of such things into the social and global consciousness. Terms like 'holistic' and 'mind-body-spirit', currently employed as superficial metaphors in the west, may one day claim, or reclaim, centre stage as part of everyone's lived reality.

Conclusion - A listening silence

The Board's accreditation processes have helped the acupuncture profession to hold in creative tension its own varied lineages, while meeting the demands of a contemporary health-care context. The beneficial educational side-effects from its accreditation work include a true scientific neutrality towards medical models and traditions and a nurturing, as well as a safeguarding, of professional creativity and independence. The hope is that acupuncture's professional creativity and educational synthesis will continue into the future and evolve into even higher forms. While acupuncture's fortunes have in some respects developed encouragingly over the forty years since it began to have a substantial presence in the western world, the dominant cultural scientific and political context at the beginning of the 21st century still does not allow complementary and alternative medicine to share a level playing field with mainstream health-care.

Yet perhaps complementary health-care professionals should not be seeking too ardently to emulate or to climb on board the leaky vessel that is the current national health-care system within Britain. Despite the undoubted wonders of some aspects of scientific medicine and the huge commitment of most of the people who work in the NHS, there seems to be a widespread longing among many conventional health professionals for a return to more human and less technological methodologies. A surprising number of these practitioners, as well as a majority of the general public, might support the introduction of genuinely holistic values into mainstream health-care culture. If that seems too ambitious, perhaps at least all modern health-care modalities might start to explore, with the tools of their own traditions, the dynamics and the detailed practical implications of the holism metaphors which are in widespread use already. Also there are two 'folk' wisdoms that must be restored to a central position in every health modality before there can be a genuinely pluralistic infrastructure for health care in Britain: the notion of self-healing and the practice of traditional nursing care. However far along the ocean of techno-rationalism and scientific medicine western society may choose to travel, many acupuncture practitioners will want to go on proclaiming the validity of these two wise traditions and of all the other wisdom to be found in an authentically holistic approach to health.

It seems appropriate to end with a quote from Lao Zi, in 600 BCE, which was cited in the BAAC's Standards of Professional Acupuncture document. These words point to, but do not define, the values of listening and witness that are shared by both holistic education and holistic medicine.

It is as though s/he listened
And such listening as this enfolds us in a silence
In which at last we begin to hear
What we are meant to be.

Allen Parrott and Paul Hougham have both been members of the British Acupuncture Accreditation Board, but the views expressed here are their own.

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vocation in adult education and worked as a teacher, senior manager and teacher-educator in Local Education Authorities, Further Education Colleges and Universities between 1973 and 2001. He has extensive first-hand experience of the whole English educational system, as pupil, teacher, lecturer, manager and, most recently, Chair of Governors at his children's Secondary School. He was an early campaigner for lifelong learning and continues to write about - and hope for - educational arrangements and curricula that will promote both social justice and health in its broadest sense. He wrote 'Education and the Challenge of Change' with Ray Flude in 1979, and 'Educational Research and Educational Practice' with Michael Golby in 1999. His 1991 PhD thesis explored the implications for adult learning of the ecological imperatives which are now being widely recognised as determinants of all our future health and wellbeing.

Paul Hougham is a teacher, writer, and traditional acupuncturist practising in the Malvern Hills. His research interests concern the impact of the elements on health and the scope of all branches of medicine to facilitate not just the alleviation of pain and disease but the promotion of good health and the development of personal potential. Paul combines his practice with teaching, writing and serving on committees of the British Acupuncture Council and the British Acupuncture Accreditation Board. He has taught at the School of Five Element Acupuncture in London since its inception in 1995 and is currently Vice-Principal, focusing upon clinical supervision and the development of practitioners' diagnostic skills of rapport and odour. He has trained with teachers from different spiritual traditions, including having completed a nine-year apprenticeship with the Metis Medicine Woman, Arwyn Dream Walker, lineage carrier of Navajo Holy Man Grandfather Tom Wilson. He also holds teachings from the Daoist lineages of QiGong and Evelyn Carter's vision of the Great Work. He is the author of *The Atlas of Mind, Body and Spirit* published by GAIA Press in 2006.

¹ House of Lords Science and Technology Committee Sixth Report, 21 November 2000, Complementary and Alternative Medicine.

² Shulman, Lee S, 2004. *The Wisdom of Practice: Essays on Teaching, Learning and Learning to Teach*. Jossey-Bass, San Francisco.

³ Larre C SJ & Roachat de la Vallee E (1990). The Practitioner-Patient Relationship, Wisdom from the Chinese Classics. *Journal of Traditional Acupuncture*, **Winter 1990-1991**, 14-50.

⁴ 'Fuzzy logic' is the theoretical understanding employed by mathematicians and computer programmers to straddle the geometric certainty that limits our capacity for thinking. Fuzzy logic (of which there are many versions and applications) will, for instance, allow an object within an equation to be both 'A' and 'not-A' in order to map the probability and possibility in between. Acupuncture's central dynamics of intention, and her embrace of contradiction and subjectivity, bear similar features to the burgeoning use of fuzzy logic. Some aspect of both may, at some point, converge.