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Understanding the role of the doctor

A united view from the profession brings us closer

dockyard /ˈdɒk.jɑːd/ → noun a shipyard, especially a navy
Doc Martens /ˈdɒk.ˈmɑːtən/ → noun, (abbreviation **DMs**) a make of lace-up leather shoes with light thick resilient soles. © 1990 after the inventor of the sole, Klaus Martens.
doctor /ˈdɒktər/ → noun 1 someone trained to practice medicine. 2 *N Amer* a de veterinary surgeon. 3 someone holding a **DOC** and/or a type of fly. → verb (**doctored**, **doctor** falsify (eg information); 2 to tamper with some drug (food or drink); 3 to sterilize or castrate an animal; 4 *offic* **fascious** to give medical treatment to someone. • **what the doctor ordered** (colloq) thing that is needed. © 14c. originally meaning learned person; Latin, meaning teacher.
doctoral /ˈdɒktərəl/ → adjective relating to a **DOCTOR** or **doctoral** thesis.
doctorate /ˈdɒktərət/ → noun a high academic award especially for research. © 17c.
doctoring /ˈdɒktərɪŋ/ → noun practicing as a doctor.
doctrinaire /ˈdɒktɪˈneəri/ → adjective dogmatically to theories or principles, often regard practicalities or appropriateness. © 18c. French.
doctrine /ˈdɒktɪn/ → noun a thing or thing especially any one of a set of religious or political or such a set of beliefs. • **doctrinal** /ˈdɒktɪˈnəl/ → adjective relating to doctrine.
1-4c. From Latin *doctus* = learned, *doctus* = teacher.

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What is the role of the doctor? So asked Sir John Tooke, chair of the Medical Schools Council, in last year's inquiry into UK doctors' specialist training.¹ As Tooke said, without clarity on the doctor's role, we can't know how best we should select, educate, and train doctors, or plan the future medical workforce. We now have the profession's answer—a consensus statement endorsed by a consortium of leaders of UK medicine.²

This isn't the first attempt to define what it means to be a doctor. Nor will it be the last. The International Labour Organisation (ILO) is updating its definition (box), and the World Health Organization and the Organisation for Economic Cooperation and Development are drawing up their own. Many forces have converged to prompt these efforts: sociopolitical changes; scientific and technical progress; the end of deference and the democratisation of knowledge; the rise of chronic disease; and the shift to multidisciplinary working, including role substitution and the extended role of nurses.

These were among the factors that prompted the Royal College of Physicians' 2005 inquiry into the meaning of professionalism. Its report defined professionalism as "a set of values, behaviours, and relationships that underpins the trust the public has in doctors."³ It talked of a covenant between the medical profession and society, which went far beyond compliance with contracts or job plans and even technical ability. It required doctors to work in partnership with patients and to exercise honesty, empathy, confidentiality, humanity, and above all judgment in the face of uncertainty. It concluded that the most important aim of professionalism was securing trust.

Building on this and subsequent work,⁴⁻⁶ the new consensus statement focuses not on values but on the attributes and abilities that doctors need and the range of tasks they undertake. As well as supporting patients in making decisions about their care, doctors must be active in teaching the next generation of doctors, managing resources, and improving the quality of care. They must also be able to work in teams and must take account of finite resources in their decision making, "notwithstanding the primacy of the individual doctor-patient relationship."

Any attempt to come up with a generic definition of what it means to be a doctor is fraught with difficulties, not least because so much depends on context—the clinical setting, the patient's preferences, and the doctor's experience and seniority.⁷ The doctor's role cannot be defined in isolation because, as the Royal

College of Physicians' report made clear, relationships are everything in modern health care.³ There are two particularly thorny issues that tend to be skirted around—the distinction between a doctor and a nurse, and related to this, the question of who should lead the clinical team.

The BMA's recent report on the role of the doctor talks about the unique contribution of doctors, their exceptional skills and competencies, and the need to understand not only what doctors do but what they do that others don't.⁶ The consensus statement concludes that doctors "alone amongst healthcare professionals must be capable of regularly taking ultimate responsibility" for clinical decisions. But neither report tackles directly the distinction between doctors and nurses, nor what is precisely meant by the newly omnipresent and euphemistically vague term "clinical leadership." Taking such coyness to the extreme, the recent report on the role of the nurse, commissioned by the chief nursing officer, mentions the word doctor only once, in its methods section listing which groups were consulted.⁸

The nursing report is more soul searching than the recent spate of medically focused reports. It says that nursing has lost its way and calls for nurses to reassert the care of patients at the centre of their role. The new consensus statement on the role of the doctor hints at an important distinction between doctors and nurses by emphasising the doctor as clinical scientist, and noting the depth and breadth of medical training and the importance of intellectual ability in selection for medical school. "Doctors must have the ability to assimilate new knowledge critically, have strong intellectual skills and grasp of scientific principles and be capable of . . . managing uncertainty, ambiguity and complexity." In the ILO's definitions of doctor and nurse, only the words "scientific" and "care" draw any real distinction between the two (box).

Somewhere in the awkwardness of talking about this distinction, both doctors and nurses may have lost their way and risk losing their identity. The trust that society places in doctors may well reside to a greater extent than is currently acknowledged in their ability to go back to first principles and make difficult decisions, under situations of uncertainty, on the basis of a deep understanding of the underlying science. All else can probably be carried out by other members of a team using consensus guidelines and protocols. Of course these intellectual abilities must be overlaid with the accrual over time of skills, experience, and judgment,

Draft revised definitions from the ILO (www.ilo.org/public/english/bureau/stat/isco/draftdoc.htm)

Medical doctors diagnose and treat human physical and mental illnesses, disorders and injuries, and recommend preventive action, based on the scientific principles of modern medicine. They may specialise in certain disease categories or methods of treatment, or assume responsibility for the provision of continuing and comprehensive medical care to individuals, families and communities.

Nursing professionals . . . treat and care for the physically or mentally ill, [and] the elderly. They assume responsibility for the planning and management of the care of patients, including the supervision of other health care workers, working in teams with medical doctors and others in the practical application of preventive and curative measures, and dealing with emergencies as appropriate.

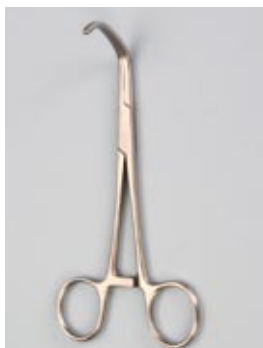
and they must be indivisibly combined with empathy, compassion, and integrity. Where individual doctors fall short of achieving or maintaining this highly demanding combination, the profession needs to have effective ways of taking action in the interests of patients and society.

This consensus statement is an important document, not least because of the united voice it has achieved from the leaders of the profession across the UK. It is unlikely to be the last word, however. As the statement itself says, “the role of the doctor is changing and will continue to change alongside the needs and expectations of patients.”

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Left-right discrimination in medicine

Are left handed people the last great neglected minority?



FORMATIVE YEARS, p 1474

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Competing interests: I am a right hander, the son of a left hander, the father of a left hander, and the onlie begetter of *Right Hand, Left Hand*. If this editorial encouraged anyone to buy this book I would also have a financial interest, albeit pretty small.

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Right and left are so very confusing. Perceptually, distinguishing right and left is surprisingly difficult, as Gormley and colleagues’ linked article shows (doi:10.1136/bmj.a2826).¹ Scientifically the origins of a brain polymorphism that makes 90% of people use their right hand for skilled activities but the other 10% use their left hand are unclear.² And socially, ethically, and educationally, there is confusion over the needs and rights of those people whom I sometimes describe as the last great neglected minority—left handers.

Right handedness is so obvious a fact of life that few people realise how unusual it is. All other species, except perhaps chimpanzees,³ are made up half and half of right handers and left handers. Nor is it coincidence that humans alone have language, and that language is mostly located in the left hemisphere, which controls the right hand. The left hemisphere processes information more quickly than the right hemisphere. This speed is required both for online processing of grammar and the rapid movements needed in speech and fine motor skills.

It is less surprising that left and right are confused than that they can be distinguished at all, and that ability also seems to be unique to humans.⁴ The physicist Ernst Mach showed that true right-left discrimination, the association of arbitrary stimuli to right or left sides, requires a system that is itself asymmetric. Because men’s brains are somewhat more asymmetric than women’s brains, and right handed people’s brains are more asymmetric than left handed people’s brains, right-left confusion is more prevalent in women and left-handed people.²

Right-left discrimination is learnt surprisingly late in life. The core problem is that, when facing me, your right hand is actually on my left side. This provides immense scope for disastrous confusion in surgery. Fortunately,

marking the operation side with a permanent felt tip marker when the patient is fully conscious provides a ready solution. Interpreting radiographs and brain scans, with their opposite left-right conventions, is another matter, so the words “right” and “left” need to be readily visible on all images (this is especially important for images from the 1/10 000 patients with situs inversus).

The technological world in which we live was designed and built mainly by right handed people, with little heed of the needs of left handers. The result is that, despite a 10th of people being left handed, digital cameras with buttons on the left seem non-existent. Although health and safety regulations are often invoked for seemingly trivial reasons, the needs of left handers remain mostly ignored, so that when a badly designed electric saw cuts off the fingers of a left handed person, the person is likely to be blamed rather than the design of the equipment. Most complex equipment in medicine is also designed mainly for right handed people (although it is said, albeit with some dissent,⁵ that Boyle’s anaesthetic machine was better suited for left handed people because Boyle himself was left handed⁶).

Ancient commentators emphasised the need for surgeons to be skilled with both hands. The Roman physician Celsus said that surgeons should be “ready to use the left hand as well as the right,” which echoed the ideas of Hippocrates, who said surgeons should, “Practise all the operations . . . with each hand . . . to attain ability, grace, speed, painlessness, elegance, and readiness.” Of course this is a counsel of perfection—most people have one hand that limps along without the eloquent movements of the other. However dextrous and practised, most surgeons are probably little different, although the exigencies of living in a right handed world probably mean that left

handed surgeons are a little more bilateral than their right handed colleagues.

Few surgeons work alone—they have assistants who mop, swab, suck, cut, and hand them instruments when needed. The 19th century surgeon, Sir Benjamin Brodie, recognised the problem when he wrote, “How much inconvenience would arise were it necessary for different individuals to co-operate in manual operations, if some were to use one hand and some the other?”⁷ It is a good point because left handed people may be disadvantaged when collaborating. Despite one study suggesting a scarcity of left handed surgeons,⁸ Lieske’s linked article (doi:10.1136/bmj.a2883)⁹ and my own data¹⁰ indicate that left handed surgeons are as prevalent as in the general population. Of course, as Lieske notes, left handed surgeons (and left handed endoscopists and radiologists¹¹) may still have problems—for example, left handed instruments not being available or needles being mounted the wrong way round (even if asymmetric abdominal anatomy and the mechanics of laparoscopes do sometimes work in left handed people’s favour). Whether the hand-

edness of surgeons really matters—for surgeon, patient, or hospital—should be easy to discover. To be left in confusion surely isn’t right.

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Learning from emergencies

The lessons are often forgotten before the next crisis comes along



VIVEK PRAKESH/REUTERS

From time to time the media report a major emergency in a developing country, the risks of starvation and disease, and the urgent need for international assistance. In many cases this is followed by public appeals from charities and the announcement of millions of pounds in government aid. In most cases the emergency then fades from view, perhaps leaving the viewer with a sense of unease about the effectiveness of the international response. Large sums of public money are spent on relief; in 2006, \$8bn (£5.4bn; €6.3bn) was provided by the countries that belong to the Organisation for Economic Cooperation and Development.¹ It is therefore reasonable to ask what happens between emergencies. Specifically, what is being done to improve the international response?

The human impact of different types of disasters is now well understood, and steady progress has been made with relief techniques and technologies. But deep and possibly insuperable problems with relief management remain. The international humanitarian “system” is little more than a loosely connected core of United Nations technical agencies and larger non-governmental organisations, with a periphery of smaller non-governmental organisations, businesses, individuals, and military organisations. The system is inconsistently funded and cannot enforce coordination or consistently maintain technical and professional standards.

In the 1970s, Western coined the term “disaster epidemiology” to describe the study of the human impact of natural disasters (earthquakes, floods, and destructive winds) with the aim of identifying patterns that might help predict relief needs (Western KA. The epidemiology of natural and man-made disasters: the present state of the art [dissertation]. Diploma in Tropical Medicine

and Hygiene, London School of Hygiene and Tropical Medicine, 1972). Some findings were unsurprising—for instance, that mortality and injury associated with earthquake are related to types and standards of building construction. Violent floods, such as the recent Asian tsunami, may cause massive numbers of deaths but leave comparatively few seriously injured survivors. Less obviously, it was found that even in very cold locations the risk of environmental exposure was low because survivors build temporary shelters. In addition, no reliable accounts were found of epidemic disease, except where populations moved and concentrated in new locations—for example, people escaping to higher ground after floods.²

It was also found that, in general, international relief was not crucial to the emergency response. Search and rescue and the care of the injured are conducted by survivors and local health services and are often substantially completed within two to three days. Distant international organisations cannot deploy quickly enough to provide effective health care, and international search and rescue teams have had little success.³ The main role of international relief is in later reconstruction.

Patterns of epidemic disease, malnutrition, and other health problems that follow population displacement are similarly well documented, and approaches to health relief that emphasise immunisation, disease surveillance, the interruption of disease transmission, and the standardisation of case management are well developed. The aetiology of famine has a sound theoretical basis,⁴ and effective methods have been developed for early warning and the prevention of famine.⁵ Techniques for the assessment and management of malnutrition have improved.⁶

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Competing interests: Evidence for Development’s income comes from consultancy and grants. The organisation has developed methods of economic measurement and analysis that are used for national economic management and famine prevention. They are also used to inform development policy and to improve the design of development programmes. The organisation has no operational interest in emergency relief.

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The retention and consistent application of this knowledge have been less successful. The international humanitarian system has three main weaknesses. Firstly, the resources available for any emergency are largely politically determined. Most relief resources are provided by the governments and public of Western countries. Governments respond in the national interest and when public interest is strong, usually as a result of a high degree of media coverage. The result (often encouraged by the public affairs departments of relief organisations) is that enormous sums of money are given for some emergencies, such as an estimated \$13bn for the 2006 South Asia tsunami,⁷ but much less for others. Protracted emergencies that are out of the public eye—for example, the long standing crisis in the Congo before the publicity in 2008—may receive minimal support.⁸

Secondly, only the government of the affected country has the power to coordinate international agencies. Where government is weak, non-existent, or overwhelmed by large numbers of organisations standards cannot be enforced. Lastly, on a practical level, it is difficult to maintain technical standards when relief organisations lack technical expertise and staff turnover is high.

Since the 1970s, repeated initiatives have aimed to improve the effectiveness of relief. These include setting agreed technical standards⁹; providing training and improved techniques⁶; prefinancing for the UN¹⁰; improving coordination¹¹; and, particularly in the Americas, supporting governments and providing public information about appropriate relief.¹² Over the same period relief practice has improved. The indiscriminate dispatch of clothing, drugs, and medical staff to any natural disaster is now rare, and public

health approaches to camp management—often with epidemiological support from the US Centers for Disease Control—are the norm. Some governments, even of poor countries, enforce standards on international agencies—for example, for health care in Rwanda after the genocide. In addition, international agencies may work entirely by supporting local organisations, and in an increasing number of locations, including China, no international support is needed. However, the fundamental weakness of the system—that sometimes it is a largely ad hoc reaction to media reports—remains and will probably be overcome only when all countries can manage their own emergency relief.

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The health of nations

Past performance is not a guide to future results

A remarkable feature of the recent global financial crisis is that so many of the lavishly rewarded analysts on Wall Street and in the City of London failed to see it coming. Seemingly ignorant of history's lessons, they viewed a catastrophic reversal of fortune as inconceivable. The history books record the green stains on the marble floor of the Basilica Aemilia in Rome, all that remains of the coins abandoned by money changers who continued to trade oblivious of the Goths breaching the city walls; the rise and fall of the market in tulips in 17th century Holland; and the South Sea bubble. Even recent memory of last decade's dot.com bubble seems to have been repressed.

The progress of nations, however, is measured in much more than wealth. Indeed, there is growing recognition, advanced by the ideas of economics Nobel laureate Amartya Sen,¹ that measures such as life expectancy are crucial indicators. On this count we may seem to have less to worry about. Overall, humankind has done well over recent centuries. Although historical estimates of life

expectancy are problematic, Thomas Hobbes's description of life in the 17th century as being "solitary, poor, nasty, brutish, and short" captures the age old reality for the bulk of historical populations rather well. From the neolithic era, through early agrarianism, to the early 19th century, life expectancy hovered around 25-30 years.² Yet today, in most industrialised countries, people can expect to live for 80 years or more. Some obvious setbacks have occurred, most often during wars, but overall the future looks reassuring. Or is it?

Throughout history many societies have acquiesced, in blind or profligate fashion, in their own destruction.^{3,4} The skills of the inhabitants of Easter Island are apparent from the giant statues that gaze seawards, but their knowledge did not include an understanding of the fragility of their environment. The Norse inhabitants of 14th century Greenland, beset by falling temperature, starved in the presence of plenty because of their refusal to emulate the Inuit and eat seals and fish.^{2,3} More recently, the people of Nauru, a guano covered rock in the Pacific, thrived



ANGUS MCBRIDE: THE SOUTH SEA BUBBLE/LOOK & LEARN/BEAL

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briefly as their island became a major supplier of phosphates, while removing guano far faster than the seabirds could deposit it. After they adopted the worst aspects of westernised diets, their prevalence of diabetes rose and it now afflicts more than 40% of the population.

Of course, these examples relate to small, arguably atypical, countries facing historically unusual situations. Are they relevant to the world at large? In fact, despite overall global progress in recent decades, life expectancy has been falling in more than a few countries.⁵ Two major regions stand out: sub-Saharan Africa, where the decline is driven primarily by the emergence of HIV; and the former Soviet Union, which is beset by widespread social and economic transition, a loss of social protection, and a massive increase in alcohol consumption.⁶ Declines also occurred during the 1990s in countries ranging from tourist paradises such as the Bahamas to those afflicted by war (Iraq) or isolated by totalitarian regimes (North Korea). In consequence, the convergence of life expectancies among the countries of the world that emerged during the 1980s has subsequently partially reversed.⁷

Other worrying signs exist within countries. During the 1980s life expectancy of Danish women stagnated, largely because of increased rates of smoking.⁸ Between 1983 and 1999, life expectancy stagnated or declined in some parts of the United States, as a result of increases in non-communicable diseases associated with obesity and smoking.⁹ A life shortening effect of rising obesity in the oncoming generation has been forecast.¹⁰

Meanwhile, other developments cast longer shadows into the future. The world is entering a period of considerable uncertainty, much of it to do with the non-sustainable trajectories on which we have embarked. Those trajectories reflect the unprecedented global scale and intensity of the perennial human drive to inflate the environment's carrying capacity (for humans, even as we diminish the carrying capacity for other species). This uniquely human capacity has allowed the extraordinary spread and proliferation of humans.^{2,3} Now, though, we are seeing for the first time serious and clear signs of having exceeded nature's limits at regional and global scales. As with the global financial crisis we have egregiously

overextended our credit, our borrowing against the future.

The adverse health effects of human induced climate change are becoming apparent, and will increase over time.¹¹ The effects of climate change and other environmental changes, along with growing population pressures, pose great risks to future food sufficiency and raise the spectre of resource conflicts.¹² Peak oil production, after which global production will decline, may soon arrive. Scarcity of key elements, such as tantalum, is already fuelling wars in Africa, especially in the benighted resource rich Congo. The quest for secure food supplies for rich countries is driving a neocolonial land grab.

Jared Diamond wonders what thoughts went through the mind of the Easter Islander who felled the last tree.³ Both the global financial crisis and our as yet indecisive approach to working, internationally, for climatic and environmental sustainability suggest that we are still poor at understanding and planning for stable and health supporting human futures. The next several decades will be crucial for the future health of nations.¹²

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BMJ/MSF Christmas appeal

This year the *BMJ* is launching its first Christmas appeal and is calling on readers to support our chosen charity, Médecins Sans Frontières. MSF seemed the obvious choice for our first Christmas appeal. We hear—and indeed report—ever more tragic stories of people around the world caught up in conflict and political unrest, including Zimbabwe and the Democratic Republic of the Congo (right). It's important to know that MSF is there, delivering medical care and expertise to people in direst need in some of the toughest places on earth. MSF's staff and volunteers deal daily with extraordinary personal risks and practical clinical challenges. I hope readers will feel inspired to support this unique charity in whatever way they can.

Fiona Godlee, editor, *BMJ*



To donate, please visit www.msf.org.uk/bmjappeal



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