Chapter 7
Becoming a Medical Professional

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1 Introduction: From Being to Becoming

The instrumental process of becoming a medical professional has followed a similar pattern worldwide for a century (Ludmerer 1999). This may seem to be a mark of medical education's enduring success, but it can also be read as a failure to adapt to cultural change (Bleakley et al. 2011). Since the revolution in undergraduate medical education provision brought about by Abraham Flexner's 1910 report on North American medical schools (Flexner 1910), pre-qualifying programmes in medicine have followed a model of a pre-clinical (classroom knowledge) phase followed by a clinical (applied knowledge) phase. Programmes vary in whether they have direct entry from school (normally 5 years), or graduate entry (normally 4 years). Graduation normally leads in to a qualifying junior doctor apprenticeship (internship), ranging across medical specialties and concentrating on hospital medicine. Specialisation may then follow a career path to senior clinical grades in a hospital specialty, surgery or as a community (family or general) practitioner. Adjunct specialties, such as academic medicine and management, may also be pursued. The UK Tooke Report (Tooke 2008, pp. 203–220) on postgraduate medical education reforms provides an international comparison of provision across seven countries.

An instrumental accounting for career stages tells us little about the identity construction of the doctor – of what it is to become a medical professional. Policy documents such as the UK General Medical Council's *Good Medical Practice* (2006) and *The New Doctor* (2007) – prescribing the basic content of undergraduate and postgraduate medical education curricula – offer instrumental accounts of what medical students and doctors are expected to know and do at various stages of their

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careers. Where such documentation strays into the territory of identity, it is vague and often pious. Becoming a doctor may be reduced to an ideal of the consummate professional described by a set of traits – such as probity and the ability to maintain one's own health – through which 'professionalism' can be both conceptualised and measured (Stern 2006).

The flip side of the focus upon virtues of the consummate professional is the interest in students' and doctors' 'professional lapses', and in students' willingness, or reluctance, to report perceived professional lapses of their seniors (Ginsburg and Lingard 2006). Paradoxically, research evidence suggests that the profession of medicine as a whole has already lapsed professionally, where there is a continuing, chronic, inability for doctors to communicate well, or 'professionally', as measured against prescriptions of the policy documents noted above. This includes poor communication with patients (Coulter 2002; Roter and Hall 2006), between medical specialties (Wadhwa and Lingard 2006) and with other healthcare professionals (Kohn et al. 1999).

Gabriel Weston (2009, p. 135), a surgeon who writes about her work, describes how 'It is no longer enough to be technically proficient; nowadays, we need to be nice'. This may be tongue in cheek, or it may just show a typical reluctance to engage with the surgeon's wider role, where 'nice' is a rather strange choice of word for the necessity of clear and supportive communication, now supported by a good evidence base. Another surgeon who writes about his work, Atal Gawande (2002, 2007), is clear about the need for effective communication, reminding us that patients are put at risk not just because of technical errors, but also as a result of miscommunications. The Institute of Medicine (Kohn et al. 1999) and The Joint Commission on Accreditation of Healthcare Organisation (2001) figures concur – that as much as 70% of medical errors are grounded in non-technical issues, as systemic miscommunications (see also Singh et al. 2007). Further, half of these may be avoidable through improving communication and collaboration between doctors themselves and between doctors and other healthcare professionals. Becoming a medical professional is also becoming an effective communicator and collaborator, helping to restore the professional 'lapse' of an entire culture, rather than simply lapsed individuals (high profile 'bad apple' doctors such as Harold Shipman), or individual lapses.

The instrumental description of how medical students and doctors proceed through, respectively, an undergraduate and postgraduate medical education has typically been fleshed out through longitudinal ethnographic studies of the socialisation of medical students, doctors and surgeons (Millman 1976; Becker et al. 1980; Cassell 1991, 2000; Atkinson 1995; Katz 2000). Here, we learn of the 'hidden curriculum' of medical education – rites of passage, role modelling and uses of symbols in, sometimes brutally, shaping character, style and identity. But, these accounts are already historical curiosities, as we are now entering a radically new era of medical education, reformulating earlier notions of what it is to become a doctor (Bleakley et al. 2011).

This chapter seeks to understand the becoming of medical professionals of the future, and utilises a theoretical approach to identity construction that is future

focused. This approach is drawn mainly from the work of the French philosopher Gilles Deleuze, with reference also to Deleuze's extensive collaboration with the French psychiatrist Félix Guattari (Deleuze and Guattari 1984, 1988; Guattari 1995), offering an exploratory and explanatory framework that responds to the cultural and historical shift from high modernism to an emerging cultural era variously called postmodern and late modern; a 'risk society' and 'runaway world' (Giddens 1991); and 'liquid modernity' (Bauman 1998).

The ethnographies studying socialisation into medicine and surgery mentioned above describe a chronically conservative legacy, where doctors and surgeons were typed – or more often stereotyped – as heroic and paternalistic individuals. Medical students were seen to emulate these traits as a central part of their education of character, absorbing them through role modelling as the main form of identity construction. Reading these studies through Deleuzian eyes, doctors can be described, historically, as 'becoming autocrats'. In the new era of patient-centred and collaborative medical practices, doctors now enter a process of 'becoming democrats'.

Although systematic and well chronicled, and following in an established philosophical tradition of vitalism (Deleuze 1991), there is no easy way in to Deleuze's thought, which relies heavily on neologism and idiosyncratic readings of vitalist philosophers such as Spinoza and Nietzsche. A Deleuze 'primer' is an oxymoron, although Stivale's (2005) edited collection of essays promises to present Deleuze's 'key concepts' to the neophyte. More importantly, once inside Deleuze's world, it may seem as if there is no easy way out as one of the characteristics of this world is its fascination. One of Deleuze's central metaphors is the 'fold', borrowed from the German philosopher Leibniz. To be inside a fold is to experience the interiority of a phenomenon through an enfolding, or full immersion, in that phenomenon as a dynamic process. This is perhaps the closest we will get to a complete description of the 'becoming' of the medical professional – the identity construction of the doctor. The doctor's clinical experience, particularly in the early years, is so all consuming and pervasive – the realisation of a vocation – that it can readily be described as an envelopment in the lives of others, primarily patients and secondarily colleagues.

Conventional studies of the identity construction of doctors, such as the ethnographies mentioned earlier, describe how stability is achieved in identity – how a core self is realised and expressed. This is to be expected of a generation of academics writing at the height of interest in existentialism, phenomenology and the search for 'authenticity'. Academic interests and foci have changed, and in this chapter, a different approach is taken to these traditional ethnographies. From a Deleuzian perspective, one would ask how a permanently labile and multiple identity construction is managed, temporarily stabilised and understood as a process amongst many intersecting processes. The main shift is from stability to dynamism. This is pre-figured in the vitalist philosophers who inspired Deleuze, particularly Nietzsche.

The identity of the doctor is then not treated as 'selfsame' (the stabilisation of a professional self, identified with similar others in a stable professional community of

practice), but as a consequence of 'difference' in a context of instability – difference from the 'other' with whom one works, primarily other professionals (such as nurses), but most importantly the stream of 'others' the doctor meets as patients. It is in the face of the other that the identity of the doctor is realised, in an inherently unstable space of difference moving through time.

This model of becoming, realised in dynamic difference, is described in three ways – first, as a 'self-forming' in terms of an assemblage of characteristics shaped by a shifting culture; second, as the undoing and distribution of the modernist medical gaze; and third, as an effect of three levels of textual practices – work-based, autoethnographic, and virtual (as representations of doctors in television soap operas). These three faces of 'becoming a medical professional' are centred on the key identity *activity* of the doctor – as diagnostician or symptomatologist – where the bread and butter work of a doctor is to make a diagnosis through reading symptoms and listening to the case history, offering a prognosis and formulating a treatment plan.

2 Deleuzian Becoming: Processes and Assemblages

As introduced above, Deleuze and Guattari, most famously in the two-volume work *Capitalism and Schizophrenia* (1984, 1988), develop a complex model of 'becoming', situated in the philosophical tradition of vitalism – Spinoza, Bergson and Nietzsche in particular. This world view privileges dynamism over the static object. Life is necessarily unformed and forming – in a state of 'becoming' rather than 'being' – where process is privileged over essence.

In early and high modernism, particularly from the Enlightenment period at the end of the eighteenth century, emphasis was placed upon the stabilising of identity – the expression of a core self. Indeed, forms of 'madness' have been described mainly as the loss of a sense of core self (alienation, neurosis) or multiplication of selves (psychosis). Psychology became the dominant discipline for exploring identity, which became associated with personality and character rather than as a product of cultural forces. As Louis Sass (1994) suggests in *Madness and Modernism*, late modernism of the early twentieth century had already signalled radically new approaches to the self – through the avant-garde of art and literature – that challenged the notion of stability equating to health. The self was recognised as split, fractured and multiple in its 'ordinary' states, where a fixed, frozen or congealed self was now described as potentially authoritarian, rigid and neurotic.

Postmodernism challenges the notion of self as constitutive or given, reading identity as constituted or constructed socially, and 'situated' (Bleakley 2000a, b). A constituted identity is not a subject (an expression of a coherent interior 'self'), but 'subject to' – a product or construct of cultural, historical and social circumstances. In this view, a work-based 'professional' self is not seen as a 'given', a personality expression, but as situated, an effect of a variety of unstable and dynamic historical, cultural and social forces that are temporarily stabilised through processes of

learning, examination and practices – most importantly in medicine as cumulative patient contact leading to gaining expertise as a diagnostician.

In his last published work on late Greek and early Roman forms of aesthetic and ethical self forming, or 'care of self', Michel Foucault (1990, 2005) draws attention to the paradox of a contemporary Western culture in which we celebrate the supposed 'freedoms' of selfhood (especially in sexuality), but are actually constrained by a variety of forms of regulatory structures, forming an overall 'governmentality' within a surveillance society. These include new forms of what the Classical world saw as 'self-forming', a making of character, through self-help techniques. Self-forming or 'self-fashioning' (Greenblatt 1980; Bleakley 2006a) was revived in Renaissance Europe as an educational process. This shaping of character is a form of positioning identity within a web of regulatory devices, where identity can be described as 'assemblage' (DeLanda 1997, 2006) and potential, always in process. In the professional identity formation of the doctor, often expressed as 'lifelong learning', there is not just an accumulation or sedimentation of knowledge, skills and attitudes, but a process of 'becoming doctor' as assemblage – a dynamic identity construction shaped within a web of regulatory devices.

Foucault's work draws attention to the interplay between a governed identity and processes of resistance to particular forms of identity construction, where Deleuze's work emphasises interplay between, and intensities within, assemblages that shape professional identity, such as 'becoming doctor'. From Deleuze's (1993) analysis of 'the fold', 'becoming' involves an (en)folding into (and unfolding out of) an assemblage that, read through Spinoza, affords a certain potency. This view is in sharp contrast to the idea of an unfolding of a given self as the realisation of innate potential, where the dimension of potency is weakly expressed as 'potential'. An assemblage affording potency may be any point in the career trajectory of the doctor, such as graduation as a medical student, passage through junior doctor education and training, and beyond, through specialty grades and membership examinations, to the achievement of consultant status.

Where new thinking about professional identity construction – as becoming rather than being – stresses process, dynamism, lability and fluidity, this mirrors a wider 'runaway' and 'liquid' culture, as noted above. In such thinking, models of stabilising identity are given less credibility than dynamicist views of 'managing' an inherently unstable identity in which 'becoming' is not something to be mastered, but is always in production and carries an unpredictable surplus.

Where identity is not given, but is *made as a work*, the identity of the doctor is a work achieved in the workplace, in clinical contact with patients and primarily in acts of diagnosis. Where subjectivity is read not from the inside out (as expression of self), but from the outside in (as subjectivation or positionings of identity in relation to sets of dynamic forces), then becoming a doctor can be seen to be a *series* of identity positions held in network or assemblage – a set of constructions of identity. As Bruno Latour (2007, p. 217) suggests, within Actor-Network-Theory: 'attachments are first, actors are second'. The actor is networked, or engaged by the system, as a product of the potency of attachment. Medical students and junior doctors characteristically learn their work incrementally through a series of clinical

'attachments'. Such attachments offer a series of assemblages that are identity positions held temporarily in place, also invoking emotional attachments of various intensities, producing varieties of affective capital.

It is not just knowledge and skill that sediment to produce a 'doctor' or drives the doctor to specialise in a certain field. Rather, values entrenched in certain specialties entangle doctors or enfold them, in ways that permanently stain the psyche and leave lasting impressions. These gather to provide an axiological dimension to becoming a doctor – the acquisition of values – that informs both ontological development (identity construction) and epistemological development (knowing).

Félix Guattari (2008, pp. 24–25) does not speak of the subject, but of 'components of subjectification'. The becoming of identity (rather than its being, say as an 'authentic self') is a continuous making – the product of the meeting of a number of vectors or forces in a life. These are larger historical and cultural forces (such as the changing position of women in medicine or the reorganisation of junior doctor training) and local forces (such as this particular hospital unit's methods; or the idiosyncratic style of this supervising consultant). What has been called 'interiority' of the self – available through introspection – is, for Guattari, again a product of a meeting of forces so that 'Interiority establishes itself at the crossroads of multiple components', vectors or 'force fields' (Massumi 1992).

A significant vector is the presence of the 'other', such as a patient or a colleague. Guattari focuses us back on how difference comes to act as an engine for identity construction in a process of 'doubling'. Not only is self realised in difference from another (recognition), but also the other is realised as the inside of thought in oneself that is speculative about thought inside the other. Thus, as a diagnostician, the doctor comes to be *inside the somatic 'thought' of the patient*. This is more than 'empathy', a rather weak contemporary construction (Marshall and Bleakley 2009), where it is a stark realisation of 'difference'.

Persons are subject to various forces in time and space that crisscross, and at points, form assemblages, temporary stabilisations. A language is needed to describe this model that goes beyond psychology's tradition of 'subject', 'personality', 'character' and 'traits'. For Deleuze and Guattari, borrowing from the vitalist tradition, a 'becoming' is best described in terms of non-linear powers, vectors, intensities and lines of flight. Professional development, as becoming rather than being, is neither a singular nor a coherent process, but involves several processes at once, operating at different speeds.

3 Three Planes of Becoming

Deleuze and Guattari do not dismiss traditional ways of accounting for identity construction, as a process of being, or character expression characteristically learned through role modelling (Deleuze and Parnett 2007, pp. 124–125). Rather, they offer staged challenges and alternatives to this view in a spectrum of possible ways of describing identity. At one end of the spectrum is segmentation.

A segmented identity is defined, bounded, bordered and patrolled. This is the traditional professional structure and the official story of identity construction. Its core elements are personality or character, role and role modelling. It is a process necessarily subject to transcendent organisation or rule. Segmentarity in medicine and medical professionalism is represented in policy regulation and prescription of role as the official story of how professionalism may be achieved. As indicated earlier, in this view, professionalism is a set of ideal performances grounded in character traits, such as 'honesty' and 'trustworthiness', further grounded in good personal 'health'. While professionalism has a developmental dimension, including proto-professionalism, 'professional lapses' are subject to censure. The segmented identity suggests a strong character with an internal backbone (a sense of morality) developing like a tree (aspiration), where growth is a product of strong governance internalised as self-governance.

A second level of identity construction challenges this strong model of agency and puts more emphasis upon the context in which the tree develops. Segmentation is replaced by suppleness. Deleuze and Guattari (Deleuze and Parnett 2007) pun on the idea of a (supple)ment (an added extra to the strong model of agency), where they describe a supple(mentarity). Here, there is some loosening of structures in identity formation to account for the potential of the system(s) within which identity develops, containing unknown qualities. The sense of a strong core (a consistent 'self') is replaced by ideas of nodes, attractors and flash points as places where critical changes may occur in identity construction. Here, the idea of a linear development in career is disrupted, taking into account a range of realities such as maternity breaks, career shifts, structural employment problems, burnout, illness and serendipity. There is now a shift from 'being' to 'becoming' and the idea of connections is introduced as key to understanding a shift from content to process explanations. Development of identity is no longer a 'straight down the line' affair, but involves modifications and detours.

The idea of an identity in flux is introduced, with the notion of thresholds of change. As an illustration, if we take the identity of the undergraduate medicine curriculum itself, this has a formal and informal face. The informal face is the hidden curriculum. This is necessarily unstable, unpredictable and unplanned. It is by definition neurotic, anxious. The identity construction of the doctor will necessarily have a hidden curriculum. The tapestry that is the official, orderly, story of the policy document (segmentation) is now turned over to reveal greater uncertainty – in a tangle of threads – as the vulnerable human encounters the ideal segmented structure. The model of the tree must now include its context for development, its environmental surround that is in flux, both seen and unseen.

Focus drifts from the trunk to the hidden roots that feed the trunk and the supportive structures that engage symbiotically with the far reaches of the root structure. Here, we find rhizomatic and mycorrhizal structures (Engeström 2008). The rhizome tangles with other rhizomes to form an underground structure that may look messy to the above-ground view, but is perfectly adapted as a network or meshwork. Mycorrhizae (fungal structures) live symbiotically with plant roots and can form huge underground structures from which an occasional mushroom

emerges above ground as the reproductive structure. In this shift from segmentarity to supplementarity, we recognise that becoming a doctor, even as a career trajectory, has an unconscious life and an absent story. The doctor's identity construction is necessarily *enmeshed*.

A radical break with segmentarity, and even with (supple)mentarity, occurs with lines of flight. Here, we are in the world of Spinoza's potencies and potentials – forces and possibilities. In terms of development of identity, 'lines of flight' operate as a rhetorical device – a trope, persuading us out of fixed ideas of identity as interior and stable. We are now prepared for radical shifts, transversality, sudden irruptions and reversals, chance and fate. Lines of flight cut across previously segmented organisations and structures with unpredictable force. Now, identity is a product of assemblages, has greater ambiguity and uncertainty and is always labile. Lines of flight are not abstract potencies, but products of the real. Ironically, policy makers act as if they bring stability, but are obsessed by change – new ways of organising clinical work, new management structures and new patient charters. This places doctors in contexts of nomadism and deterritorialisation, where they can no longer put down roots in practices or organisational structures, as these are open to permanent revolution. In many cases, this reflects the changing terrain of medical knowledge, where practices have to be updated on a regular basis to reflect the emergent, sometimes conflicting, research evidence.

In the new conditions of work in medicine, described in more detail below, there is a need for professionals to be literally more mobile, and metaphorically more flexible, in their working habits. The old structures of bounded teams and firms have given way to more flexible structures of multidisciplinary collaboration around patients. This means that traditional, bounded territories have to be relinquished in a new mode of 'deterritorialising'. Those who previously gained identities of consistency and stability within fixed territorial boundaries may now find themselves in the identity of the nomad, on short-term placements, temporary contracts and working across disciplines.

In Deleuzian studies, three new academic approaches have been developed to articulate and analyse these lines of flight: micropolitics, rhizomatics and cartography. Micropolitics discusses power relations, mediated by rules and roles, in local contexts. Identities are constructed out of such politics. In medicine, micropolitics will typically involve confirmations of identity through retreat to the uniprofessional role – maintaining strong boundaries between doctors and others. Deleuzian micropolitics map out how identities shift as a result of breakdown in traditional 'silo' structures. For example, what happens when traditional vertical hierarchies in the operating theatre, based on knowledge and skill levels, are challenged in a focus upon shared practices in communication for patient safety (Henderson et al. 2007)? Indeed, it is often the case that where communication skills are the focus, nurses are better at this than doctors or surgeons (Bleakley 2006b).

The lines of flight introduced by research in patient safety, linking safety to quality of communication and collaboration within and across teams, introduce the need for new identities of 'expert collaborator' and 'interprofessional'. The same argument applies to a shift from paternalistic medicine to patient-centred practice.

The lines of flight of patient-centredness cut across traditional identities and require a new micropolitical climate of democratic practices informed by dialogue. Again, *the identity shift from 'being an autocrat' to 'becoming a democrat' is absolutely central to the emergence of a new medical professional for the twenty-first century*.

Rhizomatics is micropolitics without the power implications. It describes the distributed cognitive architecture underpinning practices. Just what are the horizontal structures of a new democracy in medicine? Rhizomatics describes such structures. Nobody has been more productive in this field than Yrjö Engeström (2008) who has coined, or sometimes recovered and reworked, a new vocabulary to describe collaborative practices. Rather than problematic (and abstract) terms such as 'teams', which also describe static states ('norms') and imply fixed identities ('leaders', 'facilitators'), Engeström shifts the focus to concrete activities of collaboration – teeming, swarming, collaborative intentionality, wildfire activities, cognitive trailing, knotworking, networking, meshworking and so forth.

Identity is therefore implicated in the activity. The medical professional is no longer 'a good communicator' or 'a people person', implying some (segmented) structure of character or agency, but rather participates expertly in fighting wildfires, swarming, knotworking, meshworking and networking. An example of this is the necessity for members of a clinical group collaborating around a patient to set up the distributed cognitive structure of 'situational awareness', where a common mental model of activity is generated, practitioners are aware of others' roles, and this mental model is projected into the future in mapping the day's work. The commonly held model will, ideally, be rechecked at regular intervals through briefing and debriefing. The cognitive architecture of such a model is what Adrian Cussins (1992) calls 'cognitive trails' – similar to the 'songlines' of Australian Aboriginals. These trails are laid down as aspects of expertise in collective memory, into which newcomers must be initiated to know the territory of their work. The trails are, however, refreshed, beaten anew. Such a dynamic, shared tacit expertise, a 'cognitive unconscious' (Reber 1993), is, again, the heart of 'becoming a medical professional' and is shared collectively within the medical community as a set of 'cognitive scripts' informing diagnoses (Eva 2005).

Cartography shifts attention from the actor to the activity and its context. Now we study just what and where the wildfire is, where it is burning and how strongly. What 'net' or 'mesh' or 'knot' is 'worked' in, say, a multidisciplinary hospital oncology or community mental health meeting? How are knots both tied and untied? How are territories and their boundaries articulated and mapped, and how is deterritorialising achieved, for example, through 'boundary crossing' (Kerosuo and Engeström 2003). Boundary crossing is an activity shaped by the contours of the context and produces the identity of the 'boundary crosser' according to the context. For example, a 'professional' boundary crossing activity notes all the usual precautions of having identity papers at the ready, being sensitive to local customs and so forth. Just as doctors complain of non-clinical managers boundary crossing literally and inappropriately into clinical spaces, so managers may complain of clinicians boundary crossing into resources or funding meetings without an understanding of the values of the management culture.

Cartography is essential to our understanding of the becoming of the medical professional where it maps the spaces in which legitimation of activity occurs. On an international scale, this area has become one of the most sensitive yet under-researched in medicine and in medical education. In identity models based on the 'selfsame', differences are often ignored, trodden on or overwhelmed by the assumed superiority of the 'selfsame'.

Thus, doctors in paternalistic and autocratic mode take over the experiences of their patients (Coulter 2002), and often assume superiority over other healthcare professions (Allard et al. 2007), while surgeons assume superiority within the medical hierarchy (Cassell 1991, 2000). On a global level, this can result in a neo-imperialism or neo-colonialism, in which a certain brand of medical education (Western metropolitan) is exported to cultures where such methods of learning (for example, 'self-direction' or 'small group led') may be alien (Bleakley et al. 2008). Foucault (1976) traces this authority to the powerful legitimating force of the 'clinic'. It is because of this space and its rules that doctors can perform intimate or invasive acts of examination and investigation that would not be allowed in other spaces, such as the patient's home, or in public.

4 Becoming a Diagnostician

The 'becoming' of the medical professional is not a diffuse or hazy pulse or flow. There are clear markers of shifts in identity that correlate with development of expertise. The key marker is 'becoming a diagnostician' or 'symptomatologist' (Smith 2005), which can also be described as the development of expertise in connoisseurship of symptoms. This has been conventionally described as the achievement of a professional status within a clinical specialty (Becker et al. 1980) through acquisition of a certain level of expertise that is both formally examined and recognised by peers.

In Foucault's (1976) terms, the doctor is socialised into a particular kind of 'gaze' that is legitimated within the structure of the clinic (discussed in more detail below), and successfully negotiates a number of passages of 'examination' or surveillance, both technically and professionally (ethically), in the shaping or forming of an ethical self. In Erving Goffman's (1990) terms, the doctor adopts a role through expert performance as an actor, gradually learning the script and managing 'front stage' and 'back stage' self-presentations. In psychological terms, identity is achieved through mastery, outwardly displayed as performance based on developing a certain cognitive architecture. As more 'cases' are encountered, so doctors learn to recognise patterns and they lay down cognitive structures or 'scripts' that allow for rapid judgement, bringing together scientific knowledge and sense-based judgement (Eva 2005).

While other areas of healthcare have their own methods of clinical judgement (Higgs et al. 2008), and these may interact with, and support, the clinical reasoning of doctors (Gao and Bleakley 2008), medical professionalism is characterised by

both its breadth (range) and depth (intensity or power) of clinical reasoning. While doctors and surgeons are increasingly involved in preventive medicine, their daily work is curing illness and relieving symptoms – making a diagnosis, offering a prognosis and setting out a treatment plan or regime. This is done with attention to patients' needs (patient-centred practice) and sensitivity to collaborating effectively with colleagues around patient care pathways. The former is 'professional' work, while the latter is 'interprofessional' work (Bleakley et al. 2006).

5 The Undoing of the Modern Clinical Gaze

Michel Foucault's (1976) *The Birth of the Clinic*, first published in 1963, describes the genesis of modern medicine – coincidentally with the European Enlightenment in the late eighteenth and early nineteenth centuries – as the development of a particular kind of 'gaze' upon the patient's body. Previously, medicine had fitted patients into preset systems of classification (such as the four humours), and treated them based on what can now be seen as a spurious system of diagnosis through the odour and colour of urine, the consistency of stools and so forth, related to an abstract set of categories.

The new clinical gaze was based on close, empirical observation of the individual patient, including intimate examination combined with auscultation, palpation and percussion. This was matched to a growing epidemiological knowledge of the frequency and distribution of illnesses. Where patients were traditionally visited at home, learning was restricted, but when medical education was established at the bedside in the hospital setting, as a teaching clinic, this legitimated intimate physical examination in a way that had not been possible in family home settings.

The medical gaze was educated through looking literally into the depths of bodies through cadaveric dissection and pathological anatomy and translating this deep looking, metaphorically, across to the surface examination of patients. The doctor's diagnostic gaze was a transposition of anatomical and pathological knowledge into the unseen depths of the patient's body, guided by the text of surface symptoms. The invention of the stethoscope by Laënnec in 1816 increased the power of the clinical gaze as it provided a necessary 'moral distancing' from the patient. The clinician's gaze into the body was then further augmented by Roentgen's discovery of the X-ray in 1895, and in time, more sophisticated radiological imaging. However, these augmentations have gradually come to replace, rather than amplify, the clinician's personal gaze (Bleakley and Bligh 2009).

The medical gaze described by Foucault has operated as the dominant discourse of medicine for the past 200 years, but as we progress into the new millennium, it can be argued that a new discourse is emerging in medicine that is just as radical as the break that Foucault described. This new discourse is educating a different kind of medical gaze – as suggested above, one that is 'distributed' rather than focused and penetrating. This gaze is creating the conditions for the emergence of a new identity structure for doctors.

By a ‘gaze’, Foucault meant two things – first, a literal looking and seeing. Modern medicine is empirical – based upon close noticing and physical examination of symptoms as a basis to diagnosis, prognosis and treatment plan. But also, Foucault describes a twin ‘seeing and saying’ that is metaphorical rather than literal. As the doctor gazes at the patient’s outward symptoms, and asks about onset, duration, pain levels and so forth, and then continues to examination, that doctor is metaphorically – at the same time – gazing into the interior anatomy, which is known from anatomical atlases and dissection. The personal gaze is then augmented (and increasingly replaced, rather than supplemented) through tests and radiological imaging.

Also, the doctor, in the identity of the ‘interprofessional’ rather than the ‘professional’, is now more closely implicated in a network of services around a patient, where the medical professional is no longer autonomous. Clinical reasoning is both augmented and dispersed not just by instruments, but also by a range of other healthcare professionals and scientists such as nurses, pharmacists and biochemists. The personal medical gaze described by Foucault is fractured and multiplied to such an extent that Foucault’s era of modern medicine, which has lasted 200 years, is now eclipsed.

Kenneth Ludmerer (1999) describes a crisis in medicine, concerning a widespread loss of faith by the public in doctors, leading to a reconsideration of the profession’s level of autonomy. Doctors were judged to be unable to self-regulate adequately enough to inspire public confidence. The profession was also seen to refuse transparency, traditionally closing ranks to cover poor practice. This has led to the introduction of a monitory democracy (Keane 2009) as a series of quality assurance mechanisms, including appraisal and appraisal-based revalidation in some countries. Where patients are also gradually acquiring greater powers and confidence in both challenging and collaborating with doctors, so traditional paternalism has been eroded. Finally, the need for change in the way that doctors share the uncertainties of their practices with patients and colleagues is being addressed.

What does this raft of changes mean for the ‘becoming’ of the doctor? In short, doctors must now be democrats rather than autocrats. They must shift allegiance, from traditional vertical, hierarchical structures, to horizontal and dialogical collaborative working patterns; recognise the importance of non-technical (communication) factors in patient safety; and engage with the democratic process whereby a professional community accounts publicly for its activities through assembly and representative democracies (Keane 2009). In short, they must become citizens in medicine just as they are citizens in public life.

Paradoxically, many doctors working in, and supporting, democracies fail to reproduce such democratic structures in their own work settings. Democracy may still be a global experiment despite its many historical incarnations (where only 14% of the world’s population live in countries exercising full democracies and 35% of the population live in countries with authoritarian regimes), but research evidence clearly shows the advantages of collaboration-based democratic work patterns in healthcare over autocratic structures (Kohn et al. 1999; Joint Commission 2001).

If the doctor is now a social being, medical education must switch its attention away from individualistic learning theories to social learning theories; while in the area of expertise, the doctor is no longer just achieving technical proficiency, but also non-technical proficiency, modelling productive communication and interpersonal behaviour. Indeed, the doctor's work is not just about producing health or repair, but also about producing the social conditions of communication through which a patient's safety is guaranteed during a period of care. An outcome of a doctor's work now includes the production of social and affective capital (effective relationships with patients and colleagues) (Engeström 2008).

Finally, the doctor must move beyond reflective practice, or self-direction, to accommodate to the reality of an embodied cognition that is distributed, or affords a collective mind (Clark 1997, 2009). The doctor's 'mind' is also 'in' an array of artefacts – computers, clinical reasoning software, paperwork, patient records, instruments, monitors, test results, syringes, drips, radiological images, sophisticated technologies, research papers, research and audit data and so forth; and 'in' the social, potentially collaborative, context in which his or her work occurs. Cognitive embodiment in these distributed resources makes it impossible to talk about a singular medical gaze in Foucault's terms, and demands that we employ learning theories – such as communities of practice approaches, actor-network theory and cultural-historical activity theory – that comprehend this fractured, multiple and (supple)mented gaze that is now social.

Traditional reflective practice models describe reflection as inner-directed and not social, privileging introspection over dialogue (Schön 1990). This is safe territory for the conventionally autonomous and monological physician, working against the grain of the social, dialogical being that the physician must become for safe practice. Rather, the doctor must become a reflexive practitioner (Findlay and Gough 2003) – a full participant in a dialogical democracy (Bleakley 1999), where practitioners must transparently account for professional values, practices, communications and thinking process. This reflexive accounting for becoming a professional has led to new forms of textual practices that afford identity construction, as discussed below.

6 Becoming Medical Professionals Through New, Work-Based Textual Practices

A body of empirical research in work settings shows that medical and healthcare work 'is changing' leading to 'problematizing identity' (Iedema and Scheeres 2003, p. 316), offering what Jackson (2000) calls a 'new textualization' of work. Due to the implementation of new work settings – such as multi-disciplinary clinical care pathways – doctors, surgeons, allied health professionals and healthcare workers are talking to each other in new ways (first text); talking to patients in new ways (second text); educating in new ways (third text); and talking about this work to academic researchers in new ways (fourth text). Also, doctors are talking to

themselves (reflexively) in new ways about these emergent work conditions (fifth text), in shaping new identities through aesthetic and ethical self-forming, following Foucault's descriptions of an inner-directed governmentality and care of the self, discussed earlier.

Where reflection-in-practice and reflection-on-practice have become established ways of identity construction as a medical professional (Schön 1990) – involving self-monitoring – reflection-as-practice, or critical reflexivity, is now becoming a desired practice. Here, doctors account publicly for their profession and its value through a variety of textual practices. In this section, I describe a first level of such practices in the context of doctors working with a wider range of colleagues and within an authentic patient-centred approach. In the following section, this is widened to second- and third-level reflexive practices, in accounting for medicine's wider identity as a profession through writing about medicine, and through media representations of medicine and doctors, particularly television soap operas.

In adopting new ways of doing things (practices) and describing them to others and to oneself (reflection on practices), a shift in identity occurs. Sometimes, this shift offers not a fine-tuning of practices and the values that inform them, but a reinvention. In this case, reflection shifts to 'reflexivity' – a critical re-examination of what doctors do, why they do it one way and not another, and, importantly 'who am I?' as a doctor engaging in these new forms of work.

In the process of negotiating new ways of relating that require new activities (for example, leading a brief or a debrief on a ward or in an operating theatre), doctors and surgeons now have to renegotiate their identities as they recount, through speaking and writing, to a wider variety of other people (including patients) why they are doing what they are doing, in ways that were previously unfamiliar. This need not be seen as a product of political correctness, bureaucratic management or surveillance, but as a new way of accounting for work.

Examples include clinically situated work such as multidisciplinary meetings, now including accountability to colleagues through practices of equality and equity; accountability to patients through collaborative practices such as briefing and debriefing; and what may be termed extra-clinical work such as incident and accident reporting, appraisal, audit and a range of educational activities. These activities radically expand and democratise the previously insular, restricted practices of closed mortality and morbidity departmental meetings.

In new, unstable and fluid work settings, doctors must speak from positions for which they have uncertain authority, little practice, or do not yet 'know the texts', especially in the non-technical realms of practice that have now been shown to be central to maintaining patient safety (systems of communication, interpersonal skills, situational awareness).

Uncertainty is created where identity is destabilised by fluid work settings such as work-about-work or new modes of work-within-work that transcend 'communities of practice' boundaries such as patient care pathway interdisciplinary team meetings. Here, subjectivities are not given, expressed and exercised, but are formed through the negotiations that go on within these new textualities of 'speaking about' oneself in relation to a complex of 'others', the details of whose work are actually

unknown. Where it was once acceptable for the doctor to assume what the nurse or physiotherapist did, and to not have to account for professional behaviour to them, now doctors must sit down – as interprofessionals – to learn with, from and about 'others', as they are also accountable to others and to self. In this process, what counts as 'professional behaviour' is also redefined according to changing contexts for work.

Further, where paternalism towards patients was the norm, such behaviour is rapidly becoming challenged, indeed, unacceptable (Coulter 2002), as doctors must now collaborate with patients. These are new forms of democracies, requiring the exercise of authentic democratic participation (assembly democracy), producing the new identity of the doctor as a 'medical citizen'. In opening up such possibilities, contemporary doctors are recovering a long established tradition of learning from the patient, including getting the diagnosis from within the patient's story (Groopman 2007).

As Iedema and Scheeres (2003, p. 334) suggest, such new work settings are 'volatile, political, and confronting'. This challenges the conventional certainties of a doctor's role and places traditional identity at risk. The common textual practices in medicine of 'telling' and informing' (monologue), which Atkinson (1995) described as 'the liturgy of the clinic', are being replaced by conversing, negotiating, collaborating and supporting – again, participative dialogue or engagement rather than authoritative monologue or telling.

How are work modes changing? As noted earlier, there is, first, a wholesale shift from stable medical teams with continuity, to ad hoc constitution of teams. In parallel, traditional apprenticeship 'family' structures of 'firms' have dissolved so that junior doctors must learn to be nomads rather than members of a stable 'house'. As Richard Sennett (quoted in Bauman 2004, pp. 30–31) suggests: 'A flexible workplace is unlikely to be a spot in which one would wish to build a nest.' Rather, we are seeing the rise of 'cloakroom communities' that are 'patched together for the duration of the spectacle and promptly dismantled again once the spectators collect their coats from their hooks in the cloakroom.'

'Routine' work, based on stable groups, suggests Sennett, is crumbling across all sectors, not just healthcare. As described earlier, Engeström (2008) suggests that new professional work settings are even seeing the dissolution of what we have habitually come to call 'team' structures. Rather, we are entering an era of 'collaborative intentionality' and 'negotiated knotworking', of rapidly pulsating work, where groups of people come together for connected and collaborative tasks, and where there is no stable 'centre,' or the centre does not hold. Thus, there is no development of identity as a team member in the sense of passage (and staggered socialisation) through the typical stages of group development ('forming', 'storming,' 'norming,' 'performing' and 'mourning'). Perhaps, 'mourning' is now the default position.

Knotworked sets of professionals (ad hoc 'teams') must tune to the 'pulse' of the work and move straight to 'performing' as threads of activity are tied, re-tied and untied, again with no particular centre that holds. This new, dynamic work pattern – that takes technical proficiency as a given in its organic formation of work groups,

but has no such faith in non-technical proficiency such as skill in communication – suggests that while work itself may have an object or be goal-oriented (benefit to, care of, and safety for the patient; sensitivity to colleagues), identity may not be goal-oriented, but means-oriented. In other words, you work creatively with what you have, not with a planned team where identities are fixed by hierarchy and role.

In these shifting work modes, again medicine mirrors the wider culture. Andy Hargreaves (2003, p. 25) describes a shift in society from 'sustained family conversations and relationships' to 'episodic strings of tiny interactions', and this has also occurred, as noted above, in medicine's transformation of the 'family' or 'firm' structures to more open, complex and fluid arrangements.

Where the centre no longer holds, anarchy does not necessarily break loose. Rather, practices and identities are reinvented dynamically. Such changes mirror the wider runaway world, where mastery and control seem impossible, and adaptation, flexibility and tolerance of uncertainty are paramount. For example, the new wave of iatrogenic diseases – hospital-acquired infections – seem runaway monsters, almost impossible to control, as do new viral infections that evade cures. This does not stop us from attempting to master or nail these runaway objects, but we must recognise that stabilisation is sometimes impossible and adaptive strategies are necessary. Medicine is a culture of both high need for control and high risk and uncertainty.

7 Social Learning Theories Applied to New Work Practices

The emphasis upon collaborative work practices and consequent identity production requires the application of theories to explore and explain such new work contexts. Social learning theories (communities of practice, cultural-historical activity theory, and Actor-Network-Theory) offer the most powerful explanations. Of these, communities of practice frameworks (Lave and Wenger 1991; Wenger 1998) are typically interested in how professional identities are stabilised. Novices enter a community of practice legitimately but peripherally, and, as central participation is gradually achieved through recognition and application of expertise, so an identity emerges and stabilises. Learning is a meaningful act of participation in a community of practice.

This model can be seen as a restatement of anthropological rites of passage and socialisation models of the sort reported earlier, where engagement with a community invites initiation into the shared repertoire or history of that community and consequent identity construction through membership. Cultural histories include stories, rituals, humour, styles of working, effectiveness with key and local artefacts and initiation into local knowledge. The communities-of-practice model differs from such traditional ethnographic models where it moves beyond description to prescription. The model prescribes the ideal community – as receptive, where communication is horizontal or non-hierarchical; and engagement is mutual or reciprocated by experts (experts do not humiliate or harass). This is a gentle process 'that confers a sense of belonging', but 'more significantly, an increasing sense

of identity as a master practitioner' (Lave and Wenger 1991, p. 111). The tone of the communities of practice model, even in prescribing ideal, horizontal, forms of engagement, is undoubtedly tender-minded. It prescribes reciprocal partnerships between the novice and the expert and not judgemental initiations. For this reason alone, the model is readily open to scepticism from the characteristically tough-minded medical community, although the notions of learning by engagement or participation are second nature to such a community.

Where the communities of practice model focuses upon progressive stabilisation of identity; however, it does not have explanatory power to address the new complex, dynamic, unstable work contexts described above as liquid and runaway. Further, the model does not adequately describe how, for example, a doctor's social mind is constructed as it is mediated through artefacts (computers, patients' notes, drug charts, drips, syringes and so forth) and collaborative practices. Actor-Network-Theory and cultural-historical activity theory can be seen to be particularly responsive to these issues.

Actor-Network-Theory, in refusing personal agency and stability of systems, focuses upon how connections are made between persons and the material and symbolic worlds of artefacts. Bruno Latour (2007), the key figure in the field, suggests that abstract, high level, descriptors such as 'social' are limited. What are needed are specific descriptors for specific assemblages – ways of coming together, or connecting, and ways of disconnecting. Stabilisation of notions such as 'professionalism' is also refused, where 'professionalism' is neither a prior category nor an aim, but a set of instants – or the dynamic making and unmaking of assemblages. Professionalism is an effect of rapidly pulsing moments in work contexts in which assemblages and connections are made and unmade.

Where learning theories describe interactions with the material world, such as learning a skill with an instrument (for example, an endoscope), they stress human mastery rather than the interaction between the person and the artefact. Actor-Network-Theory specifically places people (actors) in networks (other actors, and 'actants' or material objects such as computers), where person and artefact are considered to be in dialogue and mutually engaged. This is not a form of animism. Any practitioner will tell you how the instrument, such as an endoscope or a scalpel, 'speaks back' to the hand and guides the strength of grip or pressure in the feed, or cut.

For Actor-Network-Theory, we experience the world as a set of rapidly pulsing and changing associations, over which we attempt to gain mastery. This offers a working definition of clinical medicine. A sense of identity does not emerge out of the mastery; however, but out of the quality of association that is made between the person and the mediating material artefact as 'types of connections' – ties, bonds, aggregates, forces and assemblages (Latour 2007, p. 5). A doctor does not 'learn' through mastery of tasks informed by knowledge, but makes the right kinds of connections between the material and the human world, or puts things together in a way that creates both meaning and function. This is the heart of diagnosis or symptomatology. In this sense, through bringing form and function into dialogue, the doctor is as much an artist as a scientist. This aesthetic identity offers a further

platform for consideration of becoming a medical professional. In short, a medical education should place emphasis upon how the material world 'speaks back' to doctors as they work with it, shaping awareness and senses.

Cultural-historical activity theory (Engeström 1987) sees activity systems (such as a community of practice) as inherently unstable and transformative – adaptive, complex and dynamic systems. Such systems achieve temporary stability through agreement about common objects (aims) for the activity (such as patient care and safety), where identity is stabilised temporarily as an interaction between roles (division of labour) and rules (protocols) within the work system such as a ward or family practice. However, this stabilisation is temporary, as the activity system is inherently expansive, where the production and consumption of new artefacts and community structures are common.

Activity theory describes a collective capacity to carry out work rather than an individual agency and identity at work. Groups of people create transformations and innovations in concert with artefacts, established rules (protocols) and work roles, and this affords identity and meaning. Identity is then an emergent property of the activity system, not a given condition, such as a character trait. Identity, however, is constructed as a performing and becoming – again, an activity not an essence – under conditions of dynamic process and transformation based on tensions inherent to a system and working across systems. Division of labour already means that members of the activity system have different sub-goals and agendas so that how they achieve the shared object of the activity, and how they translate rules and protocols, may produce conflict.

Identity formation is not then, as the communities of practice models suggests, necessarily about gradual stabilisation within a community through increasingly meaningful (peripheral to central) participation, but may result from perturbation, resistance and conflict and reflects this as the continual emergence of multiple and fractured sets of identities, achieving only temporary stability.

In acquiring a 'boundary-crossing' mentality – advertised by flexibility and tolerance – the origins of identity are again not grounded in 'selfsame' (identification with my professional group), but in 'difference' (I know myself in the mirror of the 'other'). Characteristically, selfsame identities exclude the other (intolerance), where identities grounded in difference respect that difference and value the other (tolerance). A powerful example of tolerance of difference is the ability for a doctor to recognise the patient as a guest in the household of medicine, and to offer that patient unconditional hospitality (Bleakley 2006b).

Bounded communities of practice, the basic unit of analysis of which is the 'team', are problematic according to Engeström (2008). Teams present a 'puzzle'. Where, exactly 'is' the team? What practitioners experience on the ground is, in Wenger's term, 'participation,' and in activity theory, 'intent' to collaborate (although this usually sticks at a lower level of co-ordination or co-operation). At the level of what Wenger calls 'participation' and Engeström 'activity', abstract knowledge ('reification' in Wenger's term) or theory, is secondary to work experience. A 'team' is an abstraction or reification. Rather, what is experienced are concrete, dynamic forms such as 'teeming', 'swarming', 'knotworking', 'meshworking',

'networking', and 'wildfire activities'. Becoming a doctor is then not becoming a team member, but becoming adept at varieties of collaborative activities and performances, such as networking and knotworking.

This new vocabulary for participation and activity attempts, metaphorically, to grasp what actually happens on the ground in work contexts, in dynamic terms. This may appear to be reactive to situations rather than proactive, but this would be a misunderstanding. Proactivity is inherent to an activity system as is instability. Proactivity attempts to maintain activity and complexity in the face of instability, in what Searle (1990) calls 'we-intentions' and Engeström (2005) 'collaborative intentionality'. Such potential is achieved, again, through open dialogue, the hallmark of a democratic power structure.

For Ciborra (2000), powerful and successful work collectives do not, paradoxically, so much seek control over their collaborative work as understanding and meaning (returning us to the heart of Wenger's argument about an effective community of practice that generates meaning out of learning and learning out of meaning). Rather, collectives, in Ciborra's view, need not resort to top-down control (the knee-jerk reaction of autocracies), but generate good work practices from 'drift, care, hospitality, and cultivation' (in Engeström 2008, p. 202). Collaborative activity produces affect or emotional capital and this provides the conditions of possibility for further collaboration. Sceptics may ask: 'where is the leadership in such structures?' Leadership is *distributed*, according to the changing foci of work activities within an overall collaboration. The 'knot' in knotworking has no single centre or leader, but still holds appropriately to ensure collaboration and the realization of a common object or intention.

8 'Medutainment' – Reflexive Accounting in the Public Realm

In this final section, I briefly describe how two further levels of textual practices are emerging as characteristic aspects of the postmodern condition of medical practice – first, doctors are inventing a new genre of social realist literature in writing about their practices and experiences for the public, as auto-ethnographies; and second, doctors' identities are 'pre-formed' for public consumption through media representations in television soap operas ('medi-soaps'). The latter moves identity construction away from the high modernist territory of authentic expression of self, with a focus on essences and being, towards the territory of simulation and the simulacrum, where 'becoming' a medical professional – a twenty-first century doctor – is now governed partly by public expectations shaped by media representations.

These virtual textual practices offer new territory for the management of professional identity by doctors, where the ongoing process of professional becoming can no longer be explored simply in terms of peripheral to central participation in a community of practice (the stabilisation of a medical identity within a mixed community of doctors and surgeons, and within defined communities of specialists),

but the medical professional's becoming is literally serial-situated in a series of encounters with patients and colleagues that has been transposed to a series of books about doctoring and television soap opera series.

Perhaps eclipsing, rather than supplementing, the ethnographic studies described at the beginning of this chapter, there is a rich seam of autobiographical and auto-ethnographic accounts by doctors themselves of what they do and how their culture may be characterized. Richard Selzer (1996), writing since the early 1970s, has led the way in this social-realist genre. A new generation of physicians and surgeons writing on medicine and surgery (for example Abraham Verghese 1998, 2009; Atul Gawande 2002, 2007; Vincent Lam 2006; Nick Edwards 2007; Kevin Patterson 2007; Gabriel Weston 2009) are doing something quite different from the previous generation of writers such as Selzer.

Selzer, while in a humane manner, lauds surgery, where a writer such as Atul Gawande admits to its limitations, uncertainties, hubris and pitfalls (while, productively, suggesting remediation); and, in the context of emergency medicine, Nick Edwards brings the black humour characterising that culture to the general public, for scrutiny. Gawande in particular – surgeon, educator, researcher, and also staff writer on medicine for The New Yorker – offers the public education service that the historian of medical education, Kenneth Ludmerer (1999) had demanded as a primary responsibility of twenty-first century medicine.

As mentioned earlier, Ludmerer, in a North American context, suggested that medicine, as a previously self-regulating profession, had to win back the faith of the public, lost through its inability to disclose or admit to error, close ranks in cases of poor practice and find a productive way to discuss uncertainty with patients. Gawande – in sharp contrast to this legacy – openly shares such issues with his reading audience. In doing so, he sets out a new agenda for surgical educators, intimately linked with the construction of identity as 'surgical educator' focused first on learning with, from and about patients.

The previously insular worlds of emergency medicine and the operating theatre in particular are now the subject of almost prurient public interest – however distorted the representation – through television medical soap operas such as *E.R.* and *Grey's Anatomy* in the USA, and *Holby City* and *Casualty* in the UK. Whatever clinicians think of these representations, they are increasingly being used as 'infotainment' or 'edutainment' ('medutainment') to provide the public with opportunities to glimpse into worlds to which they previously would not have had easy access. It can be argued that these virtual representations offer, collectively, another form of monitory democracy, an emerging 'democracy of democracies', a super-ordinate governance arrangement that no longer allows the previously self-regulating body of medical professionals to engage in restrictive or closed practices.

The self-regulating clinic, described by Foucault as both the literal and cognitive architecture that legitimated the clinical gaze, has now become other-directed and porous, as doctors increasingly come to write about their work as quasi-academic auto-ethnographies, or through social realist or fictional genres; where television soap-operas offer educational and informational services; and the internet clinic remains permanently open. Times have changed radically, and we can already judge

how becoming a doctor of the future will be different from the outcome of a medical education, established through Abraham Flexner's 1910 report, that had changed little in basic structure over the last century. Deleuze has often been referred to as the philosopher who has best described the horizon that is the emerging millennium (DeLanda 2002). His ideas provide a rich framework for understanding what it is to become a doctor of the future.

References

Allard, J., Bleakley, A., Hobbs, A., & Vinnell, T. (2007). 'Who's on the team today?': Collaborative teamwork in operating theatres should include briefing. *Journal of Interprofessional Care, 21*(2), 189–206.

Atkinson, P. (1995). *Medical talk and medical work: The liturgy of the clinic*. London: Sage.

Bauman, Z. (1998). *Globalization: The human consequences*. Cambridge, UK: Polity.

Bauman, Z. (2004). *Identity*. Cambridge, UK: Polity.

Becker, H. S., Geer, B., Hughes, E. C., & Strauss, A. L. (1980). *The boys in white: Student culture in medical school*. New York: Transaction Publishers.

Bleakley, A. (1999). From reflective practice to holistic reflexivity. *Studies in Higher Education, 24*(3), 315–330.

Bleakley, A. (2000a). Adrift without a lifebelt: Reflective self-assessment in a post-modern age. *Teaching in Higher Education, 5*(4), 405–418.

Bleakley, A. (2000b). Writing with invisible ink: Narrative, confessionalism and reflective practice. *Reflective Practice, 1*(1), 11–24.

Bleakley, A. (2006a). 'You are who I say you are': The rhetorical construction of identity in the operating theatre. *Journal of Workplace Learning, 18*(7/8), 414–425.

Bleakley, A. (2006b). A common body of care: The ethics and politics of teamwork in the operating theater are inseparable. *The Journal of Medicine and Philosophy, 31*(3), 305–322.

Bleakley, A., & Bligh, J. (2009). Who can resist foucault? *The Journal of Medicine and Philosophy, 34*(4), 368–383.

Bleakley, A., Boyden, J., Hobbs, A., Walsh, L., & Allard, J. (2006). Improving teamwork climate in operating theatres: The shift from multiprofessionalism to interprofessionalism. *Journal of Interprofessional Care, 20*(5), 461–470.

Bleakley, A., Brice, J., & Bligh, J. (2008). Thinking the post-colonial in medical education. *Medical Education, 42*(3), 266–270.

Bleakley, A., Bligh, J., & Browne, J. (2011). *Medical education for the future: Identity, power, and location*. New York: Springer.

Cassell, J. (1991). *Expected miracles: Surgeons at work*. Philadelphia, PA: Temple University Press.

Cassell, J. (2000). *The woman in the surgeon's body*. New Haven, CT: Harvard University Press.

Ciborra, C. (2000). A critical review of the literature on the management of corporate information infrastructure. In C. Ciborra (Ed.), *From control to drift: The dynamics of corporate information infrastructure* (pp. 15–40). Oxford, UK: Oxford University Press.

Clark, A. (1997). *Being there: Putting brain, body, and world together again*. Cambridge, MA: The MIT Press.

Clark, A. (2009). *Supersizing the mind: Embodiment, action, and cognitive extension*. Oxford, UK: Oxford University Press.

Coulter, A. (2002). *The autonomous patient: Ending paternalism in medical care*. London: The Nuffield Trust/The Stationery Office.

Cussins, A. (1992). Content, embodiment and objectivity: The theory of cognitive trails. *Mind, 101*, 651–688.

DeLanda, M. (1997). *A thousand years of nonlinear history*. New York: Swerve Editions.
DeLanda, M. (2002). *Intensive science and virtual philosophy*. London: Continuum.
DeLanda, M. (2006). *A new philosophy of society: Assemblage theory and social complexity*. London: Continuum.
Deleuze, G. (1991). *Bergsonism*. New York: Zone Books.
Deleuze, G. (1993). *The fold: Leibniz and the Baroque*. Minneapolis, MN: University of Minnesota Press.
Deleuze, G., & Guattari, F. (1984). *Anti-Oedipus*. London: The Athlone Press.
Deleuze, G., & Guattari, F. (1988). *A thousand plateaus*. London: The Athlone Press.
Deleuze, G., & Parnett, C. (2007). *Dialogues* (2nd ed.). New York: Columbia University Press.
Edwards, N. (2007). *In stitches: The highs and lows of life as an A & E doctor*. London: Friday Books.
Engeström, Y. (1987). *Learning by expanding: An activity-theoretical approach to developmental research*. Helsinki, Finland: Orienta-Konsultit.
Engeström, Y. (2005). Knotworking to create collaborative intentionality capital in fluid organizational fields. In M. M. Beyerlein, S. T. Beyerlein, & F. A. Kennedy (Eds.), *Collaborative capital: Creating intangible value* (pp. 307–336). Amsterdam: Elsevier.
Engeström, Y. (2008). *From teams to knots: Activity-theoretical studies of collaboration and learning at work*. Cambridge, UK: Cambridge University Press.
Eva, K. W. (2005). What every teacher needs to know about cognitive reasoning. *Medical Education, 39*(1), 98–106.
Findlay, L., & Gough, B. (2003). *Reflexivity: A practical guide for researchers in health and social sciences*. Oxford, UK: Blackwell.
Flexner, A. (1910). *Medical education in the United States and Canada*. New York: Carnegie Foundation for the Advancement of Teaching.
Foucault, M. (1976). *The birth of the clinic*. London: Tavistock.
Foucault, M. (1990). *The care of the self*. London: Penguin.
Foucault, M. (2005). *The hermeneutics of the subject*. New York: Picador.
Gao, L., & Bleakley, A. (2008). Developing 'thinking as a doctor': What is the influence of other healthcare professionals upon the early learning of medical students? *International Journal of the Humanities, 6*(8), 65–74.
Gawande, A. (2002). *Complications: A surgeon's notes on an imperfect science*. London: Profile Books.
Gawande, A. (2007). *Better: A surgeon's notes on performance*. London: Profile Books.
Giddens, A. (1991). *Modernity and self-identity*. Cambridge, UK: Polity.
Ginsburg, S., & Lingard, L. (2006). Using reflection and rhetoric to understand professional behaviors. In D. T. Stern (Ed.), *Measuring medical professionalism* (pp. 195–212). Oxford, UK: Oxford University Press.
Goffman, E. (1990). *The presentation of self in everyday life*. Harmondsworth, UK: Penguin.
Greenblatt, S. (1980). *Renaissance self-fashioning*. Chicago, IL.: University of Chicago Press.
Groopman, J. (2007). *How doctors think*. Boston, MA: Houghton Mifflin Company.
Guattari, F. (1995). *Chaosmosis: An ethico-aesthetic paradigm*. Sydney, Australia: Power Publications.
Guattari, F. (2008). *The three ecologies*. London: Continuum.
Hargreaves, A. (2003). *Teaching in the knowledge society: Education in the age of insecurity*. Milton Keynes, UK: Open University Press.
Henderson, S., Mills, M., Hobbs, A., Bleakley, A., Boyden, J., & Walsh, L. (2007). Surgical team self-review: Enhancing organisational learning in the royal cornwall hospital trust. In M. Cook, J. Noyes, & Y. Masakowski (Eds.), *Decision making in complex environments* (pp. 259–270). Aldershot, UK: Ashgate.
Higgs, J., Jones, M. A., Loftus, S., & Christensen, N. (Eds.). (2008). *Clinical reasoning in the health professions* (3rd ed.). Amsterdam: Elsevier.
Iedema, R., & Scheeres, H. (2003). From doing work to talking work: Renegotiating knowing, doing, and identity. *Applied Linguistics, 24*(3), 316–337.

Jackson, N. (2000). Writing-up people at work: Investigation of workplace literacy. *Literacy and Numeracy Studies, 10*(1/2), 5–22.
Joint Commission on Accreditation of Healthcare Organizations (2001). A follow-up review of wrong site surgery. *Sentinel Event Alert*. Issue 24, December 5.
Katz, P. (2000). *The scalpel's edge: The culture of surgeons*. New York: Prentice Hall.
Keane, J. (2009). *The life and death of democracy*. London: Simon & Schuster.
Kerosuo, H., & Engeström, Y. (2003). Boundary crossing and learning in creation of new work practices. *Journal of Workplace Learning, 15*(7/8), 345–351.
Kohn, L., Corrigan, J., & Donaldson, M. (Eds.). (1999). *To err is human: Building a safer health system*. Washington, DC: National Academy Press.
Lam, V. (2006). *Bloodletting & miraculous cures*. Toronto, Canada: Doubleday Canada.
Latour, B. (2007). *Reassembling the social: An introduction to actor-network-theory* (2nd ed.). Oxford, UK: Oxford University Press.
Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, UK: Cambridge University Press.
Ludmerer, K. M. (1999). *Time to heal: American medical education from the turn of the century to the era of managed care*. Oxford, UK: Oxford University Press.
Marshall, R., & Bleakley, A. (2009). The death of hector: Pity in Homer, empathy in medical education. *Medical Humanities, 35*(1), 7–12.
Massumi, B. (1992). *A user's guide to Capitalism and Schizophrenia*. Cambridge, MA: MIT Press.
Millman, M. (1976). *The unkindest cut: Life in the backrooms of medicine*. New York: William Morrow.
Patterson, K. (2007). *Consumption*. Toronto: Vintage.
Reber, A. (1993). *Implicit learning and tacit knowledge: An essay on the cognitive unconscious*. Oxford, UK: Oxford University Press.
Roter, D., & Hall, J. A. (2006). *Doctors talking with patients/patients talking with doctors: Improving communication in medical visits*. Westport, CT: Praeger.
Sass, L. (1994). *Madness and modernism: Insanity in the light of modern art, literature and thought*. New Haven, CT: Yale University Press.
Schön, D. A. (1990). *Educating the reflective practitioner: Toward a new design for teaching and learning*. San Francisco, CA: Jossey-Bass.
Searle, J. R. (1990). Collective intentions and actions. In P. R. Cohen, J. Morgan, & M. E. Pollack (Eds.), *Intentions in communication* (pp. 401–415). Cambridge, MA: MIT Press.
Selzer, R. (1996). *Mortal lessons: Notes on the art of surgery* (2nd ed.). San Diego, CA: Harcourt/Harvest.
Singh, H., Thomas, E. J., Petersen, L. A., & Studdart, D. M. (2007). Medical errors involving trainees: A study of closed malpractice claims from 5 insurers. *Archives of Internal Medicine, 167*(19), 2030–2036.
Smith, D. W. (2005). Critical, clinical. In C. J. Stivale (Ed.), *Gilles Deleuze: Key concepts* (pp. 182–193). Stocksfield, UK: Acumen.
Stern, D. T. (Ed.). (2006). *Measuring medical professionalism*. Oxford, UK: Oxford University Press.
Stivale, C. J. (Ed.). (2005). *Gilles Deleuze: Key concepts*. Stocksfield, UK: Acumen.
The General Medical Council, UK. (2006). *Good medical practice*. London: Stationery Office.
The General Medical Council, UK. (2007). *The new doctor 2007*. London: Stationery Office.
Tooke, J. (2008). *Aspiring to excellence: Findings and final recommendations of the independent inquiry into modernising medical careers*. London: Aldridge Press.
Verghese, A. (1998). *The tennis partner*. New York: HarperCollins.
Verghese, A. (2009). *Cutting for stone*. London: Chatto & Windus.
Wadhwa, A., & Lingard, L. (2006). A qualitative study examining tensions in interdoctor telephone consultations. *Medical Education, 40*(8), 75.
Wenger, E. (1998). *Communities of practice: Learning, meaning and identity*. Cambridge, UK: Cambridge University Press.
Weston, G. (2009). *Direct red: A surgeon's story*. London: Jonathan Cape.