Anaesthetists understand their work in different ways

Editor—We read with interest the investigation by Larsson and colleagues1 reporting their qualitative study of how trainee anaesthetists understand their work. We congratulate them on their decision to pursue this type of enquiry. Only by addressing those aspects of anaesthetic expertise, which cannot be set out in syllabuses and measured as competencies, can a true picture of the complexity of our work be drawn. We have a few questions and would be interested to read the authors’ responses.

First, we liked the categories that the data suggested, but we wondered if the authors had thought of arranging them into any sort of hierarchy? (We note that they did so with the four categories which they used for experienced anaesthetists in their previous study.2)

In the Lancaster expertise study3 we found that, as trainees gain experience, they seem to move from one level of understanding to another, which is not completely separate but rather incorporates and builds on what went before. Hence we suggest, in contrast to the findings of Larsson and colleagues, that changes to more comprehensive ways of understanding do in fact take place over time and this is brought about by the developing relationship between tacit and explicit knowledge. Furthermore, we would challenge the authors’ assertion that their category F—where experience from patients is used to learn new things—is exclusive to trainees. One of our unexpected findings was the importance which ‘fully-formed’ experts attach to the potential for continuing learning from working with colleagues.

In the UK, there are moves to train non-physicians to administer anaesthesia. Central to this debate is the problem of how such practitioners might work, not only in the practical limits to their activities, but also in how they understand and conceptualize their work. We note that the first of Larsson and colleagues’ transcripts refers to a trainee supervising a nurse and how he/she recognized when the nurse had a problem. We recognize that this is not directly within the scope of their work, but to what extent would the authors expect to see the same breadth of understanding in a nurse anaesthetist?

Finally, we would endorse the authors’ implication that defining different aspects of the anaesthetist’s role will help trainees (and specialists) further their understanding.

Although not a finding from our study, we have previously attempted to suggest a number of roles or styles related to anaesthetic practice. These are in no particular order and there may of course be others, but we offer them as a further contribution to the conceptualization of anaesthetic work:

(i) Craftsman. An anaesthetist who takes pleasure in the simple exercise of his/her hard-won professional skill.

(ii) Workhorse. An anaesthetist who sees their role as ‘getting the job done’.

(iii) Salesman. An anaesthetist who is not as competent as they can make themselves appear by their clinical behaviour.

(iv) Engineer. Someone who thinks mechanistically about the process of anaesthesia, making the patient follow a predetermined plan where possible.

(v) Ecologist. Someone who works in response to the individuality of the patient (these last two styles are drawn from Kleinola’s objectivistic and reactive types).5

(vi) Priest. Someone who is aware of the mysteries of anaesthesia—the almost mystical temporary loss of self which although often disregarded by anaesthetists, is of great significance to patients.

(vii) Virtuoso. A true master.

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Editor—We thank Smith and colleagues for their interest in our study,4 and would like to respond to the points that they have raised.

Concerning the structural relationship between the categories of description, we have in a previous study reported the different ways specialist anaesthetists understand their work. We described a work map with the understandings arranged in a hierarchical way.2 In the present study,1 trainee anaesthetists gave expression to four similar ways of understanding work (B–E in the article). For the young trainees anaesthesia work is still a fairly diffuse phenomenon and their ways of understanding are not as clear as those of specialist anaesthetists. We are convinced that the categories in the trainees’ group are hierarchically related, but this is a result inferred from the previous study. However, understanding A, ‘the novice’, was not found among specialist anaesthetists and should be regarded as a lower level of understanding work than understanding B.

One result of our two studies is that the novice way of understanding was found only among the trainees. Obviously, young anaesthetists during training move from understanding A to B. They will meet situations were protocol driven anaesthesia will not work and they will be forced to take the step from understanding A to B, after considering the individual patient’s physiology. In addition, all four types of understanding of the specialists were represented already among trainees, indicating that anaesthetists normally do not change their understanding during years of work.

This is in line with the findings of educational research that competence development preferentially takes place within the confines of present understanding.5 To acquire a new way of understanding, confrontation with another’s meaning (reflective dialogue) or meeting a provoking situation is necessary.6

‘The learner’ was the predominant way of understanding work for some of the trainees but for none of the specialist anaesthetists. In the phenomenographic method we used, only the predominant ways of understanding the phenomenon in question will be defined. Therefore ‘the learner’ was not defined as a category in the study on specialist anaesthetists. We agree with Smith and colleagues that many anaesthetists do use experience from patients for learning.

The question about nurse anaesthetists is not within the scope of our studies and this part of our answer is my (JL) personal view. I believe that young nurse anaesthetists are, and should be, relying more on protocols and detailed guidelines, whereas experienced nurse anaesthetists can work independently considering the vast amount of tacit knowledge that they express in their work. The anaesthetist should, nevertheless, be very much present in the theatres of which he or she is in charge (usually two or three theatres at a time). This means going in and out at regular intervals, depending on what is going on in theatre and on the nurse’s experience.
The object of phenomenography is to study the variation in which phenomena in the world are conceived of or understood. Our two studies tell us about two things: anaesthesia work as understood by anaesthetists, and the variation in the ways anaesthetists understand work. We do not regard the categories as a typology of anaesthetists. However, we do admit that some of Smith and colleagues’ well-found metaphors of anaesthetist styles bear a clear resemblance to some of the categories in our studies.

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Accreditation in transoesophageal echocardiography

Editor—It is with interest that we read the current controversy regarding credentialling in perioperative transoesophageal echocardiography (TOE) in the UK.1, 2 As experienced transoesophageal echocardiography (TOE) practitioners and newly endowed ‘Testamurs’ who have practised cardiac anaesthesia and actively trained numerous practitioners in TOE for more than 5 yr each, and who have now moved to non-cardiac anaesthesia and intensive care medicine where we continue to offer valuable TOE services, we wish to offer our perspective on the current accreditation controversy.

In the USA, the National Board of Echocardiography (NBE) recently introduced a programme of Board Certification in Transoesophageal Echocardiography and candidates who passed the TOE examinations administered by the NBE are now no longer considered to be TOE-certified, but are instead described as NBE-PTE ‘Testamurs’ (passed the NBE exam but not board certified).3, 4 Although a ‘grandfather’ pathway to Board Certification currently exists (through proof of having completed fellowship training in cardiovascular anaesthesia), we believe that physicians in positions similar to ours who are now involved predominantly in non-cardiac practice would find it hard to meet the required diversity and required number of cases per year to maintain credentials after the first wave of credentialling, scheduled for 2008. Other TOE practitioners within non-cardiac anaesthesia and intensive care medicine who have not completed fellowship training in cardiovascular anaesthesia are unlikely to qualify for Board Certification in Transoesophageal Echocardiography as it is implemented this year, based on the requirement of 150 patients per year in the 2 yr immediately preceding their application.3, 4 Furthermore, it is probably only a matter of time before those with testamur status will be denied clinical privileges, reimbursement and so on. Have we been disenfranchised?5 We think so. Unless provision is made for those not actively engaged in cardiac practice, we believe that a valuable intraoperative monitoring and diagnostic tool that is relatively non-invasive and highly effective in clinical decision making will be forced out of the hands of non-cardiac anaesthesia and intensive care medicine personnel. It will be reserved for a select group of individuals practising cardiac anaesthesia, to the detriment of non-cardiac surgical and critically ill patients.

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Editor—We thank the authors for their interest in the Association of Cardiothoracic Anaesthetists (ACTA)/British Society of Echocardiography (BSE) TOE accreditation process, and acknowledge their contribution to the development of perioperative TOE both in the USA and in the UK.

As previously explained, this process is the result of long-term negotiations between ACTA and BSE.2 Although the aim of this process is definitely to be as inclusive as possible, it is important to set a minimum standard. ACTA does actively encourage ‘non-cardiac’ anaesthetists to take part in perioperative TOE. This is demonstrated by regular TOE lectures and workshops given by ACTA members, on behalf of ACTA, at meetings of the Association of Anaesthetists, Intensive Care Society, and other ‘non-cardiac’ anaesthetic scientific meetings.

From the onset, it was decided not to have a ‘grandfather’ pathway to accreditation after previous experience in the BSE Adult Transthoracic Accreditation process. The participation of a large group of experienced echocardiographers (both anaesthetists, cardiologists and echotechnicians) in the first ACTA/BSE TOE Accreditation examination in October 2003 demonstrated the support for this process. The ACTA/BSE TOE Accreditation process does not involve cardiothoracic fellowship training because it is designed to include all disciplines of medical doctors and also non-medical echocardiographers. The logbook is therefore essential as proof of ongoing experience and practice. Together with CME/CPD obtained at echocardiography scientific meetings, this will most likely also be the cornerstone of a future reaccreditation process. Details will be announced in the foreseeable future.

The concerns of the authors who presently work in a ‘non-cardiac’ hospital are certainly very applicable in the USA where clinical privileges and reimbursement depend on accreditation.3, 5 That is a problem that the NBE would have to take into consideration. In the UK this is not the case and presently nobody will be prevented from performing echocardiography if this person is not accredited.

At a recent meeting of the ACTA/BSE TOE committee, the feedback from concerned members of both bodies has been discussed in great detail. It has been decided that certain changes to the original process have to be made to make the process more inclusive and flexible. The number of cases for the logbook will decrease to 125, the time period to collect these will be increased to 24 months, and the case report mix will be more flexible. The delegate must be exposed to a wide range of pathology. During the period of accreditation, a candidate in a ‘non-cardiac’ hospital must take some initiative to show wider experience. Although its value is beyond any doubt in intensive care and the ‘non-cardiac’ theatre, the fact is that TOE is mainly a cardiac


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