

E D I T O R I A L

Surgical education:
The ACTION and the WORD*

The transmission of knowledge, periodically questioned and revised, is a challenge that has been resolved in different ways in accordance with different epochs and with different fields of activity, but it is especially difficult in the practice of surgery.

Teaching and learning surgery is a vast program that is enriched but complicated by the intimate interweaving of KNOWLEDGE and OPERATION that guides novices in the acquisition of the know-how that guarantees a surgeon's competence. Such a successful outcome derives from a privileged relationship between TEACHER and STUDENT, whose declared objective is to impart a minimum basis of knowledge and operative skill, a platform from which each new surgeon can proceed to freely develop his or her special aptitudes.

In the ideal situation, apprentice surgeons, already equipped with a foundation of solid basic training, will benefit from the experience provided by their mentors to avoid making beginner's errors and will, with time, have the advantage of equaling their teachers, even surpassing them by standing on their shoulders and "beginning where their masters left off."

In addition, this apprenticeship takes place during actual practice conditions making it necessary for student surgeons to understand the dimension of patients who are in a dependency status.

The transformation in our modern society of the means of communication has changed the standards. As Régis DEBRAY has said, "communicating is not transmitting".

An analysis of today's situation highlights the fraying of classic relationships of master-disciple and doctor-patient, which is correlated with the breakdown of the balance between knowing and doing.

Today, schooling, training, apprenticeship or any other such appellations are destructured and candidates find themselves in a posture of PARADOXICAL ISOLATION, in a whirlwind of information whose validation requires analytic reflection. This destructure derives from our sense of three phenomena:

(*) Leroi-Gourhan A. *Le Geste et la Parole*. 2 vol. Coll. Sciences d'aujourd'hui, Paris : Albin Michel, 1964-1965.

- **The dictatorship of the IMAGE The triumph of image**

Some observers call the triumph of image over text in the methodology of thought an unfortunate development because its modus operandi is apparently contradictory in the time spatial sense, for one thing, it reduces the duration of the analytic process leading to hasty diagnoses that too often short circuit the clinical techniques of palpations and percussion and for another it interposes a screen through the doctor-patient relationship separating the pair, eroding confidence, and, besides, aggravating the confusion of patients who are awash in INFORMATION that conflicts with KNOWLEDGE.

- **The decrease in ERUDITION**

“Every artisan is required to understand the field in which he works” according to the recommendation of the “father of French Surgery”, Henri de Mondeville; embryology, anatomy in all its forms, and physiology constitute the fundamental underpinnings of surgery. Nowadays pedagogical programs have weakened their presentations of these basic disciplines in favor of others, more seductive and “more scientific”, such as biology of development (Rosine CHANDEBOIS).

Moreover, the duration of residency programs has been reduced and doctoral students are required to choose a specialty too early in their training.

This reversal of the pyramid of instruction, no longer resting on its base but speared into position with its pointed top placed at the bottom, has contributed to a general atmosphere of reductionism. Parts take precedence over the whole, distances are shortened, acquisition of skills must be swift, “immediate” results are demanded... these are the current behavioral norms.

But this mini tsunami does not necessarily spare OPERATION

- **The avatars of OPERATION**

The acquisition of operative skills, contrary to popular belief, does not, with the exception of unusually inept students, require the novice surgeon to be blessed with special gifts or with exceptional manual dexterity, because the HAND is an extension of the brain and an executor of its instructions.

Apprentice surgeons are preceptees learning the surgical craft while they practice it on real people in situations where there is no room for error. They train themselves in the methodology of their preceptors who progressively teach them how to use instruments and how to manage surgical operations, both always aware that the disciple is far more than a mere imitator of the master.

Knowing this, we realize that a solitary apprenticeship, one where the student routinely repeats the action in simulated operative tasks, a surgical autodidacticism, is a kind of heresy where the trainee’s hand is not guided by a prepared mind.

Moreover the search for speed and for operations by recipe has led to “quickie courses” that ignore the subtleties of the indications for operations. This has given us the widespread dissemination of “How I DO IT” programs that defy the necessity for a hierarchy of diagnostic procedures and therapies that must answer the classic questions: Who? Why? When? How?

It is highly desirable that preceptees emerge from training capable of fulfilling the definition of Clovis VINCENT who described fully formed surgeons as “physicians who operate” and cannot be characterized as specialized technicians. They are surgical craftsmen, certainly, but craftsmen who operate on living humans and must, accordingly, be learned in the field of medicine and knowledgeable about plastic, reparative, and esthetic surgery, because of today’s increased interest in FORM, especially facial. In sum, they must be veritable ARTISANS of ART.

What is the place of CLEFTS in this gallery?

They perfectly illustrate this notion because they constitute a concentration of difficulties. To rehabilitate patients with clefts surgical artisans of art must blend IMAGE, their appearance, with TEXT their ability to speak, in other words expertly join FORM and FUNCTION in the restricted space where the vital activities of alimentation and ventilation must find room to operate, and where the compendium of visual, olfactory, and, indirectly, auditory information must all be processed at the heart of the area served by BROCA’S triangle in a FACE that is also a VISAGE.

What is more this rehabilitation must not take place at the expense of other vital functions and it must assume a duration compatible with the patient’s proper growth in all three dimensions of space, to which a fourth dimension, TIME is added.

Surgeons must have not only the KNOW-HOW of Corneille’s Chimène, who had to make a 17th century Sophie’s Choice, but also the thirst to LEARN, and, perhaps, most important, be able to know themselves in the fundamental dimension of SELF-CRITICISM.

This editorial is intended as a pro-domo plea for surgeons to maintain a reasoned and reasonable balance between doing and knowing, while preserving the preeminent role of clinical observation, based on common sense and an understanding of the patient’s psychological needs.

The CLINICAL ACT must take precedence over the EXPERIMENTAL ACT. This is the way that Hippolyte MORESTIN, a pioneer plastic surgeon, who, guided only by his clinical sense, described, among other procedures, the first technique for performing a pharyngoplasty, even though clefts were far from being his special interest.

Professor Michel Stricker

The opinions expressed are the author’s, not necessarily those of the Review.