In medicine, language counts. Descriptive words and phrases still form the backbone of patient care. Physicians often make diagnostic choices based on their patients’ language. (As an example, “the worst headache of my life” may indicate a subarachnoid hemorrhage.) Patients may change the way they see themselves based on the names given to their illnesses (a “cancer survivor” or a “person with AIDS”).

Considering medicine’s inability to escape semantics, it is surprising that one particular phrase has survived so long in an unexamined state and has eluded the linguistic sensibilities of caregivers worldwide. “The art of medicine” is a term that, in recent decades, has slipped into the everyday language of the discipline, appearing in many contemporary publications—literary anthologies, social commentaries, medical journals, internet sites, even coffee-table books. For example, in 2002, the president of the American College of Cardiology titled his convocation address “The Art of Medicine.” Six months before, a law practice outlined “The Perspective of a Plaintiff’s Attorney in Dissembling the Art of Medicine as It Relates to the Interpretation and Management of Cervical Smears.”

What do we really mean when we speak or write of “the art of medicine”? Does the phrase allude to the Hippocratic origins of contemporary practice, to an ineluctable,

What do we mean by “the art of medicine”? 

Hunter Groninger, M.D.
unquantifiable clinical competency based on experience, or, as one citation above suggests, to deficits in the scientific methods we hold so dear? Language reflects the people who use it. The phrases we employ reflect something about how we view ourselves as caregivers. Several authors have attempted to formulate their own definitions of "the art of medicine" for their own purposes, but no one has explicitly defined the term for all.

**M**edicine . . . recognized early as a science

The concept of medicine as an “art” originated in the second half of the fifth century B.C., the same period during which medical practice began to break its ties to pagan theology and ritual. Philosophers established rigorous new rules for intellectual disciplines such as rhetoric and history, and also for trade skills such as shipbuilding or navigation. With a surprisingly extensive body of literature behind it, medicine too became one of the technai, a Greek term for “art” that also contained an idea of rigorous method in application, and the root of our word technology. Detractors responded that medicine should not be included among the technai, because some patients recover without medical intervention, while others die despite physicians’ best efforts. Medicine, they argued, does not truly exist, since its outcomes are based, not on skill, but solely on chance.

Among the writings attributed to Hippocrates is a treatise entitled De arte, a fierce defense of all the technai and an epistemological argument for medicine’s place among them. What makes medicine an art, he wrote, and what makes the technai intellectually valuable to man, is that the practice of these disciplines is not left to chance but is indeed governed by specific principles. De arte is, in fact, an early characterization of a kind of scientific method.

At that time, significant debate surrounded the role of ethics in the application of the technai. Scholars asked whether the practitioner of the technai should sustain a semblance of virtue in his practice in order to reach virtuosity in his art. (If a shipbuilder builds a strong and powerful ship, does it matter if his morals are suspect?) Pythagorean philosophers (among others of that era) generally agreed that physicians should aspire to practice medicine not only with technical prowess, but with moral guidance—hence, the origin of the Hippocratic Oath. Therefore, as a concept, “the art of medicine” evolved to contain both elements—technical skill and moral sensibility.

Of course, ideas about the nature of art and the nature of science evolved through time. Over two millennia later, William Osler promulgated the concept that art and science constitute distinct entities, and that good medical practice contains both of them. “The practice of medicine,” Osler wrote, “is an art, based on science.” This implies a notion that science, and therefore the scientific method, is a set of tools for clinical practice. Almost 40 years later, physician Francis Peabody echoed this idea: “[Medicine] is an art, based to an increasing extent on the medical sciences, but comprising much that still remains outside the realm of any science.”

For Osler and Peabody, aspects of clinical practice straying from the natural sciences, while reaching out to the individual patient, compose elements of the “art.” Osler wrote, “[F]rom the standpoint of medicine as an art for the prevention and cure of disease, the man who translates hieroglyphics of science into the plain language of healing is certainly the more useful.” This vague, humanistic notion of “art” seems remarkably different from the rigid concepts defined in ancient Greece (recall that the ethics of patient care proposed by the Hippocratic Oath are written as strict mandates).

**W**hat really is meant by “the art of medicine”?

A Medline keyword search for the phrase “art of medicine” results in 235 entries since 1965: 188 citations in English-language journals, the remaining 47 citations in journals from 11 different primary languages, including Norwegian (14 citations), German (11), Swedish (7), Spanish (5), French (2), Danish (2), Serbo-Croatian (2), and Italian, Japanese, Polish, and Russian (one each). While the process of abstract translation into English may account for occasional uses of the term “art of medicine,” it is more likely that this variety of linguistic cultures reflects a common concept implied by the phrase itself, regardless of language. For example, in one trilingual journal, “the art of medicine” translates neatly into German “kunst der medizin,” in a Spanish language journal, the author describes empathy as “la quintaesencia del arte de la medicina” (“the quintessence of the art of medicine”).

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*A variety of translations of the word techne (singular form of technai) can be found in contemporary Greek-English dictionaries, including “art,” “artistry,” “craft,” “liberal arts,” and “applied skill.” This paper employs the suggestion by Leon Kass that techne is “a term hard to translate, but perhaps best rendered as ‘art’ if one remembers that it meant primarily the useful arts and handicrafts and only latterly, if at all, the fine arts.”*
A search of the literature also shows increasingly frequent usage of the phrase. The number of citations since 1965 grows progressively by decade, from 18 citations between 1965 and 1974 to 118 since 1995. Without doubt, the association between a concept of “art” and the medical profession parallels recent trends in medical education, including a more central role of interdisciplinary and medical-humanities studies, as well as greater focus for the student on the patient-physician relationship and communication skills.

Most interesting, however, is the wealth of definitions implied by the phrase “art of medicine” and similar terms. Using the semantic technique favored by the creators of the Oxford English Dictionary—searching for a word's meaning within the context of its historical application—one finds a remarkable and often counterintuitive array of definitions within medical literature. Here are some common examples:

1. Emotional outreach: “[W]hile we wait for the science of medicine to help us solve the many mysteries of heart disease, we can use the art of medicine to help blunt the impact of illness.”

2. Increased communication between physician and patient: “The science of medicine involves clinical skills honed through reading textbooks and journals and experience in diagnosing and treating myriad diseases. The art of medicine involves the important communication skills necessary for a good doctor-patient relationship.”

3. Individualized medical care: “To the extent that physicians make an explicit effort to understand and appreciate the ‘life-world’ of patients, and even to modify medical recommendations in order to maximize the meaningfulness and goodness-of-fit of these recommendations, the ‘art’ of medicine also becomes an essential part of routine clinical practice.”

4. Traditional clinical methods: “Through systematic treatment combining the traditional art of medicine with modern technology, the physician should generally be able to care for the premier voice professional.”

Semantic (im)precision

All of these applications seem to drift far from the rigid Hippocratic concept of “art” or technai described above. One reason for this discrepancy is grammatical. In ancient Greece, scholars sought to establish medicine as one of “the arts.” “Medicine” is a descriptive term in these translations, and “the art of medicine” is placed alongside “the art of mathematics”—medicine and mathematics both being types of art. By contrast, contemporary users favor an inverse relationship; “art” is a component of medicine, a part of the whole discipline (by implication, so is “science”).

A second discrepancy appears to be a function of how we have come to define “art” in our own time. More than any other era, the last century equated “art” with imagination, improvisation, creativity, and even revolution. All of these themes, at least superficially, seem out of place or even dangerous when applied to a modern clinical practice. As did the ancient philosophers, we admire rigorous method, whether in the form of prospective randomized trials or in basic science research. Given this, it seems ironic that we continue to embrace and endorse a phrase that almost negates the precise application of knowledge in clinical practice. Indeed, a 1999 study indicates that one of the barriers to the use of evidence-based medicine in clinical practice was the “negative impact on traditional medical skills and the art of medicine.”

Compared with each other, the citations presented above appear inconsistent, even unrelated. Nevertheless, common themes present themselves in these examples and in similar contemporary papers. In particular, two stand apart. First, to practice “the art of medicine” is to promote individual patient care. Patients are physically and psychologically singular. Their life circumstances remain unique. Second, the art of medicine facilitates communication. This communication takes place between physician and patient. The communication is person-to-person, and its quality can be enhanced by reaching out emotionally to the patient.

At first glance, the variety of contexts in which medicine is juxtaposed with an idea of “art” suggests that we no longer really know what we mean by the term. The themes presented above aim to define our contemporary concept of the “art of medicine” by examining the way in which caregivers have applied it. There is a certain vagueness to the themes. In fact, we might say that one can never define “the art of medicine” with certainty—its meaning can only be approximated.

In the face of such semantic imprecision, the Hippocratic philosophy of medicine and contemporary professionalism have this in common: caregiving necessitates moral virtue in addition to (or even beyond the bounds of) technical dexterity. This moral aspect of clinical care includes the practice of compassion and empathy. It distinguishes medicine that attempts

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*Notably, in medical literature, authors generally limit these descriptions of communication to the physician-patient relationship; of course, communication facilitated by “the art of medicine” could also extend to physician-physician or physician-community relationships.
What do we mean by “the art of medicine”?

It is nevertheless possible that, in our time, to define “the art of medicine” in strict terms would undercut its very nature. Its application in clinical practice is neither constant nor consistent. It is no secret that, in medicine, as we move from one hospital bed to the next, we encounter remarkably different patients. Even among patients with clinical findings so similar they could be considered equivalent in any given clinical study, we discover vastly dissimilar personal situations. As caregivers, we quickly learn to adapt our approaches to each patient: how we listen, how we position ourselves in the room, how loudly we speak, whether we hold the patient’s hand or not. We understand that one will tolerate a drug, while the next patient, clinically indistinguishable, may not.

Somewhere in this realm of patient care exists an indefinable but very real part of what it means to practice medicine. This is the art of medicine, as we caregivers have defined it ourselves. The art consists neither of optimal physician-patient communication nor the appreciation of a patient’s true individuality. It is neither listening to patients nor empathizing with them. The art of medicine is comprised of all of these together, and much more.

Although its meaning may only be approximated, this elliptical term defines who we are and what we do as caregivers. We seem unable to part with the methodological link between medicine and art. We cannot speak of the art without shaping how we see ourselves in the long shadow of our discipline’s history. When we do, we may be surprised at how much (or how little) we have changed our art since the isle of Cos.

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The workup, or
Where is Champollion* when we need him?

Faith T. Fitzgerald, M.D.

The workup

CC: 47y/oWF BIBA 2° BRBPRx12Hr.
HPI: Pt c IDDM & ASCVD, in AF, had BRBPR 12Hr PTA, so BIBA to ER c LBP, tachy, No c/o N/V/D/C or abd. pain. No travel. On ADA diet. No PHx GIB, Hepa/B/C, ETOH, or PUD. No Dx IBD (UC or RE). Has CRF c Cr ~2.0-2.8. Not on HD.
PHx: Had UTI c E.coli - E.coli-2 mo. PTA, Rx Cipro. No cx. CABG 2yr PTA - LAD, RCA. ECHO WNL for EF 6 mo. PTA. No CP. G4P4: all FTVD s cx. No Phx, Fhx AVM, Ca. No ↑↓ WT.
Meds: NPH @ 24U qAM (HgbA1C ave 6-7) & dig 0.125 qd PO, ACEI, 1ASA 85mg QD.
SHx: CPA, BA Econ, now on SSI. 1 PPDx 2yr. 0 STD. 0 IVDA
FHx: NC
ROS: NC
P.E.: VS: BP 100/62 P 120, irreg irreg. δη, δη, & R12 T 97.6POx 98% RA.
HEENT: PERRLA, EOMI; anict.; OR, Tms WNL. AC > BC BILAT
HEAD:NCAT
SKIN: s spiders, ict., petec, ecchy.
NECK: NoJVD. Supple
PULM: CT A/P
COR: s M/R/G. A Fib.
ABD: 0 LKS, 0 TTP, BS 0 quad.
RECTAL: Brn stool HO 0 BRB. 0 hemorrhoids
PELVIC: Def.
EXTREM: s C/C/E
NEURO: Cr NII 1 - XII WNL, DTRs = symm. No PN. MS WNL.
LAB: Hct 28 FS 139 CHEM: 138/4.2/111/25/2.0/14, U/A WNL, LFTS: 3.8/22/25/1.0 INR 1.1. Dig. Level -  P
EKG: AF, 110, QRS, QT WNL. NSSTTW Δ.
IMP: Hemorrhoids
PLAN: Prep.H., Sitz baths, D/C home.

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* Jean François Champollion (1790–1832) is credited by many with solving the mystery of hieroglyphics by successfully reading the Rosetta Stone.
The workup, or Where is Champollion when we need him?

Chief complaint: A 47-year-old white woman was brought in by ambulance because of bright red blood per rectum over the past 12 hours.

History of present illness: This is a patient with insulin dependent diabetes mellitus and atherosclerotic cardiovascular disease, who has been in atrial fibrillation, and had bright red blood per rectum 12 hours prior to admission, so was brought in by ambulance to the emergency room with low blood pressure and tachycardia. She had no complaints of nausea, vomiting, diarrhea, constipation, or abdominal pain. No travel. She's on an American Diabetes Association diet. There was no past history of gastrointestinal bleeding, hepatitis A, B, or C, ethanol use, or peptic ulcer disease. No prior diagnosis of inflammatory bowel disease (ulcerative colitis or regional enteritis). She has chronic renal failure with creatinine 2.0–2.8mg/ml. She's not on hemodialysis.

Past history: She had urinary tract infection with fever and chills, caused by E. coli, 2 months prior to admission, treated with ciprofloxacin with no complications. She's had coronary bypass graft two years prior to admission, left anterior descending and right coronary arteries. Her echocardiogram was within normal limits for ejection fraction six months prior to admission. She's had no chest pain. She is gravida 4 para 4, all full term vaginal deliveries without complications. She has no past history or family history of arteriovenous malformations or cancers. There has been no increase or decrease in her weight.

Medications: She takes NPH insulin, 24 units each morning (glycosolated hemoglobin measurement averages 6-7), and digoxin 0.125 mg each morning, an angiotensin converting enzyme inhibitor, and one aspirin, 85 mg per day.

Social history: She is a certified public accountant with a baccalaureate of arts in economics, now on supplemental security income. She's smoked one pack per day of cigarettes for 12 years. She has had no sexually transmitted diseases. She does not have intravenous drug abuse.

Family history: Noncontributory.

Review of systems: Noncontributory.

Physical examination:
- Vital signs: Blood pressure 100/62, Pulse 120, irregularly irregular, no orthostatic changes, respirations 12, temperature 97.6, pulse oximetry 98% on room air.
- Head, eyes, ears, nose, throat: Pupils equal, round, reactive to light and accommodation, extraocular muscles intact. Sclerae anicteric; oropharynx and tympanic membranes within normal limits. Air conduction greater than bone conduction bilaterally.
- Neck: normocephalic, atraumatic.
- Skin: no spider angiomata, icterus, petechiae or ecchymoses.
- Abdomen: No palpable liver, kidneys or spleen; not tender to palpation. Bowel sounds present in 4 quadrants. Rectal: brown stool, Hemeoccult positive. No bright red blood. Hemorrhoids present.
- Pelvic: deferred.
- Extremities: no clubbing, cyanosis or edema.
- Laboratory: Hematocrit 28, fingerstick blood sugar 139mg/ml.
- Chemistries: Na 138, K 4.2, Cl 111, CO₂ 25, creatinine 2.0, blood urea nitrogen 14 mg/ml.
- Urine analysis was within normal limits.
- Liver function studies: albumin 3.8 Gm/ml, AST 22, APT 25 and bilirubin 1 mg%. INR was 1.1
- Digoxin level was pending
- Electrocardiogram: Atrial fibrillation at a rate of 110. QRS and QT intervals normal. Nonspecific ST-T wave changes.

Impression: Hemorrhoids.

Plan: Preparation H, Sitz baths, discharge home.
No propriety. The johnny-shirt tied loose as the slab underneath slides out and light hits unadjusted eyes. Thirty minutes is a long time to search for blight, nests of cerebellar locusts, the exact site of pestilence, and then to see vast, white emptiness outside. The machine sits and technicians, nametags attached, guide noninitiates—plebes who've seized, gone blind, or otherwise lost their sense—from the room. I'm exposed, in partial clothes, and barefoot identity's more than the loss of health but also less—the business of symptoms and diagnosis, but also shivers to keep warm and ask the question: what's next?

Shane Neilson, M.D.

Dr. Neilson is a resident in emergency medicine at Dalhousie University in Nova Scotia. His first book was published in November 2003 by Frog Hollow Press, Victoria, British Columbia. His address is: 429 Gardiner Street, Oromocto, New Brunswick, Canada E2V 1G3. E-mail: itchscratch@hotmail.com.
My father, the butcher, can find a steak beautiful:
The marbled fat, just right, the texture, sublime.

My friend's father, the grocer, found his produce beautiful:
Pears like golden droplets, melons rotund and ripe.

There is a love for what you sell, if you do it right:
To offer the finest, like a gift, knowing its worth.

The physician, too, offers beautiful wares:
Comfort and healing to an ailing soul.
They're lovely. Have some.

Bonnie Salomon, M.D.