Recently I talked to a fellow-radiologist from an Eastern European country. He told me that many of his colleagues share the opinion that radiology in the Western Europe, in the United States, and in Japan is a luxury discipline that is governed by money rather than end result for patients. As a high-tech branch of medicine radiology depends on marketing and fashion, with techniques changing for no reason based in medicine, he added. For example, where is the evidence that new techniques such as spiral CT add anything to the diagnostic or positive therapeutic outcome for a patient?

Radiology in the Western Europe, in the United States, and in Japan is a luxury discipline that is governed by money rather than end result for patients.

Radiology's place in the consumer-driven rat race is summed up in a pair of cynical quotations, attributed to two successful computer industry executives:

- "Don't worry about what anybody else is going to do ... The best way to predict the future is to invent it. Really smart people with reasonable funding can do just about anything that doesn't violate too many of Newton's Laws!" said Alan Kay in 1971. He is the former director of research for Apple Computers and inventor of “Smalltalk” which was the inspiration and technical basis for the Macintosh computer and subsequent window-based systems.

- “We don't sell people what they need. We sell them what they want,” commented Michael Dell, founder of Dell Computers.

Does this mean that industry should develop products people do not really need and then create an artificial demand for them so that people will want to buy them?

- Fashion in clothing, cars, furniture, ideology, sports, and in nearly everything else change from year to year.

Eating and drinking habits alter, too, as do diet fads. Some years ago, butter was thought to be bad for you and margarine was good, but nowadays consumers are told that some types of margarine will kill them and butter might help save them from certain death.

Similarly, medical practice depends on fashion as well. It was once common to remove appendices and tonsils whenever suspicion arose that symptoms could be caused by them. Surgeons and ENT physicians are a bit more selective today about using their scalpels.

Radiology is not exempt from this kind of irrational behavior. While a few years ago in some institutes xeroradiography was the non-plus-ultra in x-ray breast imaging, the method is hardly used now.

Examinations and therapies are not always based on scientific evidence.

You and I would like to think that we are immune from outside pressures and we cannot be influenced easily. We are intelligent, we know what we want, and we have all the background information necessary to make appropriate decisions.

But we also suspect that certain radiologists and administrators who are buying new equipment for a hospital department – or, for that matter, their own private practice – make decisions based on trends rather than trusting their own knowledge.

Consider the market for MR equipment. First it was low field, then it had to be high field; then the low/mid-field market exploded when patients demanded easy-access systems. Now the trend is toward ultrahigh machines.

Salespeople always find arguments. They are enthusiastic about their products, persuasive in their sales pitch, and they speak the language of the customer. They predict success with their products: happy
patients, happy relatives, happy doctors, happy administrators, happy local politicians.

And everybody wants to be part of a success story. In striving to meet the high expectations of radiological customers, salespeople understand they cannot sell an average product. They have been instructed to promise heaven on earth (or at least some fringe benefits) to clinch the deal.

**The Holy Grail?**

Radiologists been sold countless products and innovations during the last thirty years. Of course, many products were necessary and they benefited patients, but the quest for diagnostic heaven (the replacement of histopathological diagnosis) demands closer examination.

**Nuclear medicine.** When powerful new computers, at least for that time, and new radiopharmaceuticals became available in the 1970s, physicians looked forward to detecting and grading tumors all over the body. Despite optimism from companies and doctors, the promise of histopathological diagnosis through the eye of the gamma camera did not materialize.

**Computed tomography.** In 1979, Cormack and Hounsfield received the Nobel Prize for Medicine and Physiology for their discovery. No doubt, this was a big step forward in diagnostics. The promises – though not made by Cormack and Hounsfield – were the same as for nuclear medicine – the results were also the same.

**MR imaging, MR spectroscopy and functional MRI.** The big diagnostic leap forward. We were given (or gave ourselves) the same promises – only to suffer yet another disappointment.

**Advanced ultrasound equipment and contrast agents.** You will find these even in the smallest village. A number of recent publications on ultrasound read like a re-write of the nuclear medicine/CT/magnetic resonance articles of the last twenty years: identical promises and, most likely, identical disappointments.

**Molecular imaging.** Although these imaging approaches look very promising, let us wait ten more years before evaluating the outcome.

Unfortunately there is usually no proper evaluation of new techniques. When one has been introduced and sold to the enthusiastically waiting public, the next one steps out of the wings and is welcomed by flag waving and flower throwing like the newly-married queen arriving in town.

Many radiological products are doubtless better tested and more useful than goods in the supermarket or in the average consumer electronics shop. Most sales representatives of radiological products are likely to be better trained and perhaps even more honest than the average telephone salesman.

We should also remember that the companies are not the sole culprits in the radiological fashion industry. They are also subject to fashion dictates and in many cases they are simply following the radiologists’ own fads to keep their market share.

Radiology manufacturers do dictate fashions, though, by persuading customers to buy equipment for which there is no proven need. Such equipment usually disappears as soon as radiologists realize it offers no advantages. It is bought, however, at very high cost, and may not benefit patient management. In addition, often unnecessary but expensive gadgets are added to machines. As one radiologist with whom I discussed this topic put it: “Why can’t I get a Volks-Ultrasound which does what I want and need to do and nothing else? Why do I have to buy machines with all these add-ons which are so costly and not useful in routine?”

**Technological stability**

Technology assessment that distinguishes between necessary and optional features – nice to have but not needed for a reliable diagnosis – would be the best solution. Radiological technology is changing rapidly, though, and this may invalidate efficacy research done early during the evolution of a new technique. Some degree of stability is needed to encourage investment in such research. Sound and scientifically rigorous evaluation of new technologies is needed to ensure quality of care and cost-effective use of resources.

Radiologists, a highly individualistic group, on the one hand, and their commercial partners, on the other hand, are unlikely to agree unanimously and voluntarily on such an evaluation. Sooner or later they will be overpowered by dictates from politicians and
reimbursement agencies. While only solid health outcome data can effectively combat such dictates in the long run, many physician groups – radiologists as well as clinicians – have joined manufacturers in their resistance to written guidelines. Or guidelines have been written in their pure self-interest.

The last century has been a period of permanent, intensive development. One hundred years of radiology have brought an enormous benefit to mankind, but as radiologists we have to remain flexible and self-critical.

We are as fallible as anybody, in particular our fellow physicians, and we follow the market leaders and opinion makers because this is the easy way. Sometimes we even cave in to other physicians or patients who determine what and how we should deliver our diagnoses.

About the only certainty in radiology – and in all human affairs for that matter – is that it is never in a steady state. The pendulum of popular attitude is always swinging one way or the other, and a permanent state of change ensures that a final conclusion is never reached.

There is a fashionable market for certain examinations and therapies, and although some of these fashions are “scientifically based”, any book on the history of medicine shows that the truth of one age is the absurdity of the next. And the most painful absurdity is not to be prepared for change. This is a lesson easily learnt from history.

**Note after publication**

This column has been cited as a reference in United States Patent 7,195,053 B2: Pylkki, et al.: "Reduced Visibility Insect Screen." I wonder why. It doesn't deal with insect screens or protection against mosquitoes.

However, I am pleased. There should be more patents like that. I guess, there are.

From time to time one should read aloud the three last sentences of the column:

"The truth of one age is the absurdity of the next. And the most painful absurdity is not to be prepared for change. This is a lesson easily learnt from history."
It’s a cold, gray and rainy morning in a town somewhere in Central Europe. A vehicle speeds out from a huge complex of buildings into the main road. It seems to have priority over all other cars in the street at this early morning hour. The man sitting in the back looks pale. He has been informed about the purpose of his short journey in the afternoon of the previous day, but a clear explanation of the reason has not been given.

He thinks: Why are the local facilities not being used, why must I put up with the added burden and stress?

A few minutes later the car stops in front of a building in the outskirts of the city. Driver and passenger have arrived at their destination: a radiologist’s private practice.

What sounds like the beginning of a cheap crime novel is a sad reality in some parts of Europe and the United States. Patients are the victims of villainous physicians who use their positions in hospitals or other institutions to extract money from colleagues through elaborate kickback schemes and abusive referral arrangements.

I am told that some neurologists, neurosurgeons, psychiatrists, as well as cardiologists and orthopedic surgeons believe that because the practice of referring patients creates business for others, they should be allowed to participate and augment their own income. Their main targets are the medical service disciplines, radiology being one of them.

The story usually follows the same pattern. Patients are sent to private clinics or practices for their radiological examinations, although the hospital in which they work has a department of radiology. This happens because the hospital radiologist does not want to share his income with the referring physician. Thus, patients are referred elsewhere – and, in many instances, undergo more studies than are necessary.

If a hospital radiologist does not play the game of his colleagues, they start moving other figures on the chessboard. If, in a smaller or even bigger hospital, there is only a department of general radiology serving all clinical departments, they suddenly demand the creation of a department of neuroradiology or nuclear medicine, independent of general radiology, headed by a person of their confidence. This person, he or she, will pay a share of the income to them.

This is why some cardiologists prefer a separate department of nuclear medicine, why some neurologists, neurosurgeons, and psychiatrists push for a separate department of neuroradiology, or pediatricians for pediatric radiology.

"Political intrigue involves physicians, administrators, and local politicians."

Pressure can also be applied via research grants. Suddenly neurologists decide who gets imaging research grants – they are not awarded to radiologists or knowledgeable scientists, but rather to psychiatrists or neurosurgeons with little or no knowledge and background in imaging research. Often there is a spider web of political intrigues between physicians, administrators, and local politicians.

This Machiavellian behavior is outside social and medical norms, the norms that we are expected to adhere to by the people putting their trust in us. In many instances, this behavior is not only unethical and immoral, it is plain criminal.

Once involved in such a protection racket, there is hardly any way out. It is a vicious circle. Once you are inside, you have to conceal your movements, and you will get deeper and deeper involved. Additional crime is pre-programmed. It is like Mafia protection rackets selling “insurance” to restaurants or shops: it starts with simple blackmail, but you never know where it will end. If fraud and blackmail become public knowledge it will destroy your social standing and family. It is prone to become known, although in most cases there is a political cover-up to protect everybody compromised as well as hospitals, insurance companies, and medical organizations.
Blackmail and the creation of Mafia-like protection gangs are too much for radiology (and medicine as such) to tolerate. The people involved should lose their medical license and go to jail.

To be frank, radiologists are not necessarily the good boys in this game. You also can play it the other way around: you offer a share of the patient cake to referring colleagues. This is a well-known scheme between laboratory physicians and customers sending test samples, but also known in radiology.

Self-referral is one rung lower on the ladder of irregular income enhancement. After Belgium and before Switzerland, Germany had the second highest number of imaging examinations in Europe per inhabitant and year. The number is 30% higher than in France, nearly 100% higher than in Italy, and 150% higher than in the Netherlands and Sweden.

In Germany, nearly 80% of all radiological examinations are performed by non-radiologists. Surgeons, orthopedists, and internists perform most of the x-ray studies of the thorax and skeleton in their own private practices. It is apparent that self-referral leads to millions of unnecessary x-ray and ultrasound examinations each year.

Let me just give you a hint of the amount of money we are talking about: German health insurance companies reimburse approximately one billion Euro per year for ultrasound examinations. If we assume that only one quarter of these examinations was superfluous and we could use this amount of money, then we could buy a bottle of nice Spanish red wine each for the entire population of Europe. Put them next to each other, this would give a line from Madrid via Basel, Warsaw, Moscow, through Siberia, Tibet, Shanghai, crossing the Pacific Ocean, America, all the way back to Madrid (this is an explanation of the magnitude of the problem for politicians – correct me if I am wrong).

Self-referral is not one of the topics widely discussed in Europe because too many physicians are deeply involved in it and too much money is at stake. The same is the case in the USA. In a recent statement in front of the US parliament, a spokesman for the American College of Radiology said:

“The practice of physicians referring patients to health care facilities in which they have a financial interest is not in the best interest of patients. The practice of self-referral may also serve as an improper economic incentive for the provision of unnecessary treatment of services. Even the appearance of such conflicts or incentives can compromise professional integrity.” [1]

Radiologists in Germany, but also in Scandinavia, Britain, or France usually repudiate any suspicion of possible corruption, even mental corruption: This cannot happen here. However, it happens. Everybody complains about a loss of values. Yet many of us think and act according to the following sentence: why should I love my neighbor if I can love myself a little more?

Corruption has always been part of our world. If you have connections you will be served faster and better – at least you believe that you are served better. Personally, I have the feeling and experience that very often patients using connections to get priority diagnosis and treatment pay more and die faster.

Building up and exploiting connections is called lobbying. It is an addition to continental European politics, although it too has been part of our world. Lobbying is just corruption turned into a business.

Last year, the World Health Organization summarized the failings of many health systems. Among them were:

[In many countries, some if not most physicians work simultaneously for the public sector and in private practice. This means the public sector ends up subsidizing unofficial private practice.]

[Many governments fail to prevent a “black market” in health, where widespread corruption, bribery, “moonlighting” and other illegal practices flourish. The black markets, which themselves are caused by malfunctioning health systems, and low income of health workers, further undermine those systems.]

[Many health ministries fail to enforce regulations that they themselves have created or are supposed to implement in the public interest [2].]

Earning a lot of money is attractive. However, the way a medical doctor makes money should be limited to legal and moral forms of earning it. Laws and moral can be stretched a little bit – but not too much.
Note and Disclaimer. Some people like to twist and turn sentences. Therefore, for the record, the following remark: I do not state that all neurologists, neurosurgeons, cardiologists, and, for that matter, radiologists are corrupt or criminal. On the contrary; I hope that all of us are honest, law-abiding, and following the Hippocratic oath. The rest is, hopefully, fiction; and the stories people tell are hopefully fairy tales.

I am also in favor of independent departments of pediatric radiology, neuroradiology, and nuclear medicine if there is enough competence and a solid infrastructure.

I have nothing against physicians of disciplines other than radiology performing imaging examinations – in those cases where it is professionally done and where it is necessary. Some non-radiologists are better radiologists than some radiologists.

References

Although I am a democratic person, I like the simple hierarchies of the service industry, as practiced, for instance, in a good restaurant. A hierarchy is a structure of group members arranged in order of importance or according to the degree of their skills and responsibility. The crucial event for their development in what is called today the “hospitality industry” can be tracked back to the introduction and evolution of sophisticated cooking brought into France from Italy during the Renaissance period.

In the kitchen the *brigade de cuisine* – the kitchen team – consisting of highly trained experts, each with clearly defined duties, takes care of preparing the meals.

In the dining room proper, the *maître d’hôtel* supervises customer service, the *sommelier* proposes and serves the wine, your personal waiter looks after your table. You – the client – become the focus of their attention, usually combined with a friendly smile. They all are trained to spoil you. Similar hierarchies exist in good hotels and small airlines.

In hospitals, hierarchies are slightly different. Commonly, a head administrator is on the top, followed by the chief doctor, the head nurse, the porter, the rest of the doctors, the nursing and paraclinical staff, and the janitors. Yet, while this team originally focused their attention on patients, in many instances hospitals and the health system at large would rather do without patients. This, at least, is my personal experience with sick members of the family and friends in different European countries. Many people with whom I have talked over the past few years share this view. Patients are often considered a nuisance. Hospital staff would prefer to get on with their administration unhindered, without minding their original task.

Working as a medical doctor or a nurse means working in a serving profession. Radiology, as a medical discipline, means service.

Oh, I can see eyebrows raising. “How can you compare medical doctors with waiters?” Granted, there are fundamental differences such as length of training, difficulty of the tasks involved, and nature of responsibilities.

However, just like staff in restaurants, medical personnel have to focus on their clients, the patients whose interests are foremost.

"Let us be courteous and attentive to patients, keep them informed, and lend them some dignity."

Staff shortages are often used to counter any suggestion that there might be a problem. This is true. In some European countries it is the rule and a necessity for the survival of the patient that members of the family or hired private nurses tend to in-patients – not only in Ruritania, also in Autobahnia. A discussion of the reason lies beyond our radiological topic.

Radiology is a short-term service enterprise. Usually the customer arrives, undergoes an examination, and leaves within the hour.

Admittedly, the last sentence can be discussed and rephrased as follows, because of the scenario is different:

The patient looks for the x-ray department and after some searching and asking finds it in the basement at the other end of the hospital complex. He is welcomed by a grunting receptionist and told to sit down wherever there is a chair. The walls of the waiting room are painted in pissoir green and chairs and tables are marred and scored.

The patient waits without any further explanation for an hour. Then he is told that he should have taken a numbered ticket from a ticket distributor on the wall of the corridor.
Suddenly a nurse arrives and ushers the patient to a changing cubicle that is occupied by an elderly half-naked woman. “You shouldn’t be in here,” the nurse snarls at the lady – who responds: “I do not know what to do. I guess they have forgotten that I am here.”

Our patient is led to the neighboring cubicle but does not know whether to undress and which clothes to remove, waits with bare feet on the cold floor for twenty minutes, then is examined without any explanation. Returning to the changing cubicle, the patient does not know whether to dress or to wait. He finally dresses and leaves the cabin to ask the receptionist what happens next, and is sent home without getting any information about the outcome of the study. The whole procedure takes three and a half hours. In the meantime the car he has parked in front of the hospital has been towed away, the babysitter has gone home, and the unattended children emptied the beer bottles in the fridge.

Many patients are fearful and confused by procedures at hospitals and medical clinics. Anxiety is generated because a physician has ordered some “tests” – whatever that may be.

Never forget that most patients have only heard of x-rays, ultrasound and maybe the existence of ‘scanners’. They cannot distinguish CT from MRI or PET. In the “information society”, information on any topic might be available, but that does not mean that people really know about it – nor do they understand. Even our medical colleagues have only a basic understanding of modern medical imaging.

Most patients are intimidated when arriving at a hospital or private office. At hospitals it may be difficult to find their way. What used to be the Roentgen or x-ray department has turned into the diagnostic imaging department, divided into subsections dubbed with strange acronyms. Often the reception areas look like administrative offices of the tax department or the police. We are in charge. Who are you and what do you want?

If you put yourself or a member of your family in the position of the patient: Don’t you expect another kind of welcome?

Therefore, to reduce apprehension, hire a friendly and warm person as receptionist to greet patients. Staff should be properly dressed and wear tags with their name and job title so that patients know with whom they are dealing.

Take time for patients, explain the procedures – not only the medical procedures, but everything from the location of the waiting room to when the results will reach the referring physician or the patient. Worrying about an examination’s outcome is common and easily understandable, yet there are reasons why radiologists will not disclose results to the patient and sometimes won’t talk to the patient at all. However, patients need to know when the result will be available, and to whom it will be communicated.

The same simple courtesy you except in a restaurant should be available to patients in hospitals. When making an appointment, for instance, try to oblige the patient’s preferences. If there are waiting times and delays, inform the patient.

The waiting area should be spacious, friendly, and clean. It should separate inpatients and outpatients. Reading material should be new and not dirty from many sweaty fingers. If babies and children are examined in the department, their waiting area should be separate and contain – clean – toys they can play with.

Very often personal dignity is hurt in hospitals. Patients feel humiliated when they are naked or partly naked and do not know what is expected from them. Just a smile and a short explanation will help. Hospital gowns should not be flimsy, and gowns and blankets should be clean.

Many medical personnel, radiology professionals included, believe that state-of-the-art equipment is the most important facet of their job. Of course, it is great to possess the latest machines and gadgets, even if they are not built to accommodate patients comfortably and the patient bed is narrow, cold and hard.

Sometimes it is very difficult to climb on the patient couch, and even more difficult to get down after the examination. Many patients need help, even if they don’t look fragile and incapacitated. Thus, sometimes patients vote with their feet against certain radiological equipment, as it happened with high-field small-bore MR equipment in the United States. Patients preferred open machines because they are more comfortable and induce less claustrophobia. However, this is the exception rather than the rule.
Many people prefer a hamburger joints to restaurants. Eating fast food is more time-efficient and can be cheap. Although efficiency and time saving are also keywords in medicine, they are often misinterpreted as fast and impersonal handling, mass production, and loss of individuality. Yet, individuality, “personalized medicine”, is a principle element of the medical profession. It must not be lost.

A cynical argument in favor of the hamburger-joint approach to medicine is that clients will keep coming anyway, so why bother to change? Something is fundamentally wrong with the health system if you can apply this argument to radiology. In this case, health administrators need a course in ethics and radiologists need more competition.

Little advice exists about how to improve patient handling, despite plenty of studies about how to improve cost-efficiency, and sensitivity and specificity of diagnoses. Patients seem to have been kept out of the picture.

Recently I came across a publication by the Board of the Faculty of Clinical Radiologists of the British Royal College of Radiology. The title says it all: “Making your radiology services more patient-friendly” [1]. It is a small booklet to help departments of clinical radiology to succeed to put patients at their ease. This booklet can only be highly recommended for everybody in radiology. It is to the point, contains many useful hints, and has a very attractive layout.

The contents cover four main topics: the department, communication, before and during the diagnostic procedure, and after the procedure. Many of the suggestions sound easy and unsophisticated; however, why aren’t they implemented in all hospitals?

Reference

11. Board of the Faculty of Clinical Radiologists of the British Royal College of Radiology. Making your radiology services more patient-friendly. The Royal College of Radiologists; 38 Portland Place; London W1N 4JQ; United Kingdom. www.rcr.ac.uk
read this sentence slowly: "The journal Diagnostic Exposure reports that gentlemen are inferior to domestic animals in stage setting when feeling children with assumed ill will."

Read that sentence again. If you understand it, I congratulate you. It took me a while to fathom its meaning.

Please, hold your complaints to the editor that this column gets out of hand. It is not about molesting little boys. It is about the results of a radiological study published by Diagnostic Imaging translated from English into German by a computer-based translation program. I have attempted a retranslation into English, to approximate the impact of the uproarious gibberish on a German-only reader [see Footnote].

But pass on the laughter; the problem is serious. Of course, computers cannot handle the subtleties of a language. Yet there are those who insist that computer translations are an elegant way to help people understand foreign languages. Translating simple sentences or technical texts ought to be easy for a computer, they say. Surely a computer can translate the phrase: “The hospital is big and the patients are sick”. Perhaps so, but if you apply translation software to more complex matters such as a radiological report, the health of a patient can be seriously compromised.

Translation software, like that Google supplies for its search engines on the internet, accomplish what reading glasses do for the illiterate.

Translation software, like that Google supplies for its search engines on the internet, accomplish what reading glasses do for the illiterate.

For slightly more difficult sentences you need a translator, a person who is able to understand the medical and literal context and interprets it – or you learn the language yourself, because in instances the literal translation makes no sense in another language. This, however, a computer does not know.

From time immemorial, it was an advantage to be able to parley the language of the neighboring tribe or even a people living further away. As time went by, the lingua franca system developed. The language of a tribe or people travelling, trading, or simply “pacifying” other tribes or people would become the connecting language. In Europe this was Greek, later Latin for nearly two millennia.

Outside factors often changed the usage of a language. One example: When you walked through the streets of Berlin 300 years ago and didn’t know your way, the best language to address a stranger was French. One quarter of the population was French because religious tolerance in France was at its low during the reign of Louis XIV. More than 20,000 French Protestants had fled to Prussia which used to offer sanctuary to immigrants and refugees from numerous countries. The language at the Prussian court was French, and King Frederick William I wrote better French than German. 1

French remained the language of diplomacy and upper class conversation until the years between the World Wars. German became the language of science, replacing Latin, in the nineteenth century. Again the second World War brought this to an end.

Since the Germans had lost both wars, they did not complain about the loss of German as a leading lingua franca. The French did and still do. The late president of France, Georges Pompidou once stated: “We must not let the idea take hold that English is the only possible instrument for industrial, economic and scientific communication.” [1]

He was right, it could be Russian or German, or even returning to Latin; of course, he thought of French. The present French president is said to speak better Russian than English – but he speaks both languages. The Italian and Spanish prime ministers need interpreters even for English. Clearly, they are at a disadvantage. In general, the lower your social and profes-
sional status, the less likely you are to speak English. Status increases with the number of languages spoken.

Nearly one quarter of the population of the European Union speak German as their first language. English, French, and Italian as first languages are only spoken by some 16% each. However, 47% of EU citizens say they can speak English, 31% of them as a foreign language.

Today you have situations where radiologists from the French-speaking part of Belgium talk to their colleagues from the Dutch-speaking part in English. The same holds for Switzerland. German speakers talk in English to their counterparts from Geneva or Lausanne.

Some of the foes of English as the universal language stress that the ubiquity of English ensures Anglo-American superiority around the world, and it is difficult to refute this argument. Although British impact is limited, US-American economic and cultural influence is strong – after the U.S.A. won both World Wars. With the victory came the influence one encounters everywhere.

International and national radiological conferences are proud if speakers from the United States are present. Many members of the young European radiological elite would emigrate to the United States if it were possible. The leading German publisher of radiological books has a series dubbed “US Art”. Radiology, the main journal of the Radiological Society of North America still is the leading scientific journal in medical imaging.

The English spoken in Europe, however, is neither British nor US-American (whatever British English might be if you have ever tried to understand a taxi driver in London or Liverpool or a medical doctor from Yorkshire). It has little in common with the melodic singing of the Irish or Scots. Its more modern orthography owes its allegiance less to the Cambridge in England than to the Cambridge in Massachusetts. “Euro-Fizz” English is spoken with Continental accents and written à l’Americain.

On the whole, English has become a stateless language. The global number of non-native English speakers is about four times larger than that of its native speakers; today there may be as many non-native dialects of English as there are native dialects.

I am amused when I read job advertisements in the newspapers offering certain positions only to “native English speakers”. What is a native English speaker – a British, Irish, Australian, Indian, South African, US American, Canadian? It is better to look for “advanced written and verbal English language skills” as other advertisements demand.

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A non-native English speaker is often better for a non-native English-speaking audience.

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Often it is advantageous to have a non-native English speaker for a non-native English-speaking audience. I have been involved in arranging radiological teaching courses for more than two decades and now prefer to use non-native English speakers for such courses. Native English speakers with a strong dialect such as those from Texas and Yorkshire can be particularly difficult for an international audience. The participants don’t understand them, no matter how pedagogically and scientifically expert they are.

In Europe, English is likely to develop into a kind of Euro-American hybrid with an increasing part of the vocabulary being imported from Continental Europe. Sooner or later there might be a lobby “Keep our English clean” similar to the French lobby “Keep the Anglicisms out of our French”. Perhaps the same people could take over the new movement.

Many native English speakers watch the development proudly because their language leads the world. However, they might wake up one morning and not understand their own language any more.

This has happened to linguae francae before. The Latin spoken during the height of the Roman Empire remained the language of the better educated. But the dialects spoken throughout the Empire varied and developed into different major Romance languages: Italian with all its dialects, French and its dialects, Catalan, Spanish, Portuguese, you name them. Look at the English spoken in former British colonies: Pidgin English idioms are languages of their own.

A persistent problem for many native English speakers is that for them English is not only the first, but in many instances the only language they know. For all others, English is the second, third or fourth
language. They can switch languages and return to their mother tongue at will. English-only speakers are excluded from this flexibility.

Today, scientific success in disciplines like medicine, pharmacy, physics, chemistry, or psychology on an international level is impossible without a thorough knowledge of English. There is no advantage for the individual researcher, for patients, or for the entire scientific discipline if one insists on talking or publishing in a language other than English – except if the target audience is limited to people speaking another mother tongue. In this case it will be advantageous to use that language.

Languages are taught at school, mostly at the secondary, sometimes already at the primary school level in all European countries. On average, school children in Luxembourg learn 2.9 languages, in the Flemish part of Belgium 1.9 (1.4 in the French part). French children learn 1.7 languages in average, German 1.2, Italian and English 1.1.

These children might use computers to learn a foreign language, but hopefully they will avoid translation software programs. These software programs will remain ersatz. If you don’t understand English you better learn it. This holds not only for radiologists, but also for politicians and administrators.

Today most EU documents are translated into a dozen languages; a task that keeps several hundred, possibly thousands of translators busy and paid. I believe that not only radiologists should speak a second language, but it should be a requirement for politicians in Brussels too. It would save money and misunderstandings.

Footnote. Original text: The journal Diagnostic Imaging reports that MR studies are inferior to PET studies in staging after scanning children with malignancies. The translation program translated as follows: Imaging = Belichtung (exposure); MR = Herr (gentleman); PET = Haustier (domestic animal); staging = Inszenierung (stage setting in a theatre); scanning = abtasten (to feel, to touch); malignancy = Bösartigkeit (ill will).

Reference
