Language reflects thinking. The words we choose to express ourselves not only indicate how we think, but also determine how we think.

The manipulation of language has two important roles. The first is accuracy of communication. Do we say what we mean? Does the listener/reader understand what we intend? Does the language in our conversation and the resulting meaning correspond to some reality perceived by both speaker and listener, both writer and reader? The second role is manipulation of meaning—to lead the listener/reader to perceive something different than the apparent reality, for better or worse. The first goal of accurate communication is essential in science and medicine. Without lucid expression of clinical findings and research results, physicians and investigators wander in aimless confusion as they search for solutions to problems. The second goal—manipulation to alter perceptions—plays an important role in marketing and politics.

Language serves both of these functions in refractive surgery: 1) to achieve accuracy and clarity when communicating scientific and clinical ideas and observations; and 2) to persuade colleagues, patients, and the public to perceive our surgery in a positive way—a reflection of the fact that refractive surgery is elective and viewed by many as a commodity. Problems arise when these two functions of language become mixed up, so the feel-good, persuasive side finds its way into formal professional communication, science, and clinical care.

Refractive surgery is no stranger to neologisms, both scientific and manipulative. New objective, scientific words have entered our vocabulary such as keratomileusis, a classical medical term derived from the Greek words “kerato,” which means bone (this came to designate cornea because of the cornea’s translucent resemblance to a thin slice of bone), and “mileusis,” which means to shape. Related examples include laser in situ keratomileusis—a carefully descriptive and accurate term whose acronym LASIK has become a household medical term (no, it is not “laser-assisted in situ keratomileusis”—and photorefractive keratectomy (PRK), a term created to designate excimer laser refractive ablation of Bowman’s layer and anterior stroma after removing the epithelium. These terms stimulated vigorous discussion and disagreement in the early days of excimer laser vision correction surgery before they became generally accepted. Similarly, a bevy of new terms developed in the context of refractive keratotomy: radial keratotomy (RK), transverse keratotomy (TK), arcuate transverse keratotomy (Arc-T), hexagonal keratotomy (HK), and trapezoidal keratotomy.

And then there are jargon terms that creep in through sloppy common usage or intentional clinical or commercial marketing such as astigmatic keratotomy (AK). Is the keratotomy astigmatic? Why not “myopic keratotomy?” For retreatments, we have euphemisms of enhancement, touch-up, and upgrade, which have utility in communicating with patients and sound better than reoperation. Another phrase to consider is the “implantable contact lens” (ICL), which is a nice marketing term that helps patients understand the concept of a phakic intraocular lens (it’s like putting a miniature contact lens in your eye), but fails as an accurate clinical term and has appropriately been changed to implantable collamer lens.

Some jargon terms appear with the putative purpose of more accurately describing what’s going on, but they only obfuscate. We might consider these neo-neologisms. Advanced surface ablation (ASA) and sub-Bowman’s keratomileusis (SBK) are examples.

In my opinion, advanced surface ablation and sub-Bowman’s keratomileusis are jargon terms that do not communicate accurately in a scientific milieu and should be relegated to the persuasion sphere—if used at all. They are marketing terms. As such, they may
Editorial

have some use. Their goal is to say, “Look, we’ve got something new. There’s something better. This is an improvement over our old ways of doing things. So let’s use new words, not the old terms to describe this innovation.” The marketing rationale is reasonable. Scientifically, the terms are not.

Take sub-Bowman’s keratomileusis. All types of keratomileusis occur beneath Bowman’s layer. The new terminology, SBK, is intended to indicate that there is a thinner corneal flap than used previously—100 µm versus 140 µm, for example. For professional communication, why not simply say a “100-µm flap” or a “thin flap.” Or how about “juxta-Bowman’s”—really close to Bowman’s, right next to Bowman’s, even closer to Bowman’s than before. JBK anyone?

In its marketing capacity, the term SBK is generally associated with a femtosecond laser (usually the IntraLase [AMO/IntraLase Corp, Irvine, Calif]) with its claim to make accurately thin flaps with parallel surfaces. In fact, some have defined “SBK” as only being performed with a femtosecond laser. However, because 100-µm flaps with good precision and parallel surfaces can be made by a mechanical microkeratome (such as the SCHWIND Carriazo-Pendular [SCHWIND eye-tech-solutions, Kleinostheim, Germany]) and meniscus-shaped 100-µm flaps can be made with others (such as the Moria M2 [Moria, Antony, France]), predictable thin “sub-Bowman’s” flaps are not the province of femtosecond technology, as demonstrated by Alio and Piñero in this issue of the Journal.1

Let’s look at advanced surface ablation, a term commonly used to designate photorefractive keratectomy in which an epithelial “flap” is created and replaced, including laser epithelial keratomileusis (LASEK) and epi-LASIK in which the epithelial flap is created with a dull-bladed microkeratome. Compared to PRK, are these “advanced?” Well, they certainly are newer, but are they truly an advance? Those who use the techniques may think so; those who use alcohol or an epithelium keratome to separate the epithelium and then discard it, may not. In any case, let’s face it: ASA is essentially a marketing term.

In view of this obstreperous editorial, why has the Journal elected to report the Proceedings of the Sixth International Congress on Advanced Surface Ablation & SBK? Because that was the name of the conference and therefore the Proceedings are reported under the accurate name. Content-wise, Ronald R. Krueger, MD, MSE, Supplements and Special Sections Editor for the Journal, and his colleagues carry on an important tradition for the Journal—reporting proceedings of meetings, the contents of which might never be published through the peer-reviewed route. Such papers undergo editorial and informal peer review. The section in the Journal is clearly labeled “Proceedings,” and “S” pagination is used to indicate that this is supplemental, not formally peer-reviewed material.

All language—especially English—is flooded with neologisms continuously. In refractive surgery, let us use accurate scientific and clinical terminology for those purposes, while enjoying the manipulative marketing jargon that will inevitably arise.

REFERENCE