Say what?

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Imaging reports are, after all, descriptions of human beings, none of whom are exactly alike.

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The difference between the right word and the almost right word is the difference between lightning and lightning bug.[1]

–Mark Twain

When the history of the 21st century is written, let it be said of radiology reports that they improved in clarity, simplicity, and accuracy. To this end, the traditional style of dictating reports using your own words—I call this "free-style"—is slowly being supplanted by structured reports or templates using words from lexicons sanctioned by various academic and subspecialty groups. I have also tried to do my part by previously reporting on obfuscating blabber and BS in radiology reports.[2,3] Although it is uncertain whether I moved the needle much, I can hope that I moved some mouths into the upright and smiling position and perhaps even got a few to think about trying to get it right next time.

However, I continue to see pockets of resistance to structured reports, with a stalwart cadre of free-stylers continuing to perpetrate their craft to the consternation, and occasionally the delight, of their intended audience. The overall result is a continued creativity in imaging reports that can range from impenetrable riddles to rare, clear, and unambiguous beauty. Let me illustrate with the following examples.

"Mildly dilated visci noted in upper abdomen." A curious term, "visci" sounds like a real word you might not have heard before. This is for a very good reason—it isn't. Either this radiologist is trying to coin a new word—not generally a good idea in a radiology report—or perhaps he is a fallen Latin scholar, mistakenly believing "visci" to be the masculine second declension plural of "viscus." "Visci" could then be the sons of a viscus, the brothers of viscera (the correct plural of viscus), or male chiterlins. But this is a bit of a stretch, and I doubt the author got this far in his own analysis of the phraseology, if he thought about it at all.

Nonetheless, the term does have a certain ring to it, a visceral appeal of sorts, and sounding vaguely like something you might either step in or consume depending on which end of the alimentary tract you prefer. On that note, I think I'll have another visci, bartender.

"The echogenicity is slightly echogenic." The echo in this sentence qualifies it as a qualitative description of dubious quality; akin to "his prominence is slightly prominent,"or "his eminence is massively eminent."

"Bilateral alveolar opacities likely related to infiltrate." Initially this sounds almost OK for a flyover sentence buried deep in the body of the report, but on further consideration it quickly devolves into a beauty of circular and opaque illogic.

First of all, seeing "infiltrate" in a report these days usually pegs the radiologist as a geezer, probably having come of age, radiologically-speaking, pre-1985. In that era, radiologists routinely infiltrated their reports with "infiltrate" and might be forced to expound on its fuzzy meaning using additional fuzzy terms when pressed and unable to duck for cover. And, like many vague imaging terms, exactly what the "infiltrate" represents could best be explained by a radiologist adept at predicting the future when it has moved into the past; ie, after the diagnosis is known.

"Infiltrate" was often used to imply pneumonia, but—and this is key—it did not *have* to mean pneumonia. It could mean any nonspecific infiltration in the lung caused by just

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about anything you could imagine. Understandably, a slippery verbal pacifier with broad applicability like this rose to prominence in the radiologist's lexicon. However, by and by, the radiologic cognoscenti recognized that "infiltrate," so ambiguous and old-timey, was becoming something of a joke. It was therefore recommended that the word be replaced by "opacity," then hailed as less ambiguous. However, both address the same thorny reality: We need a word to indicate a nonspecific *something* in the lungs that attenuates the X-ray beam, resulting in something white and not right on imaging.

Now, back to the original sentence. If the referring physician bothered to look up "infiltrate," he would find it means "opacity with ill-defined edges."[4] Therefore, the original sentence can be rephrased as, "Bilateral alveolar opacities likely related to opacities with ill-defined edges." Hopefully, the diagnosis is known by now and the above-mentioned radiologist can be consulted for the correct interpretation.

"Dense liver suggestive of fatty infiltrative changes." Exactly how "dense" must a liver be before it is "suggestive of these "infiltrative changes"? Packing a sentence with these fuzz-bombs may say more about the density of the radiologist than that of the liver.

"Mild COPD is seen." Can COPD actually be "seen" without seeing the patient? Just asking.

"The stomach is full of gastric contents." Thanks for the clarification. At least it's not full of colonic contents, like some reports.

"Poor lung volumes." I have seen some lung volumes that are absolutely destitute, but seriously, poor? For lung volumes? Are they "rich" if fully inflated, "1 percenters" if hyperinflated? Other examples of this category: "poor inspiratory effort," "echo poor," and "lipid rich." The problem with subjectivity is that it's so subjective. "Rich" may be fine for cream or any medical specialty except radiology. "Poor" is probably best reserved for the financially unfortunate or as a derogatory qualifier, such as "poor" word selection.

"The bony mineralization is at the lower limit of normal." Just above the upper limit of abnormal. A fine eye for detail. You can't teach this.

"The right diaphragm is sharp." A real go-getter, no doubt. What about the wrong diaphragm? Or the dull diaphragm?

"MRI is offered for further evaluation." There must be a galaxy, or at least a solar system, of ways to water down a recommendation, and I thought I knew them all. "Offered" may work well for hawking products like toenail fungus preparations, but for MRI? With this author's contribution, "offered" can now be added to the lengthy list of limp recommendations, including old standbys such as "suggested," "might be helpful," "may be obtained," "could provide clarification," "might be considered," and "is considered." Just in case there is any confusion about what you are not really recommending, you can end with "if clinically indicated (or warranted)."

If the follow-up study doesn't help or isn't performed, you believe the referring clinician and you (OK, mainly you) are protected—after all, you didn't actually recommend anything, you just "offered" or "suggested" that it "might be considered," and then only "if clinically warranted." Perhaps someday radiologists will come up with recommendations on recommendations. Until then, my recommendation would be actually to "recommend" a follow-up study---only if clinically warranted, of course.

"Could be tumor, could be TB." From an elder academic "bonehead" or "boner" (archaic terms; the currently preferred title is "MSK imager"). Could be applied successfully to almost any bone lesion, but still "flustrating," as one colleague says on encountering various and sundry inscrutable phenomena. Seeing this example made me wonder if this old bonehead had finally lost it. Sad, but understandable, considering the number of difficult bone cases he had been consulted on during his long career.

However, on further reflection—especially after struggling over a number of bone lesions myself and usually falling back on a marginally **useful** all-encompassing differential list pounded into my head in residency and resurrected thereafter by the acronym "FEGNOMASHIC," I realized that maybe this seasoned veteran had recognized an important truth in imaging: Sometimes you just can't tell.

These examples demonstrate there are still radiologists who eschew standardized or structured reporting and instead follow their own muse, preferring a free-style format. Practitioners of this art may imagine their prose to be like a beautiful bird or butterfly in flight. Alas in most cases, "free-ranging chicken" might be a better analogy. Considering that radiology reports are generated by humans of varying levels of competence, verbal skills and conscientiousness, the results can range from crystal-clear to ambiguous, sad, dangerous and laughable.

But whether you report in a structured or a free-style format, there will always be a need for communicating unique findings and uncertainties that requires a certain level of creativity, nuance, and extra time and effort. Imaging reports are, after all, descriptions of human beings, none of whom are exactly alike.

The difficult part, the part where we earn our living and our worth as physicians, is in taking the time and effort to communicate our findings in a meaningful way.

REFERENCES

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