Teaching Naked: Linguistics without Technology

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Abstract

This essay examines how technology has altered the teaching of linguistics courses. It reviews academic literature on the use of technology and its impact on university courses. While not condemning technology, nonetheless, the essay argues that non-technological examples must remain central in classrooms and offers four examples of anecdotes that can be used in a linguistics course. Based on a literature review and data from Google N-grams, the essay contends that anecdotes can be more memorable for students in university courses than technologically-enhanced activities.

Introduction

Higher education is in a conundrum because of technology (Gaurdreau, Miranda, & Gareau, 2013; McCleary, 2009; Rosen, Carrier, & Cheever 2013; Young, 2006). Smart boards and Youtube have made teaching easier in some respects. Nonetheless, there is a downside to technology. The problem is that undergraduates are more "plugged in" than ever and technology can be distracting in class (Aagaard, 2015; Risko, Buchanan, Medimorec, & Kingstone, 2013). Equally confounding is that undergraduates expect instructors to be plugged in as well. They contend, "Why should we listen to a lecture when we can experience instruction in a multimedia environment?" In the field of linguistics, for example, students may expect the following (and not without some justification):

- Historical language changes should be examined through sound files instead of discussed.
- Dialect boundaries should be demonstrated through an interactive map instead of lectured on.

What should, then, be the balance between technology and lecturing today? This essay addresses this question. The premise for this essay on pedagogical technology and lecturing borrows from Bowen's book *Teaching Naked: How Moving Technology Out Of Your Classroom Will Improve Student Learning* (2012). Bowen discusses turning off technology in a university classroom and simply teaching. He refers to this as "teaching naked." This is an apt metaphor for how college instructors are beginning to feel: naked. If instructors do not rely heavily on technology, then there is anxiety that student attention may wane. However, this essay contends that instructors

should be wary of relying too much on technology in a classroom. It examines current literature, reports on classroom experiences, and uses data from Google N-grams to demonstrate how lecturing with anecdotes is important and how technology can reinforce concepts explained primarily through anecdotes.

There are two themes in this essay. The first is lecturing in the classroom. Petrovic and Pale (2015) note that lecturing can be advantageous because "…of the physical presence of an experienced…expert, who can engage his/her audience…" (p. 144). Yet, Petrovic and Pale go on to cite their own data which notes that students see "…lectures not as particularly useful for learning but just knowing what needs to be learned" (p. 149) for tests. The second theme relates to the first: the role of the instructor in increasingly technologically-enhanced environments. Bayne (2015) urges caution at the use of automated teaching and problematizes instructor roles in an increasingly "efficient" educational system. Bayne notes that one attitude toward educational technology can be that it is viewed as "threat" (p. 457). Viewing technology as a "threat" may be overstating the dilemma; however, Bayne is correct in that the "human touch" (p. 457) must remain central, in particular because of its effect on memory. The examples below come from teaching linguistics, but the premise is the same for all disciplines: memory is impacted by memorable anecdotes.

Technology offers wonderful tools to the university educator, and these should not be faulted. But how can material be made memorable for undergraduates? Can linguistics courses be just as enlightening, engaging, and interactive as they were before data projectors were ubiquitous? Petrovic and Pale (2015) note that students find live lectures in a classroom problematic for a variety of reason, so instructors have started relying on technology to regain student attention and increase material recall. But is technology necessarily superior to other teaching techniques? Bayne (2015) urges educators to contemplate this question, "How can we continue to value *teaching* within an algorithmic culture defined by the new potentials of computation and digital data?" (p. 465).

A line of pedagogical inquiry postulates that if professors are worried about losing students' attention due to technology, then classroom lectures should be competitive with the siren call of "checking in" on social media (Aagaard, 2015; Bowen, 20012; McCleary, 2009). But this necessitates excellent lectures, some that use technology and some that do not. It is important to note that anecdotes have more staying power in the neocortex, thus they are more likely to be recalled after being processed by the hippocampus (Foer, 2011) than images on a screen. And if anecdotes are extremely striking, they will compete with the "…seductive pull towards off-task websites" on student cell phones and laptops (Aagaard, 2015, p. 93). It is true that "(paying) attention represents an important part of effective learning…and without paying attention, information quickly fades and rarely has a lasting impact" (Risko et al., 2013, p. 275). However, research on college teaching demonstrates that the tried-and-true methods of memorable stories, humorous anecdotes, and interpersonal activities (Bowen, 2012; Lei, Cohen, & Russler, 2010; Taneja, Fiore, & Fischer, 2014) have a resiliency that is at least equal, if not superior, to that of the increasing variety of technological tools. Many researchers (Berk, 2009; Fleck, Beckman, Sterns, & Hussey, 2014; Jackman & Roberts, 2014; Roodt & Peier, 2013; Sherer & Shea, 2011) demonstrate that Youtube video clips can help motivate students with emotional background

music. But surprisingly absent is any mention by these researchers on how videos aid memory in comparison to anecdotes in lectures.

Technology has an engaging and even emotional appeal, and videos do motivate students and spur discussions, which aid in the formation of lasting memories of material. However, sometimes the screen must go off and then we must "teach naked" as Bowen (2012) declares. Bowen argues that universities find themselves in a very precarious position due to technology. Not only do instructors "compete" with off-task surfing by students, they also compete with online lecturers who have polished lectures on the very topic at hand. The lecture may be from renowned experts or they may be from a lesser-known academic but one who has a polished online lecture. What, then, is the professor's role in a F2F classroom? Indeed, how do instructors remain relevant in front of students in a classroom? Arthur C. Clarke maintains, "Any teacher that can be replaced by a machine should be" (1980, p. 96). Macleod, Sinclair, Haywood, and Woodgate (2016) note that even in MOOCs, students are desirous of a "lead" professor to have a "connection," which lends credence to the importance of an instructor with a good story.

Memory, odd images, and linguistics
Memory has always fascinated educators and technology seems to be complicating issues of memory and education. Despite most professors being "digital second-language learners" and having a classroom full of students who are "digital native speakers" (Berk, 2009), technology helps memory (Fleck et al., 2014), but anecdotes should remain central because there is a danger of relying heavily on technology: educators become obsolete. An educator's role is not only educational facilitator (cueing Youtube lectures and showing PPT slides) but an instructor. Educators have some "pedagogic agency" (Bayne, 2015, p. 458).

Foer's book *Moonwalking with Einstein: The Art and Science of Remembering Everything* (2011) has a simple premise: the human brain's recall power is heightened when we employ our spatial/image ability. Foer discusses Simonides (a Greek orator) who used a technique known as the memory palace in which he placed "odd" images in a familiar place in his mind's eye as memory clues to help him recall the next topic. Could this work in a linguistics classroom? Putnam (2015) has an extensive literature review and he believes stories are not simply memory aids but understanding devices. Anders Ericsson, a noted expert in the field of memory, contends that mnemonic devices, such as anecdotes, that use spatial imagery do aid in long-term memory. His research notes that university students can be trained to use such techniques to memorize an extraordinary number of random digits (Ericsson, 2013). Other researchers note limitations to mnemonic devices, but there is consensus as to their effectiveness (Wang & Thomas, 2000). Four anecdotes from a linguistics course are discussed below to demonstrate that teaching examples with no connection to technology can have remarkable resiliency in long-term memory due to odd imagery, which Foer (2011) and Putman (2015) acknowledge as the very reason for their staying power.

Four strange examples
1) Shavers vs. Razors
In linguistics courses, the first topic covered is *morphology* (word formation). The notion of *affixes*, specifically the agentive suffix *–er,* can be demonstrated with a simple story. Students intuitively realize that the *-er* affix means one who does something: *painter*, *teacher*, *player*. To

minimize technology for a short time and to increase memory recall, I often tell the following personal story. I explain that one day I was helping my two-year old get her bath. At one point, my daughter looked over and asked why Mommy had bought the blue razors instead of the usual pink razors. Not knowing what to say, I replied, "Because blue ones last longer." My two-year old then replied that she understood and proceeded to ask: "So, when Mommy is *razing*, blue razors last longer, right?" And a linguistic feature has been laid out for undergraduates to ponder and discuss: affixes have meaning and children instinctively know this and often *misapply* them as happened in this case. *Razor* sounds like it contains the agentive affix *-er*, but it just happens to sound like the *-er* in *painter* when in fact *razor* lacks any morphological divisions.

The students now grasp that toddlers pick out this useful affix, and toddlers can over apply it as they acquire English. The story makes the example, and more importantly the concept, memorable. Notably, the data projector has been left off, and students can remember this example due to its odd imagery. They have to work at solving this linguistic problem based on a story of a child's emerging understanding of English morphology.

2) My boyfriend/girlfriend "disrespected" me

Another example of employing anecdotes without technology in the classroom involves the case of *disrespect* as an emerging verb. Students can be asked if the following phrase is acceptable: *My boyfriend disrespected me*. Native English speakers under thirty years of age have no qualms about *disrespect* functioning as a verb. However, speakers over fifty years of age will rarely use this construction. To put it in the context of a romantic relationship makes the example more memorable and illustrative of the concept of how words change their syntactic category over time. The story illustrates the older generation's discomfort with linguistic change and the younger generation's embrace of such change.

An instructor can use technology to reinforce the notion of the changing status of this word. Google N-grams (Michel 2011) is a digitized database of 200 years of books (1800 – 2000). This database is searchable by words and phrases. Figure 1 demonstrates how *disrespected* as a verb has spiked sharply in recent years. The x-axis is the year. The y-axis is the percentage of the word *disrespect* within the number of total words (n= 450 million) in the database.

Figure 1 Google Ngrams search for *disrespected*

3) Is 'commode' still a word?

Inevitably in a linguistics course, the issue of how some words get retired from popular use arises. Pinker (2003) writes about the "euphemism treadmill." Examples include *crippled*, which was once a euphemism but has obviously fallen into the realm of offensive words. This is a good example and students can understand this aspect of lexical retirement. Students can be asked to discuss the word *commode* and if they use this word. Most students will reply that *commode* is "old fashioned" and that *toilet* is more accepted. And this odd anecdotal example is used to illustrate that euphemisms are replaced as old ones are retired. This can be confirmed by using another figure from Google N-grams (Michel 2011).

Figure 2 Google Ngrams search for *toilet* vs. *commode*
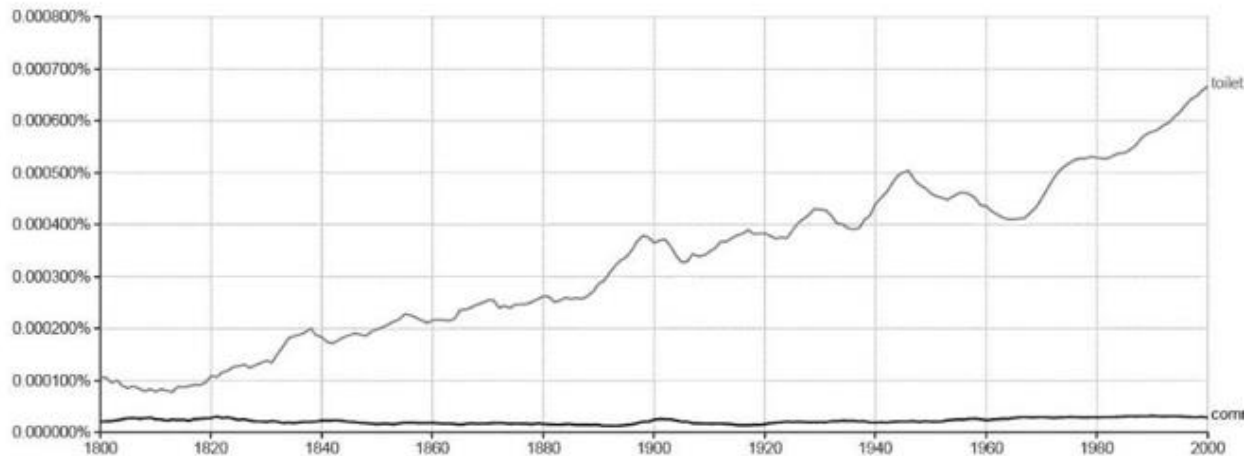
4) Genie

Up to this point, the anecdotes have been personal, awkward, or humorous, but all illustrate important linguistic principles. But there is a much more somber case: Genie. Many of the undergraduate students in a linguistics course will have heard of Genie's case, a girl shut off from language and the world during her childhood due to abusive parents. Susan Curtis's *Genie: A Psycholinguistic Study of a Modern-Day "Wild Child": Perspectives in Neurolinguistics and Psycholinguistics* (1977) makes for compelling reading. It is the most gripping example in all of linguistics. What makes it memorable is that we can imagine the horror, or better said, we realize that we cannot imagine the horror of her upbringing. It is the "forbidden experiment" of complete isolation from birth and offers an opportunity to discuss issues in linguistics. But more to the point of this essay, this case allows for a discussion of the critical period for language acquisition. While there are lots of videos and documentaries to show related to Genie, a discussion is the best way to proceed.

Conclusion

Loosen (2014) notes linguistics should be taught as part of all language arts programs. She contends that if we leave linguistics as some sort of esoteric topic, then we deprive students of an opportunity to analyze English in a meaningful way. It is my contention that if we rely too much on electronic examples, then we run the risk of doing the same thing by implicitly showing how linguistics is fun and entertaining but ultimately irrelevant. Memorable anecdotes used for discussion can remedy this and make linguistics relevant and unforgettable.

But even more to the point for teaching linguistics (and other disciplines), technology has rendered our examples pale in comparison to increasingly impressive technology. But anecdotes are memorable. Ted Talks are enormously popular and the format is simple. For the most part, the speakers simply speak using unforgettable examples that are illustrative of their point. Classrooms should not forgo personal anecdotes and become simply "flat classrooms" (Bowen 2012). They must remain cooperative spaces with students and we must teach naked from time to time in order for an academic discipline to be interactive, relevant, and memorable.

References

Aagaard, J. (2014). Drawn to distraction: A qualitative study of off-task use of educational technology. *Computer & Technology*, 87, 90-97. doi: 10.1016/j.compedu.2015.03.010.

Bayne, S. (2015). Teacherbot: Interventions in automated teaching. *Teaching in Higher Education*, 20(4), 455-467. doi: 10.1080/13562517.2015.1020783

Berk, R. (2009). Multimedia teaching with video clips: TV, movies, Youtube and MTVU in the college classroom. *International Journal of Technology in Teaching and Learning*, 5(1), 1-21.

Bowen, J. (2012). *Teaching naked: How moving technology out of your classroom will improve student learning*. San Francisco: John Wiley & Sons.

Clarke, A. C. (1980, June). Electronic tutors. *Omni Magazine*.

Curtiss, S. (1977). *Genie: A psycholinguistic study of a modern-day "wild child": Perspectives in neurolinguistics and psycholinguistics*, Boston: Academic Press.

Ericsson, A. (2003). Exceptional memorizers: Made, not born. *Trends in Cognitive Sciences*, 7(6): 233-235. doi: 10.1016/s1364-6613(03)00103-7.

Fleck, B., Beckman, L., Sterns, J., & Hussey, H. (2014). Youtube in the classroom: Helpful tips and student perceptions. *The Journal of Effective Teaching*, 14(4): 21-37.

Foer, J. (2011). *Moonwalking with Einstein: The art and science of remembering everything*. New York: Penguin Books.

Gaurdreau, P., Miranda, D., & Gareau, A. (2013). Canadian university students in wireless classroom: What do they do on their laptops and does it really matter? *Computers & Education*, 70, 245-255. doi: 10.1016/j.compedu.2013.08.019.

Jackman, M., & Roberts, P. (2014). Students' perceptions on Youtube video usage as an e-resource in the university classroom. *Journal of Educational Technology Systems*, 42(3), 273-296. doi: http://dx.doi.org/10.2190/ET.42.3.f.

Lei, S., Chohen, J., & Russler, K. (2010). Humor on learning in the college classroom: Evaluating benefits and drawbacks from instructors' perspectives. *Journal of Instructional Psychology*, 37(4), 326-33.

Loosen, S. (2014). High school linguistics: A secondary school elective course. *Language*, 90(4), e258-e273.

Macleod, H., Sinclair, C., Haywood, J., & Woodgate, A. (2016). Massive open o courses: Designing for the unknown learning. *Teaching in Higher Education*, 21(1), 13-24.

McCleary, J. (2009). The laptop-free zone. *Valparaiso University Law Review,* 43, 1-89.

Michel, J., Shen, Y., Aiden, A., Veres, A., & Gray, M. (Google Books Team; Pickett, J., Hoiberg, D., Clancy, D.; Norvig, P., Orwant, J.; Pinker, S.; Nowak, M., Aiden, E.). (2011, January 14). Quantitative analysis of culture using millions of digitized books. *Science,* 331(6014), 176-182.

Petrovic, J., & Pale, P. (2015). Students' perception of live lectures' inherent disadvantages. *Teaching in Higher Education*, 20(2), 143-157. doi: 10.1080/13562517.2014.962505.

Pinker, S. (2003). *The blank slate: The modern denial of human nature*. New York: Penguin Books.

Putnam, A. (2015). Mnemonics in education: Current research and applications. *Translational Issue in Psychological Science*, 1(2), 130-139. doi: 10.1037/tps0000023.

Risko, E., Buchanan, D., Medimorec, S., & Kingstone, A. (2013). Everyday attention: Mind wandering and computer use during lectures. *Computers & Education*, 68, 275-283. doi: 10.1016/j.compedu.2013.05.001.

Roodt, S., & Peier, D. (2013). Using Youtube© in the classroom for the net generation of students. *Issues in Informing Science and Information Technology*, 10, 473-488.

Rosen, L., Carrier, M., & Cheever, N. (2013). Facebooking and texting made me do it: Media-induced task switching while studying. *Computers in Human Behavior*, 29, 948-958. doi: 10.1016/j.chb.2012.12.001.

Sherer, P., & Shea, T. (2011). Using online video to support student learning and engagement. *College Teaching*, 59, 56-59. doi: 10.1080/87567555.2010.511313.

Taneja, A., Fiore, V., & Fischer, B. (2014). Cyber-slacking in the classroom: Potential for digital distraction in the new age. *Computer & Education*, 82, 141-151. doi: 10.1016/j.compedu.2014.11.009.

Wang, A., & Thomas, M. (2000). Looking for long-term effect on serial recall: The legacy of Simonides. *The American Journal of Psychology*, 113 (3), 331-340. doi: 10.2307/1423362.

Young, J. (2006). The fight for classroom attention: Professor vs. laptop. *Chronicle of Higher Education*, 52, A27-A29.