

EMPTY BUSES: THOUGHTS ON TEACHING ECONOMICS

Randy Bartlett
Smith College

There purportedly was a recent exchange of letters in the *Times* of London. It seems that having queued patiently at bus stops, as only the British do, waiting passengers were angered when half empty buses regularly passed them by. A number of letters appeared in the *Times* complaining of this practice. A few days later an official of the transit authority wrote a response expressing dismay at the selfishness and small thinking of the complainers. "How do you expect us to keep the buses running on time if they keep stopping to pick up passengers?" he asked.

I have become persuaded over the years that effective teaching is a lot like running an effective bus company — to succeed you have to remember that the purpose is to pick up passengers along the way. There are, of course, all kinds of pedagogical tricks one can learn — put an outline of the class on the board before you begin, prepare handouts of important material, provide effective feedback on written assignments. Those can be helpful, but they will be to no avail if the fundamental purpose of picking up the students is forgotten. That is true, of course, not only in the teaching of economics but in teaching anything.

That sounds so obvious, hardly worth mentioning in fact, yet we all can recall the satisfaction and pride we have on occasion felt when we have really been on a roll. "You wouldn't believe how much material I covered in those last two lectures!" we say with pride, forgetting that the purpose of a course is not for the instructor to "get through" the material, but for the students to do so. Effective teaching comes from stopping for the passengers, bringing them on board, and getting them to their destination. Focus on getting the passengers, not the buses, to the end of the line. The question for an effective teacher to address, of course, is how.

THE OBSTACLE TO EFFECTIVE TEACHING

The single greatest impediment to good teaching of economics, of course, is that we only qualify to do it by attending economics graduate school. That was the most intellectually stifling experience of my life and a model of how not to teach. There I was "trained" to be an economist. I don't think it purely coincidental that "to train" is also the verb used to describe teaching pigeons to peck at a particular shape in order to get a reward.

In graduate school we were already committed to the journey and the destination. We were learning how to gain the approval of those already there. We needed only to be taught what to say and when, how to find and push the right levers, and

how to speak the language of the already chosen. There was no need to be inspired, motivated, or converted, only a need to be trained. Too often we try to *train* undergraduates in the same fashion when in fact what we need to do is *educate* them. There is a difference.

After a contentious search to fill an opening in my department, one of my wiser colleagues noted that the trouble was that we kept trying to hire ourselves. We wanted people with our same talents and interests. As teachers we often have the same problem. We want to teach us. We take the most delight in training teen-aged versions of our middle-aged selves so that they can go on to graduate school for more advanced training. But most of our students are not us, and effective teaching means reaching them as well. They do need to be motivated, inspired and converted as well as simply informed. The question still is how.

THE KEYS TO SUCCESS

The simple answer is by remembering to stand back on occasion from *our* primary professional concern with, and allegiance to, the material — the bus — and adopt the perspective of those still at the stop not yet on board. Most of them will enter only if the teacher is willing to do three things. First, the teacher must open the door for them and invite them in. Few will force their way. Second, he or she must make the destination clear and see that the students are all going in the same direction. Few will join the excursion on faith. Finally, once on board the teacher needs to remember that they are not just along for the ride. They are the reason for the journey. They need to be reminded of the reasons they should stay or they will get off at the first opportunity.

OPENING THEIR DOOR

I have never met Stephen Jay Gould, the Harvard paleontologist and essayist. I have never been to one of his classes. In print, however, he seems the ideal teacher. He makes me see things in a different light. He tries to make *me* understand rather than impress me with *his* understanding. There is a real difference.

One of his essays illustrates how we as teachers often unconsciously disinvite our students on board. In writing a description of *Hyracotherium* (the earliest fossil ancestor of the modern horse) he found himself resorting to a simile, comparing it to a modern fox terrier [Gould, 1991]. Having written that, he realized that he did not really know what a fox terrier looked like and supposed that neither would his readers. Why then had he chosen that standard?

He asked a research assistant to look up references to *Hyracotherium* in other secondary texts. In the nineteenth century the “dawn horse” was often compared to a fox, but beginning in 1904 Henry Fairfield Osburn shifted the simile to a fox terrier and texts ever since have followed suit. Gould’s insight is that this tells us much more about the process of teaching than it does about the process of evolution. Authors of new textbooks do not write fresh descriptions of the world but instead

rescriptions of their old text books. That is the easiest and perhaps safest way to write. Publishers and professors are then comfortably familiar with the upstart edition.

It is probably also easiest to teach just the way we have learned, but that has costs. First and foremost, if our most recent experience with economics education was in graduate school, we think a normal class should involve copying the mathematics of an article from “given” through “therefore”. To do so makes us proud, and makes them political science majors. Secondly, we can fail to make sense. At a time when fox terriers enjoyed great popularity as a breed, the copied image could enlighten readers who easily understood the gauge. For modern readers who have little idea indeed what that yardstick is, reliance on the standard simile keeps the bus rolling along the same old route but it does not speak to new passengers and invite them on board. Longtime passengers of course share your language. For new ones it is a foreign tongue.

Do we always know why we teach what we do? Do we sometimes reference our own fox terriers for the sake of tradition alone? I can think of examples where I have. I have been a professional economist for nearly a quarter of a century. Not once in that time have I had occasion to solve for the tangency between a budget constraint and an indifference curve. Not once has anyone come to me with equations representing supply and demand and asked me to calculate the equilibrium price. Our textbooks and workbooks so emphasize those rather mundane skills that we sometimes convey the message that the mechanics is the economics. It is easy for us to demonstrate those skills and certainly easy to grade them. Indeed we ask students to do those exercises so often that they must believe that solving for equilibrium price is what economists do all day. Not only is that pretty boring, but overemphasizing it obscures fundamental concepts in economics. The whole point is that we do not ever have to calculate equilibrium prices precisely because we have markets to do that for us!

Similarly, I have worried about the details of national income accounting only twice in my life. First when I had to learn them in introductory macroeconomics and later when I made my students do the same, but I am not really sure why. I know every textbook has a chapter that moves from gross national product to disposable income. We would be suspicious of one that did not. It was part of our training; it must be part of theirs. We teach it because we know it.

The point here is not that some topics need to be examined for excess difficulty, i.e., that we should “dumb down” our courses to make them easier. Difficulty should never be avoided for its own sake, but we need to examine what we teach to make sure that it has not become literally “senseless”, i.e., it conveys no more real substance than a reference to fox terriers. What is truly valuable for our students to know? How can we make them see the importance?

Sometimes that means knowing what to drop. It also means knowing when to remodel or repair the bus itself or to reroute the excursion. Teaching and scholarship are not substitutes, except in the simple sense that both are voracious consumers of limited time. An effective driver and guide needs to keep current in the field

and not simply follow the routes that worked in the past. It is unlikely that a teacher can continue to be inspiring if he or she does not understand the scholarly process of searching for answers to complex questions as an active participant. That does not mean we all need Nobel prize publication records but it does mean that the inspiration of new minds is unlikely to come from stagnant old ones.

Thus one element of effective teaching is to be careful in deciding what to present and emphasize. Substance clearly matters. We all recognize that. Equally important, however, is style.

END OR ENTRY?

As economists we quickly learn that a professional audience will dismiss as unworthy any research that "displays no technique." We live amidst models that allow us to display our mastery of technique. For us, the display and the model can even become a reasonable end. Real people, however, are interested only if the models offer an entry to a better understanding of the real world. When Gerard Debreu won his Nobel prize he was asked by a journalist for the practical implications of his work. He replied that he did not think there necessarily were any. Economists were scornful of the question. Our students are more likely to be scornful of the answer. New passengers need to see that there is a destination to which they want to go before they will climb on board. Find all the connections you can between the models and the world. Display those with equal enthusiasm.

When I teach my course on urban economics I often start and finish with Carl Sandburg's Chicago:

Hog Butcher for the World
Tool Maker, Stacker of Wheat
Player with Railroads and the Nation's Freight Handler,
Stormy, husky, brawling,
City of the Big Shoulders

Here is a poem whose theme is the character given to a city by its economic functions and its role as a transshipment point. It speaks also of sequential land use:

Planning,
Building, breaking, rebuilding

It sees the effects of spatial concentrations of poverty:

On the faces of women and children I have seen the marks of wanton hunger.

I tell them that we will play Masters and Johnson to Sandburg's Brontë sisters. There may be less romance, but he and we are speaking of the same phenomena in the same world. I read them excerpts from Nicholas Lehman's *Promised Land*

[1991], a journalist's account of rural-urban migration driven by technological change. Lehman begins with a picturesque description of the demonstration of the first mechanical cotton picker on a real world plantation in Mississippi. We build models of technical change but Lehman and we are talking about the same world.

When I cover the income distributive consequences of price level changes I tell the tale of Daniel Shays and his farmers' rebellion or recall Williams Jennings Bryan's fear of symbolic crucifixion on a cross of gold. A numerical example or a formal model can make the mechanics clear but only a context can make the ideas significant. Teachers need explicitly to address the unspoken "so what?" question. If we cannot provide a satisfactory answer, rest assured that our students will not and that they will get off at the next stop. It is a teacher's responsibility to make the models an entry into the real world rather than an escape from it.

PASSENGERS OR CREW?

There is one thing more, and here the bus trip metaphor breaks down. You do not really want the students to be passive passengers at all. You want to make them earn their passage as a working crew. Each one should be made to feel a personal stake in the journey and each should be made to participate in moving forward.

Personalization

When I was a freshman in college there were still administrators with titles like "Dean of Men". Ours had been there for longer than anyone could recall and had become a truly legendary figure. He must have spent much of his summer studying application photos, for the first day we arrived on campus he would greet us each by name. It was a devious trick. The whole experience had been personalized. Someone knew we were there and was paying attention to us. We felt welcome, but also obligated to meet his expectations for us.

Teaching in a liberal arts college I do not have to face classes in the hundreds — the largest I ever teach are 75 or so — but I make it a point to learn all their names in the first two weeks, and to call them by name. They know they are not anonymous. Like it or not they have been personally vested in the course.

Class sessions are for them, not me. That means there has to be some two way communication. I get very nervous if no one but me has anything to say for that means they are not coming along for the ride. I recall one poor student who began an inquiry by saying "forgive me for interrupting." Before she could get to the substance of her point I jumped toward her and said "never apologize for interrupting! You only owe us an apology if you have a contribution or a confusion and do NOT interrupt!" I am sure that I made my point and also so thoroughly embarrassed her that she never spoke again.

Some may not speak up even with a warm invitation like that. Read their faces. If some look confused, ask about it. If you have created an environment where they think you will be disappointed if they do not learn, they will try not to disappoint you.

Participation

Make them participate in a thoughtful way. Do not just give them information and answers. Emphasize tools and questions. I have always thought it unconscionable for a teacher to ask more of students than they can achieve. That insures failure. Likewise I think it unconscionable to ask of them less. That restricts success.

In class give them issues to work through that can be understood by the formal material but do not do all the work for them. The reading for a recent session of my urban economics class was on Basic/Nonbasic models for estimating local multiplier effects of changes in a city's "export" industries. I said not a word about the formal models but instead noted that Boeing Aircraft had just announced 27,000 layoffs and asked them to assume the role of planner for the Seattle School District. What impact would this have on school enrollments? How could they estimate the size?

The suggestions were many and we were well into the hour before anyone realized that there was a ready answer in the model contained in the reading. We then worked through the model in that context and they learned it, not because I told them to but because they now had a problem and it offered them a solution. Similarly, on exams and in exercises, I try never to ask them simply to repeat what was in the book or the lecture. I ask them about a situation or problem where material from the book or lecture can provide a path to understanding. I want them to use economic principles, not just repeat them. I want them to acquire lifelong habits of careful and critical thought, not just credits toward graduation. It is not the credentials that we give them but the skills which make the whole trip worthwhile.

There is really no trick at all to teaching brilliant, highly motivated students — hand them a good textbook and stay out of their way. The challenge comes in teaching those less committed at the start. The most meaningful recognition I can recall ever getting as a teacher was not an All College award. It was a statement in a published guide of advice to continuing students from departing seniors. It advised students not to leave without taking one of my courses. "Do it even if you think you'll hate economics. You'll be surprised. He'll make you understand it and he'll make you care." I hope that is occasionally true.

REFERENCES

- Gould, S. J. *The Case of the Creeping Fox Terrier Clone. Bully for Brontosaurus: Reflections in Natural History*. New York: W.W. Norton, 1991.
- Lehman, N. *Promised Land: The Great Black Migration and How it Changed America*. New York: Alfred Knopf, 1991.