

TEACHING ECONOMICS THROUGH BLUEBERRY PIE AND COBRAS

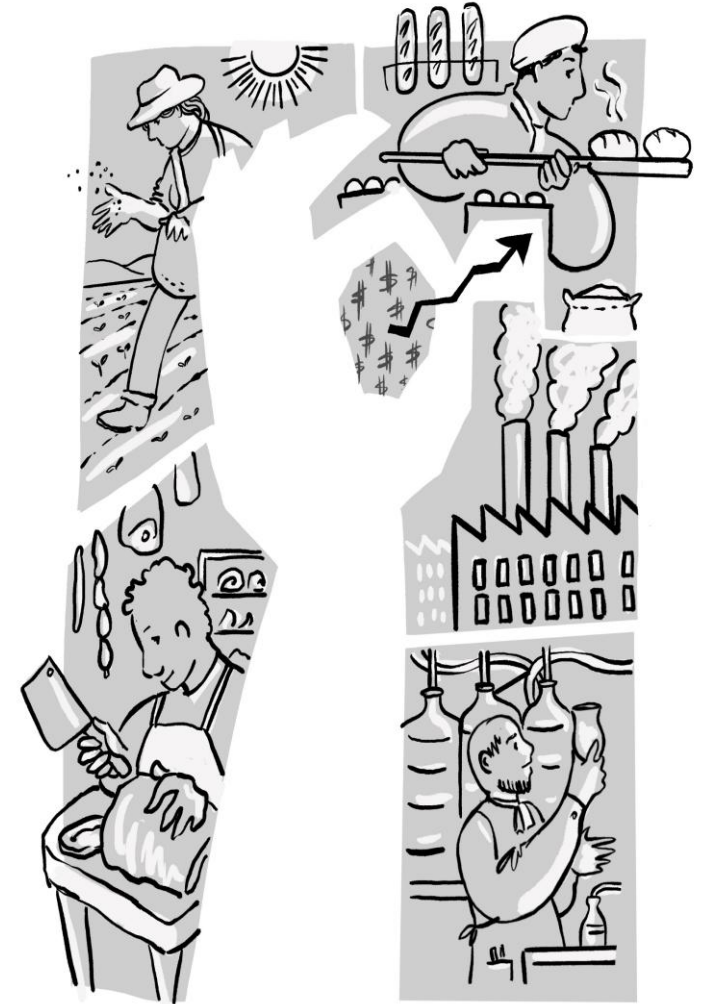
Presentation at the annual meeting of the American Economic Association
Jan. 3, 2026

By Peter Coy, author of the forthcoming book
“Economics Without Numbers”

I AM HERE TO LEARN FROM YOU

- “Economics Without Numbers” is written for the A.I. era
- More than 500 bite-sized entries that foster intuition
- “Freakonomics” meets “Elements of Style”
- Metaphors that bridge from what students know to what they need to know
- Can be an introduction, a reference and a supplement
- Please help me make my book smarter and more useful

Illustration of the invisible
hand, by Leticia Plate, from
“Economics Without
Numbers”



THE BIG IDEAS

- Metaphors work where numbers fail
- Journalists already get this
- Metaphors can misguide
- What the education research shows
- Bathtubs, bazookas, blueberry pie, cobras, guillotines, Mount Everest, sardines, scurvy, toenail fungus cream and used cigar butts

ADAM SMITH

“Rather than being a model builder in the modern mathematical style, Adam Smith was a metaphor builder,” the economist Hugh Rockoff wrote.

JOSEPH SCHUMPETER

"In every scientific venture, the thing that comes first is Vision. . . . [We] acquire 'intuitively' a preliminary notion of how [things] hang together."

ALFRED MARSHALL

(1) Use mathematics as a shorthand language, rather than as an engine of inquiry. (2) Keep to them till you have done. (3) Translate into English. (4) Then illustrate by examples that are important in real life. (5) **Burn the mathematics**. (6) If you can't succeed in (4), burn (3). This last I do often.

DEIRDRE McCLOSKEY

“To say that markets can be represented by supply and demand ‘curves’ is no less a metaphor than to say that the west wind is ‘the breath of autumn's being.’”

GEORGE LAKOFF AND MARK JOHNSON

“Our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphorical in nature.”

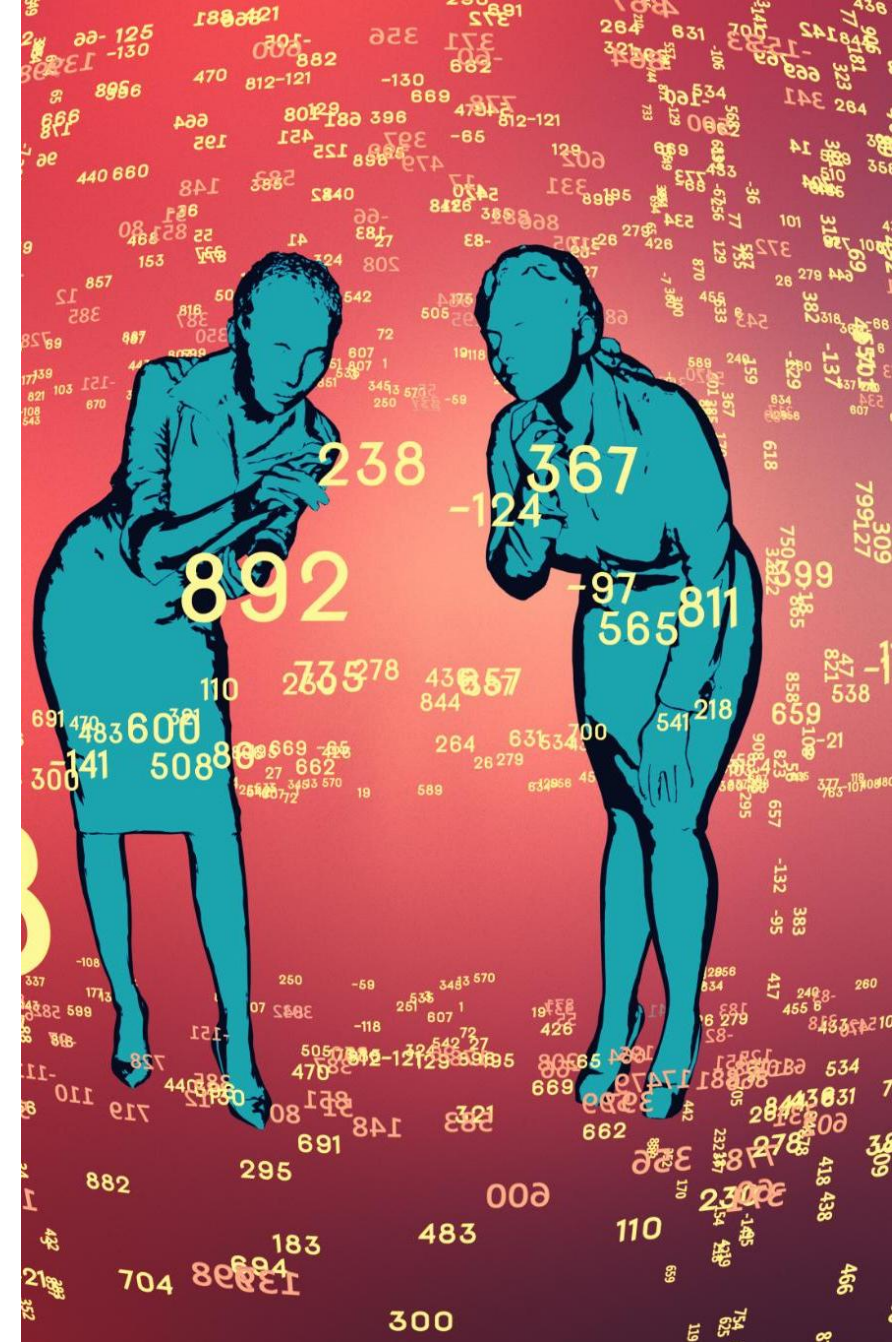
JOURNALISTS ALREADY GET THIS

Impatient audiences

Readers of news and commentary don't have the time or the interest for a formal economics lesson.

Metaphors accomplish the task

People who tune out when they hear “diminishing marginal utility” do understand stuffing themselves at the unlimited-seconds buffet.



“STAGGERING DRUNKS AND FISCAL CLIFFS” 2013

Nieman Reports
Nieman Foundation for Journalism
Harvard University

My stories in Bloomberg Businessweek portrayed Fed Chair Ben Bernanke as “a rainbow-bearded Bob Dylan, a lighthouse keeper, a Swede, a person with two birds inside of him, a bather in a bubble bath, and a sooty engineer trying to restart a disabled cruise ship.”





WHERE I'M COMING FROM

Not an economist

I was a history major.

On-the-job learning

Have interviewed most of the Nobel laureates in economics of the past quarter-century.
Collaborated with Paul Krugman at The Times.



METAPHORS CAN GUIDE, BUT ALSO MISGUIDE

N. Gregory Mankiw
Principles of Economics

“Students often come to economics with preconceived notions based on everyday usage of terms like ‘cost,’ ‘investment,’ or ‘capital,’ which differ significantly from their technical meanings in economics. One of the first tasks of teaching is to correct these misunderstandings.”



METAPHORS CAN GUIDE, BUT ALSO MISGUIDE

Belt-Tightening (From my intro)

“Politicians sometimes say that governments need to tighten their belts in hard times, but that’s simply not true. Governments need to spend *more* in a recession, both to help the poor and to get the economy growing again.”



METAPHORS CAN GUIDE, BUT ALSO MISGUIDE

The Solution

“Unexamined metaphor is a substitute for thinking-- which is a recommendation to examine metaphors, not to attempt the impossible by banishing them.”

Deirdre McCloskey
Rhetoric of Economics
(2nd Edition), 1986



METAPHORS CAN GUIDE, BUT ALSO MISGUIDE

In Other Words

Replace bad metaphors
with good ones.

WHAT THE RESEARCH SHOWS

“Overreliance on AI-driven tools in intellectual tasks may reduce students’ motivation to engage in self-directed analysis, diminish cognitive effort, and lead to weakened critical thinking.”

Roman Yavich, Ariel University, Israel

“Will the Use of AI Undermine Students’ Independent Thinking?”
Education Sciences, May 28, 2025

WHAT THE RESEARCH SHOWS

“The number of metaphors used by the [English as a foreign language] writers increased with their subject-specific competence level.”

Tatiana Utkina

National Research University Higher School of Economics, Russia

The Journal of Teaching English for Specific and Academic
Purposes, Vol. 9, No 4, Special Issue, 2021

WHAT THE RESEARCH SHOWS

“When the students are able to connect the analog – target to their experiences, they are stimulated to explore the analogy in deeper and more meaningful ways.”

Allan G. Harrison

Central Queensland University, Australia

“The Affective Dimension of Analogy,” in “Metaphor and Analogy in Science Education,” 2006

WHAT THE RESEARCH SHOWS

“De Vries and her colleagues studied eye movements of participants reading two short stories and found that deliberate metaphors were awarded more time than non-deliberate metaphors, which in turn were given less time than non-metaphorical words.”

Gerard Steen

University of Amsterdam, Netherlands

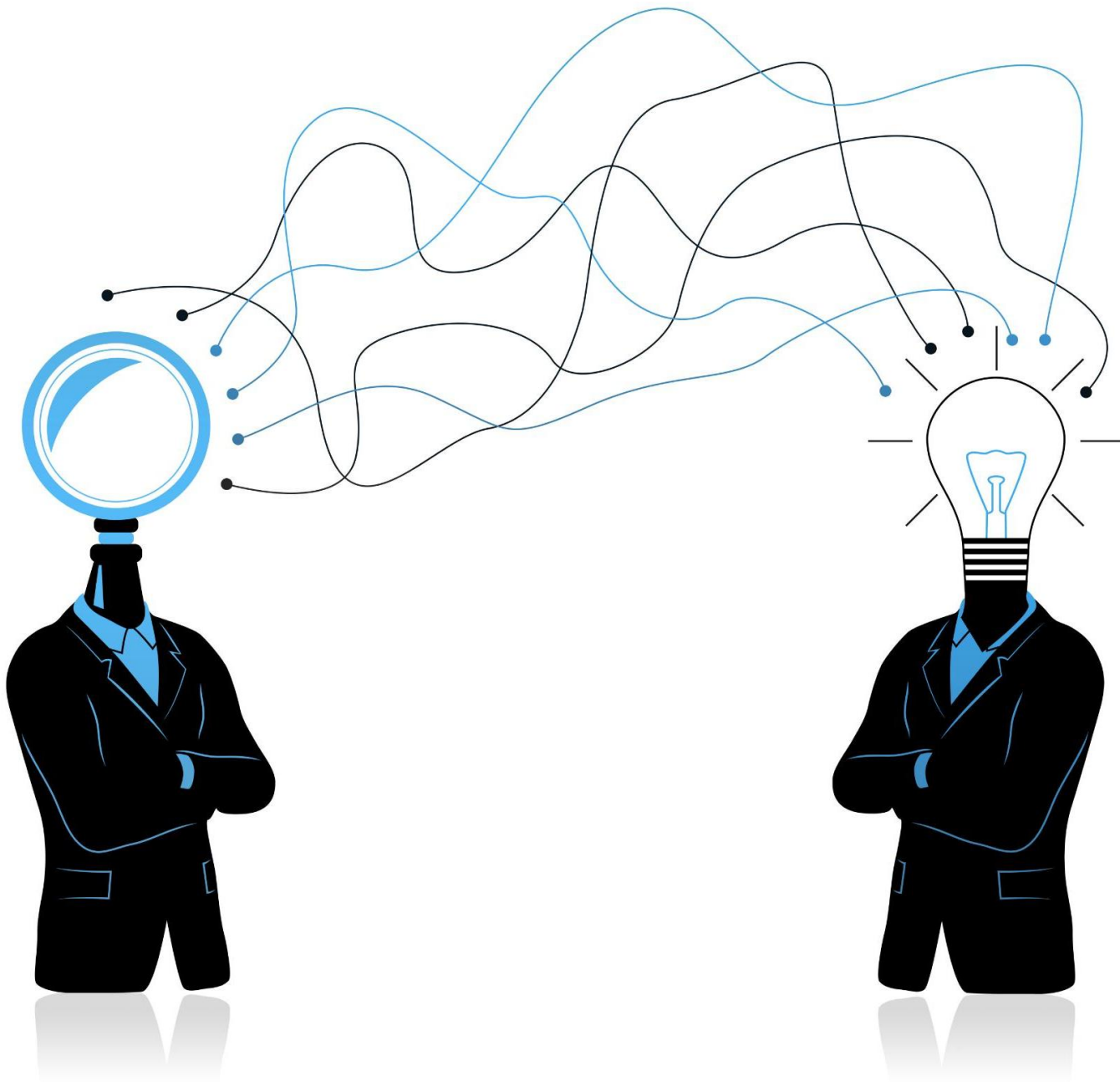
“Thinking by metaphor, fast and slow: Deliberate Metaphor Theory offers a new model for metaphor and its comprehension,” in *Frontiers in Psychology*, September 2023

WHAT THE RESEARCH SHOWS

“The students in the experimental group received lectures designed with deliberate metaphors and the students in the control group received traditional textbook teaching. Results show evidence that a focused design using deliberate metaphors in the lecture helps the experimental group to perform better on tests than the control group.”

Anqi Guo, Hong Kong Polytechnic University

“The use of deliberate metaphors in teaching economics in higher education,” thesis dissertation, 2019



NOW FOR THE FUN STUFF

**A few samples from
the unedited first
draft of the book I'm
writing, tentatively
titled, "Economics
Without Numbers."**

INFLATION

Bottleneck: Liquid can't get out of a bottle any faster than it can pass through the narrowest part, the neck.

Electric blanket: A shared currency, such as the euro, is like an electric blanket. It works well if all the nations under the blanket desire the same monetary temperature.

Lubricant: If inflation is bad, why don't central bankers try to stamp it out? Because a little inflation is a lubricant.

Pressure cooker: The flame under a pot is like strong demand. The steel pot itself, trapping steam inside, is like a constraint on supply.

INFLATION (MORE)

Reggae: “Low, stable and predictable inflation is to the economy what the bassline is to reggae music,” the Bank of Jamaica said.

Telecommunications: The economist Milton Friedman, picking up on a metaphor of Friedrich Hayek, said that inflation was a form of “static” that interrupted the communication of price signals.

Toothpaste: Karl Otto Pohl, when he was president of the German central bank in 1980, said, “Inflation is like toothpaste. Once it’s out, you can hardly get it back in again. So the best thing is not to squeeze too hard on the tube.”

COBRAS

There's a story that the British colonial government in India tried to eliminate venomous snakes in the city of Delhi by paying people to bring in dead cobras. The reward inadvertently incentivized people to breed cobras. When the government learned of this, it stopped the payments. The breeders then released their cobras into the wild, so the cobra problem was worse than before the program started.

COBRAS

Whether or not that is true, the cobra effect has become a term for the law of unintended consequences. A Freakonomics podcast featured some better documented examples. In Bogota, Colombia, for example, authorities tried to reduce traffic by restricting when people could drive based on the last digit on their license plates. Those who could afford to got a second car with a different last digit on the plate so they could always drive. Not what the authorities intended.

COBRAS

The cobra effect is a cousin of Goodhart's Law, named after the British economist Charles Goodhart, who once wrote, "Any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes."

BLUEBERRY PIE

There's a legend about the wise-guy philosopher Sidney Morgenbesser, who's offered apple pie or blueberry pie. He picks the apple pie. The waitress returns and says cherry pie is also available. He says, "In that case, I'll have blueberry." Wait, what?

BLUEBERRY PIE

If Morgenbesser had switched to cherry when he found out it was available, no one would have questioned his sanity. His switch from apple to blueberry, however, is a violation of the “independence of irrelevant alternatives” principle.

BLUEBERRY PIE

While it's illogical for a single individual to behave like Morgenbesser, it's logical for groups of people to behave that way. Think of the cherry pie as a third-party candidate who enters a race late, like the new choice offered by the waitress. If she takes more votes from the leading candidate, she could swing the election to the second choice—just as Morgenbesser switched from apple to blueberry.

BLUEBERRY PIE

Kenneth Arrow, a Nobel laureate economist, proved with his “impossibility theorem” in 1951 that the blueberry pie problem will cripple any system that tries to combine the preferences of different people into a “social” ordering that captures the preferences of the group as a whole.

BLUEBERRY PIE

That's a big problem for economists and political scientists. "The tenor of Arrow's theorem is deeply antithetical to the political ideals of the Enlightenment," the philosopher Michael Morreau wrote for the Stanford Encyclopedia of Philosophy.



BAZOOKA

As Henry Paulson said, “If you've got a squirt-gun in your pocket you may have to take it out. If you've got a bazooka, and people know you've got it, you may not have to take it out.”



SARDINES

A guy is hired to trade cans of sardines. One day he opens a can and tries them. They're rancid. He gets sick. Another trader tells him, "You don't understand. These are trading sardines, not eating sardines."



BATHTUB MODEL OF STOCKS AND FLOWS

Picture a bathtub containing not water but business inventories on shelves—unsold steel, car parts, olive oil, etc. The inventories are a stock, like the water in the tub. The change in inventories from one year to the next is a flow. An increase in inventories is considered a form of investment that's counted in gross domestic product.

CONCLUSION

Metaphors work

Grasping new things in terms of old ones is the way we think.

Research proves it

Studies from Russia, the Netherlands, Australia and Hong Kong, among other places, show the efficacy of metaphors in the classroom.

So use them

Use metaphors to convey the intuition. That will make the math and the graphs easier to grasp.

THANK YOU

I'm at petercoy@verizon.net or 201 790 5725. Please go to <https://forms.gle/Ea2HRyj9tioiArjJA> or use this QR code to be notified when “Economics Without Numbers” is available for pre-order.

