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Why is milk sold
in rectangular
containers, while
soft drinks are sold
in cylindrical ones?

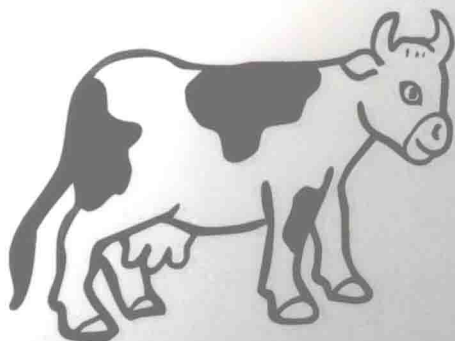
Why is there a light in
your fridge but not in
your freezer?

Why do 24-hour shops
bother having locks on
their doors?

Why did Kamikaze
pilots wear helmets?

THE ECONOMIC NATURALIST

WHY ECONOMICS EXPLAINS ALMOST EVERYTHING



500 ml

Robert H Frank

500 ml

ROBERT H. FRANK

THE ECONOMIC NATURALIST

Why Economics Explains
Almost Everything



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Praise for *The Economic Naturalist*

‘Fascinating ... provides the answers to some of life’s quirkiest conundrums’
Daily Mail

‘Explains how cold, hard cash really does make our world go round’
Independent

‘Can be returned to again and again like one of those all-you-can-eat buffets’
New York Times

‘Don’t miss this addictive book. As Robert Frank and his students figured out dozens of everyday puzzles together, they produced ideas that are charming, curious, educational and lots of fun. Wonderful stuff’ Tim Harford, author of *The Undercover Economist* and *The Logic of Life*

‘Smart, snappy, and delightful. Bob Frank is one of America’s best writers on economics’ Tyler Cowen, author of *Discover Your Inner Economist*

‘Fascinating, mind-expanding, and lots of fun’ Steven Pinker, author of *The Blank Slate*

‘Robert H Frank’s economic guidebook unlocks everyday design enigmas’
International Herald Tribune

‘Fun and fascinating! At times it’ll remind you of a Seinfeld routine – “Did you ever wonder why baseball managers wear uniforms but basketball coaches wear suits?” – except that Bob Frank also gives you the real answers’ Steven Strogatz, author of *SYNC*

‘As amusing to read as one of Jay Leno’s joke books, but Bob Frank’s questions and answers are not jokes. They represent pithy observations about our economic lives that will give readers an appreciation of the real substance of economic reasoning’ Robert J Shiller, author of *The New Financial Order* and *Irrational Exuberance*

‘Frank’s new book shows that, when you ask students to look around, they see interesting things; and, sure enough, basic economic concepts can usually give a plausible account of actions and outcomes. This is an excellent way for students to learn economics. To tell the truth, it is also a useful correction to the rest of us’ Robert Solow, Nobel Laureate in Economics

For
Thomas C. Schelling

Acknowledgements

When I first started teaching introductory economics, a senior colleague advised me to begin each class with a joke. It would start students off in a good mood, he explained, and make them more receptive to the ensuing lecture. I never followed his advice. It wasn't that I thought he was wrong in principle. Rather, I thought it would be too hard to come up with a relevant joke each time and felt that telling an irrelevant one would just be pandering.

As luck would have it, however, I stumbled upon a joke that seems just the right vehicle to launch this book. The joke is set in Boston in New England, a city known for its learned cab drivers, many of them dropouts from Harvard and MIT:

A woman lands at Logan Airport, grabs her luggage, and jumps into a cab, hungry for a good New England seafood dinner. 'Take me to a place where I can get scrod,' she tells the driver.

eyebrow arched, the cabbie turns and says, ‘That’s the first time I’ve heard anyone say that in the pluperfect subjunctive.’

Few people actually know what the pluperfect subjunctive tense is. I didn’t, or didn’t realise I did, so I looked it up on the internet:

The pluperfect subjunctive (or past perfect subjunctive) tense is used to express a hypothetical situation or an action which is contrary to reality. In this case, the verb in the main clause is conjugated in the conditional form and it is necessary to use the subjunctive in the subordinate clause.

Here’s an example that will be familiar to anyone who’s ever pushed the snooze button once too often: ‘If I hadn’t overslept, I wouldn’t have missed my train.’

As is clear from the definition and example, the woman in the joke didn’t actually use the pluperfect subjunctive tense at all. If the joke works, it is only because most of us haven’t the foggiest idea what this tense is.

Does it matter? Some psychologists once theorised that people couldn’t engage in clear counterfactual thinking unless they knew the technical details of the various subjunctive tenses. But this claim doesn’t withstand scrutiny. Notice, for instance, that although most sports commentators don’t seem to know the pluperfect subjunctive (or at least choose not to use it), they manage perfectly with counterfactual reasoning. ‘Beckham scores the penalty, the English team doesn’t lose in extra time.’

Knowing about the pluperfect subjunctive is not a bad thing. But if learning to speak a new language is your goal, the time and effort required to learn the explicit technical details of this tense would be far better spent in other ways. Courses that focus most of their energy on such details are no fun for students, and they’re also astonishingly ineffective.

I took four years of Spanish lessons at secondary school and three terms of German at college. On those courses, we spent a lot of time on the pluperfect subjunctive tense and other grammatical arcana that instructors thought important. But we didn't learn to speak. When I travelled in Spain and Germany, I had great difficulty communicating even basic thoughts in those languages. Many friends have described similar experiences.

My first inkling that there was a more effective way to learn languages came during the instruction I received before serving as a US Peace Corps volunteer in Nepal. The programme lasted only thirteen weeks and was completely different from my earlier language courses. It never once mentioned the pluperfect subjunctive. Its task was to teach us to speak Nepali, and mastering arcane tenses had no place on the critical path to that goal. The method of instruction was to mimic the way children learn to speak their native language.

Our instructor began with simple sentences and got us to repeat them multiple times. The first was, 'This hat is expensive'. Since shoppers bargain for everything in Nepal, it was a useful sentence. The next step was to announce a different noun – say, socks – and we would have to respond on the fly with the Nepali sentence for 'These socks are expensive'. The goal was to get us to respond without thinking about it.

In brief, instructors started with a simple example from a familiar context, had us drill it several times, then got us to do slight variations on it, practising again. Once we could function on our own at the current level – but not before – they would push us a little further.

The programme's responsibility was to make sure we were up and running after thirteen weeks. My fellow volunteers and I had to teach science and maths in Nepali shortly after arriving in the country. And starting from zero, we did it. The process itself

created a sense of empowerment I had never experienced on traditional language courses.

So my first thanks go to my Nepali language instructors of long ago, who opened my eyes to the remarkable effectiveness of the less-is-more approach to learning. As my students and I have discovered during the ensuing decades, this approach can also transform the experience of learning the core ideas of economics.

Students on most introductory economics courses spend much of their time grappling with the economics equivalent of the pluperfect subjunctive tense. In contrast, the economics ideas you will encounter in this book appear only in the context of examples drawn from familiar experiences they help illuminate. Learning economics is like learning to speak a new language. It's important to start slowly and see each idea in multiple contexts. If you discover that this way of learning trumps the one employed on your college introductory course, tip your hat to my Nepali language instructors.

This book is the product of many fine minds. Hal Bierman, Chris Frank, Hayden Frank, Srinagesh Gavirneni, Tom Gilovich, Bob Libby, Ellen McCollister, Phil Miller, Michael O'Hare, Dennis Regan and Andy Ruina will recognise the many ways in which their comments on earlier drafts have improved the book. I cannot thank them enough. Others were helpful at a further remove. Some readers will recognise the ideas of my former teacher George Akerlof and former colleague Richard Thaler in many of the examples in the book. But my biggest intellectual debt is to Thomas Schelling, the greatest living economic naturalist. I dedicate this book to him.

I'm grateful as well to Andrew Wylie and William Frucht, without whose efforts this book probably would not have ended up in your hands. I also thank Piyush Nayyar, Elizabeth Seward, Maria Cristina Cavagnaro and Matthew Leighton for invaluable

research assistance, and Chrisona Schmidt for superb copyediting.

It was a pleasure to work with Mick Stevens, whose drawings illustrate many of the examples in the book. I am not much given to envy, but if there is a career I can imagine having been more fun than my own, it is his. Over the years, I have tried, whenever possible, to use simple drawings or other illustrations that relate in some way to the examples I discuss in class. For reasons that learning theorists could probably explain, this practice seems to root ideas more firmly in students' minds, even though my drawings are often comically inept and contain no specific economic content. I encourage students to produce their own crude illustrations to accompany the new ideas they encounter. 'Doodle on your notes!' I tell them. What a wonderful luxury it was to describe ideas for drawings to one of my favourite *New Yorker* cartoonists and then have them appear, usually only days later, in much better form than I dared imagine.

I am especially grateful to the John S. Knight Institute for Writing in the Disciplines for enlisting me on its programme at Cornell in the early 1980s. Except for my participation in that programme, I never would have stumbled upon the economic naturalist writing assignment that led to this book.

But most importantly, I want to thank my students for the spirited essays that constitute the inspiration for the book. Only a small fraction of the questions they posed made it into the final manuscript. The ones that did are so splendid because of the effort that went into the thousands of essays from which I chose them.

A majority of the questions included in this volume were directly inspired by student essays. Following each, I list the student's name in parentheses. A handful of questions were inspired by articles or books, most of them written by economists, and the relevant author's name also appears in parentheses after

those. Most of the questions with no author credit are based either on examples from my own writings or on examples that I have developed for classes.

There remain three questions, however, that were inspired by student essays that I have been unable to locate. I list these questions here, in the hope that the authors will step forward so that I can credit them properly in subsequent printings: (1) Why is milk sold in rectangular containers, while soft drinks are sold in round ones? p. 21; (2) Why do many bars charge customers for water but give them peanuts for free? p. 36; and (3) Why do car hire companies impose no penalty for cancelling a reservation at the last minute, whereas many hotels and all airlines impose significant cancellation charges? p. 98.

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Introduction

Why do the keypad buttons on drive-up cashpoint machines have Braille dots? The patrons of these machines are almost always drivers, none of whom are blind. According to my former student Bill Tjoa, cashpoint manufacturers have to make keypads with Braille dots for their walk-up machines anyway, and so it is cheaper to make all machines the same way. The alternative would be to hold two separate inventories and make sure that each machine went to the right destination. If the Braille dots caused trouble for sighted users, the extra expense might be justified. But they do not.

Mr Tjoa's question was the title of one of two short papers he submitted in response to the 'economic naturalist' writing assignment in my introductory economics course. The specific assignment was 'to use a principle, or principles, discussed in the course to pose and answer an interesting question about some pattern of events or behaviour that you personally have observed'.



Braille dots on keypad buttons of drive-up cashpoint machines: why not?

DRAWING BY MICK STEVENS

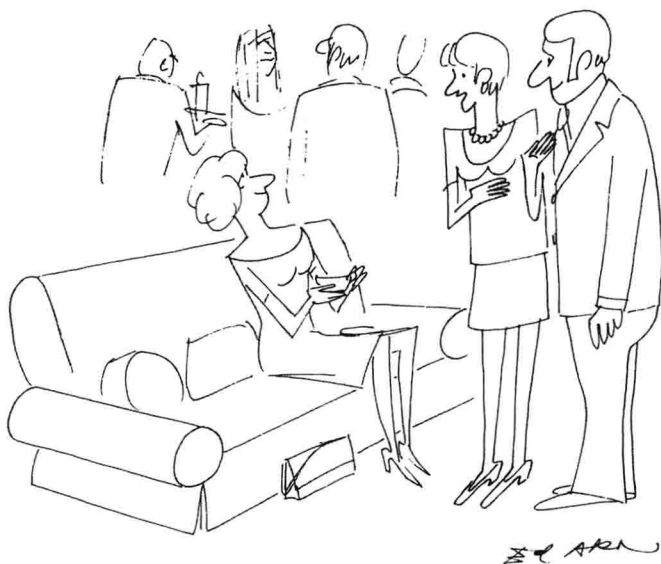
‘Your space limit,’ I wrote, ‘is 500 words. Many excellent papers are significantly shorter than that. Please do not lard your essay with complex terminology. Imagine yourself talking to a relative who has never had a course in economics. The best papers are ones that would be clearly intelligible to such a person, and typically these papers do not use any algebra or graphs.’

Like Bill Tjoa’s question about cashpoint keypads, the best ones entail an element of paradox. For example, my all-time favourite was submitted in 1997 by Jennifer Dulski, who asked, ‘Why do brides spend so much money – often thousands of pounds – on wedding dresses they will never wear again, while grooms often rent cheap suits, even though they will have many future occasions that call for one?’

Dulski argued that because most brides wish to make a fashion statement on their wedding day, a hire company would have

to carry a huge stock of distinctive gowns – perhaps forty or fifty in each size. Each garment would thus be hired only infrequently, perhaps just once every four or five years. The company would have to charge a hire fee greater than the purchase price of the garment just to cover its costs. And since buying would be cheaper, no one would rent. In contrast, because grooms are willing to settle for a standard style, a hire company can serve this market with an inventory of only two or three suits in each size. So each suit gets hired several times a year, enabling a hire fee that is only a fraction of its purchase price.

This book is a collection of the most interesting economic naturalist examples I have collected over the years. It is intended for people who, like Bill Tjoa and Jennifer Dulski, take pleasure in unravelling the mysteries of everyday human behaviour.



'I'd like to introduce you to Marty Thorndecker. He's an economist, but he's really very nice.'

DRAWING BY ED ARNO © 1974 THE NEW YORKER MAGAZINE, INC.

Although many consider economics an arcane and incomprehensible subject, its basic principles are simple and full of common sense. Seeing these principles at work in the context of concrete examples provides an opportunity to master them without effort.

Unfortunately that is not how economics is usually taught on college courses. Shortly after I began teaching at Cornell University, several friends living in different cities sent me copies of the Ed Arno *New York* cartoon on the previous page.

Cartoons are data. If people find them funny, that tells us something about the world. Even before Arno's cartoon appeared, I had begun to notice that when people I met at social gatherings asked me what I did for a living, they seemed disappointed when I told them I was an economist. I began asking why. On reflection, many would mention having taken an introductory economics course years before that had 'all those horrible graphs'.

Relatively few undergraduates study economics. A negligible fraction pursues Ph.D. work in economics. Yet many introductory economics courses, abrim with equations and graphs, are addressed to that negligible fraction.

The result is that most students on these courses don't learn much. When students are given tests designed to probe their knowledge of basic economics six months after taking the course, they do not perform significantly better than others who never took an introductory course. This is scandalous. How can a university justify charging large amounts of money for courses that add no value?

Even the most basic principles of economics don't seem to be getting across. If you ever took an economics course, you at least heard the term 'opportunity cost'. The opportunity cost of engaging in an activity is the value of everything you must give up to pursue it.