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Geely, D.

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CHAPTER 3

The Cost of Zero Cost

*Why We Often Pay Too Much When
We Pay Nothing*

Have you ever grabbed for a coupon offering a FREE! package of coffee beans—even though you don't drink coffee and don't even have a machine with which to brew it? What about all those FREE! extra helpings you piled on your plate at a buffet, even though your stomach had already started to ache from all the food you had consumed? And what about the worthless FREE! stuff you've accumulated—the promotional T-shirt from the radio station, the teddy bear that came with the box of Valentine chocolates, the magnetic calendar your insurance agent sends you each year?

It's no secret that getting something free feels very good. Zero is not just another price, it turns out. Zero is an emotional hot button—a source of irrational excitement. Would you buy something if it were discounted from 50 cents to 20 cents? Maybe. Would you buy it if it were discounted from 50 cents to two cents? Maybe. Would you grab it if it were discounted from 50 cents to zero? You bet!

What is it about zero cost that we find so irresistible? Why does FREE! make us so happy? After all, FREE! can lead us into trouble: things that we would never consider purchasing become incredibly appealing as soon as they are FREE! For instance, have you ever gathered up free pencils, key chains, and notepads at a conference, even though you'd have to carry them home and would only throw most of them away? Have you ever stood in line for a very long time (too long), just to get a free cone of Ben and Jerry's ice cream? Or have you bought two of a product that you wouldn't have chosen in the first place, just to get the third one for free?

ZERO HAS HAD a long history. The Babylonians invented the concept of zero; the ancient Greeks debated it in lofty terms (how could something be nothing?); the ancient Indian scholar Pingala paired zero with the numeral 1 to get double digits; and both the Mayans and the Romans made zero part of their numeral systems. But zero really found its place about AD 498, when the Indian astronomer Aryabhata sat up in bed one morning and exclaimed, "*Sthanam sthanam dasa gunam*"—which translates, roughly, as "Place to place in 10 times in value." With that, the idea of decimal-based place-value notation was born. Now zero was on a roll: It spread to the Arab world, where it flourished; crossed the Iberian Peninsula to Europe (thanks to the Spanish Moors); got some tweaking from the Italians; and eventually sailed the Atlantic to the New World, where zero ultimately found plenty of employment (together with the digit 1) in a place called Silicon Valley.

So much for a brief recounting of the history of zero. But the concept of zero applied to money is less clearly understood. In fact, I don't think it even has a history. Nonetheless, FREE!

has huge implications, extending not only to discount prices and promotions, but also to how FREE! can be used to help us make decisions that would benefit ourselves and society.

If FREE! were a virus or a subatomic particle, I might use an electron microscope to probe the object under the lens, stain it with different compounds to reveal its nature, or somehow slice it apart to reveal its inner composition. In behavioral economics we use a different instrument, however, one that allows us to slow down human behavior and examine it frame by frame, as it unfolds. As you have undoubtedly guessed by now, this procedure is called an experiment.

IN ONE EXPERIMENT, Kristina Shampanier (a PhD student at MIT), Nina Mazar (a professor at the University of Toronto), and I went into the chocolate business. Well, sort of. We set up a table at a large public building and offered two kinds of chocolates—Lindt truffles and Hershey's Kisses. There was a large sign above our table that read, "One chocolate per customer." Once the potential customers stepped closer, they could see the two types of chocolate and their prices.*

For those of you who are not chocolate connoisseurs, Lindt is produced by a Swiss firm that has been blending fine cocoas for 160 years. Lindt's chocolate truffles are particularly prized—exquisitely creamy and just about irresistible. They cost about 30 cents each when we buy them in bulk. Hershey's Kisses, on the other hand, are good little chocolates, but let's face it, they are rather ordinary: Hershey cranks out 80 million Kisses a day. In Hershey, Pennsylvania, even the streetlamps are made in the shape of the ubiquitous Hershey's Kiss.

*We posted the prices so that they were visible only when people got close to the table. We did this because we wanted to make sure that we did not attract different types of people in the different conditions—avoiding what is called self-selection.

So what happened when the "customers" flocked to our table? When we set the price of a Lindt truffle at 15 cents and a Kiss at one cent, we were not surprised to find that our customers acted with a good deal of rationality: they compared the price and quality of the Kiss with the price and quality of the truffle, and then made their choice. About 73 percent of them chose the truffle and 27 percent chose a Kiss.

Now we decided to see how FREE! might change the situation. So we offered the Lindt truffle for 14 cents and the Kisses free. Would there be a difference? Should there be? After all, we had merely lowered the price of both kinds of chocolate by one cent.

But what a difference FREE! made. The humble Hershey's Kiss became a big favorite. Some 69 percent of our customers (up from 27 percent before) chose the FREE! Kiss, giving up the opportunity to get the Lindt truffle for a very good price. Meanwhile, the Lindt truffle took a tumble; customers choosing it decreased from 73 to 31 percent.

What was going on here? First of all, let me say that there are many times when getting FREE! items can make perfect sense. If you find a bin of free athletic socks at a department store, for instance, there's no downside to grabbing all the socks you can. The critical issue arises when FREE! becomes a struggle between a free item and another item—a struggle in which the presence of FREE! leads us to make a bad decision. For instance, imagine going to a sports store to buy a pair of white socks, the kind with a nicely padded heel and a gold toe. Fifteen minutes later you're leaving the store, not with the socks you came in for, but with a cheaper pair that you don't like at all (without a padded heel and gold toe) but that came in a package with a FREE! second pair. This is a case in which you gave up a better deal and settled for something that was not what you wanted, just because you were lured by the FREE!

To replicate this experience in our chocolate experiment, we told our customers that they could choose only a single sweet—the Kiss or the truffle. It was an either-or decision, like choosing one kind of athletic sock over another. That's what made the customers' reaction to the FREE! Kiss so dramatic: Both chocolates were discounted by the same amount of money. The relative price difference between the two was unchanged—and so was the expected pleasure from both.

According to standard economic theory (simple cost-benefit analysis), then, the price reduction should not lead to any change in the behavior of our customers. Before, about 27 percent chose the Kiss and 73 percent chose the truffle. And since nothing had changed in relative terms, the response to the price reduction should have been exactly the same. A passing economist, twirling his cane and espousing conventional economic theory, in fact, would have said that since everything in the situation was the same, our customers should have chosen the truffles by the same margin of preference.*

And yet here we were, with people pressing up to the table to grab our Hershey's Kisses, not because they had made a reasoned cost-benefit analysis before elbowing their way in, but simply because the Kisses were FREE! How strange (but predictable) we humans are!

THIS CONCLUSION, INCIDENTALLY, remained the same in other experiments as well. In one case we priced the Hershey's Kiss at two cents, one cent, and zero cents, while pricing the truffle correspondingly at 27 cents, 26 cents, and 25 cents.

*For a more detailed account of how a rational consumer should make decisions in these cases, see the appendix to this chapter.

We did this to see if discounting the Kiss from two cents to one cent and the truffle from 27 cents to 26 cents would make a difference in the proportion of buyers for each. It didn't. But, once again, when we lowered the price of the Kiss to free, the reaction was dramatic. The shoppers overwhelmingly demanded the Kisses.

We decided that perhaps the experiment had been tainted, since shoppers may not feel like searching for change in a purse or backpack, or they may not have any money on them. Such an effect would artificially make the free offer seem more attractive. To address this possibility, we ran other experiments at one of MIT's cafeterias. In this setup, the chocolates were displayed next to the cashier as one of the cafeteria's regular promotions and the students who were interested in the chocolates simply added them to the lunch purchase, and paid for them while going through the cashier's line. What happened? The students still went overwhelmingly for the FREE! option.

WHAT IS IT about FREE! that's so enticing? Why do we have an irrational urge to jump for a FREE! item, even when it's not what we really want?

I believe the answer is this. Most transactions have an upside and a downside, but when something is FREE! we forget the downside. FREE! gives us such an emotional charge that we perceive what is being offered as immensely more valuable than it really is. Why? I think it's because humans are intrinsically afraid of loss. The real allure of FREE! is tied to this fear. There's no visible possibility of loss when we choose a FREE! item (it's free). But suppose we choose the item that's *not* free. Uh-oh, now there's a risk of having made a poor

decision—the possibility of a loss. And so, given the choice, we go for what is free.

For this reason, in the land of pricing, zero is not just another price. Sure, 10 cents can make a huge difference in demand (suppose you were selling millions of barrels of oil), but nothing beats the emotional surge of FREE! This, the *zero price effect*, is in a category all its own.

To be sure, “buying something for nothing” is a bit of an oxymoron. But let me give you an example of how we often fall into the trap of buying something we may not want, simply because of that sticky substance, FREE!

In 2007, I saw a newspaper ad from a major electronics maker, offering me seven FREE! DVD titles if I purchased the maker's new high-definition DVD player. First of all, did I need a high-definition player at that time? Probably not. But even if I had, wouldn't it have been wiser to wait for prices to descend? They always do—and today's \$600 high-definition DVD player will very quickly be tomorrow's \$200 machine. Second, the DVD maker had a clear agenda behind its offer. This company's high-definition DVD system was in cutthroat competition with Blu-Ray, a system backed by many other manufacturers. At the time, Blu-Ray was ahead and has since gone on to dominate the market. So how much is FREE! when the machine being offered will find its way into obsolescence (like Betamax VCRs)? Those are two rational thoughts that might prevent us from falling under the spell of FREE! But, gee, those FREE! DVDs certainly look good!

GETTING SOMETHING FREE! is certainly a draw when we talk about prices. But what would happen if the offer was not a free price, but a free exchange? Are we as susceptible to free

products as we are to getting products for free? A few years ago, with Halloween drawing near, I had an idea for an experiment to probe that question. This time I wouldn't even have to leave my home to get my answers.

Early in the evening, Joey, a nine-year-old kid dressed as Spider-Man and carrying a large yellow bag, climbed the stairs of our front porch. His mother accompanied him, to ensure that no one gave her kid an apple with a razor blade inside. (By the way, there never was a case of razor blades being distributed in apples on Halloween; it is just an urban myth.) She stayed on the sidewalk, however, to give Joey the feeling that he was trick-or-treating by himself.

After the traditional query, "Trick or treat?" I asked Joey to hold open his right hand. I placed three Hershey's Kisses in his palm and asked him to hold them there for a moment. "You can also get one of these two Snickers bars," I said, showing him a small one and a large one. "In fact, if you give me one of those Hershey's Kisses I will give you this smaller Snickers bar. And if you give me two of your Hershey's Kisses, I will give you this larger Snickers bar."

Now a kid may dress up like a giant spider, but that doesn't mean he's stupid. The small Snickers bar weighed one ounce, and the large Snickers bar weighed two ounces. All Joey had to do was give me one additional Hershey's Kiss (about 0.16 ounce) and he would get an extra ounce of Snickers. This deal might have stumped a rocket scientist, but for a nine-year-old boy, the computation was easy: he'd get more than six times the return on investment (in the net weight of chocolate) if he went for the larger Snickers bar. In a flash Joey put two of his Kisses into my hand, took the two-ounce Snickers bar, and dropped it into his bag.

Joey wasn't alone in making this snap decision. All but

one of the kids to whom I presented this offer traded in two Kisses for the bigger candy bars.

Zoe was the next kid to walk down the street. She was dressed as a princess, in a long white dress, with a magic wand in one hand and an orange Halloween pumpkin bucket in the other. Her younger sister was resting comfortably in their father's arms, looking cute and cuddly in her bunny outfit. As they approached, Zoe called out, in a high, cute voice, "Trick or treat!" In the past I admit that I have sometimes devilishly replied, "Trick!" Most kids stand there, baffled, having never thought through their question to see that it allowed an alternative answer.

In this case I gave Zoe her treat—three Hershey's Kisses. But I did have a trick up my sleeve. I offered little Zoe a deal: a choice between getting a large Snickers bar in exchange for one of her Hershey's Kisses, or getting the small Snickers bar for FREE! without giving up any Hershey's Kisses.

Now, a bit of rational calculation (which in Joey's case was amply demonstrated) would show that the best deal is to forgo the free small Snickers bar, pay the cost of one additional Hershey's Kiss, and go for the large Snickers bar. On an ounce-for-ounce comparison, it was far better to give up one additional Hershey's Kiss and get the larger Snickers bar (two ounces) instead of a smaller Snickers bar (one ounce). This logic was perfectly clear to Joe and the kids who encountered the condition in which both Snickers bars had a cost. But what would Zoe do? Would her clever kid's mind make that rational choice—or would the fact that the small Snickers bar was FREE! blind her to the rationally correct answer?

As you might have guessed by now, Zoe, and the other kids to whom I offered the same deal, was completely blinded

by FREE! About 70 percent of them gave up the better deal, and took the worse deal just because it was FREE!

Just in case you think Kristina, Nina, and I make a habit of picking on kids, I'll mention that we repeated the experiment with bigger kids, in fact students at the MIT student center. The results replicated the pattern we saw on Halloween. Indeed, the draw of zero cost is not limited to monetary transactions. Whether it's products or money, we just can't resist the gravitational pull of FREE!

So DO YOU think you have a handle on FREE!?

OK. Here's a quiz. Suppose I offered you a choice between a free \$10 Amazon gift certificate and a \$20 gift certificate for seven dollars. Think quickly. Which would you take?

If you jumped for the FREE! certificate, you would have been like most of the people we tested at one of the malls in Boston. But look again: a \$20 gift certificate for seven dollars delivers a \$13 profit. That's clearly better than getting a \$10 certificate free (earning \$10). Can you see the irrational behavior in action?*

LET ME TELL you a story that describes the real influence of FREE! on our behavior. A few years ago, Amazon.com started offering free shipping of orders over a certain amount. Someone who purchased a single book for \$16.95 might pay an additional \$3.95 for shipping, for instance. But if the cus-

*Similar to the other experiments, when we increased the cost of both certificates by \$1, making the \$10 certificate cost \$1 and the \$20 certificate cost \$8, the majority jumped for the \$20 certificate.

tomers bought another book, for a total of \$31.90, they would get their shipping FREE!

Some of the purchasers probably didn't want the second book (and I am talking here from personal experience) but the FREE! shipping was so tempting that to get it, they were willing to pay the cost of the extra book. The people at Amazon were very happy with this offer, but they noticed that in one place—France—there was no increase in sales. Is the French consumer more rational than the rest of us? Unlikely. Rather, it turned out, the French customers were reacting to a different deal.

Here's what happened. Instead of offering FREE! shipping on orders over a certain amount, the French division priced the shipping for those orders at one franc. Just one franc—about 20 cents. This doesn't seem very different from FREE! but it was. In fact, when Amazon changed the promotion in France to include free shipping, France joined all the other countries in a dramatic sales increase. In other words, whereas shipping for one franc—a real bargain—was virtually ignored by the French, FREE! shipping caused an enthusiastic response.

America Online (AOL) had a similar experience several years ago when it switched from pay-per-hour service to a monthly payment schedule (in which you could log in as many hours as you wanted for a fixed \$19.95 per month). In preparation for the new price structure, AOL geared up for what it estimated would be a small increase in demand. What did it get? An overnight increase from 140,000 to 236,000 customers logging into the system, and a doubling of the average time online. That may seem good—but it wasn't good. AOL's customers encountered busy phone lines, and soon AOL was forced to lease services from other online

providers (who were only too happy to sell bandwidth to AOL—at the premium of snow shovels in a snowstorm). What Bob Pittman (the president of AOL at the time) didn't realize was that consumers would respond to the allure of **FREE!** like starving people at a buffet.

WHEN CHOOSING BETWEEN two products, then, we often overreact to the free one. We might opt for a **FREE!** checking account (with no benefits attached) rather than one that costs five dollars a month. But if the five-dollar checking account includes free traveler's checks, online billing, etc., and the **FREE!** one doesn't, we may end up spending more for this package of services with the **FREE!** account than with the five-dollar account. Similarly, we might choose a mortgage with no closing costs, but with interest rates and fees that are off the wall; and we might get a product we don't really want simply because it comes with a free gift.

My most recent personal encounter with this involved a car. When I was looking for a new car a few years ago, I knew that I really should buy a minivan. In fact, I had read up on Honda minivans and knew all about them. But then an Audi caught my eye, at first through an appealing offer—**FREE!** oil changes for the next three years. How could I resist?

To be perfectly honest, the Audi was sporty and red, and I was still resisting the idea of being a mature and responsible father to two young kids. It wasn't as if the free oil change completely swayed me, but its influence on me was, from a rational perspective, unjustifiably large. Just because it was **FREE!** it served as an additional allure that I could cling to.

So I bought the Audi—and the **FREE!** oil. (A few months later, while I was driving on a highway, the transmission

broke—but that is a different story.) Of course, with a cooler head I might have made a more rational calculation. I drive about 7,000 miles a year; the oil needs to be changed every 10,000 miles; and the cost per change is about \$75. Over three years, then, I would save about \$150, or about 0.5 percent of the purchase price of the car—not a good reason to base my decision on. It gets worse, though: now I have an Audi that is packed to the ceiling with action figures, a stroller, a bike, and other kids' paraphernalia. Oh, for a minivan.

THE CONCEPT OF zero also applies to time. Time spent on one activity, after all, is time taken away from another. So if we spend 45 minutes in a line waiting for our turn to get a **FREE!** taste of ice cream, or if we spend half an hour filling out a long form for a tiny rebate, there is something else that we are not doing with our time.

My favorite personal example is free-entrance day at a museum. Despite the fact that most museums are not very expensive, I find it much more appealing to satisfy my desire for art when the price is zero. Of course I am not alone in this desire. So on these days I usually find that the museum is overcrowded, the line is long, it is hard to see anything, and fighting the crowds around the museum and in the cafeteria is unpleasant. Do I realize that it is a mistake to go to a museum when it is free? You bet I do—but I go nevertheless.

ZERO MAY ALSO affect food purchases. Food manufacturers have to convey all kinds of information on the side of the box. They have to tell us about the calories, fat content, fiber, etc. Is it possible that the same attraction we have to zero

price could also apply to zero calories, zero trans fats, zero carbs, etc.? If the same general rules apply, Pepsi will sell more cans if the label says "zero calories" than if it says "one calorie."

Suppose you are at a bar, enjoying a conversation with some friends. With one brand you get a calorie-free beer, and with another you get a three-calorie beer. Which brand will make you feel that you are drinking a really light beer? Even though the difference between the two beers is negligible, the zero-calorie beer will increase the feeling that you're doing the right thing, healthwise. You might even feel so good that you go ahead and order a plate of fries.

SO YOU CAN maintain the status quo with a 20-cent fee (as in the case of Amazon's shipping in France), or you can start a stampede by offering something FREE! Think how powerful that idea is! Zero is not just another discount. Zero is a different place. The difference between two cents and one cent is small. But the difference between one cent and zero is huge!

If you are in business, and understand that, you can do some marvelous things. Want to draw a crowd? Make something FREE! Want to sell more products? Make part of the purchase FREE!

Similarly, we can use FREE! to drive social policy. Want people to drive electric cars? Don't just lower the registration and inspection fees—eliminate them, so that you have created FREE! In the same way, if health is your concern, focus on early detection as a way to eliminate the progression of severe illnesses. Want people to do the right thing—in terms

of getting regular colonoscopies, mammograms, cholesterol checks, diabetes checks, and such? Don't just decrease the cost (by decreasing the co-pay). Make these critical procedures FREE!

I don't think most policy strategists realize that FREE! is an ace in their hand, let alone know how to play it. It's certainly counterintuitive, in these times of budget cutbacks, to make something FREE! But when we stop to think about it, FREE! can have a great deal of power, and it makes a lot of sense.

Reflections on the Price of FREE!

We learned from our experiments that we all get a bit too excited when something is FREE! and that consequently, we can make decisions that are not in our best interest.

For example, imagine that you were choosing between two credit cards: one that offers you a 12 percent APR but has no yearly fee (FREE!), and one that offers you a lower interest rate of 9 percent APR but charges you a \$100 annual fee. Which one would you take? Most people would overemphasize the yearly fee and in pursuit of the FREE! offer would end up getting the card that costs them much more in the long run—when they inevitably miss a payment or carry a balance.*

Although identifying and fighting the allure of FREE! is important in order to avoid traps while we are making deci-

*When it comes to credit cards, the appeal of FREE! is further enhanced because most of us are overoptimistic about our financial future, and overconfident about our ability to always pay our bills on time.

sions, there are also some cases in which we can use FREE! to our advantage. Take, for example, the common experience of going to a restaurant with friends. When the server drops off the check at the end of a meal, people often scramble to figure out the norms for payment. Do we each pay for what we ordered? Do we split the bill evenly, even if John had that extra glass of wine and the *crème brûlée*? FREE! can help us solve this problem, and in the process help us get more joy from dining out with our friends.

The answer, as it turns out, is that one person should pay the entire bill, and that the people involved should take turns paying over time. Here is the logic: When we pay—regardless of the amount of money—we feel some psychological pain, which social scientists call the “pain of paying.” This is the unpleasantness associated with giving up our hard-earned cash, regardless of the circumstances. It turns out that the pain of paying has two interesting features. First, and most obviously, when we pay nothing (for example, when someone else foots the bill) we don’t feel any pain of paying. Second, and less obviously, the pain of paying is relatively insensitive to the amount that we pay. This means that we feel more pain of paying as the bill increases, but every additional dollar on the bill pains us less. (We call this “diminishing sensitivity.” Analogously, if you add one pound to an empty backpack, it feels like a substantial increase in weight. But adding a pound to a backpack that’s already laden with a laptop and some books does not feel like a big difference.) This diminishing sensitivity to the pain of paying means that the first dollar we pay will cause us the highest pain, the second dollar will cause us less, and so on, until we feel just a tiny twinge for, say, the forty-seventh dollar.

So if we are dining with others, we are happiest when we pay nothing (FREE!); we are less happy when we have to pay something; and the additional dollars we fork over cause us a smaller and smaller additional amount of pain as the size of the bill increases. The logical conclusion is that one person should pay the whole bill.

If you’re still unconvinced, consider the following example: Imagine that four people share a meal and the bill comes to \$100. Now, if everyone at the table pays \$25, every person would feel some pain of paying. In order to make this less abstract, let’s assign “units” as a measure of this pain. We’ll assume that paying \$25 translates into 10 units of pain for a total of 40 units of pain for the whole table when it comes time to split the bill. But what if one person pays the entire bill? Since the pain of paying does not increase linearly with the amount of payment, the person who is paying will feel 10 units of pain for the first \$25 that he or she pays; maybe 7 units for the next \$25; 5 units for the next \$25; and 4 units for the last \$25. The total of 26 units of pain lowers the amount of pain for the entire table by 14 units. The general point is this: we all love getting our meals for nothing, and as long as we can alternate payers, we can enjoy many FREE! dinners and derive greater overall benefit from our friendships in the process.

“Aha,” you might say, “but what about times when I eat only a green salad while my friend’s husband orders a green salad, a *filet mignon* dinner, two glasses of the most expensive cabernet sauvignon, and a *crème brûlée* for dessert? Or when the number of people changes the next time we gather? Or when some people in the group leave town altogether? All of this leaves me holding the bag.”

Certainly, there is no question that all these considerations make the "I'll buy this time, you buy next time" approach less economically efficient. Nevertheless, given the huge benefits in terms of the pain of paying that this method delivers, I personally would be willing to sacrifice a few bucks here and there to reduce the pain of paying for my friends and myself.

APPENDIX: CHAPTER 3

Let me explain how the logic of standard economic theory would apply to our setting. When a person can select one and only one of two chocolates, he needs to consider not the absolute value of each chocolate but its relative value—what he gets and what he gives up. As a first step the rational consumer needs to compute the relative net benefits of the two chocolates (the value of the expected taste minus the cost), and make a decision based on which chocolate has the larger net benefit. How would this look when the cost of the Lindt truffle was 15 cents and the cost of the Hershey's Kiss was one cent? The rational consumer would estimate the amount of pleasure he expects to get from the truffle and the Kiss (let's say this is 50 pleasure units and five pleasure units, respectively) and subtract the displeasure he would get from paying 15 cents and one cent (let's say this is 15 displeasure units and one displeasure unit, respectively). This would give him a total expected pleasure of 35 pleasure units ($50 - 15$) for the truffle, and a total expected pleasure of four pleasure units ($5 - 1$) for the Kiss. The truffle leads by 31 points, so it's an easy choice—the truffle wins hands down.

What about the case when the cost is reduced by the same amount for both products? (Truffles cost 14 cents and the Kiss is free.) The same logic applies. The taste of the chocolates has not changed, so the rational consumer would estimate the pleasure to be 50 and five pleasure units, respectively. What has changed is the displeasure. In this setting the rational consumer would have a lower level of displeasure for both chocolates because the prices have been reduced by one cent (and one displeasure unit). Here is the main point: because both products were discounted by the same amount, their relative difference would be unchanged. The total ex-

pected pleasure for the truffle would now be 36 pleasure units (50-14), and the total expected pleasure for the Kiss would now be five pleasure units (5-0). The truffle leads by the same 31 points, so it should be the same easy choice. The truffle wins hands down.

This is how the pattern of choice *should* look, if the only forces at play were those of a rational cost-benefit analysis. The fact that the results from our experiments are so different tells us loud and clear that something else is going on, and that the price of zero plays a unique role in our decisions.

CHAPTER 4

The Cost of Social Norms

*Why We Are Happy to Do Things, but Not
When We Are Paid to Do Them*

You are at your mother-in-law's house for Thanksgiving dinner, and what a sumptuous spread she has put on the table for you! The turkey is roasted to a golden brown; the stuffing is homemade and exactly the way you like it. Your kids are delighted: the sweet potatoes are crowned with marshmallows. And your wife is flattered: her favorite recipe for pumpkin pie has been chosen for dessert.

The festivities continue into the late afternoon. You loosen your belt and sip a glass of wine. Gazing fondly across the table at your mother-in-law, you rise to your feet and pull out your wallet. "Mom, for all the love you've put into this, how much do I owe you?" you say sincerely. As silence descends on the gathering, you wave a handful of bills. "Do you think three hundred dollars will do it? No, wait, I should give you four hundred!"

This is not a picture that Norman Rockwell would have painted. A glass of wine falls over; your mother-in-law stands