The first principle behind the science of shopping is the simplest one: There are certain physical and anatomical abilities, tendencies, limitations and needs common to all people, and the retail environment must be tailored to these characteristics.

In other words, stores, banks, restaurants and other such spaces must be friendly to the specifications of the human animal. There are all the obvious differences in shoppers based on gender, age, income and tastes. But there are many, many more similarities. This fact, and the accompanying thought—that stores should reflect the nature of the beings who must use them—seems too obvious to bear mentioning, doesn't it? After all, who designs and plans and operates these premises but human beings, most of whom are also at one time or another shoppers themselves? You'd think it would be easy to get everything right.

Yet a huge part of what we do is uncover ways in which retail environments fail to recognize and accommodate how human machines are built and how our anatomical and physiological aspects determine what we do. I'm talking about the absolute basics here, such as the fact that

we have only two hands, and that at rest they are situated approximately three feet off the floor. Or that our eyes focus on what is directly before us but also take in a periphery whose size is determined in part by environmental factors, and that we'd rather look at people than objects. Or that it is possible to anticipate and even determine how and where people will walk—that we go in predictable paths and speed up, slow down and stop in response to our surroundings.

The implications of all this are clear: Where shoppers go, what they see, and how they respond determine the very nature of their shopping experience. They will either see merchandise and signs clearly or they won't. They will reach objects easily or with difficulty. They will move through areas at a leisurely pace or swiftly—or not at all. And all of these physiological and anatomical factors come into play simultaneously, forming a complex matrix of behaviors which must be understood if the retail environment is to adapt itself successfully to the animal that shops.

The overarching lesson that we've learned from the science of shopping is this: Amenability and profitability are totally and inextricably linked. Take care of the former, in all its guises, and the latter is assured. Build and operate a retail environment that fits the highly particular needs of shoppers and you've created a successful store. In the five chapters that follow, we'll see how the most elemental issues—the holding capacity of the human hand, the limits to what a being in motion can read, even the physical needs of the nonshopper—go into determining the shopping experience.

The Twilight Zone

THREE

Stop.

Stay here with me a minute. Don't ask. Just watch.

I *know* we're standing in the middle of the parking lot. That's the point.

Do you notice how everybody's moving at a pretty brisk clip toward the store? Is it because they're all so darned excited to be going there? Well, maybe, but I've spent a lot of time watching people move through parking lots, and this is how they all do it—fast. A parking lot isn't the place for a leisurely stroll. It's not Fifth Avenue or even Main Street. It's speeding cars, exhaust fumes and asphalt, with the usual elements on top—rain, wind, cold, heat. Every parking lot in the world has terrible weather all the time.

Okay, so let's join everybody rushing for the store. What do you see ahead? Windows. And what's in them? Stuff. Or is it signs? Or is it stuff *and* signs? It's hard to tell, exactly, because of how the sunlight glares off the glass. Or because it's dark out and the lighting is too low. Most retailers don't change the lighting depending on whether it's day or night,

meaning that visibility must be pretty bad during at least one of those periods, if not both.

For the sake of discussion, let's say we can tell what's in the windows: some kind of display—mannequins or a still life. Whatever it is, though, the scale is wrong. There are too many small things there that we can't quite see from this distance. Bear in mind, too, that the faster people walk, the narrower their field of peripheral vision becomes. But by the time we get close enough to see the goods or read the signs, we're in no mood to stop and look. We've got that good cardiovascular parking-lot stride going, and it's bringing us right into the entrance. So forget whatever it is those windows are meant to accomplish—when they face a parking lot, if the message in them isn't big and bold and short and simple, it's wasted.

Boom. We hit the doors and we're inside. Still got that momentum going, too. Have you ever seen anybody cross the threshold of a store and then screech to a dead stop the instant they're inside? Neither have I. Good way to cause a pileup. Come over here, stand with me now and watch the doors. What happens once the customers get inside? You can't see it, but they're busily making adjustments—simultaneously they're slowing their pace, adjusting their eyes to the change in light and scale, and craning their necks to begin taking in all there is to see. Meanwhile, their ears and noses and nerve endings are sorting out the rest of the stimuli—analyzing the sounds and smells, judging whether the store is warm or cold. There's a lot going on, in other words, and I can pretty much promise you this: These people are not truly in the store yet. You can see them, but it'll be a few seconds more before they're actually *here.* If you watch long enough you'll be able to predict exactly where most shoppers slow down and make the transition from being outside to being inside. It's at just about the same place for everybody, depending on the layout of the front of the store.

All of which means that whatever's in the zone they cross before making that transition is pretty much lost on them. If there's a display of merchandise, they're not going to take it in. If there's a sign, they'll probably be moving too fast to absorb what it says. If the sales staff hits them with a hearty "Can I help you?" the answer's going to be, "No, thanks," I guarantee it. Put a pile of fliers or a stack of shopping baskets just inside the door: Shoppers will barely see them, and will almost never pick them up. Move them ten feet in and the fliers and baskets will disappear. It's a law of nature—shoppers need a landing strip.

When I talk to clients they invariably point to our findings on the transition zone as among our most meaningful, useful work. It is also perhaps the most startling news we deliver. I think that's mostly because our counsel defies the most ingrained human yearnings about the front: We all want to be there, at the front of the pack, the head of the line, the top of the class. To the front-runner goes the spoils.

In the retail environment, however, up front is sometimes the last place you want to be. For instance, retailers will charge manufacturers for placing their name on the front door, which sounds like a smart use of the marketing dollar—everybody sees the front door. And then you realize that when shoppers approach a door, all they're looking for is a handle and some sign of whether to pull or push. We've yet to see a shopper stop his or her progress to read what's on a door. There's only one time when anyone pauses to study what's written there: when the store is closed. Which may be worth something, as marketing tools go, but not a lot.

Today many stores have automatic doors, which make life easier for customers, especially those with packages or baby strollers. But the effortlessness of entering only serves to enlarge the transition zone—there's nothing to even slow you down a little. Some stores, especially smaller ones, benefit from having the entrance provide more of a threshold experience, not less. Even a gestural one—a slightly creaky door or a squeaky hinge does the trick. Special lighting on the doorway also clearly marks the divider between out there and in here.

A big store can afford to waste some space up front. A smaller one can't. In either case, store merchandisers can do two sensible things where the transition zone is concerned: They can keep from trying to accomplish anything important there, and they can take steps to keep that zone as small as possible.

A good lesson in what *not* to do with the entrance and transition zone comes courtesy of a big, sophisticated company. In the early '80

Burger King was testing a new salad bar. To introduce it with a bang, they decided that they'd switch the entrances and exits on their test restaurant. Until then, the door closest to the parking lot was always the entrance. They turned that entrance into an exit and put the salad bar just behind the big window next to it, so you'd walk from your car, go to the old entrance, see the salad bar and be so tempted by it that when you entered—through the *new* entrance—you'd head straight for the lettuce.

But here's what happened: Customers went to the old entrance and tried to find the handle—which had been removed as part of the reconfiguration. They would then back up, scratch their heads and begin searching for a way to get into the place. They weren't looking at the salad bar—they were too busy looking for a door! And once they found it, and burst into the restaurant feeling hungry and frustrated, all they wanted to do was find the counter and order their usual burgers and fries. In that atmosphere, the salad bar never had a chance.

Another bad idea for the transition zone was invented at an athletic goods chain where management decreed that every incoming shopper had to be greeted by a salesclerk within five seconds of entering the store. Here's how that played in the real world: You'd walk in and come face-to-face with a lineup of eager clerks hovering just inside the entrance like vultures, ready to pounce with a hearty hello.

We discovered another misuse of the zone a few years ago, when we tested an interactive computerized information fixture that had been designed for Kmart by a division of IBM. It had a touch screen and a keyboard, and you'd ask it where men's underwear was, for example, and it would give you a map of the store and maybe a coupon for T-shirts or socks. A terrific idea, executed well. It helped customers and spared the store from having to pay someone to stand behind a desk and tell people where boys' sweaters were—seventy-two times a day.

It wasn't long, though, before store executives discovered a little glitch: Few shoppers used the fixtures. The problem was that no one admits, six steps into a store, that they don't know where they're going. At that point you haven't even looked around long enough to realize you're lost. Placing the computers too close to the door had turned

them into very expensive pieces of electronic sculpture. The store gave up on them right away, but I'm certain they could have worked just fine—maybe a third of the way into the store, at about the point where customers really *do* realize they need help.

What *can* you do with the transition zone? You can greet customers—not necessarily steer them anywhere but say hello, remind them where they are, start the seduction. Security experts say that the easiest way to discourage shoplifting is to make sure staffers acknowledge the presence of every shopper with a simple hello. Sam Walton's homespun observation was that if you hire a sweet old lady just to say hello to incoming customers, none of them will dare steal.

You can offer a basket or a map or a coupon. There's a fancy store in Manhattan, Takashimaya, where the uniformed doorman proffers a handsomely printed pocket-size store directory as he ushers you in. Just to the right of the entrance, within the transition zone, is the store's flower department. As you enter, you see it from the corner of your eye, but you don't usually stop in—instead, you think, Hmm, flowers, good idea, I'll get them on my way out. Which makes perfect sense, because you wouldn't want to shop the rest of the store carrying a bouquet of damp flowers.

Right inside the door at The Gap and its younger, trendier sibling, Old Navy, there's what's known as a power display—a huge, horizontal bank of sweaters, for instance, or jeans that acts as a barrier to slow shoppers down. Kind of like a speed bump. It also functions as a huge billboard. It doesn't necessarily say, "Shop me." It says, "Pause a second to look at what you're walking in on."

Another solution, which I saw at Filene's Basement, is to totally break the transition zone rule. Not just break it, but smash it. There, just inside the entrance, they've placed a large bin of merchandise that's been deeply discounted, a deal so good it stops shoppers in their tracks. That teaches us something about rules—you have to either follow them or break them with gusto. Just ignoring a rule or bending it a little is usually the worst thing you can do.

I'd love to see someone try this out-of-the-box strategy: Instead of pulling back from the entrance, push the store out beyond it—start the

selling space out in the parking lot. After all, football fans make elaborate use of parking lots in even the worst weather, barbecuing and eating and drinking and socializing on asphalt. Drive-in movies everywhere are turned over to flea markets during daylight hours, proof that people will comfortably shop al fresco. Some supermarkets will bring seasonal merchandise out into the parking lot during summer; I visited one in a seashore resort that had all barbecue supplies, beach toys, suntan lotion and rubber sandals in a tent outfitted with a clerk and a cash register—allowing beachgoers to pull up, grab a few necessities and drive away, all without having to drag their sandy selves through the food aisles and long checkout lines. Pushing the store outside also begins to address an interesting situation in America—the fact that so much of the country has been turned into parking lots. Buildings can be put to a variety of uses—a clothing store can sell electronics or groceries or even be converted into office space. But our vast plains of asphalt will require more imaginative thinking.

Our findings that being first isn't necessarily best extend beyond the transition zone and into the store proper. In any section of a store, the first product customers see isn't always going to have an advantage. Sometimes, just the opposite will happen. Allowing some space between the entrance of a store and a product gives it more time in the shopper's eye as he or she approaches it. It builds a little visual anticipation. Someone making a study of, say, the computer section of a store is highly unlikely to stop at the very first model and buy it with no further comparisons. By the time he reaches the midpoint of the computer section, though, he may feel confident and informed enough to decide. At trade shows, the booths just inside the door may seem most desirable, but they're pretty bad locations. Visitors zoom past them on their way into the hall, or, even worse, they arrange to meet friends by the entrance, thereby creating the (false) impression that there's a crowd at the first booth, thereby scaring off genuine clients. Besides, just inside the door is usually drafty. It feels as though you're in the vestibule.

Cosmetics and beauty product firms don't usually want to occupy

the first counter inside the entrance of a department store's makeup bazaar—they know that women, when reinventing themselves before a mirror, prefer a little privacy. That's not the only reason to wish for a little peace and quiet. If you were one of the two major players in the home hair-coloring market, you'd want the best position possible in drugstores. Now, young women tend to buy hair color as a fashion statement—they've got some occasion coming up that requires a little extra glamour, or they've been wanting to change something so they'll try a new shade. Older women, however, buy it as a staple—they've been using a particular color for fifteen years now, and more gray is coming in every day, so it becomes as regular a purchase as soap. As a result of that difference, older shoppers just find their color, grab it and go, while younger ones need to study the rack and the packaging awhile before they buy. In hair care, for example, we found that older women shop one-third fewer products than their younger counterparts, 2.1 to 3.1. So in a store where younger shoppers predominate, hair color will do best away from the bustle and the crowding, which usually means away from the front of the store. If most shoppers are older women, however, closer to the entrance is better for hair color—these shoppers won't be browsing for long anyway.

Finally, there's a famous (around our offices) story about a very elaborate and costly supermarket display for chips and pretzels—a handsome fixture featuring the cartoon character of Chester the Cheetah, who, aided by a motion-detector device, would say, "If you're looking to feed your face, you're in the right place" every time a shopper walked past. The fixture's owner paid a great deal of money to have the displays stationed up front in some supermarkets. They were effective—so much so that the greetings ran constantly, which soon maddened the cashiers who had to listen to the drawling voice for eight hours straight. Before long, at least one market's employees solved the problem neatly—they disconnected Chester, rendering him instantly agreeable but forever mute.

You Need Hands

FOUR

It's a chilly day and the shopper is a woman. What does that tell us?

It says that at the very least she's carrying a handbag, and that she's wearing a coat, which she'll probably want to remove once she's inside the store, meaning she'll have to carry that, too. God gave her two good hands. But she's shopping with one.

If she selects something, the free hand carries it. Now she's down to no hands. Maybe, if it's small and light, she can tuck the purchase under one arm. Perhaps she'll sling the handbag over a shoulder or forearm. Then she'll have—let's call it a hand and a quarter. If she picks one more thing, though, she'll run out of hands. Only an extremely motivated buyer will persevere. Human anatomy has just declared this shopping spree over.

This is a classic moment in the science of shopping. The physical fact (most shoppers have two hands) is fairly well known. But the implications of that fact go unimagined, undetected, unconsidered, unaccommodated, unacknowledged. Ignored.

I first paid close attention to the hand-allotment issue while studying

a newsstand at that great crossroads of humanity, New York's Grand Central Station. We pointed our cameras at the stand and watched it during the busiest times, the morning and evening rush hours.

The success of the business depended on one crucial task—its ability to process large numbers of transactions during the periods when everybody is in a hurry, either rushing from train to job in the morning or from job to train at night. Commuters on the run glance over at the newsstand to see how crowded it is. If it looks as though they can breeze in, buy a paper or magazine or cigarettes or gum, and then be on their way, they'll stop. If it looks swamped with customers waiting to pay and nervously checking their watches, they'll keep going. They'll say to themselves, Too much of a hassle, I'll miss my train, it'll be faster to get it elsewhere.

The other, related fact of newsstand life we noticed was that every customer had one hand already occupied, either with a briefcase or a tote bag or a purse or a lunch. Almost no one goes to work empty-handed nowadays. When you think about it, it's a rare moment in the modern American's life when both hands are completely free. Even the ubiquitous backpacks and fanny packs that many of us now use don't free our hands—they just enable us to carry more than before. Humans are like two-legged pack animals, and it amazes me what we feel we need to have with us everywhere we go.

The final factor in our study was the stand itself, which was of typical design—a low shelf where the day's newspapers go, above which were racks holding magazines, above which were shelves holding candy and chewing gum and mints, and inside the circular structure, above it all, the cashiers.

Thanks to the videotape, we could break each transaction down into its smallest components. Here's what we saw: Carrying your briefcase, you'd approach the stand, bend and pick up, say, a newspaper. Then you'd straighten up and brandish the paper so the clerk could see your choice. At that point you'd either put your briefcase on the floor or you'd put the paper under your briefcase arm, and, with your free hand, you'd hold out the money. (If you were a last-minute type, you'd have to reach into your pocket, find the money and hand it over.) You would

then stand tilting slightly toward the clerk, waiting with free hand outstretched for your change. The change goes into the pocket and you pick up your briefcase—or, the paper goes from the briefcase armpit to the free hand—and then you turn and depart, squeezing through the rest of the throng trying to buy something.

The stand's designer obviously believed that the best possible structure was the one that displayed the most merchandise. Maybe the stand's owner believed that, too. But from the customer's point of view, the design was all wrong. There should have been a shelf at about elbow height—someplace where customers could rest their briefcases or purses or their purchases while digging out their money and waiting for change. A counter, in other words.

Instead, the only horizontal surface was at about shin height, which displayed newspapers just fine but turned each transaction into an awkward ballet starring a tilted one-handed commuter. As a result, the typical purchase involved more steps than were needed, and so required more time to complete—even split seconds add up—which in turn limited the number of transactions possible during rush hour. Which caused congestion, scared away customers and ultimately cost the newsstand sales. A better design—one that took human anatomy into consideration—might have displayed less merchandise but accommodated more customers.

That woman I began this chapter by describing could have been shopping at a big discount drugstore. It was during a study we did for one such chain that we thought of one simple but very effective solution to the hand shortage.

The eureka moment came on a sultry August night in my office as I listened to the Yankees on the radio and watched videotape of people shopping in the drugstore. I was viewing footage from the camera we had trained on the checkout line, witnessing a shopper trying to juggle several small bottles and boxes without dropping one. That's when it dawned on me: The poor guy needed a basket.

Why hadn't he taken one? The store had plenty of them, placed right inside the door. Maybe people don't associate drugstores with shopping baskets. Perhaps they come in thinking they need just one or

two items and only later do they realize they should pick up a few more things. The biggest culprit, of course, was the transition zone—the baskets were so close to the entrance that incoming shoppers blew right by without even seeing them down there. I immediately began to scan all three days' worth of checkout line video and saw that fewer than 10 percent of customers used baskets, meaning there were quite a few amateur jugglers shopping at the store. And, I thought, if someone gave these people baskets, they'd probably buy more things! They wouldn't buy fewer items, that's certain. But here we were, allowing the arm and hand capacity of human beings to determine, ultimately, how much money they spent.

We suggested that all employees be trained to offer baskets to any customer seen holding three or more items. Management gave it a shot. And because people tend to be gracious when someone tries to help, shoppers almost unanimously accepted the baskets. And as basket use rose instantly, so did the size of the average sale—up just like that. In retail, the easiest way to make more money is to sell more stuff to your existing customer base.

The issue of shopping baskets is a perfect example of something I mentioned earlier, the complex matrix of anatomical traits and human behaviors that determine how we shop. In a very successful bookstore near my office, there is a pile of shopping baskets in the usual erroneous place—in a corner just inside the door. Transition zone aside, this is bad planning for another reason, one that shows how totally retailers fail to comprehend what shoppers do in stores. This failure is remarkable, considering that businesspeople are themselves shoppers at least some of the time and so should be able to see the world from that perspective. Instead, there's a fatal disconnect.

Judging by where the baskets are kept here, you'd think that retailers think that shoppers enter bookstores saying to themselves, Well, today I plan on buying four books, a box of arty greeting cards and a magazine, and so first thing I will take a basket to hold all my purchases. Whereas common sense tells us that people don't work that way—more likely somebody walks in thinking about one book, finds it, then stumbles over another that looks worthwhile. In such moments the

very heart of retailing lies, and if shoppers suddenly ceased to buy on impulse, believe me, our entire economy would collapse. For many stores, add-on and impulse sales mean the difference between black ink and red.

Anyway, when our book shopper stumbles upon a second worthy volume, she then begins wishing she had a basket to make life a little easier. And if at that exact moment a basket suddenly materialized—in plain sight, and easy to reach *without stooping*—then she would probably take one. And then, perhaps, go on to buy books number three and four. Maybe even a bookmark.

The lesson seems clear: Baskets should be scattered throughout the store, wherever shoppers might need them. In fact, if all the stacks of baskets in America were simply moved from the front of the store to the rear they would be instantly more effective, since many shoppers don't begin seriously considering merchandise until they've browsed a bit of it. The stack should be no lower than five feet tall, to make sure the baskets are visible to all, yes, but also to ensure that no shopper need stoop to get one, since shoppers hate bending, especially when their hands are full.

The baskets themselves also need to be rethought. This store uses shallow, hard plastic ones with hinged steel handles, the same as supermarkets and convenience stores offer. They're perfect if you're buying bottles, jars or crushable items, but make no sense for books, office supplies or clothes. When the contents grow heavy the handles become uncomfortable in your hand, but you can't sling the basket over your arm or shoulder, as common sense might wish you could. As a result, you don't want to let that basket get too full. How do we usually carry books? In bags, tote bags especially. A rack of canvas or nylon tote bags would be much better here, and would have the added advantage itself of being salable merchandise. The clerk could unload the bag, total up the damages, ask if the customer wants to buy the tote, and then reload everything and save on plastic to boot.

The cleverest use of baskets I've seen yet is at Old Navy in Manhattan. I always take visiting retailers to see that store—it's one of the liveliest, most energetic shopping experiences in the city. As soon as you step

inside there's a gregarious, smiling employee greeting you and proffering a black mesh tote bag to carry your purchases. The bags are cheaper, lighter and easier to store than plastic baskets, and they look a whole lot better. In fact, when you bring yours to the checkout, the cashier will ask if you want to buy the bag, and a fair number of people say yes, adding one final sale at the last possible moment.

The least clever use of baskets was one I witnessed in a southern department store during Christmas season. There was a large rack of mesh totes perfectly positioned just inside the entrance. But some merchandising wizard decided to place in front of it an even larger display of stuffed Santas—rendering the bags totally invisible to entering shoppers. (Exiting shoppers saw them just fine.) I don't know how many Santas were sold, but it couldn't have been enough to offset that bad decision.

When we studied its stores, the tabletops maker and retailer Pfaltzgraff was already providing baskets as well as shopping carts to its customers. But at checkout, we noticed that many of the carts were filled to capacity with dishes and bowls, and so on. The company immediately replaced the carts with new ones that were roughly 40 percent larger. Just as fast, the average sales per customer rose.

This all serves as a reminder of one of the most crucial big-picture issues in the world of retailing: You can't know how much shoppers will buy until you've made the shopping experience as comfortable and easy and practical as possible.

There's a rather elaborate way of keeping customers' hands free that I'd love to see some retailer try. This plan would keep shoppers feeling 100 percent unburdened until it was too late—after they had reached the exits.

The idea would be to create a combination coat check–package call system. Customers could unload all encumbrances as soon as they enter the store. And instead of carrying their selections around with them, they'd instruct salesclerks to dispatch the bags and boxes to the will-call desk near the exit. After a full session of vigorous, hands-free shopping, the customer would head for the door, pick up coat and hat and purchases, and be gone, into car or taxi or waiting limousine.

Sometimes even that isn't enough. The big souvenir shop at Disneyland is still working on this problem. There, all day long the store is virtually empty, since visitors wisely don't want to shop and then have to lug their purchases around the park all day. But by 4:30 p.m. it's a madhouse of souvenir lust. A will-call desk was established so that shoppers could buy in the morning, leave the store empty-handed and then drop by the will-call desk to retrieve their purchases at day's end. The only problem is that a great many shoppers forget to come by for their purchases. Perhaps the store could deliver them to the buyers' hotels.

My fullest vision of such a service was one I suggested to Bloomingdale's. In the flagship store in Manhattan, the eighth floor is not terribly well suited to selling, owing to its hard-to-reach location. So I suggested that the floor be turned into a kind of semi-private retreat for better customers, complete with attended restrooms, ATMs, a cafe, a concierge and other similar amenities—including, of course, the coat check–will-call desk. If shoppers are just visiting New York, delivery could even be made to their hotels. In fact, I envisioned that membership to this semi-private club could be sold to hotels, which would then pass along the benefits to their guests. This kind of service would be most profitable on an even bigger scale. Someday soon a mall or shopping center developer will institute such a system to serve all tenants, doing his part to drive up sales—and, of course, his own take, too.

It's hard to overemphasize the importance of the hand issue to the world of shopping. A store can be the grooviest place ever, offering the finest/cheapest/sexiest goods to be had, but if the shopper can't pick them up, it's all for naught. In Chapter 12 I explain the crucial matter of touch, trial and other sensory aspects of shopping. If shoppers can't reach out and feel certain goods, they just won't buy. So it's not simply a matter of making sure shoppers can carry what they wish to take. They won't even get close to making that decision if their hands are full. It's why, in many cases, flat tabletop displays are better for showing apparel than hangers on racks: It's a struggle to examine something on a hanger if you've got only one hand free, whereas you can place your burdens on the tabletop and unfurl that sweater to get a good, close look and feel.

The most amusing manifestation of the hand issue was in a supermarket I visited. Like just about every retailer in America today, this market had decided to put in a coffee bar, where shoppers could sit and drink, if they wished. This wasn't the first coffee shop I'd seen in a supermarket, but it was the first one to truly understand how the whole thing should work: It had also put in cup holders on the shopping carts, meaning that you could drink and drive. That clever little touch sells coffee, I'll bet.

How to Read a Sign

FIVE

"Well," he says to me, "what do you think?"

And with that, the graphic design executive unveils the sign that's about to go into five hundred or so stores.

I'm seated in a comfortable chair, in a climate-controlled conference room with perfect lighting. The sign is right before my nose, at the ideal viewing distance, beautifully printed on expensive paper, which has been exquisitely matted by professionals. There's a kind of hush all over the room.

"Gee," I answer, "I don't know what I think."

Worried glances all around. They're not worried about me—they're worried *for* me.

"What do you mean you don't know?" the executive asks. "You're *supposed* to know."

And that's when I try to explain.

I start by saying that unless every customer is going to come upon the sign under the exact same conditions that I first saw it, it's impossible for me to know if it's the greatest sign ever designed or a tragic

waste of time, space and money. I attempt to remind everybody that people in stores or restaurants or banks are almost never still; they're moving from one place to another. And they're not intent on reading signs—in fact, they're usually doing something else entirely, like trying to find socks, or seeing which line is shortest, or deciding whether to have the burger or the chicken. And there's that brand-new sign somewhere in the distance, off at a sharp angle, partially hidden by a tall man's head, and the lighting isn't even so hot, and anyway somebody's talking to the customer and distracting her.

In other words, I end by saying, showing me a sign in a conference room, while ideal from the graphic designer's point of view, is the absolute worst way to see if it's any good.

To say whether a sign or any in-store media works or not, there's only one way to assess it—in place. On the floor of the store.

Even there it's no picnic. First you've got to measure how many people looked at it. Then you've got to be able to say whether they looked long enough to read what it says, because if they're not reading it, even the best sign won't work. Now, the difference between an inadvertent glance at a sign and a thorough reading might be two or three seconds. So you can see what kind of challenge this is for our researchers. They've got to discreetly position themselves just so, behind the sign itself, and then watch a shopper's smallest eye movements while simultaneously keeping track of the stopwatch, just to be able to say with absolute scientific certainty that this man focused on that sign for four seconds, and then his eyes shifted to that poster and looked at it for three seconds. We watch shopper after shopper for hours on end, hundreds of people, thousands of minutes, and then assemble all our findings before we can say whether a sign is any good.

Go try. It ain't easy.

But there's no other way. As far as I know, we're the only firm in the country doing this kind of work. There are companies that will measure sign readability by putting subjects into high-tech helmets that measure the smallest eyeball movements, then holding signs before them. But even that won't tell you if you've put the right sign in the wrong place, which happens all the time (and which, by the way, is ac-

tually worse than putting a so-so sign in the perfect place). And it surely can't predict whether shoppers will read and respond to a sign on the floor of a store, where distractions abound.

Once you know whether people are reading a sign, you can begin to measure its influence on their behavior. But not until. So the first thing you've got to do is get the hell out of that conference room.

The most common mistake in the design and placement of signs and other message media is the thought that they're going into a store. When we're talking signs, it's no longer a store. It's a three-dimensional TV commercial. It's a walk-in container for words and thoughts and messages and ideas.

People step inside this container, and it tells them things. If everything's working right, the things they are told grab their attention and induce them to look and shop and buy and maybe return another day to shop and buy some more. They are told what they might buy, and where it is kept, and why they might buy it. They're told what the merchandise can do for them and when and how it can do it.

A great big three-dimensional walk-in TV commercial.

And just as if scripting and directing a TV commercial, the job is to figure out what to say and when and how to say it.

First you have to get your audience's attention. Once you've done that, you have to present your message in a clear, logical fashion—the beginning, then the middle, then the ending. You have to deliver the information the way people absorb it, a bit at a time, a layer at a time, and in the proper sequence. If you don't get their attention first, nothing that follows will register. If you tell too much too soon, you'll overload them and they'll give up. If you confuse them, they'll ignore the message altogether.

This has always been so. The main reason it's so important today is that more and more purchasing decisions are being made on the premises of the store itself. Customers have disposable income and open minds, and they're giving in to their impulses. The impact of brand-name marketing and traditional advertising is diffuse now because we all absorb so much of it. The role of merchandising has never been greater. Products now live or die by what happens on the selling floor. You can't waste a chance to tell shoppers something you want them to know.

And shoppers are more pressed for time than ever. They're not dawdling the way they used to. They've grown accustomed to stores where everything for sale is on open display, and they expect all the information they need will be out in the open, too. Nobody wants to wait for a clerk to point them in the right direction, or explain some new product. Nobody can find a clerk anyway. Once upon a time you went into a coffee shop and the only thing to read was the menu and the *Daily News*. Now you go into even the smallest Starbucks and there are eleven distinct signing positions communicating everything from the availability of nonfat eggnog to the tie-in with Oprah's Book Club.

So you can't just look around your store, see where there are empty spots on the walls and put the signs there. You can't simply clear a space on a counter and dump all your in-store media. Every store is a collection of zones, and you've got to map them out before you can place a single sign. You've got to get up and walk around, asking yourself with every step: What will shoppers be doing *here*? How about *here*? Where will their eyes be focused when they stand here? And what will they be thinking about over *there*? In this zone people will be walking fast, so a message has to be short and punchy—arresting. Over there, they'll be browsing around, so you can deliver a little more detail. In this area they'll be thinking about, oh, let's say we're standing near the motor oil shelf, so they'll be thinking about their cars. So maybe it's a good opportunity to tell them something about replacement windshield wipers. Over here by the registers they will be standing still for a minute and a half, a perfect window for a longer message. And then they'll be on their way out of the store, but you can use the exit path to give them a thought for the road.

Each zone is right for one kind of message and wrong for all others. Putting a sign that requires twelve seconds to read in a place where customers spend four seconds is just slightly more effective than putting it in your garage.

I'm forever walking around and adding to my mental list of places shoppers stand around doing nothing, where some message might be appropriate. One struck me the other day: In a shoe department you tell the clerk what you want and he or she goes off to find your size. At that point you've already examined all the shoes, so what do you do? It's probably a good spot for a sign promoting other merchandise. You'd probably welcome something to read right then and there. Maybe something about handbags.

Here's another good spot for signs currently being neglected: escalators. That struck me as I ascended from the tracks on the underground, in London. There you spend a lot of time rising slowly.

It isn't enough simply to figure out the general vicinity where a sign should go. We once studied shoppers who came upon a banner hanging directly over the cash/wrap area of a store. Good placement, no? No. A very low percentage of shoppers even saw it. Nobody stands around in a store looking straight up in the air. We recommended that the banner be moved four feet away, and the number of people who saw it doubled. When it comes to positioning a sign, the difference between an ideal viewing spot and a terrible one is often just a few feet. For maximum exposure, a sign should interrupt the existing natural sight lines in any given area. So you've got to stand in a spot and determine: Where am I looking? That's where the sign goes. It's no surprise that the number-one thing people look at is other people. That's why some of the most effective signs in fast-food restaurants are the ones sitting atop the cash registers—more or less at the level of the cashier's face. Smart sign placement simply tries to interrupt the shopper's line of vision and intercept her gaze.

Sometimes, though, you've got to get creative with message placement. Toro made an in-store video to promote its automatic mulching mower. Naturally, it was going into home and garden-supply stores, but where? In the mower section? Where shoppers would see the monitors going but then realize that they'd have to stand still for ten minutes to watch the whole thing, and not only that but they'd have to stand in the middle of an aisle and quite possibly get mowed down (and mulched) by shoppers on their way to barbecue accessories? Instead, the video went into repair department waiting areas, where it played before captive audiences grateful for even the slightest distraction. Everyone who visits the repair department of a home and garden-supply store is going to buy a new mower *someday*. For some reason, we find that even retailers who pile on the signs elsewhere will fail to appreciate the possibilities for communication in waiting areas, where people tend to be bored to tears. We once studied a car dealership's service area waiting room that offered not one word of reading material—not a single piece of promotional literature. Not an issue of *Car and Driver* or *Road and Track*. Not even an old *Reader's Digest*.

Nobody studies signs like the fast-food industry. Even if you don't plan on owning a Burger God franchise, it's instructive to see how they do it.

They realize that you can put an effective sign in a window or just inside a doorway, for example, but it has to be something a customer can read in an instant. Just two or three words. We've timed enough people to know that such signs get, on average, less than two seconds of exposure per customer.

I was once asked to evaluate a door sign that had ten words on it.

"How much can you read in a second and a half?" I asked the designer.

"Three or four words, I guess," he admitted.

"Hmm," I replied.

Fast-food restaurants used to hang all kinds of signs and posters and dangling mobiles in and around doorways to catch customers' attention fast until studies showed that nobody read them. When you enter a fast-food restaurant, you are looking for one of two things: the counter or the bathroom.

There's no point in placing a sign for people on their way to the bathroom to see. They've got more important things on their minds. But a sign facing people as they leave the bathroom works just fine.

As people approach the counter, they're trying to decide what they're going to order. In the fast-food arena, that means they're looking for the big menu board. But they're not going to read every word on it—they're just going to scan until they see what they're looking for. If

they're regular customers (as most customers are), they probably already know what they want and aren't even looking at the menu.

If there's a long line, customers will have lots of time to study the menu board and anything else that's visible. After the order is placed the menu board and counter area signs still receive prolonged customer attention. McDonald's found that 75 percent of customers read the menu board *after* they order, while they wait for their food—during the "meal prep" period, which averages around a minute and forty seconds. That's a long time, and that's when people will read almost anything—they've already paid and gotten their change, so they're not preoccupied. That's a perfect window for a longer message, something you want them to know for the next time they come.

Then they either leave or they go to the condiments. You can place promotional materials over the condiment bar, though it's pointless to advertise burgers there—it's too late. But it's a good opportunity to tell diners something about dessert. This is a lesson in the logical sequencing of signs and fixtures. There's no point in telling shoppers about something when it's too late for them to act on it. For instance, it's a good idea to position signs for shoppers standing in line to pay, but it's a bad idea if those signs promote merchandise that's kept in the rear of the store.

After the condiment bar, diners go to their tables to eat. A few years ago there was a move in the fast-food business to banish all dining area clutter—the hanging signs, mobiles, posters and "table tents" (those three-sided cardboard things that keep the salt and pepper company). That was a mistake, it turned out, one that was made because the store planners failed to notice what was going on in their own restaurants, specifically the social composition of the typical fast-food meal.

We tested table tents in two types of restaurant—the "family" restaurant and the fast-food establishment. In the family place, the table tents were read by 2 percent of diners.

At the fast-food joints, 25 percent of diners read them.

The reason for that dramatic difference was simple: At family restaurants, people usually eat in twos, threes or fours (or families!). They're too busy talking to notice the signs. But the typical fast-food customer is eating alone. He's dying for some distraction. Give him a tray liner with

lots of print and he'll read that. Give him the first chapter of the forthcoming Stephen King novel, and he'll read *that*. One of our clients, Subway, was printing napkins with the boast of how much healthier their sandwiches were than burgers. Go a step farther, we advised—print the napkins with a chart comparing grams of fat. In the seating area of a fast-food restaurant you can practically guarantee that customers will read messages that would be ignored anywhere else. There's an obvious role model: the back of the cereal box.

You can see, then, how a fast-food restaurant is zoned: The deeper in you are, the longer the message can be. Two or three words at the door; a napkin filled with small type at the tables. I passed a fast-food place the other day with a perfect window sign. It bore this eloquent phrase: "Big Burger." Only when you entered the place did you come upon another sign explaining the details of the teaser. (They were selling . . . big burgers.) That's smart sign design—breaking the message into two or three parts, and communicating it a little at a time as the customer gets farther into the store. Thinking that every sign must stand on its own and contain an entire message is not only unimaginative, it's ignorant of how human brains operate. It even takes the fun out of signs—remember how the sequencing made those old Burma Shave billboards such icons of American humor?

Another lesson in sign language comes courtesy of the United States Postal Service, for which we performed a huge study to help design the post office of the future.

In one of the prototype stores we studied, hanging behind the cashiers were large banners promoting various services. Fourteen percent of customers read those banners, our researchers found, for an average of 5.4 seconds each. There were also posters pushing stamp collecting hung on the walls to either side of the cashiers. Fourteen percent of customers read those, too, for an average of 4.4 seconds each.

Which is pretty good in the sign world. And not unexpected, because when you're in line at the post office, what else is there to do? The area behind or to the side of the cashiers is almost always the hottest signage real estate.

The post office also hung signs meant to be seen by customers using

the writing tables. Those signs were read by just 4 percent of customers, for an average of 1.5 seconds each. Mobiles hanging over the weighing stations were read by just one percent of customers, for an average of 3.3 seconds each. Which was no surprise—when you're writing or weighing, you're not reading. Those signs were as good as nonexistent.

Banks also expend a lot of energy trying to figure out which signs work and which don't. Banks, fast-food restaurants and the post office have this in common: lots of customers standing still and facing the same direction—ideal opportunities for communication. The difference is that banks are some of the worst offenders in the art and science of sign placement. I can take you to branches of the world's biggest and most sophisticated financial institutions where placement of merchandising and informational materials is laughably inept. There are church bake sales and kiddie lemonade stands that exhibit better signage sense than some banks I can name. Five minutes from my office is a branch of the Chase Manhattan Bank where you can find this merchandising innovation: a round table covered by the cheapest blue plastic tablecloth you've ever seen, atop which were tossed some brochures for car loans and mortgages, joined by a TV monitor, once intended perhaps for showing in-branch videos but now unused and completely covered by a blanket of dust. The table was jammed into a corner in the front of the bank, just a few feet from the customer service desk. It's so bad that it's funny. A lot of bank signage can claim that distinction.

A California bank client decided—correctly—that it would be smart to promote its new free checking policy by hanging outdoor banners visible from the heavily traveled road beyond its door. And then it decided—incorrectly—that the banners should say, "Please come in and ask a friendly banker to explain our wonderful new free checking policy" or something to that effect. Drivers would have had to pull over to read the sign, it was so verbose. On a highway, two words—maybe something catchy, like "Free Checking"—must be made to suffice.

We did a study for a Canadian bank that had just installed some very sophisticated backlit displays on the customer writing tables. These exhibits detailed the various services and investments the bank offered.

They were quite beautiful. Nobody read them.

Again, when you're filling out a deposit slip or endorsing checks, you're concentrating too hard to think about anything else. And once you've filled out the paperwork, you race to get into line.

We delivered our sad findings, and the bank's president said, "God, you just saved us from wasting about a million bucks on those damn things." He still spent the million bucks on in-branch media, of course—but on things that would make a difference.

It was also at a bank that we discovered one of our easiest and most effective fixes ever. We were hired to study all aspects of a bank branch, including the large rack that held brochures describing the money market funds, certificates of deposit, car loans and other services and investments offered. The rack was hung on the wall to the left of the entrance, so you'd pass it on your way in.

Everyone passed within inches of it. No one touched it.

Again, the reason seems obvious: You enter a bank because you have an important task to perform. Nobody goes into a bank to browse. And until you perform that task, you're not interested in reading or hearing about anything else. The fact that the rack was to the left side of the doorway, when most people walk to the right, only made it worse.

We took that rack and moved it inside, so that customers would pass it as they exited rather than entered, and we had a tracker stand there and watch. With no other change, the number of people who saw the rack increased fourfold, and the number of brochures taken increased dramatically. Banks aren't the only place where task-oriented behavior must be reckoned with. We enter a drugstore intent on seeing the pharmacist and turning over our prescription, and we don't notice a single sign or display we pass until that mission is accomplished. Then we've got some time to kill, only we're in the rear of the store, and all the signs and fixtures are positioned to face shoppers approaching from the front. Or we've gone to the post office for a roll of stamps, and we're not slowing down until we've secured our position in line. Or we're at the convenience store, hot on the trail of barbecue starter fluid, and until we're sure they have it, we won't be distracted by anything else. In all those instances, it's futile to try to tell shoppers anything until after they've completed their task. So in that drugstore, for instance, two sep-

arate signage strategies must be mapped out—one for shoppers walking front to back, and the other for shoppers walking back to front, from the pharmacist to the front.

At a bank client's branch we studied there was a standing rack of brochures located in the general vicinity of the teller lines. But it was positioned a little too far away—customers standing behind the ropes could barely read the brochure titles, let alone grab them.

"Whose job is it to set up the ropes and stanchions and the brochure rack?" we asked the branch manager.

"Well," he said, "the cleaning staff mops up every night, and when they're through they put all that stuff back on the floor." And sure enough, that cleaning crew didn't know squat about signage.

There's one arena of American life where sign design and placement isn't just a somewhat important issue, it's a matter of life or death. I'm speaking about our roads, especially our interstate highway system. There, signs are almost as important as surface and lighting to maintaining safe, well-ordered conditions. As a result, engineers make sure to get the signage right. The principles seem simple enough: no extra words; the right sign at the right place; enough signs so that drivers don't feel ignored or underinformed; not so many signs that there's clutter or confusion. The fact that you can be driving in a place you've never been and know for sure that you're heading in the right direction—without stopping for directions or even slowing down to read a message—is a testament to the power of a smart system of signs.

Look at the most common road signs in the country: Stop and One Way. A big red octagon with bold white capital letters—what else could it mean? If you couldn't read it, you'd still stop. One Way is a perfect marriage of words and symbol—you catch it from the corner of your eye and you know what it means. The arrow keeps you going in the right direction without forcing you to slow down or even pause to read it. On the road we use a vocabulary of icons, the universal language, that tells us what we need to know without words. When you see a sign with a gas pump, or a fork and spoon, or a wheelchair, you understand

at a glance. That's the best way to deliver information to people in motion. Also on road signs, the technical aspects are usually perfect—the color combination provides enough contrast, the lettering is large, the lighting is good and the positioning is just so.

Back in my urban geographer days I took part in a study of the directional signs in the underground concourse at Rockefeller Plaza in New York City. Down there you have no bearings except for what signs provide, so they're very important. On film, we saw how people moved along until they began to worry that they were getting lost, or until they saw a fork up ahead where they'd have to choose a direction. Then you'd see their heads begin to swivel and their pace begin to slow. Just before that spot, then, was the logical place for a directional sign—something to head off their confusion and worry.

We also saw that their main concern was not to bump into other people while walking. So if they had to really scour the area for a sign, or if the type was so small that they had to get real close to read it, or the sign was small or badly placed, walkers would be torn between looking at the sign and watching where they were going. Anytime pedestrians had to slow down or stop, we concluded, it was because the signs had failed to do their job. That's what really taught me the similarity between people walking and drivers driving—the best sign in either case is one you can read fast, and positioned so you can read it while moving. And the only way to achieve that, in most instances, is to break the information down into pieces and lay them out one at a time, in a logical, orderly sequence.

Of course, the only way we discovered all that was by watching lots and lots of pedestrians move through the space. Otherwise, all the signage decisions would have been made by the concourse planners themselves—the only people in the world who *didn't* need signs to find their way around down there.

I'm still trapped in this conference room.

So if I can't get out, I'll make life for this sign as difficult as possible. I'll put it on the floor, leaning against the wall, then I'll take ten paces

away and see how it looks. I'll stand practically alongside it and see if it catches my eye. I'll stride by it at my normal pace and see if it registers. I'll turn down the lights. If the sign doesn't work in an imperfect world, it doesn't work. Believe me, real life is even tougher on signs than I am.

We're now arriving at a state of communication overload, and most of the problem is due to commercial messages. Little advertising stickers stuck to your apples and pears are either the cleverest thing ever or the most obnoxious defacement of God's bounty, depending on your point of view. There are too many words telling us too many things, and people are getting mad as hell and they're not going to read it anymore. Even as some opportunities for communication are being missed, many are being cluttered with so many messages that none stands out. One display or sign too many and you've created a black hole where no communication manages to get through.

Here's a personal example. I spend a lot of time in airports waiting for planes, and like most road warriors I work while I wait. Lately, though, my concentration is always being broken by Airport TV—the CNN-produced programming for air travelers. Try as I do, I can't find a way to have it turned off. Even when I'm the only person in the gate lounge, it must remain on. And so I burn quietly and vow never to watch CNN again. But there is a place in airports where even the busiest road warrior stands around dumbly waiting rather than working: near the baggage carousel, praying for luggage. There, before the suitcases begin to roll, we're all grateful to get a little Wolf Blitzer.

In general, the state of commercial messages is haphazard. Half of all signs that are shipped to stores, banks and restaurants never even make it onto the floor, according to one study. All over America, retail managers end long, tiring days by sitting in storage rooms, unloading huge cartons of signs and other point-of-purchase materials sent by a merchandising manager who may never even have seen their particular store. Believe me, those tired, overworked store managers aren't agonizing for too long over which sign goes where.

Conversely, once some signs make it onto the floor, it's hell getting rid of them. Every February I make a game of seeing how many liquor store windows still bear holiday-themed displays and signs. It's always

quite a few. We once studied a major New York bank branch where bits and pieces of twenty-seven different promotions were all still evident. In a car dealership's window, we once found a sign announcing the arrival of the new cars—the *previous* year's new cars.

Some signs are perfectly fine, except they're in places they were never intended to go. You'll pass a drugstore display window and see a stack of cough syrup boxes with a tiny sign showing the sale price, a sign that was obviously meant to go on the shelves, where shoppers are a foot or so away, not in a window facing a busy street. Often, retailers simply ask too much of a sign—more than any sign can deliver. A fast-food chain tested a sign system explaining one version of its "meal deals," then tried to make the signs clearer, then tested them again and fixed them again until they realized that it wasn't the signs that were bad—the meal deals were just too complicated to be explained. The deals were changed and the signs worked just fine. We did a study for a department store in the South that blanketed the place with signs announcing big discounts. The only problem was that you practically had to be a mathematician to figure out what you'd save. Even the salesclerks had trouble keeping all the percentages straight. That store didn't need signs to explain the discounts, it needed textbooks.

The world of signs today is actually enjoying something of a renaissance. Just look at what's happened to billboards. Thirty years ago Lady Bird Johnson was going to outlaw them as part of her American beautification scheme. Today, even in post-literate America, some billboards are our most visually exciting, inventive and clever form of commercial expression. They're more stylish than print ads, hipper than TV commercials and more fluent in the language of imagery and graphics than anything you'll find on the Web. Some billboards are to print ads what MTV is to network TV—the edge of the envelope, the lab for experimenting with new ideas in communication. Technology has given us three-part shifting billboards, video JumboTrons, rotating sports arena message boards and digital menu boards featuring flying french fries. At a fast-food restaurant we studied, a moving digital menu board panel was read by 48 percent of customers, compared to 17 percent for the same menu board—a nonmoving version—tested earlier. Those num-

bers have held up over many tests we've done comparing moving and nonmoving signs.

But a sign need not be on the cutting edge of technology to leave an impression. Not long ago I entered the elevator of a hotel in the financial district in New York. On the wall was a mirror, below which were these words: "You Look Famished." And below that were the names and brief descriptions of the hotel's restaurants. I guarantee that sign gets close to 100 percentage exposure, and that everyone who sees it smiles, then checks in with their stomachs to see if they really *are* famished. A good sign.

Shoppers Move Like People

SIX

Anatomically speaking, the most crucial aspect of shopping is the one that looks the simplest—the matter of how exactly human beings move. Mainly, how we walk.

Now, people move pretty much as their bodies allow them to move, as is most natural and comfortable. This gets tricky only when you realize that a good store is by definition one that exposes the greatest portion of its goods to the greatest number of its shoppers for the longest period of time—the store, in other words, that puts its merchandise in our path and our field of vision in a way that invites consideration. It's fairly simple to measure whether a store accomplishes this or not: We simply chart the path of shoppers and then determine which parts of the store are going undervisited. We routinely perform an hourly "plot" of a store—on the hour, a tracker quickly breezes through every part of the store, counting how many shoppers are in each. If a store's flow is good, if it offers no obstacles or blind spots, then people will find their way to every nook and cranny. If there's a problem with flow, some flaw in the design or the layout, then we'll find some lonesome corners. The

smart store, then, is designed in accordance with how we walk and where we look. It understands our habits of movement and takes advantage of them, rather than ignoring them or, even worse, trying to change them.

Here's a simple example: People slow down when they see reflective surfaces. And they speed up when they see banks.

The reasons are understandable: Bank windows are boring, and nobody much likes visiting a bank anyway, so let's get past it quickly; mirrors, on the other hand, are never dull. Armed with this information, what do you do? Well, never open a store next to a financial institution, for when pedestrians reach you they'll still be moving at a speedy clip—too fast for window shopping. Or, if you can't help being next to a bank, you can make sure to have a mirror or two on your facade or in your windows, to slow shoppers down.

Here's another fact about how people move (in retail environments but also everywhere else): They invariably walk toward the right. You don't notice this unless you're looking for it, but it's true—when people enter a store they head rightward. Not a sharp turn, mind you, more like a drift. (The right bias is also tied to which side of the road we drive on. In Britain and Australia, for example—in spite of what I believe is a biological predisposition to the right—Brits and Aussies walk on the left.)

This is a profound truth about how humans make their way through the world, and it has applications everywhere, in all walks of life. It took us awhile to see this pattern, and ever since we've collected data that bears it out. But how can a retail environment respond?

We performed a study for a department store where just to the right of the entrance was the menswear department. And by our count, the overwhelming majority of shoppers in the store were female. Having menswear there meant that women shoppers would simply sail through the section, barely looking at the merchandise, determined to get to their main destination—ladies' clothing—first. In fact, because the front door was in the center of the store rather than to one side, our trackers charted lots of women who walked in, stepped right, looked around and saw that they were in menswear, then veered off sharply to the women's apparel sections on the left side of the store—never again

to return to the right side, even to the right rear, where the children's clothing was displayed. Not coincidentally, our track sheets showed that children's clothing was the least visited section in the entire store; fully half of the main floor was going undervisited owing to this error in planning.

A similar situation held at an electronics store we studied. There, the cash/wrap was against the left-hand wall, near the front of the store. Shoppers would enter, head right, but then see the register and the clerks, and turn sharply left so they could examine the merchandise there or ask where to find what they had come for. In some cases, those shoppers headed toward the rear to browse the displays there, but few of them ever made it back to the right half of the store. They were moving in a kind of question-mark track. To alter that, the register was moved to the right-hand wall and farther back, about halfway into the store. That then became the main hub. A second area of high shopper interest, a telephone display, was installed on the right wall but closer to the front. The hope was that shoppers would enter, walk right toward the cash register area, then visit the phone displays. Those moves shifted the store around to a configuration more natural to how people move, and instantly, the circulation patterns improved—more people saw more store. Because American shoppers automatically move to the right, the front right of any store is its prime real estate. That's where the most important goods should go, the make or break merchandise that needs 100 percent shopper exposure. That's one way to take advantage of how people move.

All shoppers reach right, most of them being right-handed. Imagine standing at a shelf, facing it—it's easiest to grab items to the right of where you stand, rather than reaching your arm across your body to the left. In fact, as you reach, your hand may inadvertently brush a product to the right of the one you're reaching for. So if a store wishes to place something into the hand of a shopper, it should be displayed just slightly to the right of where he or she will be standing. Planograms, the map of which products are stocked where on a shelf, are determined with this in mind: If you're stocking cookies, for instance, the most popular brand goes dead center—at the bull's-eye—and the brand you're trying to build

goes just to the right of it. (Again, in Britain and Australia the drive-left-reach-right rule creates conflicts in design that we do not have in North America.)

An even simpler aspect of how people move is the one that raises the greatest number of logistical issues for stores. In fact, this particular peculiarity of human ambulation can be said to render nearly every retail space seriously ill suited to its purpose. It's this: People face and walk forward.

The implications of this are enormous only because the normal retail environment is designed for those nonexistent beings who walk sideways—who sidle like the figures drawn in ancient Egyptian hieroglyphs—rather than place one foot in front of the other. Picture it: If you're walking straight down a store aisle, you're looking ahead. It requires an effort to turn your head to one side or the other to see the shelves or racks as you pass them. That effort even makes you vaguely uncomfortable because it requires you to train your eyes somewhere other than where you're walking. If it's a familiar environment (say, your favorite supermarket) and the setting feels safe (wide aisles, no boxes or other obstacles on the floor to trip you up), then maybe you'll turn your head as you walk and take in the merchandise. In a less familiar setting, you'll see less—subconsciously, you've got your peripheral vision on the lookout so that you don't trip over a box or a small child and fall on your nose. If, as you walk, a display gets your attention, you may stop in your tracks and look upon it as it was meant to be seen, straight in the eye, as it were. But only then.

This issue is not limited to a store's shelves. On the street, how do you approach a display window? In almost every instance, from an angle—as you're walking toward the store from the left or the right. But most display windows are designed as though every viewer is just standing there staring into them head-on. Which is almost never the case. This comes up regarding outdoor signs, too. Near my office there's a new restaurant that spent a lot of money on a very handsome hanging sign, but instead of positioning it perpendicular to the building, so it is visible to pedestrians approaching from either side, it hangs parallel to it, so it can be read only from directly across the street. Which is how maybe 5 or 10 percent of possible customers approach the facade.

Obviously, that sign could be rehung in an hour and the problem would be solved. Windows can easily accommodate how people approach them: Displays must simply be canted to one side so that they can be more easily seen from an angle. And because we walk as we drive—to the right—window displays should usually be tilted to the left. Such a move instantly increases the number of people who truly see them.

But how can our insistence on walking and looking forward be accommodated inside the typical store? One method is used in almost every store already. Endcaps, the display of merchandise on the end of virtually every American store aisle, are tremendously effective at exposing goods to the shopper's eye. Almost every kind of store makes use of them—in record stores you'll see one particular artist's CDs, or some discounted new release; in supermarkets there's a stack of specially priced soft drinks or a wall of breakfast cereal. An endcap can boost an item's sales simply because as we stroll through a store's aisles we approach them head-on, seeing them plainly and fully. Endcaps are also effective because they make up much of our exposure to the main drive aisles in the supermarket. In a sense, that mountain of Oreos serves as a billboard, both reminding us of cookies and giving us the option of buying right then and there.

Of course, there's a built-in limitation to the use of endcaps: There are only two of them per aisle, one at each end. But there's another effective way to display goods so they'll be seen. It's called chevroning—placing shelves or racks at an angle, like a sergeant's stripes, so more of what they hold is exposed to the vision of a strolling shopper. Instead of shelves being positioned at a ninety-degree angle to the aisle, they're at forty-five degrees. A huge difference, and an elegant solution, too. There's only one catch: Chevroning shelves takes up about one-fifth more floor space than the usual configuration. So a store can show only 80 percent as much merchandise as it can the traditional way. The big question is, will chevroning more than make up for that loss with increased sales? Can a store that shows less sell more, if the display system

is superior? And I can't answer that. We've suggested chevroning schemes to a number of clients, but no one wants to take the total plunge. It's certain, however, that especially for products that benefit from long browsing time, chevroning works.

How we walk determines to a great degree what we'll see, but so too does where our eyes naturally go. If you can see only a tabletop full of sweaters when you're standing right in front of it, then its effectiveness is limited. If you don't see a display from a distance—say, ten or twenty feet—then you won't approach it except by accident. That's why architects have to design stores with sight lines in mind—they must ensure that shoppers will be able to see what's in front of them but also be able to look around and see what's elsewhere. It's also why printed display fixtures should bear their message on every surface, so no shopper confronts a blank side.

Once sight lines are taken into consideration, retailers must take care not to place merchandise so it cuts them off. This happens all the time: A freestanding display is placed in front of wall shelves, blocking whatever's there from the shopper's vision. Or a sign obscures the goods it's meant to describe. Ideally, a shopper should be able to examine goods but then look up and notice that over there, fifteen feet away, there's something just as appealing. It's a pinball effect—the felicitous dispersal of merchandise bounces shoppers throughout the entire store. In that way, the merchandise itself is a tool to keep shoppers flowing. That's how good stores operate: You feel almost helplessly pulled in by what you see up ahead, or over there to the right.

We have studied how much of what is on display in supermarkets is seen by shoppers—the so-called capture rate. About one-fifth of all shoppers actually see the average product on a supermarket shelf. There's a reliable zone in which shoppers will probably see merchandise. It goes from slightly above eye level down to about knee level. Much above that or below and they probably won't see it unless they happen to be looking intently. This, too, is a function of our defensive walking mechanism, for if you're looking up you can't see your feet.

This means that a huge amount of retail selling space is, if not quite wasted, then seriously challenged. If a store can avoid displaying goods

outside that zone, fine. But most stores don't have that luxury. One thing stores can try is to display only large items above or below the zone. It's easier to spy the economy-size Pampers down by your ankles than it is the Tylenol caplets. If the bottom shelf tilts up slightly, that helps visibility, too. This issue can also be addressed effectively by packaging designers. Every label, every box, every container should be designed as though it will be seen from a disadvantageous perspective—either above the shopper's head or below her knees. Packaging should also be made to work when seen from a sharp angle rather than just head-on. We'd see a lot more large, clear type in high-contrast colors if that happened. This also has implications in stores where merchandise is stored on the selling floor instead of in stockrooms. I'm thinking here of computers, telephones, personal stereos and other consumer electronics that are sometimes stacked from the floor to over one's head. The boxes haven't been designed to be on display, but that's exactly how they end up. That alone should make no-frills packaging—brown kraft paper, no images, little description of the contents—obsolete. Boxes should be thought of as signs or as posters for a product—same as a box of cereal. Typically, package designers will place the manufacturer's name at the top of a label, thereby satisfying corporate egotism, and the product ID on the bottom, but this is exactly the wrong decision if the box is ever stored down near the floor. When it's down there, shoppers will see the brand name easily but not the description of what is in the box. And since no designer has control over where or how a box is stored, the product ID should *always* be on top, and the label should always look a little like a billboard—clean, high-contrast, with a visible image and large-enough type.

Another matter of concern is something we call the boomerang rate. This is the measure of how many times shoppers fail to walk completely through an aisle, from one end to the other. It looks at how many times a shopper starts down an aisle, selects something, and then, instead of proceeding, turns around and retraces her or his steps. We'll call it a half-boomerang, say, when the shopper makes it halfway down an aisle before turning back. Typically, he or she heads down the aisle in search of one or two things, finds them and then heads back without even looking around (or, if she looks, she doesn't see anything worth

stopping for). What do you do about that? The obvious answer for retailers is to position the most popular goods halfway down the aisle. Manufacturers should attempt to do just the opposite—to keep their products as near the end of the aisle as possible.

But there are also ways to try to keep shoppers interested. One of the newest and most effective of these requires the presence of kids, which is why it's been used so well in the cereal aisles, where Mom and Dad typically want to grab and run. There, we've seen a floor graphic of a hopscotch game work extremely well to nail shoppers down for a while. In one store we studied, the average time kids played games in the aisle was almost fourteen seconds—a long time to be standing in front of cereal without buying some.

Retail masterminds have always sought ways to keep shoppers in aisles, and most of them are unsuccessful. At Blockbuster, an attempt was made to interest new releases shoppers in the earlier movies of their favorite stars. For example, if Bruce Willis had a new movie on video, next to where it was displayed there would be a big cardboard Bruce stocked with some of his greatest hits. Kind of like a speed bump, except that shoppers jumped right over it with barely a notice. The moral: When you want that new film now, nothing else will do. The larger lesson is that no amount of merchandising can deter a shopper from his or her mission. The best you can do is go along for the ride.

There's one aspect of how shoppers move that most people are familiar with—the quest to get us all the way to the back of a store. Everyone knows why supermarket dairy cases are usually against the back wall: because almost every shopper needs milk, and so they'll pass through (and shop) the entire store on the way to and from the rear. That is pretty effective, too, or at least it was, but it also created a terrific opportunity for a competitor. In fact, the convenience store industry exists because of its ability to put milk and other staples into shopper hands quickly, so they can run in, grab and go. Some new supermarkets now feature a "shallow loop"—a dairy case up near the front of the store, so shoppers can grab and go there, too.

Large chain drugstores use the pharmacy in the same way—that section is almost always on the back wall, so customers will be forced to

visit the rest of the store, too. But a special accommodation must be made for those customers, lest the strategy backfire. When shoppers are headed for the pharmacy, they typically have a serious task at hand, so they're not interested in browsing the shelves of the store on their way back. Therefore, drugstores must be merchandised from the rear as well as from the front—at least some signs, displays and fixtures must be positioned so that they are visible to shoppers walking from the back of the store to the front. It's almost like planning two different stores on the same site, but it must be done because the pharmacy is so effective at pulling shoppers through the store.

In the opening chapter, I mentioned a drugstore that was the location of choice for young mall employees who needed a quick soda during their breaks. To take advantage, the store placed the coolers in the rear, which forced the kids to race in, hurry to the sodas and race back out so that they could enjoy their fifteen minutes off. Those teenagers were never going to buy shampoo or alarm clocks or talcum on their soda runs. Again, as I mentioned in the opening chapter, the store humanely decided to move the coolers up front, as a favor to loyal soda drinkers who might have found another, more convenient place to fuel up on breaks.

Still, getting shoppers to the back wall of any store is usually a challenge. Blockbuster Video has trained its customers to go directly to the back wall—because that's where the new releases are kept. That long expanse of the most desirable movies creates a peripheral track, which is a highly efficient way to shop videos. As a result, shoppers head directly for the rear, make their choices, then come down the main center aisle to the cash/wrap. That predictable path creates high traffic for Blockbuster's impulse item displays—the center aisle is where the popcorn, candy, soft drinks, movie magazines and other high-margin goods are sold. Wisely, most retailers don't sell their bread-and-butter merchandise from the back wall. Still, every square foot of selling space is equally expensive to rent, heat and light. A store that flows interestingly and smoothly from one section to another will automatically draw shoppers to the farthest reaches. If, from the front of the store, shoppers perceive that something interesting is going on in back, they'll make their way

there at least once. A simple solution is to have what amounts to a mandala hanging on the rear wall, a large graphic, for instance, or better yet, something back there that makes some visual or auditory noise, that gives shoppers the sense that something interesting's going on. They may not head there the second they enter, but they'll drift that way, as if pulled by a magnet. Anything is better than the sense you get in most large stores—that the rear wall is the dead zone.

The front of a store has utmost importance in determining who enters. When RadioShack determined to increase the percentage of women shoppers, it did so in part by devoting itself to the telephone business. But it made sure to display phones near the front of its stores, in order to lure women in most effectively. In fact, we advise some clients to change the front-of-store merchandising several times in the course of a day, to attract the different shoppers passing by. At a mall bookstore, for instance, we realized that in the morning, most shoppers were stay-at-home mothers with baby strollers. So we told our client to position books on child care, fitness and family up front. (We also advised that there be enough room for all those strollers to maneuver.) In the afternoon, kids getting out of school ran wild in the mall, so there should be books on sports, pop music, TV and other adolescent subjects. After 5 p.m. was when the work crowd streamed through, so there should be books on business and computers. And because the mall was used very early in the morning by senior citizens getting their walking exercise, we told our client that before the store closed for the night its windows should be stocked with books on retirement, finance and travel. In fact, the store bought large, cylindrical display fixtures that could be turned around depending on the time of day and which books needed to be shown. Supermarkets are jam-packed up front from Friday to Sunday, so the space is designed to handle the crush. On Monday and Tuesday, though, it's mellow up there. We've advised clients to turn the area just before the registers into a new selling zone, kind of a small bazaar of impulse items rather than just the usual rack or two.

How often shoppers move through your store is also something to be accommodated. If the average customer comes every two weeks, then your windows and displays need to be changed that often, so

they'll always seem fresh and interesting. Here's another example of how design and merchandising must work hand in hand: If windows are made so they are easy for employees to get into, the displays will be changed more often than if it's a pain in the neck. If something about the design makes carrying merchandise into the window a burden, or if display racks block access to the windows, they'll suffer from a lack of attention, I guarantee.

Some facts of shopper movement can't be turned into universal principles, but they certainly have had their impact in specific environments we've studied. We did a study of a branch of a major family restaurant chain with a location on Sunset Boulevard in Los Angeles. By day the fact that its restrooms were just inside the front door seemed to be perfectly sensible. By night, however, when the street outside came alive with, among other things, the trade of some friendly neighborhood streetwalkers, the ladies' room location was a definite liability. It became a kind of hookers' lounge, a place they could wash, put their feet up and chat a spell between engagements. Not the greatest thing for the rest of the diners.

Some Hallmark card stores feature custom-printed stationery departments, places where brides-to-be can go for invitations, and so on. The design of the department, a writing table with shelves for the large stationery sample books, was perfectly adequate. But in one busy New Jersey mall, the station was located in the front of the store, just beyond the cash register, perhaps the noisiest, most populated part of the room. The sole person using it was filling out a job application.

Dynamic

SEVEN

Stand over here. *Behind* the underwear.

What do you see? A couple? How old? Sixties? Anything special? Just your average slightly tubby mom and pop out on the town, at Kmart or some such place, about to splurge on new briefs for the old guy, am I right?

Hold on—what's he saying?

"Now, where's my size?"

What's she saying?

"Over here."

Now what's he saying?

"I guess I'll just get this three-pack."

Fascinating. What did she just say?

"No, get the six . . . .I can wear 'em, too."

Whoa. What kind of weirdness is going on here? I can't even bear to picture it, the two of them rolling around in only their—

Hey, stop that. You just missed an invaluable lesson in the true dynamic nature of shopping and buying. You don't even have to be a scientist of shopping to figure out what just happened, though if you're a woman it might help, especially an overweight woman, especially an overweight woman whose choices in underwear were limited to styles with thin, biting elastic bands at the waist and the legholes—an uncomfortable prospect, I can only imagine (reluctantly).

Since that event, which happened a few years back, women's underwear styles have come to resemble men's, with their wide, flat (nonconstricting) elastic and soft cotton fabrics, thereby solving our woman's particular problem and keeping her out of his drawers. Still, this is a good illustration of shoppers making the ultimate determination of how they will use the retail environment and the products that are sold in it. Product designers, manufacturers, packagers, architects, merchandisers and retailers make all the big decisions about what people will buy and where and how they will buy it. But then the shoppers themselves enter the equation, and they can turn nice, neat theories and game plans into confetti.

In this particular case, was the general unsuitability of most underwear for ladies of size known to the designers and makers of said garments? Maybe not. Maybe they knew it but didn't know what to do. Maybe they assumed that women wouldn't wear briefs that looked like men's underwear, although, clearly, the general drift in women's clothes has been toward a more masculine ideal. If some underwear executive had been standing in that aisle next to our researcher, maybe he would have realized that this woman was teaching him something extremely important about his own product. Perhaps the revolution in women's underwear would have started earlier than it did.

Then again, maybe not.

Here's another example of shoppers forcing the retail environment to bend to their will. It involves what is perhaps *the* major issue in the design and furnishing of public spaces: seating.

I love seating. I could talk about it all day. If you're discussing anything having to do with the needs of human beings, you *have* to address seating. Air, food, water, shelter, seating—in that order. Before money. Before love. Seating.

In the majority of stores throughout the world, sales would instantly

be increased by the addition of one chair. I would remove a display if it meant creating space for a chair. I'd rip out a fixture. I'd kill a mannequin. A chair says: We care.

Given the chance, people will buy from people who care.

This happened in a large, well-known women's apparel store. One that was providing insufficient seating for the men who wait for the ladies who shop. How do we know it was insufficient? Because the husbands and boyfriends were led to improvise, which human beings will always do when a need is going unmet. Whenever you encounter shopper improvisation in the retail environment, you have found poignant evidence of one person's failure to understand what another person requires.

(If I may digress for a good illustration: In the casino hotels of Atlantic City, New Jersey, where kindness is, shall we say, not excessively idealized, you see lots of people who have wagered and lost but must linger until their tour buses depart. The casinos, for obvious reason, wish these people would wait in the gaming area, parked in front of a slot machine or a dealer. To encourage that, there are no chairs in the hotel lobbies. How do the visitors respond? They sit glumly on the floors, dozens and dozens of sour-faced losers in a row, not a sight that evokes the opulent gaming ambience of Monte Carlo for the incoming suckers. These people need chairs!)

In apparel stores, too, the need is plain. While women shop, men wait, and when men (or women) wait, they prefer to sit. Is any truth truer? Is any nose on any face plainer than that fact? Still, designers of commercial spaces screw up royally when it comes to seating. In my days as an observer of parks and plazas, with the Project for Public Spaces, we spent a great deal of our time thinking about how to improve outdoor benches—where they should go, how wide they should be, whether they should be in shade or sunlight, how close they should be to the main thoroughfares, whether they should be wood or stone (stone gets awfully chilly in winter). A bench, we realized, might double the distance an older pedestrian could cover—someone might walk awhile, tire slightly and consider turning back, but then there'd be an inviting bench in the shade. Once restored, the pedestrian would continue forth. In the retail

environment, a chair's main purpose is slightly different: When people go shopping in twos or threes, with spouses or children or friends along for the trip, seating is what keeps the nonshopping party comfortable and contented and cared for and off the shopper's back.

In that apparel store, the womenfolk were shopping but the menfolk were not—they were waiting for the womenfolk. They'd have loved a place to sit, but this store chose not to provide it. Why not? Maybe there wasn't enough space for chairs. Maybe there was a chair and it broke. Maybe somebody decided that a bunch of guys hanging around would spoil the decor.

Did that mean the men would stand? Of course not—it meant they'd invent seating. In this case, they gravitated toward a large window that had a broad sill at roughly the height where a bench would be. And the sill became a bench.

And where exactly was this ad hoc bench? Through no one's fault or design, it was immediately adjacent to a large and attractive display of the Wonderbra, the architectural marvel that gave life such a lift a few years back. It seems easy in hindsight to predict what happened next: Women approached the display, began to study the goods and then noticed that they were being studied by the guys on the windowsill. On the day we visited the store, there were two elderly gents loitering there, unabashedly discussing the need for Wonderbras of every woman who was brave enough to stop and shop.

Did I mention that few Wonderbras were purchased there that day?

Now, everyone knows that adjacencies are of huge importance to every product, especially something like the Wonderbra, which is newfangled and so requires a little examination and consideration and then a try-on. Great retail minds churn themselves into mush trying to unravel the mysteries of which products should be sold near one another for maximum spark and synergy. And here, completely without intention, a very bad adjacency was created (bad for the shoppers, bad for the store, not so bad for the guys) by human beings who were forced by a retailer to improvise.

Here's another instance where shoppers rightly confounded the narrow-minded agenda of shoppees.

There's an ongoing struggle afoot between the makers of cosmetics and the users. Women want to test cosmetics before buying, which is understandable considering how expensive makeup is and how it differs in appearance depending on the skin of the wearer. Cosmetics makers, on the other hand, wish that women would not sample their products quite so liberally, since even slightly used products are rarely purchased. There are many plans and systems that provide testers to shoppers, but none of these has been so flawlessly successful that it has become the industry standard. And so the game goes on.

A few years ago a makeup maker thought it had devised a foolproof lipstick—one that couldn't be twisted open without breaking a tape seal. This, the maker thought, would allow women to peer into the tube to see the color but not touch the lipstick itself. The boys in packaging were certain that this was going to save the company millions. We were hired to observe how women interacted with the prototype. We watched shoppers remove the cap, look inside and unsuccessfully attempt to twist it open—at which point they lowered their pinky fingernails into the tube and gouged out a dab to have a look. The experts were foiled again. Their mistake was in even trying to stop women from testing lipstick. The more progressive cosmetics makers recognize that testing leads to buying, so they encourage testing by making it possible without turning women into outlaws. To my mind, the best solution would be one that came with a profit motive—simply package small samples of each season's new colors in lipstick, blusher and face powder, enough for two or three applications of each, and charge a dollar or two.

Not every form of improvisation requires remediation. Most of us are familiar with the weekend crush at the video store to find a copy of the popular new release. On such business, Blockbuster thrives. We noticed that quite a few of the truly expert searchers among their clientele head not for the new releases section but for the returns cart, the trolley where incoming videos go before they are filed. There's no reason for Blockbuster to attempt to alter that behavior—it saves some clerk a little labor, which is a good thing. But an ongoing quest in the video business is the search for a way to get customers to rent more non–new

releases (since their cost has already been amortized, each rental is pure profit). To help that effort, we urged Blockbuster to begin spiking the trolleys with older videos, thereby making them seem current and desirable and placing them directly into the hands of the most avid movie-watchers.

Here's a final example of customers using stores in ways other than were intended, this time to the complete benefit of the business. More than half of all fast food is purchased at the drive-thru window, and we (along with everyone else) assumed that those diners either ate as they drove off or took the food back to their offices or elsewhere and downed it there. During a series of recent studies, though, we noticed something odd: Around 10 percent of drive-thru customers would get their food and then park right there in the lot and eat in their cars. Curiously, the drivers who did this tended to be in newer cars than the restaurants' average customers. Were they elitist burger-lovers who were simply embarrassed to be seen in a humble grease pit? Or did they enjoy the luxury of eating in an environment where they could talk freely on their cell phones, listen to their own music and sit in their own seats? Either way, it's a segment of fast-food diners that's worth accommodating—after all, these customers bring their own chairs. As a result, we now advise fast-food restaurants to make sure their parking lots are visible from the street, so that drivers can see that there's space for them. We also emphasize the importance of maintaining pleasant conditions—shade, with a view of something other than the Dumpster—for cars as well as people. (In one restaurant we studied, all the best parking spots were taken by employees, many of whose cars would remain in place for eight-plus hours at a pop, a very dumb practice.) Finally, our finding affirms the overall trend among fast-food restaurants to shrink the size of the building and increase the size of the drive-thru and the parking lot, thereby allowing customers to have it their way—which, in nearly every case, is as it should be.