

UNDERSTANDING SHOPPING

MALCOLM GLADWELL

*The Science of Shopping*

Ever wonder why the season's hottest new styles at stores like the Gap are usually displayed on the right at least fifteen paces in from the front entrance? It's because that's where shoppers are most likely to see them as they enter the store, gear down from the walking pace of a mall corridor, and adjust to the shop's spatial environment. Ever wonder how shop managers know this sort of thing? It's because, as Malcolm Gladwell reports here, they hire consultants like Paco Underhill, a "retail anthropologist" and "urban geographer" whose studies (often aided by hidden cameras) of shopping behavior have become valuable guides to store managers looking for the best ways to move

the goods. Does this feel just a little Orwellian? Read on. A staff writer for the *New Yorker*, in which this selection first appeared, Gladwell has also written *The Tipping Point* (2000), *Blink: The Power of Thinking without Thinking* (2005), *Outliers: The Story of Success* (2008), *What the Dog Saw: And Other Adventures* (2009 compilation of *New Yorker* articles), and *David and Goliath* (2013).

Human beings walk the way they drive, which is to say that Americans tend to keep to the right when they stroll down shopping-mall concourses or city sidewalks. This is why in a well-designed airport travellers drifting toward their gate will always find the fast-food restaurants on their left and the gift shops on their right: people will readily cross a lane of pedestrian traffic to satisfy their hunger but rarely to make an impulse buy of a T-shirt or a magazine. This is also why Paco Underhill tells his retail clients to make sure that their window displays are canted, preferably to both sides but especially to the left, so that a potential shopper approaching the store on the inside of the sidewalk—the shopper, that is, with the least impeded view of the store window—can see the display from at least twenty-five feet away.

Of course, a lot depends on how fast the potential shopper is walking. Paco, in his previous life, as an urban geographer in Manhattan, spent a great deal of time thinking about walking speeds as he listened in on the great debates of the nineteen-seventies over whether the traffic lights in midtown should be timed to facilitate the movement of cars or to facilitate the movement of pedestrians and so break up the big platoons that move down Manhattan sidewalks. He knows that the faster you walk the more your peripheral vision narrows, so you become unable to pick up visual cues as quickly as someone who is just ambling along. He knows, too, that people who walk fast take a surprising amount of time to slow down—just as it takes a good stretch of road to change gears with a stick-shift automobile. On the basis of his research, Paco estimates the human downshift period to be anywhere from twelve to twenty-five feet, so if you own a store, he says, you never want to be next door to a bank: potential shoppers speed up when they walk past a bank (since there's nothing to look at), and by the time they slow down they've walked right past your business. The downshift factor also means that when potential shoppers enter a store it's going to take them from five to fifteen paces to adjust to the light and refocus and gear down from walking speed to shopping speed—particularly if they've just had to navigate a treacherous parking lot or hurry to make the light at Fifty-seventh and Fifth.

Paco calls that area inside the door the Decompression Zone, and something he tells clients over and over again is never, ever put anything of value in that zone—not shopping baskets or tie racks or big promotional displays—because no one is going to see it. Paco believes that, as a rule of thumb, customer interaction with any product or promotional display in the Decompression Zone will

increase at least thirty percent once it's moved to the back edge of the zone, and even more if it's placed to the right, because another of the fundamental rules of how human beings shop is that upon entering a store—whether it's Nordstrom or K Mart, Tiffany or the Gap—the shopper invariably and reflexively turns to the right. Paco believes in the existence of the Invariant Right because he has actually verified it. He has put cameras in stores trained directly on the doorway, and if you go to his office, just above Union Square, where videocassettes and boxes of Super-eight film from all his work over the years are stacked in plastic Tupperware containers practically up to the ceiling, he can show you reel upon reel of grainy entryway video—customers striding in the door, downshifting, refocusing, and then, again and again, making that little half turn.

Paco Underhill is a tall man in his mid-forties, partly bald, with a neatly trimmed beard and an engaging, almost goofy manner. He wears baggy khakis and shirts open at the collar, and generally looks like the academic he might have been if he hadn't been captivated, twenty years ago, by the ideas of the urban anthropologist William Whyte. It was Whyte who pioneered the use of time-lapse photography as a tool of urban planning, putting cameras in parks and the plazas in front of office buildings in midtown Manhattan, in order to determine what distinguished a public space that worked from one that didn't. As a Columbia undergraduate, in 1974, Paco heard a lecture on Whyte's work and, he recalls, left the room "walking on air." He immediately read everything Whyte had written. He emptied his bank account to buy cameras and film and make his own home movie, about a pedestrian mall in Poughkeepsie. He took his "little exercise" to Whyte's advocacy group, the Project for Public Spaces, and was offered a job. Soon, however, it dawned on Paco that Whyte's ideas could be taken a step further—that the same techniques he used to establish why a plaza worked or didn't work could also be used to determine why a store worked or didn't work. Thus was born the field of retail anthropology, and, not long afterward, Paco founded Envirosell, which in just over fifteen years has counselled some of the most familiar names in American retailing, from Levi Strauss to Kinney, Starbucks, McDonald's, Blockbuster, Apple Computer, AT&T, and a number of upscale retailers that Paco would rather not name.

When Paco gets an assignment, he and his staff set up a series of video cameras throughout the test store and then back the cameras up with Envirosell staffers—trackers, as they're known—armed with clipboards. Where the cameras go and how many trackers Paco deploys depends on exactly what the store wants to know about its shoppers. Typically, though, he might use six cameras and two or three trackers, and let the study run for two or three days, so that at the end he would have pages and pages of carefully annotated tracking sheets and anywhere from a hundred to five hundred hours of film. These days, given the expansion of his business, he might tape fifteen thousand hours in a year, and, given that he has been in operation since the late seventies, he now has well over a hundred thousand hours of tape in his library.

Even in the best of times, this would be a valuable archive. But today, with the retail business in crisis, it is a gold mine. The time per visit that

the average American spends in a shopping mall was sixty-six minutes last year—down from seventy-two minutes in 1992—and is the lowest number ever recorded. The amount of selling space per American shopper is now more than double what it was in the mid-seventies, meaning that profit margins have never been narrower, and the costs of starting a retail business—and of failing—have never been higher. In the past few years, countless dazzling new retailing temples have been built along Fifth and Madison Avenues—Barneys, Calvin Klein, Armani, Valentino, Banana Republic, Prada, Chanel, NikeTown, and on and on—but it is an explosion of growth based on no more than a hunch, a hopeful multimillion-dollar gamble that the way to break through is to provide the shopper with spectacle and more spectacle. “The arrogance is gone,” Millard Drexler, the president and C.E.O. of the Gap, told me. “Arrogance makes failure. Once you think you know the answer, it’s almost always over.” In such a competitive environment, retailers don’t just want to know how shoppers behave in their stores. They *have* to know. And who better to ask than Paco Underhill, who in the past decade and a half has analyzed tens of thousands of hours of shopping videotape and, as a result, probably knows more about the strange habits and quirks of the species *Emptor americanus* than anyone else alive?

Paco is considered the originator, for example, of what is known in the trade as the butt-brush theory—or, as Paco calls it, more delicately, *le facteur bousculade*—which holds that the likelihood of a woman’s being converted from a browser to a buyer is inversely proportional to the likelihood of her being brushed on her behind while she’s examining merchandise. Touch—or brush or bump or jostle—a woman on the behind when she has stopped to look at an item, and she will bolt. Actually, calling this a theory is something of a misnomer, because Paco doesn’t offer any explanation for why women react that way, aside from venturing that they are “more sensitive back there.” It’s really an observation, based on repeated and close analysis of his videotape library, that Paco has transformed into a retailing commandment: A women’s product that requires extensive examination should never be placed in a narrow aisle.

Paco approaches the problem of the Invariant Right the same way. Some retail thinkers see this as a subject crying out for interpretation and speculation. The design guru Joseph Weishar, for example, argues, in his magisterial *Design for Effective Selling Space*, that the Invariant Right is a function of the fact that we “absorb and digest information in the left part of the brain” and “assimilate and logically use this information in the right half,” the result being that we scan the store from left to right and then fix on an object to the right “essentially at a 45 degree angle from the point that we enter.” When I asked Paco about this interpretation, he shrugged, and said he thought the reason was simply that most people are right-handed. Uncovering the fundamentals of “why” is clearly not a pursuit that engages him much. He is not a theoretician but an empiricist, and for him the important thing is that in amassing his huge library of in-store time-lapse photography he has gained

enough hard evidence to know how often and under what circumstances the Invariant Right is expressed and how to take advantage of it.

What Paco likes are facts. They come tumbling out when he talks, and, because he speaks with a slight hesitation—lingering over the first syllable in, for example, “re-tail” or “de-sign”—he draws you in, and you find yourself truly hanging on his words. “We have reached a historic point in American history,” he told me in our very first conversation. “Men, for the first time, have begun to buy their own underwear.” He then paused to let the comment sink in, so that I could absorb its implications, before he elaborated: “Which means that we have to *totally* rethink the way we sell that product.” In the parlance of Hollywood scriptwriters, the best endings must be surprising and yet inevitable; and the best of Paco’s pronouncements take the same shape. It would never have occurred to me to wonder about the increasingly critical role played by touching—or, as Paco calls it, petting—clothes in the course of making the decision to buy them. But then I went to the Gap and to Banana Republic and saw people touching, and fondling and, one after another, buying shirts and sweaters laid out on big wooden tables, and what Paco told me—which was no doubt based on what he had seen on his videotapes—made perfect sense: that the reason the Gap and Banana Republic have tables is not merely that sweaters and shirts look better there, or that tables fit into the warm and relaxing residential feeling that the Gap and Banana Republic are trying to create in their stores, but that tables invite—indeed, symbolize—touching. “Where do we eat?” Paco asks. “We eat, we pick up food, on tables.”

Paco produces for his clients a series of carefully detailed studies, totalling 10 forty to a hundred and fifty pages, filled with product-by-product breakdowns

Sports apparel for sale at a NikeTown store in Chicago.



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and bright-colored charts and graphs. In one recent case, he was asked by a major clothing retailer to analyze the first of a new chain of stores that the firm planned to open. One of the things the client wanted to know was how successful the store was in drawing people into its depths, since the chances that shoppers will buy something are directly related to how long they spend shopping, and how long they spend shopping is directly related to how deep they get pulled into the store. For this reason, a supermarket will often put dairy products on one side, meat at the back, and fresh produce on the other side, so that the typical shopper can't just do a drive-by but has to make an entire circuit of the store, and be tempted by everything the supermarket has to offer. In the case of the new clothing store, Paco found that ninety-one percent of all shoppers penetrated as deep as what he called Zone 4, meaning more than three-quarters of the way in, well past the accessories and shirt racks and belts in the front, and little short of the far wall, with the changing rooms and the pants stacked on shelves. Paco regarded this as an extraordinary figure, particularly for a long, narrow store like this one, where it is not unusual for the rate of penetration past, say, Zone 3 to be under fifty percent. But that didn't mean the store was perfect — far from it. For Paco, all kinds of questions remained.

Purchasers, for example, spent an average of eleven minutes and twenty-seven seconds in the store, nonpurchasers two minutes and thirty-six seconds. It wasn't that the nonpurchasers just cruised in and out: in those two minutes and thirty-six seconds, they went deep into the store and examined an average of 3.42 items. So why didn't they buy? What, exactly, happened to cause some browsers to buy and other browsers to walk out the door?

Then, there was the issue of the number of products examined. The purchasers were looking at an average of 4.81 items but buying only 1.33 items. Paco found this statistic deeply disturbing. As the retail market grows more cut-throat, store owners have come to realize that it's all but impossible to increase the number of customers coming in, and have concentrated instead on getting the customers they do have to buy more. Paco thinks that if you can sell someone a pair of pants you must also be able to sell that person a belt, or a pair of socks, or a pair of underpants, or even do what the Gap does so well: sell a person a complete outfit. To Paco, the figure 1.33 suggested that the store was doing something very wrong, and one day when I visited him in his office he sat me down in front of one of his many VCRs to see how he looked for the 1.33 culprit.

It should be said that sitting next to Paco is a rather strange experience. "My mother says that I'm the best-paid spy in America," he told me. He laughed, but he wasn't entirely joking. As a child, Paco had a nearly debilitating stammer, and, he says, "since I was never that comfortable talking I always relied on my eyes to understand things." That much is obvious from the first moment you meet him: Paco is one of those people who looks right at you, soaking up every nuance and detail. It isn't a hostile gaze, because Paco isn't hostile at all. He has a big smile, and he'll call you "chief" and use your first name a lot and generally act as if he knew you well. But that's the awkward thing: He has looked at you so closely that you're sure he does know you well, and you, meanwhile, hardly know him at all.

This kind of asymmetry is even more pronounced when you watch his shopping videos with him, because every movement or gesture means something to Paco—he has spent his adult life deconstructing the shopping experience—but nothing to the outsider, or, at least, not at first. Paco had to keep stopping the video to get me to see things through his eyes before I began to understand. In one sequence, for example, a camera mounted high on the wall outside the changing rooms documented a man and a woman shopping for a pair of pants for what appeared to be their daughter, a girl in her midteens. The tapes are soundless, but the basic steps of the shopping dance are so familiar to Paco that, once I'd grasped the general idea, he was able to provide a running commentary on what was being said and thought. There is the girl emerging from the changing room wearing her first pair. There she is glancing at her reflection in the mirror, then turning to see herself from the back. There is the mother looking on. There is the father—or, as fathers are known in the trade, the “wallet carrier”—stepping forward and pulling up the jeans. There's the girl trying on another pair. There's the primp again. The twirl. The mother. The wallet carrier. And then again, with another pair. The full sequence lasted twenty minutes, and at the end came the take-home lesson, for which Paco called in one of his colleagues, Tom Moseman, who had supervised the project.

“This is a very critical moment,” Tom, a young, intense man wearing 15 little round glasses, said, and he pulled up a chair next to mine. “She's saying, ‘I don't know whether I should wear a belt.’ Now here's the salesclerk. The girl says to him, ‘I need a belt,’ and he says, ‘Take mine.’ Now there he is taking her back to the full-length mirror.”

A moment later, the girl returns, clearly happy with the purchase. She wants the jeans. The wallet carrier turns to her, and then gestures to the salesclerk. The wallet carrier is telling his daughter to give back the belt. The girl gives back the belt. Tom stops the tape. He's leaning forward now, a finger jabbing at the screen. Beside me, Paco is shaking his head. I don't get it—at least, not at first—and so Tom replays that last segment. The wallet carrier tells the girl to give back the belt. She gives back the belt. And then, finally, it dawns on me why this store has an average purchase number of only 1.33. “Don't you see?” Tom said. “*She wanted the belt.* A great opportunity to make an add-on sale . . . *lost!*”

Should we be afraid of Paco Underhill? One of the fundamental anxieties of the American consumer, after all, has always been that beneath the pleasure and the frivolity of the shopping experience runs an undercurrent of manipulation, and that anxiety has rarely seemed more justified than today. The practice of prying into the minds and habits of American consumers is now a multibillion-dollar business. Every time a product is pulled across a supermarket checkout scanner, information is recorded, assembled, and sold to a market-research firm for analysis. There are companies that put tiny cameras inside frozen-food cases in supermarket aisles; market-research firms that feed census data and behavioral statistics into algorithms and come out with complicated maps of the American consumer; anthropologists who sift through the garbage of carefully targeted households to analyze their true consumption patterns; and endless rounds of highly organized focus groups and questionnaire takers and

phone surveyors. That some people are now tracking our every shopping move with video cameras seems in many respects the last straw: Paco's movies are, after all, creepy. They look like the surveillance videos taken during convenience-store holdups—hazy and soundless and slightly warped by the angle of the lens. When you watch them, you find yourself waiting for something bad to happen, for someone to shoplift or pull a gun on a cashier.

The more time you spend with Paco's videos, though, the less scary they seem. After an hour or so, it's no longer clear whether simply by watching people shop—and analyzing their every move—you can learn how to control them. The shopper that emerges from the videos is not pliable or manipulable. The screen shows people filtering in and out of stores, petting and moving on, abandoning their merchandise because checkout lines are too long, or leaving a store empty-handed because they couldn't fit their stroller into the aisle between two shirt racks. Paco's shoppers are fickle and headstrong, and are quite unwilling to buy anything unless conditions are perfect—unless the belt is presented at *exactly* the right moment. His theories of the butt-brush and petting and the Decompression Zone and the Invariant Right seek not to make shoppers conform to the desires of sellers but to make sellers conform to the desires of shoppers. What Paco is teaching his clients is a kind of slavish devotion to the shopper's every whim. He is teaching them humility.