ALPHA MALES AND SUBCONSCIOUS SALES

Research suggests that men still shop with their instincts, compensating for inferiority by flaunting their buying power

BY HAL CONICK
A SWEDISH PROFESSOR with sandy hair and thick-rimmed glasses sprays the scent of coffee in one shop, bumps a customer in the back in another and tells customers in a third shop that they can’t touch the merchandise. Across Sweden, he creates offbeat atmospheres—at gas stations, retail stores, telecom companies, furniture dealers—and studies how customers react, watching for a pattern. Did customers spend more time in a store if it smelled like coffee? Did a bump make shoppers tense? Does the inability to touch an item make them want to buy it? As the answers to these questions pile up, the professor hopes to find a signal, a measurable effect of the atmospheric manipulation.

The professor—Anders Gustafsson, a research professor of marketing at Sweden’s Karlstad Business School—reports the results to the businesses he’s studying. If the signal is strong, he writes about the results and submits his research to an academic journal. His work has been cited thousands of times.
Gustafsson has earned unique access to businesses by visiting with dozens of decision-makers each week; “It’s like hanging out with friends,” he says. He’ll push his friends on their beliefs: “Do you really think that what you’re doing is effective?” is a common question, he says. Sometimes his friends ask him to prove them wrong. They ask him to study their stores.

In 2010, managers at a furniture dealer in Karlstad, Sweden—Gustafsson carefully avoids referring to the company by name, as store managers didn’t want their store to be attached to the resulting study—asked him to study whether sales can be affected by store greeters.

Most U.S. shoppers are familiar with greeters. They can easily recall the image of a smiling, aged face at the front of Walmart, offering help and sometimes an eye of suspicion. But greeters have been largely unknown in Sweden, a low-theft country populated by people averse to small talk. In 2010, the furniture dealer—like most businesses—was trying to escape the chomping maw of the Great Recession. If front-line employees are one of the first jobs to disappear amid flagging sales, do customers miss seeing them? When they disappear, do sales also disappear? Gustafsson set up an experiment to find out.

He recruited three other researchers for the experiment: Nancy Sirianni and Christine Ringler, consumer behavior doctoral students whom he met while teaching as a visiting professor at Arizona State University, and Tobias Otterbring, a research assistant and soon-to-be psychology doctoral student whom he met at Karlstad University. Going into the field study, the researchers were all excited by the prospect of watching how atmospheric manipulations affect the behavior of customers. The results from field tests are more convincing than data gleaned in the controlled setting of the lab, Otterbring says. Field results feel more real.

Researchers began their field test early on a Saturday by watching customers walk into the furniture dealer. There was no greeter in place yet; customers came and went, surveyed by research assistants as they left. The assistants asked simple questions: How old are you? How much did you spend? Later in the day, graduate students—some male, some female—would dress in store-branded yellow shirts, stand just inside the front entrance of the store and welcome customers. “Hej,” they’d say. On Sundays, the greeter stood in front of the store early—researchers switched times to control for any changes caused by passing hours. Again, research assistants would stop these customers and ask them about their age and how much they spent. But they also asked about the greeter—did the shoppers notice the greeter on the way inside? The research assistants asked to photograph shoppers’ receipts; most shoppers obliged and were given a coupon to the furniture dealer’s food court. Shoppers didn’t know what researchers were studying, Sirianni says, only that they were asked questions and received free meatballs.

Though the customers were happy, the initial results frustrated the researchers. They put the data through a statistical program and found little of significance. But an odd signal peeked through the noise. Never mind, Gustafsson thought—it was just field noise, the ghost of a busy atmosphere howling through the data.

Data culled in field tests are often complicated by noise, which could be unexpectedly heavy foot traffic on a random Wednesday, a flickering overhead light or pouring rain that keeps customers at home. Noise could even be something ineffable—the way people feel, the mood of a store, the attitude of a city. The atmosphere, which Gustafsson carefully tweaks, will always be noisy. Despite the noise, researchers can find unexpected signals during field tests. If they measure carefully, they can find bits of information that would have never been found in a lab.

In those cases, Gustafsson says that he must follow the data.

At the front of the furniture dealer, the noise seemed to come from male shoppers’ reactions to a specific greeter, a skyscraper of a man with thick thighs and muscular shoulders. In the name of following the data, the researchers ran more tests; they outfitted greeters with eye-tracking spectacles to watch where customers looked. Researchers noticed that the presence of the muscular male greeter affected men in a strange way: The eye trackers showed that the men gawked at his chest and shoulders, then spent more money in the store. When this greeter was present, men spent 131% more than women, researchers found. Women looked at his eyes and moved on with their shopping. According to the research, women spent an average of $71.55 after seeing this greeter while
men spent an average of $165.05. When the dominant greeter wasn’t present, the spending evened—on average, women spent $96.93 and men spent $92.23. “This is crazy,” Sirianni remembers saying when seeing the results.

But why was there such a big difference? Gustafsson wanted to ensure that the hulking greeter’s good looks weren’t the reason why men were spending more. Gustafsson says that they tested a similarly attractive but less-dominant male greeter, one who was shorter and thinner—the signal died. They moved to a different store and tested the effect of a dominant female greeter on women shoppers—the signal died again.

That’s when we started to get the notion that this is about something else than we thought it was,” Gustafsson says. Just as he had feared, the study belonged in the domain of evolutionary psychology.

All four researchers were familiar with evolutionary psychology—in marketing and psychology research, it was becoming impossible to ignore—but none of them were experts. They started digging into the existing research; one study told them that men sometimes use consumption to show off, even when there are no women around to impress. Another told them that men often compete through flashy purchases, another that men are far more likely than women to use consumption to show off their status. But the researchers didn’t find any papers that spoke to the intrasexual competition they had seen at the furniture dealer. Gustafsson knew that an evolutionary psychology framing would make the study harder to publish—it’s controversial, he says—but the signal was too strong. They had to follow the data. The signal in the numbers was the ghost of human history, they now believed, the ghost of humanity’s progression from instinct to intellect.

In the late 1990s, Kristina Durante felt disappointed by her career. She was undeniably successful—she worked as a publicist at RCA Records and Planet Hollywood—but she had no idea how to persuade people, a key function of her job. She felt poorly equipped for work.

Durante wanted to learn more about human behavior, so she took night classes in psychology at a local community college. The teacher assigned books about evolution, such as Richard
Dawkins' *The Selfish Gene* and Robert Wright's *The Moral Animal*. She was rapt; reading those books made her feel like someone had turned on a bright light in a dim room.

Durante soon quit her job and went back to school, first to study behavioral endocrinology, then social psychology. By 2009, she had earned a Ph.D. in social psychology and had published an evolutionary psychology paper titled “Changes in Women’s Choice of Dress Across the Ovulatory Cycle: Naturalistic and Laboratory Task-Based Evidence.” In that paper, which would be cited 250 times, she and two co-authors found that signs of ovulatory cycles are often obvious in ways even a stranger can observe—the type of clothing worn, the amount of skin exposed. After years of research, Durante became an associate professor of marketing and the marketing Ph.D. program coordinator at Rutgers Business School.

Now, a larger number of researchers bring together evolutionary psychology and marketing research in search of why consumers spend, how they compete and what motives for consumption bubble under human consciousness. From 1998 to 2018, Google Scholar lists 9,620 results when searching “evolutionary psychology” and “marketing,” compared with 131 results from 1978 to 1998. In an oft-cited 2000 paper—“Applications of Evolutionary Psychology in Marketing”—Gad Saad and Tripat Gill, two prominent researchers of the applications of evolutionary psychology in marketing, write that applying evolutionary psychology to marketing research can be “illustrated by comparing the evolutionary predictions with results obtained from previous studies, by supporting these predictions with market-level consumption data and by proposing new hypotheses based on this framework.” Evolutionary psychology is another tool to examine marketing, a way to make predictions about how consumers behave.

“That’s where the study that you’re talking about comes in,” Durante says of the dominant male greeter study. “When you think about intrasexual competitiveness and look at some of the theories of selection about how human mating systems evolved, you’ll see how males, especially male mammals, are really competitive with one another.”

Although male mammals compete through physical altercations and displays of status, Durante says that female mammals compete indirectly with one another by trying to look younger, healthier and more physically attractive. When selecting a mate, females look for males who can acquire resources, according to R.L. Trivers’ influential 1972 parental investment theory. Thus, the theory goes, males flaunt, showing that they can provide resources, and women pick the best male of the lot. In human behavior, this may mean that men subconsciously want to show that they can outspend more dominant males even if they can’t physically overpower them. It’s costly signaling, Durante says; “Look at all the costs I can incur.”

**STATS FROM THE FIELD**

**CUSTOMERS STUDIED**

369

**GENDER BREAKDOWN**

68% FEMALE

32% MALE

**AVERAGE AGE**

49.4 YEARS

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GENDER BREAKDOWN

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"You’re going to self-present just as you would in an interview,” Durante says. “If you interview for a job as a construction worker, you present all of the abilities you have that are related to that job. And the same is true for mate choice.”

This is where the controversy Gustafsson worried about seeps in: Researchers who study humans as an evolving animal often leave onlookers angry and perturbed. To many feminists, evolutionary psychology locks humans in a genetic patriarchy where men are the eternal breadwinners, destined to compete for resources, while women are destined to compete through passive traits like youth and beauty. To many philosophers, evolutionary psychology locks humans into genetic determinism, a world where free will never existed, and our choices are not our own but the outdated desire of long-dead relatives. Many religious people, fundamentalist Christians in particular, have complained about evolution since Charles Darwin released his landmark study of evolution, The Origin of Species—they refuse to believe in a world where physical biology matters more than the metaphysical soul. As Bernard Crespi, professor of evolutionary biology at Simon Fraser University, wrote in a post on The Evolution Institute’s website, many people feel as though the study of evolution is an attack on human goodness and human purpose.

And then there’s the scorn from the academic community. The earliest and perhaps best example of academic vitriol against evolutionary psychology scholarship can be found in 1975 at Harvard University, when biologist and ant expert E.O. Wilson released his book, Sociobiology, cited by many as a foundational text of evolutionary psychology. In the book, Wilson explained how evolution by natural selection affected animal—including, controversially, human—aggression, morality and care for young, among other traits. Many demurred, believing that Wilson put too much emphasis on nature and not enough on society, selling short the effect of our parents and environment. Academics attacked Wilson in print; Richard Lewontin, a critic of Wilson’s work and his colleague in Harvard’s biology department, wrote that biologists like Wilson were “ideologues” who see modern Western culture as natural because they are “privileged members of such societies.” Protestors began haranguing Wilson at his lectures, accusing him of rationalizing genocide by associating Sociobiology’s biological heredity thesis with eugenics and Nazism. The most public example occurred at a 1978 speech that Wilson was scheduled to give at a meeting of the American Association for the Advancement of Science. Protestors stormed the stage, threw a cup of water at Wilson and chanted, “racist Wilson, you can’t hide, we charge you with genocide.”

Decades later, researchers who study evolutionary psychology still feel the pressure, the social taboo. “It’s like a minefield,” says Otterbring, the lone member of Gustafsson’s team who now specializes in evolutionary psychology research. “You have to be careful. But if you find something, from my point of view, it’s better to show people and to make people aware that we, as humans, sometimes have these superficial biases. I don’t think it’s fair to just put all these findings under the carpet and pretend that they don’t exist because then we won’t learn anything.”

The taboo also spawns the biggest misconceptions of evolutionary psychology, Durante says, as many onlookers believe that researchers are testing evolutionary theories directly on humans. On the contrary, she says, researchers are using evolutionary theory to form hypotheses about how the human mind works, searching for the underlying psychology behind consumerism. “Sometimes, the ultimate
function of behavior doesn’t match up with the proximate-level cognition that we have,” Durante says. In evolutionary lingo, the proximate level deals with the story of the function, the “how” of what happens; the ultimate level deals with the function itself, or the “why” of what happens. A proximate-level reason for eating a piece of carrot cake instead of an actual carrot may be that the cake tastes sweet and makes us feel good, for example, while the ultimate reason is our desire for the cake’s fat and sugar—formerly scarce energy resources, now wildly abundant. “Those are risky things because we have them now at our fingertips,” she says. “But we still have the brains that can’t stop getting it if it’s in front of us because we don’t have a stopping mechanism. It wasn’t at our fingertips, and in special environments we had to work for it.”

Over many centuries, the human brain has evolved better stopping mechanisms. Humans have evolved a larger and more effective neocortex, the part of our brains associated with language, conscious thought and sensory perception. We’re aware that we make choices and that our choices have stakes; these are complexities that make studying humans difficult for marketers, Durante says. We can know our ultimate reasons for eating carrot cake and still believe in the story of our proximate reasons, telling focus groups that we ate the cake because it was so tasty. We’re inquisitive and thoughtful, yet we’re often driven by our bodies and the muted parts of our minds.

Researchers must study humans carefully, as we’re noise-creating machines with scores of outliers and individuals in our ranks. But amid the noise, Durante says that humans give off signals. Evolutionary psychology offers a tool to find those signals.

The researchers now had a number; 131% more money spent by men in the presence of a dominant male greeter. They had surveys confirming that the dominant male greeter was, in fact, considered dominant. In evolutionary psychology, males are considered dominant—and thus perceived as having higher status and income—when they’re athletic, have a strong upper body and an imposing stature. When researchers surveyed people by showing them photos of the dominant greeter, people responded that he looked like he worked out and was good at sports.

When Gustafsson showed the initial results to


The authors write that “blatant benevolence” and “conspicuous consumption” are signaling displays that can attract and retain mates. While this could seem to confirm the worst suspicions of Puritans and Marxists, knowing about blatant benevolence and conspicuous consumption could “shift such behaviors from workaholic, shopaholic, or planet-wasting consumption to more pro-social forms of display.”
the managers of the furniture dealer, he says that they were intrigued by the efficacy of greeters but wary of being associated with a study on the effect of dominance on male shoppers. They asked not to be named in the research, he says. But the researchers had a potentially publishable signal and had to keep digging. Their finding was a new piece of information for the evolutionary psychology canon, the researchers say—most studies had focused on what effect attractive women have on male spending. And it was counterintuitive; the researchers surveyed 380 people and found that the majority believed that women shoppers would be more affected by dominant men. Their study spoke to an intrasexual competition. “We propose that this heightened drive for same-sex competition transforms the [greeter] into a rival and results in an increased propensity to buy status-signaling products among male customers,” they wrote.

The researchers deepened their research; they needed more evidence to ensure that the signal wasn’t created by the noise of the field or the presence of the greeter. In a second study, they set up in labs in the U.S. and online to find out whether people would prefer products with larger logos after being shown a photo of a physically dominant male employee. Researchers showed 114 undergraduate students, 51% of whom were women, photos of dominant or nondominant male employees, then asked them to imagine that they were shopping for a piece of clothing. How visible did they want the brand logo to be? The male participants who were shown the dominant male preferred shirts with logos about two-thirds bigger than men shown images of nondominant employees or women shown images of either type of man.

In a second part of the study, the researchers showed 292 undergraduate students, 45% of whom were women, photos of a male model. They believed that if men were affected by photos of nonemployee dominant figures, they could be coaxed into a purchase by advertisements, commercials or in-store displays. A graphic designer edited the model’s photo two ways, making him appear dominant and nondominant. The researchers randomly assigned the two versions of the photo to participants, who were then given an image of a blank t-shirt and asked to draw a logo at the size they’d prefer. Researchers found that short men (defined in the study as five feet, five inches or shorter, which is one standard deviation shorter than average)

From the paper “Applying Evolutionary Psychology in Understanding the Representation of Women in Advertisements,” by Gad Saad in Psychology & Marketing

“Gulas and McKeage (2000) have shown that the depiction of financially successful men and women in advertisements had an adverse effect on men viewers. On the other hand, viewing physically attractive men and women in the ads did not have any negative effects on men’s sense of self-worth. This is exactly what [evolutionary psychology] would predict, for in terms of male intrasexual rivalry, financial resources are much more important than physical attractiveness.”
who were exposed to images of the dominant model drew logos that were 4.36 square inches—more than five times bigger than logos drawn by tall men exposed to the image of the dominant model (0.86 square inches) and other short men exposed to the image of the nondominant model (0.82 square inches). Women, as researchers expected, were unaffected by the model’s dominance.

In a final study—of 473 undergraduate students, 53% of whom were women—the researchers wanted to prove that intrasexual competition was the psychological driver behind the dominance signal. They scanned participants’ hands to measure the distance between their index and ring fingers—the larger the 2D:4D ratio, as the measurement is called, the lower the testosterone, according to a 2001 study published in the journal Evolution and Human Behavior. Then, researchers showed participants images of dominant or nondominant models and asked them how much money they’d personally pay for luxury items, such as new cars, European vacations and dates to fancy restaurants. The result: Men with lower testosterone reacted with stronger competitiveness and were more willing to spend money on gaudy items after being shown images of the physically dominant male model.

At the end of each study, the researchers asked participants if they had any idea what the study was about. They didn’t, Ringler says. “Even though we’re asking about employees and spending, they have no idea that it’s about dominance and how it’s going to impact [buying] behavior.” As in the field test, the signal from the lab studies bubbled under the participants’ consciousness.

The researchers compiled their findings and submitted them, but not before they thought of a catchy title, a wink to a retailer known for using dominant male greeters: “The Abercrombie & Fitch Effect: The Impact of Physical Dominance on Male Customers’ Status-Signaling Consumption.”

The editors of Journal of Marketing Research approved the paper in 2017 and published it in 2018. In all, the researchers poured eight years of work into the paper. Now, Sirianni and Ringler have their doctorates and are, respectively, associate and assistant professors of marketing at Culverhouse College of Business at the University of Alabama; Otterbring, not yet a doctoral student when the study started, also earned his doctorate and is an assistant professor at Denmark’s Aarhus University. Gustafsson still works as a professor at Karlstad Business School, visiting his friends’ businesses and manipulating the atmospheres in their stores.

It wasn’t long after Durante started her career as a researcher that she began hearing from corporations. Many hired her as a consultant, including a $62 billion consumer goods company. She consults mainly on women’s products for companies that are attempting to figure out how they can persuade women by using evolutionary psychology-based marketing research. Durante says that some companies want to find ways to create a sales forecast model from a women’s ovulatory cycle. For example, if women are more likely to buy pizza at a certain point in their cycle, she says that a brand can build a marketing communications cycle around each customer’s cycle and send her a marketing message 28 days later instead of 60 days later.

As Saad and Gill wrote, this forecast works...
This is controversial, Durante acknowledges, especially among academics. “It’s seen as perhaps confirming that women have mood swings or drastic swings in behavior preferences and attitudes that happen within a short time span, and they can’t be a rational decision-maker,” she says. “I have, in the past, gotten pushback on that particular area of my research. But companies want to find out [more]. Their motivation is the bottom line.”

Companies are curious about whether evolutionary psychology research can improve sales, Durante says. If companies can ethically use this research in a way that doesn’t jeopardize consumer welfare, she says that they’re interested in testing it. Studying evolutionary psychology may give companies an idea of how humans will behave, but Durante says that the research isn’t powerful enough to dupe anyone into buying something they don’t want. And if the research does become too powerful for customer comfort, she believes that customers will let companies know, and the companies will change. After all, she says, the goal of any marketer is to win long-term business, not trick customers into purchases.

Dawkins—the famed zoologist and one of the authors who flipped the lights on for Durante—has said for years that evolution by natural selection is the reason we exist, but it shouldn’t be a guide to how we live. “Study your Darwinism for two reasons: because it explains why you’re here and … to learn what to avoid in setting up society,” Dawkins told a crowd at Kennesaw State University. If we’re all mammals courting one another and impressing potential mates by collecting resources or showing some skin, what are our proximate-level choices as consumers? Our ultimate choices? Humans aren’t usually aware of their ultimate choices—the reasons why they want to buy a Ferrari or an Oscar De La Renta dress are always bubbling somewhere beneath consciousness—but Durante says that there’s value in studying why we make these choices, whether you’re a consumer, scientist or marketer. But what about the Abercrombie and Fitch effect? The authors believe that their studies can influence sales in real businesses. In the managerial implications section of the paper, they write that companies selling jewelry, luxury cars...
or designer clothing could assign “tall, athletic male sales associates to manage the accounts of shorter male customers.” The effects of the study extend beyond face-to-face interactions and into ads, commercials and in-store displays, they write, as even a picture of a dominant male seems to trigger men’s competitiveness and increase the amount they spend. “Thus, because the effect is not limited to face-to-face interactions with dominant male employees, our findings should have broad and important implications of marketing and advertising,” they write.

But Otterbring says that luxury shops might not want to switch their hiring practices to employ only hulking males. There are discrimination laws to worry about, he says, but also that dominant males don’t seem to affect other dominant males. And while it’s true that many human actions aren’t done consciously, researchers can only explain pieces of the human subconscious. Most of our psychology, subconsciousness and ultimate reasons for action are still unmapped.

Even so, Gustafsson says that marketers should study this paper and other marketing-focused evolutionary psychology research. Marketers are very good at the big-picture items—competing, building a new market or a new business—but he says that they often miss the small details, the signals that appear in the noisy atmosphere of the store. “These things that are more experience-based or emotionally connected that are more difficult to capture and grasp, they have a big impact,” he says.

People often ask Gustafsson about the ethical and philosophical concerns of driving sales by manipulating consumers, but he points to the dominant greeters already being used at high-end stores across the world. Think about the beefy security guards who stand at the front of Tiffany’s or Michael Kors; they likely weren’t hired to make male customers spend twice as much money, but the store’s intentions don’t change the results. For Gustafsson, these manipulations are a research opportunity, a way to find out how consumers shop and how the world works.

“We are all manipulated,” he says. “All of these things—scent or music or letting people touch products—they are out there. You need them in the stores. People like these environments better, so they come more frequently. It’s about building an environment that people might spend more time in.”

From the paper “Fear and Loving in Las Vegas: Evolution, Emotion, and Persuasion,” by Vladas Griskevicius, Noah J. Goldstein, Chad R. Mortensen, Jill M. Sundie, Robert B. Cialdini and Douglas T. Kenrick in Journal of Marketing Research

“The present findings have theoretical and practical implications for advertising practice and the strategic placement of ad and products. For instance, although television advertisers have traditionally relied on viewer demographic information to determine where and when to purchase airtime, our model suggest that they might consider the content of the specific program during which their ads will air—and to consider such issues in a more textured and less obvious way. For example, while touting the uniqueness of a product might be effective during a program that elicits romantic desire, the same ad aired during a fear-eliciting program such as the grim local news might actually make the product unappealing. A related intriguing possibility is that ads themselves might be used to elicit specific emotions (rather than general positive or negative effect) in a strategic way. For example, the first 15 seconds of a TV spot could be strategically crafted to elicit a specific emotion; this emotion could be used to make the persuasion appeal in the ad to be more persuasive.”