



## Your Brain at Wal-Mart

Manoj Thomas studies how the human brain responds to posted prices, and how it decides whether or not to buy a new product.

Manoj Thomas trained as an engineer, earned an MBA, and worked in the corporate world for six years, before he decided to pursue a career in academia.

"I liked to think more deeply about problems," he says. "How the consumers' mind works is more fascinating to me than meeting sales projections."

Thomas launched a new career focused on studying the human mind in the context of the market, as he earned his PhD in marketing from New York University's Stern School of Business, and joined the Johnson School at Cornell on the marketing faculty. Thomas leads the school's innovative immersion learning program in Strategic Marketing, while pursuing two concurrent streams of research:

- The psychology of price cognition
- How the ease or difficulty of thinking affects consumers' judgments

Within the first stream of research, Thomas set out to explore what he calls the "Wal-Mart effect" or the "Precision Effect." The retailing giant always uses precise prices (e.g., \$3.72), and seldom uses round prices (e.g., \$3.75 or \$3.50). He and his co-authors, Daniel Simon and Vrinda Kadiyali, tested the Wal-Mart effect in real estate sales data from South Florida and Long Island, New York. Their analysis shows that sellers who used precise prices negotiated for final sale prices of \$1,500 to \$2,000 more than those who didn't.

"Larger magnitudes are usually rounded and therefore have many zeroes, whereas smaller magnitudes are usually expressed as precise numbers. So when sellers list a home at a precise price, the price is judged by buyers to be smaller," Thomas says. "This effects negotiations between buyers and sellers."

Uncovering this bias in real estate market advances our knowledge about how the human mind works. That the Wal-Mart pricing effect occurs not only in retail stores but also in the real estate transactions suggests that the biases in price magnitude judgments are not caused by careless mistakes. Rather, these biases seem to be caused by deep-seated, non-conscious mental processes that operate without our awareness.

And what about the prevalence of ".99" in pricing? Thomas attributes that to a different psychological mechanism: Left-digit anchoring. He found that consumers often perceive the price to be lower than if the price were rounded to the next dollar. "Because people read from left to right, they tend to anchor

their judgment of price on the left-most digit," he says. So a price of \$1.99 will seem to the potential buyer to be closer to \$1 than to \$2.

Thomas' pricing research also suggests that the ease or difficulty of thinking about a product or price can affect one's perceptions. When making a decision to purchase a discounted product, consumers must judge whether the difference between the regular price and the sale price is large or small. In one study, Thomas and his co-author discovered that people perceive the difference between \$5.00 and \$4.00 to be larger than that between \$4.97 and \$3.96.

"Usually it is easier to compare two dissimilar magnitudes than two similar magnitudes; overuse of this heuristic can make people incorrectly judge the difference to be larger for pairs with easier computations (e.g., \$5.00 – \$4.00) than for pairs with difficult computations (e.g., \$4.97 – \$3.96)," Thomas says.

Another study revealed important insights for sellers, on providing information on new products. "New product buying decisions are made quickly by consumers, and marketers must provide descriptive information about the product" Thomas says. "Should that information be vividly descriptive or pleasantly fluent?"

The answer: give lots of information on a new product, but be certain each word is easy to process and understand. "The more information the better—as long as it's easy to pronounce," he says.