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Introduction



My business background, over the past 20+ years, has been involved primarily in designing and building exhibit environments for trade shows, corporate lobbies and retail fixtures, not as a behavioral psychologist or clinical neurologist. About five years ago, our company started producing kiosks for retail and digital interactivity became more important as part of the overall design solution.

I slowly came to believe that our understanding of human interactivity and human behavior, at events and tradeshows, was woefully behind the times. It seemed that staff training, with all due respect, focused on custodial behavior in exhibits and dealt with negative habits (no phones, no eating, no sitting and no folded arms) or on clichéd conversation starters.

Another sticking point early on for me was the striking difference in how Europeans conducted business at a trade show vs. their U.S. counterparts. Europeans seemed to design their stands with generous meeting and hospitality service and typically engaged in food and drink *before* discussing business. In the U.S., we do things about 100% opposite. . .rarely would we provide food and beverage service (although that is changing rapidly now) and Americans prefer to qualify the prospect before engaging in personal discussions.

And so, I became more and more intrigued with the why and the how of human behavior at events. What was it that got someone's attention? Why would an executive seem so fearful? What did people recall 30 days afterwards? Why did that person hesitate and then walk away?

The ideas presented here hopefully will challenge event marketers to see the world with more than their eyes and ears and to consider designing environments for the human senses and emotions.

Information Overload



**“A Wealth of Information
Creates a Poverty of Attention.”**

Herbert Simon

There are other phrases which would work, but I have to credit Alvin Toffler for correctly predicting, almost 40 years ago, that our Society would enter an Era of Information overload.¹

Of the estimated 2,000 commercial messages the typical consumer is saturated with each day, almost 80% are visually appealing only to our eyes.²

Advertising commercials (i.e. non-programming content) on primetime TV averages 14 minutes and 27 seconds per hour. In order to have 90% of the viewing public see a commercial in 1965, it took only three times...today the same commercial would have to air 117 times to reach the 90% goal.³

We have all noticed attendees walking down a trade show aisle, their eyes glazed over from being bombarded with a thousand visual messages, totally oblivious to their surroundings, semi-comatose “Meanderthals” (as Paco Underhill calls them).

Research now confirms that Visual Clutter actually “suppresses brain responsiveness”⁴...more or less putting our attention on “hold”.

¹ Futurestock 1970, A. Toffler

³ Brand Sense, Malcolm Gladwell

³ End of Advertising As We Know It, Sergio Zyman

⁴ National Institute Mental Health, 1998 Oct. 5, “Focusing Attention Cancels Brain Dampening Effects of Visual Clutter”

Rational Buying Process



**"A man makes a decision
for two reasons...the good
reason and the real reason."**

J.P. Morgan

Most business decisions are seemingly made in a rational comparison of apples-to-apples, starting with a logically straight forward and rational process of information gathering, then evaluating proposals, logical selections with scores, auto fulfillment and usage.

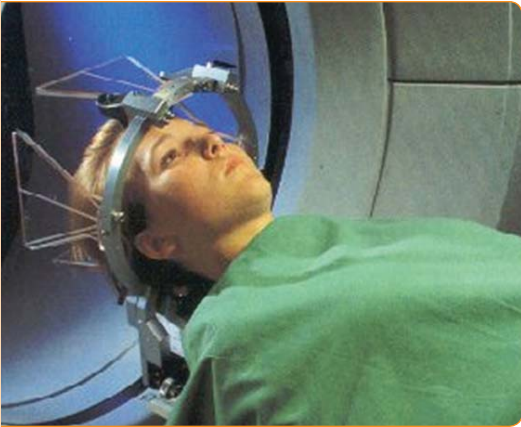
The Rational Buying Process should create a "Level Playing Field" for all competitors to eliminate the possibility of personal influence or emotional bias from affecting the final decision.

And, "Grinding the Numbers" for ROI Means the RFQ came from the RFP and a successful SOW eliminated the AR but created the AP.

Stage Left: "And, please welcome 'Iron Chef' Bernie Madoff who is going to 'Cook the Books' with our condiment of the day — RADICCIO."

So what's missing in this picture?

Measuring Brain Activity

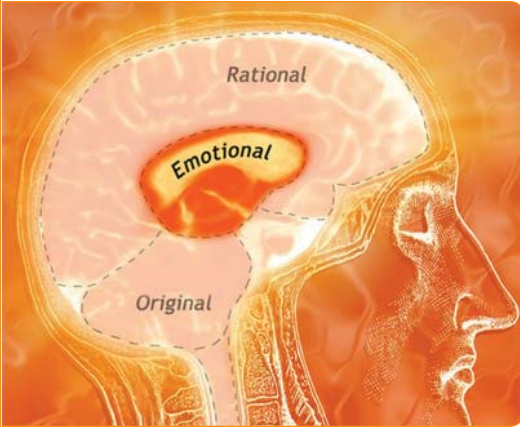


Since ancient times, humans have attempted to study and understand how the brain's 100 billion neurons are functionally organized, where these functions might take place and how we might be better able to predict behaviors.

Most proposed theories of brain functions are viewed today as laughably lame and seemingly counter intuitive. 150+ years ago, Phrenologists like Franz Joseph Gall measured the bumps and undulations across 27 regions of the skull hoping to identify prospective marriage partners from potential murderers.

But it's only been in the last 10-15 years that we have witnessed "Revolution in Brain Science" triggered by MRI (Magnetic Resonance Imaging) and fMRI (Functional). fMRI shows regions of activation and brain function in real time by detecting increased blood flow in active brain regions.

Theory of 3-Part Brain



“Nothing comes to the mind, except through the senses first.”

AQUINAS (1225-1274)

The human brain is still evolving...slowly.

Theories about how the human brain evolved and works are subject to intense debate, but one model widely accepted is the Triune or 3-Part Brain:

Original Brain: (evolved 500 mya) The most primitive part of the brain anatomically (sometimes called “Reptilian” or R Complex) which manages autonomic responses in vital organs like heart beat, body temperature, blood pressure, respiration and performs at an unconscious and non-verbal level.

Emotional Brain: (evolved 200 mya) Mammalian in nature, unconsciously assigns meaning to sensory stimuli (sights, sounds, smells) and triggers emotional responses (snap judgments, first impressions and gut feelings),² and actions (fight or flight).

Rational Brain: (evolved 500,000-2 mya) Proportionally, humans have an enormous Neocortex (1,350 cc),³ some four times bigger than Chimps and Gorillas which perform executive functions for conscious movement, language, ideals/symbols, past and future, tool use and complex social groups.

The key take away here for marketers is that when responding to various sensory stimuli the human brain’s hardwired first response is at an emotional level and then, later, the rational brain explains what has already happened.

In Fact, “Sensory input is processed by the Emotional Brain in one-fifth the time it takes the Rational Brain to do the same work.”⁴

¹ The Triune Brain in Evolution, Paul MacLean, 1990 NY Putnam

² BLINK, Malcolm Gladwell. 2005 Little Brown

³ Big Brain, Gary Lynat & Rich Granger, MacMillan (2008)

⁴ Emotionomics, Dan Hill, 2007 Beaver Pond

Attention, Emotions & Memory



Emotions influence daily life more than what most people would like to admit. And in business, successful marketers need to somehow connect emotionally with customers in order to stimulate buying behaviors. How might this happen?

Repetition and rote memorization (like advertising or $4 \times 4 = 16$ school work), works in creating long term memory but is quite often emotionally neutral (i.e. lacking motivation). The senses are the gateway to the Emotional Brain and Emotions, however, marketers have relied almost exclusively on the visual¹ sensory system (80%) to connect with customers resulting in oversaturation, visual clutter and tune-out.

In this context, developing alternate “Sensory Touch Points” rather than relying exclusively on strictly visual messages seems obvious. Firms like NeuroFocus (www.neurofocus.com), EmSense Corporation (www.emsense.com) and Sensory Logic (www.sensorylogic.com) are actively providing research on what commercial messages work and what doesn't.²

Getting Attention: In cluttered environments with lots of stimuli like tradeshows or 60 mph freeway driving, it takes something remarkable to get Attention...perhaps a cool kiosk or a state trooper or a purple cow.³

Emotional Relevance: The essential difference between short term memory (working memory) and long term memory is Emotions. Memory fixing proteins are released within minutes of an event (with emotional content) strengthening synaptic connections, thereby creating permanent lifelong memories.⁴ Unconsciously, the brain decides that this is an event that should be recorded.

¹ Brand Sense, Martin Lindstrom

² Dan Hill Emotionical

³ Purple Cows, Seth Goodin

⁴ Synaptic Self, Joseph LeFDoox (2002)

Smell Sense



"A rose by any other name..."

Human sense of smell may still be our strongest sensory system and for sure is the oldest. A billion years ago, primitive sea organisms developed a smell brain or Rhinocéphalon which perceived odors and assisted in finding food, mates, and avoiding predators.¹

Use It or Lose It: In the past, smell was more important for our human ancestors. Many species use pheromones as social communications indicating boundaries or mating status. Some humans still have a relevant pheromone detection organ in the nose called the VNO Vomeronasal Organ but it is "vestigial" like wisdom teeth, the appendix and tail bones.

Of the 1,000 human genes devoted to odor detection some 300 have been rendered useless probably because a lack of use as we humans traded-up to color vision some 55 million years ago.

When considering a fragrance as a sensory touch point in an environment, be aware of the relative "odor detection threshold" (one part per billion), and the fact that odor perception is a "subjective" experience from one person to the next. The infamous California Milk Producers Association "Got Milk" promotion which pumped chocolate chip cookie scent into San Francisco bus stops, bombed because of hypersensitivity issues of enclosed spaces.

Smell is also the only sense that by-passes the Rational Brain and connects directly with the olfactory portion of the brain which is intertwined with the hippocampus and amygdala where memory and emotion reside.

¹ Your Inner Fish, Neil Shubin Vintage 2008.

² Shubin

Putting Customers at Ease



Some people have predicted that in the very near future advertisers and marketers will find the “Buy Button” in their brain.¹

In retail environments, impulse buying at the point of sale already accounts for nearly 80% of purchase decisions.

Obviously, the goal of sensory designers should not be to manipulate impulse spending behaviors in customers, but ideally to put customers more at ease (almost a flow state²) where action and awareness merge in meaningful face-to-face business.

¹ The Naked Brain: How the Emerging Neurosociety is changing How We Work and Live, by Richard Restak (2007) Three Rivers Press

² Csikszentmihalyi, Mihaly (1998), *Finding Flow: The Psychology of Engagement with Everyday Life*. Basic Books. ISBN 0-465-02411-4 (a popular exposition emphasizing technique)