Neuromarketing: Advertising Meets Emotions

Most of our decision making comes from our subconscious mind. This is the part of the brain where we store memories, preferences, and emotions – and it lies just beyond our awareness.

The field of neuromarketing looks to understand these subconscious preferences by observing brain activity. Because we are not aware of our subconscious mind at work, it is important to understand how humans perceive colors, textures, packaging, and even sound in various marketing techniques.

Francis Kelly, an Advertising / PR student at Loyola University Chicago, describes how she has seen the marketing field expand by using more creative ways to advertise products.

“I am really curious to know how professionals in the advertising space decide on the most effective marketing tactics for certain products,” said Kelly. “I know there is a lot of emphasis on catering to people’s emotions, but I’m curious to know the full extent of it”.

This leaves us with the question – what role does the brain play in determining our purchase preferences? This article will explain how neuromarketing is able to cater to human emotions, why consumers have certain values, and how they interact with the brain’s decision making process.

Neuromarketing helps to better understand the underlying mechanics of consumer spending by combining principles of marketing and neuroscience. With focus groups or qualitative research studies, participants can become susceptible to spinning the truth to tell researchers what they want to hear. Neuromarketing removes this constraint and allows for more unbiased and accurate observations.

Because 95 percent of our decisions are made subconsciously, it is important to observe brain activity when consumers are first met with various marketing techniques. Additionally, subconscious thought processing is 200-thousand times faster than conscious thought processing, emphasizing the importance of first impressions when it comes to marketing products. We often decide which product to buy before our conscious brain is aware of it.

Just one eye movement takes between 200 - 350 milliseconds, and within that time frame is when a product can persuade our subconscious to buy it. Additionally, consumer decisions can

be made as quickly as a third of a second which can be observed by various neural imaging techniques. Specifically when it comes to observing and predicting consumer choice, eye-tracking devices along with Electroencephalography (EEG) and functional Magnetic Resonance Imaging (fMRI) data are the most accurate.

Eye tracking observes eye movements and point of gaze which allows neuromarketers to to understand consumer behaviors. In a study observing eye movements in shoppers, the research team found that 76 percent of shoppers made their purchase decisions while in the retail environment. Data also showed a significant emotional response in the consumer's first impression of the product. This solidifies the idea that first impressions can be a predictor of choice and visual appeal is extremely vital in marketing tactics.

EEG monitors brain activity through responses and activity in the brain. A study using EEG data proved that consumer choice can be predicted by observing electrical activity and brain waves in the participants. The researchers were able to predict purchase decisions while the participant simply viewed the product, even before the individual themself decided.

A study using fMRI data observed whether online purchase decisions can be predicted through brain activity. They found that predictions were predicted most accurately during the product evaluation period – when the consumers first saw the product.

Additionally, fMRI data has also proven that consumers resort to emotions rather than information from advertising. Many successful advertising strategies cater to our lived experiences and personal values. This is why consumers are loyal to brand-name products. For example, in the Pepsi vs Coke debate, the latter has remained the superior cola product since 2004 due to its advertising strategies – emphasizing emotional responses in consumers.

This begs the question – why do consumers have these specific values and preferences?

Dr Norberto Grzywacz, a psychology professor at Loyola University Chicago, specializes in aesthetic values and how they contribute to human preferences. According to Dr Grzywacz, 35 percent of our preferences are innate while 65 percent come from outside influence, such as our environment.

While some of our preferences appear biologically, a majority of our preferences are conditioned by societal and cultural influence. Despite this being the largest determining factor, we still have innate preferences that come from our DNA.

“Evolutionarily, beauty has had a role,” Dr Grzywacz said “Recent research has shown that many decisions animals make are based on beauty”.

For example, peacocks are known to have large colorful tails. Evolutionarily speaking, their tails make no sense as there is no survival advantage. However, female peacocks choose their mates based on the design of the tails, proving that emotional beauty also plays a factor in decision making preferences in animals.

Even in humans, innate preferences can be observed as early as four months old. Dr Grzywacz describes how tracking babies' eye movements or measuring their heart rate can allow researchers to determine their visual preferences. He recounts a study where there were two different paintings placed in front of babies – one by Claude Monet and one by Pablo Picasso.

“They have no cultural exposure, and yet, babies like Picasso much more than they like Monet,” said Dr Grzywacz “Babies have an immature brain and like high contrast”.

Despite the fact that most of the influence on human preference comes from our environment, there is also an increase in the variety of products available to purchase, which increases consumer choice.

Dr Grzywacz notes this connection, saying “The choices you have are so broad that people will start to make different choices, even if they live similar lives”. While society largely determines the popularity of products, the choice is still ours to make.

There are numerous motivators for consumer preference, but emotions have consistently been proven to be an effective marketing technique. For example, a well-known bank introduced a credit card for millennials specifically intended to produce an emotional connection. This skyrocketed its popularity, with its use increasing by 70 percent and the amount of new accounts growing by 40 percent.

But exactly how connected are emotions to consumer decision making?

Dr Grzywacz explains that the brain has a decision making network called the Valuation system. The main networks which make up the valuation system are the ventromedial prefrontal cortex (VMPC), the ventral striatum (VS), and some regions of the medial prefrontal cortex (MPFC).

All three networks deal with emotional regulation in some capacity. The VPMC is largely responsible for this, while the VS is in control of reward processing, and the MPFC is relied on for decision making processes and judgement.

This overlap between emotions and decision making is so prevalent because of the brain networks being responsible for both emotional regulation and decision making. Additionally, the valuation system also lies within the limbic system. The limbic system is responsible for emotions, behavior, and memory, which are all significant aspects in consumer spending.

However, Dr Grzywacz does note that there are some emotions which are excluded from the valuation system "Fear is totally separate, but emotional beauty is part of the valuation system". He also adds that "The parts of the brain that find beauty for vision are exactly the same parts of the brain that finds beauty for music, for smells, and for taste".

Along with innate human preferences on beauty, the valuation system also interacts with societal influence. Neural imaging research proves that successful social influence is involved in the brain's valuation system. When people receive recommendations from peers or people they admire, the valuation system will sometimes conform to these recommendations.

The subtle psychology of evoking emotional responses in consumers is behind some of the best marketing schemes. An analysis of the IPA dataBANK solidifies this claim. Out of 1,400 advertising campaigns deemed successful, the marketing tactics that focused solely on producing emotional responses performed almost two times better (31% vs 16%) than companies who focused on more rational appeals.

Emotions felt by an individual can be classified into one of two categories: integral emotions and incidental emotions. Integral emotions are brought forth by marketers who subtly integrate emotions within the advertisement, with the intention of influencing a specific decision. Incidental emotions come from things that are unrelated to purchase decisions (for example – an individual having a bad day at work), but still have an influence on our actions.

Marketers recognize the important role emotions play in our everyday lives. Some emotions can motivate us to make certain decisions, but that can differ across different cultures, identities, and internal emotional factors. A study looked into the extent to which emotions appeal across various cultures. It found that members of societies that prioritize community over individual (collectivist) tended to be more convinced by emotional appeals that were more focused on pride and ego instead of emotions that produced a more empathetic response.

With this in mind, it’s important for companies to better understand motivations behind purchase decisions across various groups of people. It is also important for consumers to be cognizant of their own values in order to find products they genuinely enjoy. Yes, we are subject to environmental influence regardless of location, but we all have innate preferences that are unique to us. The next time you're in the grocery store or browsing through your favorite online shop, remember what is important to you.