

Neuromarketing Mad Scientists Meet “Mad Men”?

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The rise of neuromarketing's recent popularity is due to a natural but not always discriminating rush to try new things. Especially in this area, where new technology has the potential to expose the workings of the brain, many are being led to suggest that with neuromarketing, marketers can potentially flip a "buy" switch in consumers.

As marketers, we should be cautious of that claim.

First, because with every new neuroscientific discovery, the brain looks more and more complicated. Neuroscientists are now abandoning the reductionalist point of view, which categorizes the brain into working parts like memory, cognition and emotion, and discovering that the brain is a complex interconnected system. According to Dan Ariely, Behavioral Economics

Professor at Duke University and author of Predictably Irrational:

The Hidden Forces That Shape Our Decisions, and Gregory Berns, Professor in Psychiatry and Behavioral Sciences at Emory University, in their perspective article "Neuromarketing: The Hope and Hype of Neuroimaging in Business,"

"while some may have argued for the existence of a 'buy button,' current evidence suggests that the cognitive processes associated with purchase decisions are multi-factorial and cannot be reduced to one area.." In other words, it's not that simple – and no single brain area is responsible for a consumer's choice.

Second, the current technologies for measuring brain activity and the methods for data collection raise as many questions as they answer, making it important to look at the neuromarketing space with equal parts curiosity and skepticism. (More on this later.)

Why the interest in neuromarketing?

In this instance, the "Holy \$#!*" number for marketers is that 95% of information is processed subconsciously. Most of us are painfully aware of the shortcomings of traditional research, i.e., its inability to get at what people really think or the thought processes they are unaware of. "Unconscious thoughts are the most accurate predictors of what people will actually do. In a space of five or ten minutes in a focus group, which is the average airtime per person, you can't possibly get at one person's unconscious thinking," says Harvard Business School Professor Gerald Zaltman in his influential book, How Customers Think.

And it's not just the unconscious that neuroimaging can help uncover.

Typically agencies and marketers tend to bucket consumer decision making into two areas: emotional and rational. But emerging academic fields, such as Behavioral Economics, have taught us that there are also forces at work that are neither rational nor emotional. Cognitive biases like anchoring, loss aversion, and framing are not governed by our desires, or even our fears. Arguably, they are more reflexive or instinctual. Unlike emotions – which can be identified with projective techniques – instincts are factors most people are not aware of. They happen without thought. We see consumers make these kinds of instinctual choices often, i.e., as they reach for a type of branded soda or bag of chips off the shelf without knowing exactly why they chose that brand.

Thus it's not surprising that the promise to dig deeper and reveal the unconscious and the instinctual is a prime reason why neuroimaging is so appealing to marketers. According to Ariely and Berns, "neuroimaging data would give a more accurate indication of the underlying preference than data from standard market studies and would remain insensitive to the types of biases that are often the hallmark of subjective approaches to valuations. If this is indeed the case, product concepts could be tested rapidly, and those that are not promising eliminated early in the process. Allowing for a more efficient allocation of resources."

Has neuro made all other research obsolete?

Neuroimaging may have an advantage over conventional research in that it can provide researchers with objective measurements, i.e., because respondents are not filtering their reactions. However, it is one thing

to observe a response and another to interpret it. Observing arousal in the limbic system – the emotional part of the brain – for example, doesn't tell you much more than the fact that a physiological response took place.

If a subject is watching a scary movie, researchers will most likely see activity in the insula-area involved with fear and disgust. But neuroimaging will not tell you whether the response is fear (in which case the movie is doing its job) or disgust (in which case it might not be).

Of the three major techniques available to marketers outlined in Chart #1, two are ways of measuring brain activity; the third technique, biometrics, measures downstream biological activity, such as Galvanic Skin Response (Electrical Resistance in Skin), Heart Rate, and the tension in skin muscles.

EEG is the most widely used; it measures brain activity close to the surface. Although some vendors may claim otherwise, it is generally accepted that this technique allows little more than measurement of interest. While this can be useful in understanding what aspects of communication draw attention, it doesn't allow us to identify emotional responses. It may indicate what aspects created interest, but it doesn't tell us whether this led to interest in the product. Most of EEG's current applications are in forms of copy testing or in "parsing" communication to see what catches attention. (In this respect, it is an improvement on the joysticks or buttons that many copy-testing methodologies have respondents move or press to indicate what parts of a commercial are interesting to them.)

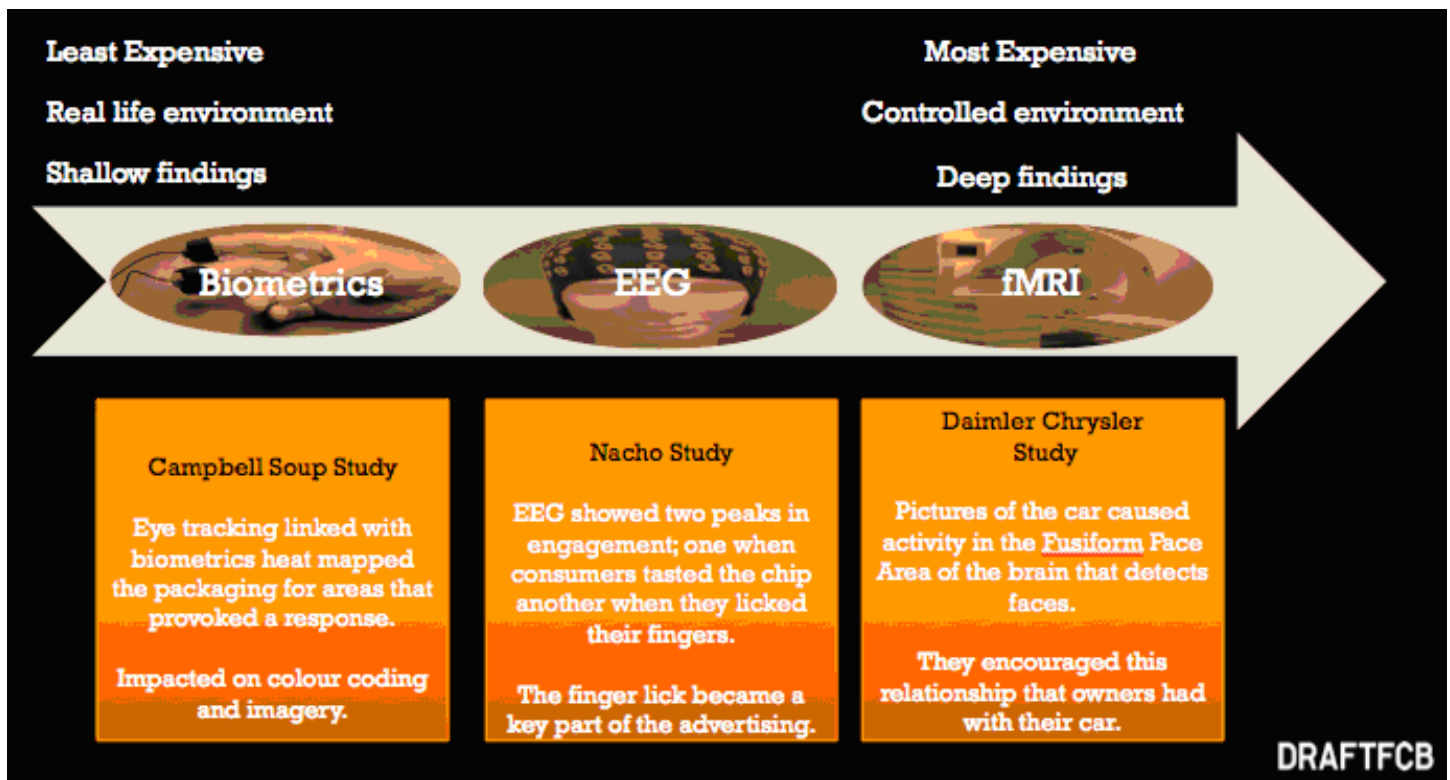


Chart #1: Of the three major neuroimaging techniques available to marketers, two – EEG and fMRI – are ways of measuring brain activity. The third, Biometrics, measures all downstream biological activity produced from engagement in the brain. fMRI provides the deepest findings in that it can tell us which areas of the brain are activating.

The other major brain activity technique – fMRI – is widely used in medicine. This approach gives a better sense as to what parts of the brain are being activated. But this technique requires people to lie in a full-size scanner (similar to an MRI machine) under laboratory conditions, obviously limiting what sorts of stimulus or experiences respondents can be exposed to. Cost and location of machines also limit the size and flexibility of these types of studies. However, this technique does have the promise of leading to greater insights. One of the experts we spoke with in putting this point of view together – Stanford Neuroscientist and Behavioral Economist Sam McClure – conducted an fMRI study in which he validated the underpinnings of the Pepsi Challenge. By observing the areas of the brain that deal with pleasure and taste, he was able

to see that in an unbranded situation, people did in fact prefer Pepsi to Coke. However when brand cues were added to the test, preference went to Coke. The study documented for the first time actual, recorded proof that an area of the brain called the hippocampus, associated with short term memory, was recruited when making a choice based on brand preference.

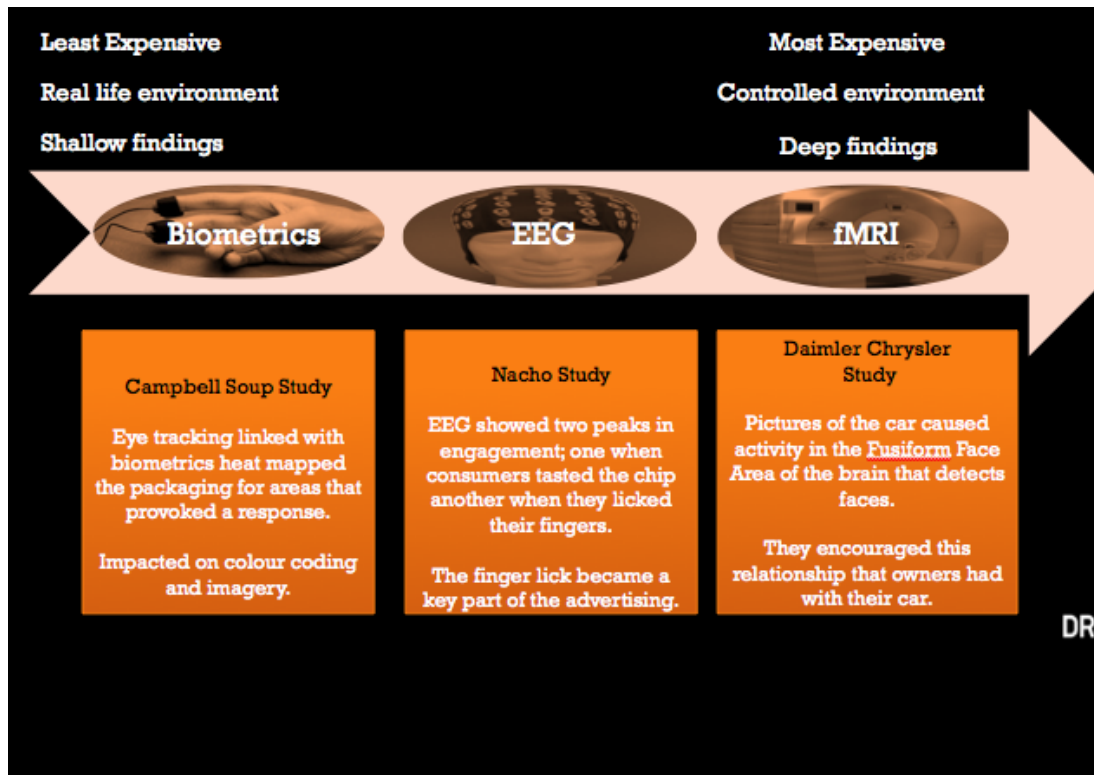


Chart # 2: This chart details each technology's strengths and weaknesses and how each measures engagement. By measuring heart rate, galvanic skin response, and electric potentials of skeletal muscles, biometrics captures downstream activity produced from activity in the brain. Through tiny electrodes spread over the scalp, EEG measures electric potentials on the surface of the brain. fMRI measures blood oxygen levels in the brain. Increased blood levels show that an area is engaging in the stimulus.

Verdict: Too early to tell, but promising

Neuromarketing's promise of uncovering hidden consumer insights has caught the attention of many marketers. But as we learn more about the brain, we see how much more complicated it really is. Researchers are finding that specific cognitive processes are caused from patterns of activations, and not just in one specific area. The real excitement comes from developing analytical tools that can interpret these patterns into consumer decisions. Until we have properly developed these tools, neuromarketing's main practical application will be to measure how much attention a stimulus gains. Additional qualitative approaches are needed to measure positive or negative attention and determine if that attention is predictive of purchase behavior.

In the short term we see the greatest potential in using EEG in conjunction with other, more traditional research. EEG can show us what is getting people's attention, while sensitively conducted qualitative research can get us closer to the reasons for and potential outcomes of that interest.

Draftfcb and neuromarketing

Understanding neuroimaging and its application to communication and marketing is an ongoing area of interest for Draftfcb. With small-scaled initiatives across the network under our belt to date, neuroimaging is and will continue to be a valuable tool for us and our clients. In the coming year, Draftfcb will partner with an established neuroscience firm and leading behavioral economists to form the "Institute of Decision

Making.” With the help of various neuroimaging techniques, the Institute will focus on how instinctual drivers influence consumer preference along the consumer decision journey. From this database of knowledge we will be able to develop a framework of tools that will take us to the next level of consumer insight generation.

Join the discussion

We’d love to hear your point of view on neuromarketing. Is it a hot topic in your market or with any of your clients? Is it something you have already taken an initiative with, or is it something you are considering?

If you would like to learn more, or have questions, let us know...

Contact Steve Harries at 212-885-3297 or decisions@draftfcb.com

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