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IPSOS VIEWS

Clearing the Fog on Neuroscience

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As an advocate and practitioner of applied neuroscience, I want to address some misunderstandings of what consumer neuroscience is and, importantly, what it can and can't do.

What neuroscience has given us is the gift of expanded insight into how the brain works during the decision-making process. It helps us understand that decisions are not a button to be pressed, but an ongoing battle between our conscious and unconscious perceptions. That is why ultimate purchase behaviour is so suspenseful and to some degree somewhat unpredictable, because it is an internal battle to the end between often opposing forces. Should I buy the wholegrain cereal or the sweet cereal? The hot sports car or the one that is more environmentally friendly? The pants on sale or the ones that make me look sexy?

So how do decisions get made from a neuroscience perspective? Speaking in metaphorical market researcher terms, the brain works like a big conjoint analysis constantly weighing numerous conscious and unconscious variables, often unconsciously or "behind the scenes", until a decision is taken. Of course in the neuro world, the nonconscious part of this enormous weighing process takes place at very high speeds in fractions of seconds. So if we measure conscious perceptions through traditional research, we have only one set of weights or drivers. Then if we measure unconscious factors such as unconscious conviction as measured by Implicit Reaction Time (IRT™) or emotional valence as measured by facial coding, EEG, biometrics, etc. we establish a more comprehensive perspective of the factors that will influence how the decision is likely to go.

Some consumer decisions are instantaneous and automatic, driven by long established habits and preferences. Consumers welcome these situations because they prefer not to have to do the work of thinking and measured deciding if they don't have to. This leads us to almost always buying the same brands of detergent, toothpaste, mayonnaise, etc. as long as new information (often

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presented in forms such as competitive advertising, promotions, and word-of-mouth) or experiences don't disrupt the status quo. Other decisions can be a conscious or nonconscious battle ground of ambivalence and opposing factors. For example, "If I take the fully loaded car I can have it right away, but if I get the stripped down cheaper version I will have to wait six weeks." Or, "I love Lindt truffles but honestly the Hershey ones are cheaper and probably just as good."

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Many everyday consumer decisions are quick, fast considerations of conscious factors and desires that are sometimes supported and other times undone by nonconscious emotional influences. Emotions are so powerful that they can act like the forceful undertow of the ocean to sometimes undermine our best conscious intentions. For instance, we think we are trying to save money but we buy the premium product, or we feel we are satisfied with our usual brand but something about the new product is attractive and exciting. This is why marketing is a constant battle for sales and share.

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We are all vulnerable to a myriad of competitive influences both at the conscious and nonconscious level. And nonconscious influences should never be undervalued.

As we foray into neuromarketing, marketers need to heed that understanding of brain science is still in its infancy. The neuromarketing industry still has lots to learn. What we do know is that there are certain areas of the brain we can think of as being the ‘stars of the show’. Consider that the prefrontal cortex is the decision centre of the brain which evaluates risk and reward. The temporal lobe regulates emotion, hearing, learning, etc. housing the amygdala, which is given the most credit for our ability to feel emotions. Moreover it is the entire limbic system, including the amygdala and the hippocampus, that give us important functions for emotions, behaviour, motivation, long-term memory, and our sense of smell.

It is an intriguing thought that we may in fact make decisions by mental committee. This, in essence, is what is happening if we think of all of these brain functions weighing in with a point of view and data to support a position. Again, that is why decisions are hard and not assuredly predictable. We can look at the evidence of how consumers should behave, but there is always that unconscious emotional wild card – like the guy who sits at the back of the room quietly and then makes a persuasive argument at the last minute.

Another misconception impacting applied neuroscience has to do with sample size requirements. At Ipsos, we are proponents of responsible neuro sample sizes. That said, having worked with neuro data of all types, including EEG, Biometrics, Eye Tracking, Facial Coding and IRT™, we can see that there are different guidelines depending upon the tool used because data converges statistically varying with each tool. For measures that are contextual, such as emotional response to an ad which varies with each person depending upon their experience with the brand, their associations with the images and symbols shown and emotional response to the music, we need larger samples to be representative of a target. For sheer physiological response, such as what on a package is eye-catching, or the power of colours or shapes, we tend to be relatively more homogenous; smaller samples work nicely for eye tracking.

As an overarching principle, researchers need to accept that the rules of statistics do not change when we switch from survey to neuro methods. Some neuromarketers would like us to believe differently. But if we want to have measurement of real effects, target representation and test re-test reliability, we need to accept the need, when appropriate, for quantitative survey sample sizes.

We also need to think of neuromarketing providing added value to existing research programmes. It is as simple as having two hands instead of one. With one hand, we can get by fairly well. But with two, a whole new world of possibilities opens up. Traditional research is one hand and neuro research is the other. Together we have far more capability for consumer understanding than with one. Now that we have the ability to understand both the conscious and the unconscious (System 1 and System 2), marketers naturally want to get the whole story. With both lenses into the consumer mind, the probability for understanding consumer response increases dramatically.

Often the most powerful neuro results are when the “head and the heart”, meaning conscious and nonconscious or rational and emotional, are not in agreement. This sometimes frightens traditional researchers at first because they say, “Which data should I believe?” The answer is to believe both because they are both true, representing two different, but valid, functions of the brain.

Isn't it good to know when consumers are only paying “lip service” when they say they like an ad because they really like the brand and are being kind in their ratings, or that they wouldn't definitely buy something because it seems like an unnecessary purchase, and yet, they are totally turned on by its design? Neuro provides hope when it is deserved and tempers overly optimistic implications when they are unrealistic. In that regard, neuro is a bit of a truth detector that gives all tested stimuli a sort of ‘second chance’ if it deserves one and weeds out the phony performers.

For instance, by way of examples, I recall an ad we tested for a popular food product that got good ratings consciously, but every time the food was shown negative neuro reactions skyrocketed. “Get a new food stylist,” we urged. There was a major fast-moving consumer goods (FMCG) manufacturer who wanted to know if they should dare change the package of a leading brand to save costs. Results were only directionally favorable for the current pack but neuro favored the new option – especially with regard to IRT™ response to key strategic attributes associated with the new alternative. “Change packages. Save money,” we advised. Another client wanted to know how to arrange their point of purchase materials at shelf. “Here is where you own the real estate,” we explained. “Given your category and how people shop it, there is a natural sweet spot that you are not leveraging.”

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The list goes on. Every day at Ipsos we look at neuro and behavioural science results integrated with survey results and we spotlight the insights from both data sets that transform studies to being the best at providing comprehensive consumer understanding.

Neuroscience methods have reached a new level of ease, affordability and added value for integrating into traditional research. This means that marketers can have access to the unconscious drivers of decisions and behaviour without having to radically change course or burden their budgets. Applied neuroscience is perhaps the greatest research advancement in our lifetimes and continues to unfold with new research and development, and scientific discovery.

Ipsos is a major provider of integrated System 1/System 2 studies worldwide spanning the continents using Implicit Reaction Time (IRT™), Facial Coding, Eye Tracking, Biometrics and EEG for the optimum assessment of advertising, products, packages, fragrances, brand health, concepts, shopper experience and public opinion.



Elissa Moses leads the global Neuro and Behavioural Science Centre at Ipsos. The Centre develops nonconscious measurement tools for understanding engagement and emotion of the brand and product experience for integration into client research. Ipsos is a worldwide provider of Neuro/Behavioural Science measures including Facial Coding, Implicit Reaction Time, EEG, Biometrics and Eye Tracking.

Prior to joining Ipsos, Elissa was Chief Analytics Officer at EmSense pioneering neuro applications to ad testing, package testing and in-store shopper research. Earlier, Elissa was SVP, Philips Global Consumer Intelligence/Strategy, Managing Partner at Grey, Head of Strategy at DMB&B and Founder/Managing Director at BrainWaves. She is a professional speaker, author of numerous articles, the book *The \$100 Billion Allowance*, co-author of ESOMAR's *36 Questions to Help Commission Neuroscience Research* and a reviewer for the *Journal of Advertising Research*.

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