
ADMA

Association for data-driven marketing & advertising



NEURO-INFLUENCE

THE RISE OF DATA SCIENCE IN UNDERSTANDING
(AND PERSUADING) CONSUMER BEHAVIOUR

SUPPORTED BY:

rubin⁸

INTRODUCTION



95% of purchasing decisions are made subconsciously.

Getting inside the minds of customers. For decades, marketers have known this is the key to influencing purchase decisions, however the rapid adoption of new technologies has changed the game.

Consumer behaviours are quickly evolving, transforming deeply held habits and beliefs. Meanwhile, data-enabled technology gives marketers more power to influence purchase decisions and measure impact.

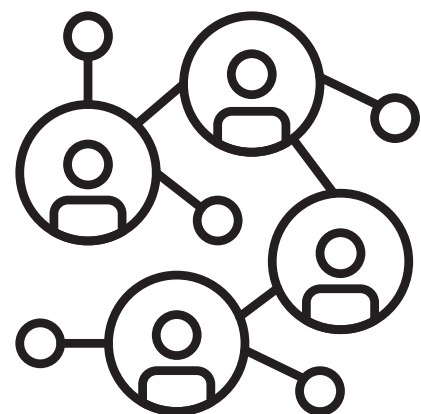
According to Harvard Business School Professor Gerald Zaltman, 95% of purchasing decisions are made subconsciously.¹

This whitepaper discusses the ways marketers are using neuromarketing and cognitive behaviour principles to tap into that subconscious – from attention-grabbing campaigns to memorable customer experiences.

Drawing on the insights of ADMA's recent 'Consumer Analytics & Insights' Think Tank meetings in Sydney and Melbourne, it also considers technological and ethical issues.

The stakes are high: get this right, and you can build trust and create meaningful value. In an increasingly commoditised playing field, this can be a tangible point of difference.

As neuromarketer Arron Child told us, “If you’re not using the behavioural science insights available, then you are picking up a bat, strapping on a blindfold and swinging away at a piñata. Eventually you’ll hit the piñata and get your reward but there is a lot of swinging and missing along the way.”



¹ The Subconscious Mind of the Consumer (And How To Reach It), Harvard Business School, 2003

PART 1: CHANGING BEHAVIOUR

New technology creates new habits

While the principles of behavioural psychology remain constant, consumer habits have been completely reinvented over the past few years.

Twenty years ago, the majority of consumers might have said they would never put their credit card details online. Now we're paying bills from our smartphones. We let strangers drive us home in an Uber, and trust other people into our lives via Airbnb or Airtasker. Every transformational product demands a shift in behaviour, one that may go beyond what we thought were socially accepted norms. Because once we've done it, we realise how easy it is.

"If we were sitting here in the year 2000 discussing how so much of our personal details would be fairly freely available online, we'd all be freaking out. We couldn't have imagined it ever happening. But over time, by a thousand cuts, we get to the point where LinkedIn and Facebook combined have most of the relevant details about all of us."

Every transformational product demands a shift in behaviour, one that may go beyond what we thought were socially accepted norms.

SO WHAT DOES THAT MEAN FOR CONSUMERS TODAY?



We're more impatient - We want everything to be fast and easy.

"Australia is the fastest adopter of friction-free payments such as payWave. Any organisation that can remove friction from a customer interaction or transaction stands to benefit hugely. And the competition is increasing rapidly as companies become better at making things easier."



We know more about our options - From comparison sites to social media influencers, we can now access a bottomless source of information about every product and experience in the world.

"You probably won't purchase anything without asking Google for reviews on the product and comparing prices, or asking friends for recommendations on social media."



We'll trade data for convenience - Despite declining trust in institutions, consumers are surprisingly willing to give up their data for a relatively small exchange – such as a gold badge in an app-based game.

"Facebook and other social media platforms track everything we do. They know what I'm liking, what I'm following, what I'm seeing, what I'm doing, where I am. The ads that then come through are probably the most influential neuro-marketing anywhere in the world."



We expect 24/7 access to curated content -

Technology and global competition are the two biggest drivers of change in media consumption. There has never been so much choice, or fragmentation, in how to reach our audience.

“Consumers have on average 2.5 personal devices, access to smart TVs at home, as well as DAB+ and Bluetooth technology in the car. So content is always accessible in the places and spaces that matter, creating media moments throughout the day.”



However, we sometimes feel overwhelmed - Despite these shifts, consumers are also increasingly fatigued by so much product choice.

“Presenting the consumer with too many options can be problematic. It actually becomes harder for the consumer to distinguish between the options. Many people simply avoid making a decision at all, which means the product doesn’t get bought.”

If you’ve ever spent hours searching an online retailer just to find a black t-shirt, you may have experienced this confusion of choice. Rather than wading through too much choice, consumers seek more authentic, spontaneous experiences. A sense of discovery and surprise. Or they may prefer to outsource more complex purchase decisions, such as insurance or home loans, to a comparison site.

This overwhelm leads us back to something Matthias Heid of Berlin-based AI agency Wunder dubbed ‘the emotion economy’, writing “After ten years of automation, mass emails and retargeting, (experts) attest to the consumer’s fatigue. The emotion economy is now increasingly about building a trusted relationship with the customer.”²

If we fail to build that relationship, consumers will depend more and more on algorithms to curate and make those choices for them – and we will end up in a commoditised market where the only meaningful difference is price.

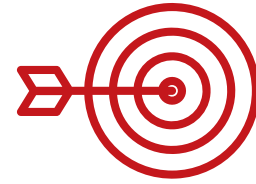


² Neuromarketing: “People do not remember what you said, but how you made them feel.” Matthias Heid, The Restless CMO April 2018

³ Millennial masterstroke: All credit to Afterpay in generation grab, Colin Kruger and Patrick Hatch, SMH March 2 2019

DO DEMOGRAPHICS STILL MATTER?

Some products and brands have a distinct appeal to specific demographic profiles – such as AfterPay’s ability to tap into the combined resistance to debt and need for instant gratification amongst millennials.³ But now that we have the first generation of kids who don’t know a world without access to the internet, how is this changing their behaviour?



“The younger end of the millennial cohort seeks authentic, screen-free experiences. I call it ‘bonding, not branding’; they want products to portray their ‘personal brand’ and price is irrelevant. There’s more consciousness of what’s behind the product – the story about super-tech or provenance rather than functional benefits.”

This next generation of consumers might even push back on the over-reliance of smartphones to keep their memories, to avoid ‘digital amnesia’ and acquire authentic experiences.

However, this might also be just as true for older generations. Across many industries and channels, age may be far less relevant than the media would have us believe.

“10 years ago, we thought new technology adoption rates would be different across each generation. The reality now is everyone is the same. My 81 year old mother uses Uber to get to hospital appointments, reads the news on her iPad and shops on Amazon and eBay.”

Many brands now use attitudinal segments, rather than age-related personas and profiles. Tracking behaviour pre-and post-sales as well as feelings about that experience, offers more insight into target customers than a straight forward generational breakdown.



KEY TAKE-OUTS

What consumers say they’ll do or want, and what they end up doing or buying, can be two different things.

- They’ll adapt their habits for ease, convenience or simple rewards
- They validate their decisions with reviews and influencers
- Too much choice can lead to decision paralysis.

PART 2: THE RISE OF NEUROMARKETING

THE NEW SCIENCE OF BEHAVIOUR

By understanding what turns consumers on (and off), it is easier to be there at the right moment to solve their problems. So how are marketers measuring these attitudes, and the resulting behaviour?

“The key is to understand what makes people tick. Humans will ignore everything that’s not important to them. So what are the triggers and barriers for purchase decisions, and how can we use media and advertising communications to serve a need?”

This is where traditional testing techniques, such as A/B testing, may fall down. They allow you to test lots of options quickly and make changes on the fly, but they can’t tell you why B worked better than A. Unless you know and share the reasons, you can’t apply the same principles to the next campaign.

A/B testing can also build a ‘play it safe’ culture, avoiding the option that might fail. This potentially limits creative’s use of other ideas.

Similarly, all ADMA Think Tank attendees agreed that Net Promoter Score (NPS) is the core measure of customer experience. It can help the product and marketing team better understand customers, how they use products and identify any unmet needs.

“As a metric, NPS is core for us as a non-financial measure of success – it gives us the voice of the customer. That feedback loop underpins the success of the business.”

But we also know that consumers embellish the truth – or downright lie – during surveys and focus groups. In his book *Everybody Lies: Big data, new data and what the internet can tell us about who we really are*, Seth Stephens-Davidowitz discussed the issue with a research professor at University of Michigan, who said ‘about one-third of the time, people lie in real life. The habits carry over to surveys.’ According to Stephens-Davidowitz, there is far more transparency and honesty in what we search on Google.⁴

Polls continually fail to correctly predict political outcomes, from Brexit to Trump. It’s possible we’re more likely to give the ‘politically-correct’ response in a phone poll than an impersonal online poll, but online polling is also inherently at risk of sampling bias.⁵ Those without access to social media (or the internet) will never respond.

“About one-third of the time, people lie in real life. The habits carry over to surveys.”

- Roger Tourangeau,
University of Michigan

⁴ Surveys are misleading and other Digital Truth Serums for Entrepreneurs, Nathan Rothstein, March 2018

⁵ The perils of polling in a Brexit and Donald Trump world, Techcrunch, October 2016

DIVING DEEPER INTO OUR BRAINS

Traditional market research techniques uncover conscious responses to an event. But the vast majority of the decision making process is made subconsciously. And that's where neuroscience advances may play a role.

Neuromarketers claim their testing techniques reveal the definitive truth, because the brain's responses cannot lie.

Neuromarketing is defined as **the science of how advertising and communication works**. By understanding how things are perceived in the brain, we not only measure consumer preferences but can potentially change them.

This is not a new concept – skilled creative directors and copywriters know that to communicate persuasively, you need to stimulate both subconscious and conscious desires to trigger the response you want. Research into the field can be traced back to the 1990s, and the term was first introduced in 2002.⁶

Neuromarketer Arron Child combines neuroscience, behavioural economics and psychology insights to take an evidence-based approach to the marketing decisions he makes.

“Neuromarketing essentially uses insights about human behaviour to guide marketing decisions and strategies,” he says. “It enables marketers to make more informed decisions, so their campaigns can work harder and more effectively. The idea is to make sure your marketing is remembered by design, not by chance.”



“Neuromarketing
is the science of
how advertising and
communication works”

⁶ Neuromarketing – friend or foe? Majken Elg Jensen, TEDx Amsterdam

⁷ I feel, therefore I buy: How your users make buying decisions, Natasha Wahid, December 2018;

⁸ Unconscious decisions in the brain, Prof. Dr. John-Dylan Haynes, April 2008

WE'RE FAR LESS RATIONAL THAN WE THINK

The human brain has three parts: the reptilian (old) brain, the limbic brain, and the neocortex.

- The **reptilian (old) brain** controls our core functions, including our senses.
- The **limbic brain** records memories of behaviours and experiences, it's responsible for our emotions.
- The **neocortex (new brain)** was the last part to evolve, and handles language, abstract thought, imagination and consciousness.

The reptilian brain has a powerful influence over purchase decisions. It controls most of our attention, as it is constantly scanning our external environment for threats.⁷ Our brain waves flow from old brain to new brain as feelings.

Those feelings happen far faster than we consciously think. In 2008, research from the Max Planck Institute in Germany showed that even when we think we've made a conscious decision, our brain made up its mind up to seven seconds earlier.⁸



REPTILIAN BRAIN



LIMBIC BRAIN



NEOCORTEX

In their book *The Persuasion Code*, Christophe Morin and Patrick Renvoise describe six stimuli that form the 'science of persuasion' by tapping into the needs of the old brain.⁹ These will be familiar techniques to many marketers.



THE BRAIN...

Is self-centred

Is sensitive to clear contrast

Loves the familiar

Responds to opening and finales

Is attracted by visuals

Responds to emotional persuasion



CUT THROUGH COMMS INSIGHTS

Put the audience's needs first: make it personal

Provide clear contrast to avoid overwhelm: help them make a simple choice

Make the message tangible: use familiar stories or metaphors

Focus on the beginning and the end in your narrative arc

Moving objects capture the most attention

Emotion is the key to capturing attention, improving recall and triggering a decision.

“We are not thinking machines that feel, we are feeling machines that think.”

- Neuroscientist,
Antonio Damasio

⁹ The Persuasion Code: How Neuromarketing Can Help You Persuade Anyone, Anywhere, Anytime, Christophe Morin and Patrick Renvoise September 2018

¹⁰ Method to madness: Making ads for Airtasker Arron Child, AdNews, October 2017



APPLYING NEUROSCIENCE PRINCIPLES

So how does this work in practice? At ADMA's 2018 Global Forum, Arron Child shared his experience working on the Airtasker 'Like a Boss' ad campaign which resulted in a 277% increase in user sign ups.

They focused on targeted emotions including humour to cut through and encourage sharing for a relatively unknown brand. Sound was used to heighten tension, and dynamic imagery (including memorable dance moves) captured attention.¹⁰

"We used techniques to hijack attention and ensured that we wove the brand into the story at various emotional high points during the work."

As well as advertising campaigns, the same neuromarketing principles can be applied to product experiences.

To create a cut-through event during Sydney's popular Vivid festival, a Sydney restaurant chose to respond to this subconscious desire for authentic, immersive experiences. Tapping into the nostalgia of Alice in Wonderland, it put guests in a curious and playful mood.

All the senses were involved. Diners foraged for their first course in the macaroon 'trees', and discovered unexpected flavours inside. Later they used a paintbrush to paint their dish red with a sauce. The result was memorable – something people would talk about long after the festival was forgotten.

It's no wonder agencies are now starting to embed neuroscience techniques into their practice, to understand how advertising affects people's brains and emotions.

"We can take a 60 second long-form ad, for example, and figure out where the points of emotional responsiveness are, then we use those points to create other units of creative for different purposes. Using neuroscience in marketing this way can be extremely effective."

Agencies are now starting to embed neuroscience techniques into their practice, to understand how advertising affects people's brains and emotions.



KEY TAKE-OUTS

Neuromarketing applies scientific principles to the effectiveness of advertising and communication.

- It's not enough to know what works – you need to know why.
- We make purchase decisions faster than we think, which creates challenges for ad cut-through, recall and impact.
- Cognitive science can help you make sure your marketing is remembered by design, not by chance.



PART 3: THE SCIENCE OF COGNITIVE PERSUASION

New ways to influence behaviour

Behavioural science and neuromarketing can also be used to influence consumer behaviour – and when this is combined with the potential of new technology such as AI, it can be extremely powerful. The ADMA Think Tank discussed three distinct trends.

1. REDUCE THE COGNITIVE LOAD

With consumers demanding as little friction in their transactions as possible, neuroscience offers useful insights into what actually creates cognitive load – the effort we use in our working memory to learn new things or complete tasks.

This can often be the difference between a new tech platform succeeding or failing. For example, neuromarketing can be used to test new features before launching a new product.

“We measured the cognitive load on consumer brain waves to test different options, and find the most streamlined way to complete the process. Just because a product works, it doesn’t mean a customer will embrace it – if it’s not intuitive, it just adds friction.”

However, there are times when a little friction can actually enhance the experience. Applying cognitive behaviour principles to design may lead to an increasing sense of ‘sameness’ or predictability. That’s when providing something unfamiliar but exciting can tap into human curiosity.

For example, a neuroscience study used fMRI scans to measure brain activity in people as they had fruit juice or water squirted into their mouths. Those who received the squirts in an unpredictable sequence had more activity in the area of the brain that processes pleasure.¹¹

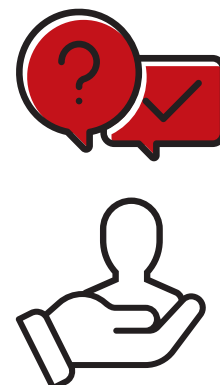
2. RULED BY THE ALGORITHM

As consumers look for ways to reduce this cognitive load, they may increasingly depend on algorithms to do more thinking for them: searching, curating, comparing and ultimately deciding on their next purchase.

“Automation and AI will solve an economic problem in the future, but also a communications problem. How do you then present a product or a brand as a solution to a need? To be honest, the technology is not there yet.”

For brands, there is a fine line between a subtle nudge into the sub-conscious and overkill. Sometimes, the use of data needs to be restrained. Consumers are more savvy, and they know what you’re doing when they see the algorithms take over.

Hyper-personalisation and automation can also easily over-step the mark. Dial it up too high, and it becomes annoying or creepy.



¹¹ Customers like a little friction in their lives, Colleen Ryan, The Register August 2017

¹² InMoment 2018 CX Trends

Hyper-personalisation and automation can also easily over-step the mark. Dial it up too high, and it becomes annoying or creepy. A 2018 US study into customer experience found 75% of consumers find personalised brand experiences ‘at least somewhat creepy’, with 22% saying they’d switch to another ‘less-creepy brand’.¹²

In the future, more open data and personalisation could make everything a commodity. The products and services themselves may be highly personalised, but the brand is irrelevant. The interfaces used for purchase will have all the power – whether that’s voice, or Artificial Reality/ Virtual Reality.

There is an additional risk of allowing machines to take over decision-making. If we are ruled by the algorithms, we may also be limited by the data they hold on us. For example, as regulatory changes introduce more friction into the credit approval process, granular spending habit data could potentially make a difference to home ownership.

3. TAP INTO THE EMOTION ECONOMY

As a 25-year Institute of Practitioners in Advertising (IPA) study found, advertising campaigns with emotional content outperform those with only rational content on every metric.¹³ Emotions are the key to capturing an increasingly precious commodity: attention. And the most powerful emotions are fear of regret and pleasure of anticipation.¹⁴

This is why UK retailer John Lewis’s Christmas ads are so effective. Every year, its emotionally charged creative taps directly into our feelings – nostalgia, happiness, generosity. Using a single narrative arc, it is more powerful and memorable.

In another example from the UK, Lurpak butter uses neuroscience to ensure dopamine is released through the music, the food visuals, the experience of spreading the product. Every action in the ad evokes the sense of smoothly spreading butter; whether it’s putting on lipstick or pouring coffee it flows evocatively from left to right.¹⁵

Campaigns like this remind us that people don’t remember what you said, but how you made them feel. Whether it’s comfort or freedom, power or belonging, we all crave something. Capturing that feeling is a short-cut to attention, recall and action.

¹³ Advertising remembered by design, not by chance, AdNews August 2017

¹⁴ The Persuasion Code: How Neuromarketing Can Help You Persuade Anyone, Anywhere, Anytime, Christophe Morin and Patrick Renvoise September 2018

¹⁵ EVERY SHOT IN THIS LURPAK AD IS LIKE SPREADING BUTTER, AdAge, June 2018

THE ETHICS OF NEUROSCIENCE

Clearly, neuroscience has the potential to be a powerful and persuasive tool. If we use consumer data to inform that approach, how do we also protect their interests?

“The ethical standards for neuromarketing should be no different to advertising in general. Neuromarketing is about understanding human behaviour, which is a springboard to creating better communications and experiences for the consumer. Done well, everyone benefits.”

One concern is how aware consumers are about how their technology is used to track their behaviour. As we become increasingly dependent on our connected homes and devices, there is a growing unease that ‘someone’ is listening.

“The time may come when smart devices will need to carry a warning label, like cigarette packs. Think about smart watches and the amount of data that they are starting to collect on your blood pressure and heart rate. Now imagine connecting that device to the information they’re consuming or product they’re experiencing, and being able to get that data in real-time.”

Consumers don’t want to feel ‘tricked’. Brands may need to be more transparent about how they work, how they listen and analyse what you are telling them. But this could become an opportunity to increase connection with their customers. If you can finally deliver on the promise of the one to one marketing message, that personalised experience, but then fail to send the offers that interest them, you’ll escalate mistrust.

“If you cross that line to manipulate behaviour beyond what is reasonable, that’s an issue. You have to do the right thing by the customer, and that starts with creating meaningful value, making things easier for them.”



KEY TAKE-OUTS

As well as understanding what drives consumer behaviour, neuromarketing principles can be used to influence it.

- Measuring brain activity during product testing can help you to reduce cognitive load and remove friction in every aspect of the experience
- Be subtle with the use of data-led algorithms: consumers don’t want to feel your influence
- Emotional narratives are a short-cut to capturing attention and recall
- The ethical considerations are no different to any other form of advertising.



New tools for persuasion

Neuroscience principles can help you provide tangible value to consumers, by removing friction and engaging their emotional desires. This in turn strengthens trust in your brand and product. But if you use neuromarketing to trick the mind for short-term gain, customers will get wise to what's happening fast – and switch off.

By combining three disciplines – neuroscience, behavioural economics and psychology – marketers have access to a more robust, evidence-based framework to make smarter creative and strategic decisions. They can also use scientifically-validated tests to measure the response, and then optimise both the campaign and the experience. From packaging to the physical store layout, these principles can shape the success of a brand.

However, this convergence of digital marketing and marketing science has also created a growing skills gap. Neuromarketing is still a relatively new discipline, not covered by traditional marketing degrees. At its core, it is the essence of modern marketing: turning consumer data into meaningful insights, and insights into smarter strategies.

As the ADMA Think Tank participants agreed, we now have an opportunity to finally learn what makes our customers tick. But while the principles are clear and the technology may be more easily deployable, it's still hard to get it right.



ACKNOWLEDGEMENTS



The insights in this white paper include discussions during ADMA's February 2019 Think Tanks in Melbourne and Sydney. We'd like to thank the members of this expert group for sharing their ideas and experience, and in particular Rubin8 for hosting and sponsoring the events.

ADMA CUSTOMER EXPERIENCE THINK TANK



Alicia Olson-Keating

Head of Audience Data & Insights, Audiences, ABC

Andrew Condron

Director, Insight and Analytics, Gravitas

Arron Child

Neuromarketer and Senior Strategist, The Hallway

Damian Madden

General Manager – Digital, The Woolmark Company

Felipe Flores

Founder, Data Futurology

Hamish Hartley

Data Strategist, Ogilvy

Jonny Clow

Managing Director, Versa Agency

Mark Cameron

Partner and CEO, W3.Digital

Mark Knobel

Manager Data & Analytics, Visit Victoria

Michael Perry

Head of Sales - APAC, Rubin8

Raymond Tse

Head of Data Science, Tabcorp

Shane Butler

Senior Lead - Strategic Analytics and Modelling, Telstra

Stuart Jarvis

GM Customer Engagement, Alternative Media

Tom Glover

Strategy Director, Versa Agency

Tim Beveridge

Chief Strategy, Data and Insights, Zenith Media Australia

ADMA

PART OF THE
 Australian Alliance for Data Leadership
NETWORK

The Association for Data-driven Marketing and Advertising (ADMA) is the principal industry body for information-based marketing and advertising and is the largest marketing and advertising body in Australia with more than 600 member organisations. ADMA is the ultimate authority and go-to resource for creative and effective data-driven marketing across all channels and platforms, providing knowledge, advocacy, insight, and innovation to advance responsive and enlightened marketing.

Registered Office Association for Data-driven Marketing and Advertising

ACN 002 909 800

ABN 34 002 909 800

Level 6, 50 Carrington St Sydney NSW 2000

GPO Box 3895 Sydney NSW 2001

T +61 2 9277 5400

F +61 2 9277 5410

contact@adma.com.au

adma.com.au



rubin8

Leaders in gamification marketing

In a cluttered advertising world, it's tougher than ever to gain consumer attention. And, once you have got it, it's even harder to retain it. Rubin8 executes differently, with gamified campaigns that cut through the clutter. We deploy scientifically proven gamification principles to achieve marketing objectives and deliver industry leading ROI for hundreds of brands.

Learn more at rubin8.com.au
