

# MAGNETIC

THE MARKETING AGENCY FOR MAGAZINE MEDIA IN THE UK



## A fresh take on communication and the brain

A presentation delivered for Magnetic's Spark event in Manchester on 10 March 2016, delivered by Heather Andrew of Neuro-Insight

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# Unlocking the secrets of our brains



Advances in neuroscience mean that we've started to map the different functions of the brain.

## Further references and information

**Book:** Gazzaniga & Mangun (2014). *The Cognitive Neurosciences*, 5<sup>th</sup> edition

"Many of the developments in cognitive neuroscience have been shaped by the introduction of novel tools and methodologies...that promise to guide the field into the future"

"Locked away remote from the rest of the body in its own custom-built casing of skull bone, with no intrinsic moving parts, the human brain remains a tantalising mystery. But now, more than ever before, we have the expertise to tackle this mystery - the last 20 years have seen astounding progress in brain research."

Susan Greenfield – Scientist, writer and broadcaster

# We can't read minds but knowledge is growing fast



Academic and commercial work is helping us to start understanding the drivers of communication effectiveness.

## Further references and information

**Book:** Thomas Ramsey. (2014) *Introduction to Neuromarketing and Consumer Neuroscience*

**Paper:** Kennedy et al: *EMAC final – Memory as Key Indicator*. Work by Mars Foods, Mountrainview Learning and Ehrenberg Bass examining a range of advertising pre-testing measures and assessing their relationship with sales performance



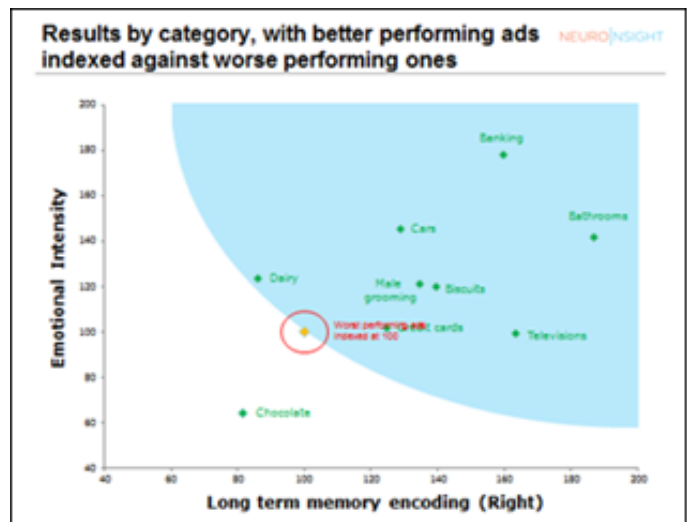
# What we now understand



What we now understand is that great communication needs to impact the brain in two key ways: emotion and memory.

## Further references and information

Neuro-Insight worked with Thinkbox and Ebiquity (econometric modellers) to identify the link between brain response and in-market performance of advertising. 18 ads from 9 categories were researched; in each category there was an ad that was known to have been commercially successful, and one that was known to have had a relatively weak impact on the brand's market performance. We found that a combination of strong memory encoding, particularly at key branding moments, and high levels of emotional intensity were associated with the more successful ads.



A close-up photograph of a young child with light brown hair, crying intensely. The child's eyes are closed, and their mouth is wide open in a scream or cry, showing their tongue and teeth. The lighting is warm and soft, highlighting the child's face. The background is blurred.

**Emotion  
is key**

# Emotion is crucial



Numerous studies have shown the link between emotion and decision-making; and we know that a lot of great advertising is associated with strong emotional impact.

## Further references and information

- Book:** *Damasio, A. (2005). *Descartes's Error: Emotion, Reason, and the Human Brain*.*
- Paper:** *McDuff, D., et al (2013). Do emotions in advertising drive sales? Work with Affectiva and Mars*  
“...emotions in advertising, captured by facial coding, can be indicative of ad success.”



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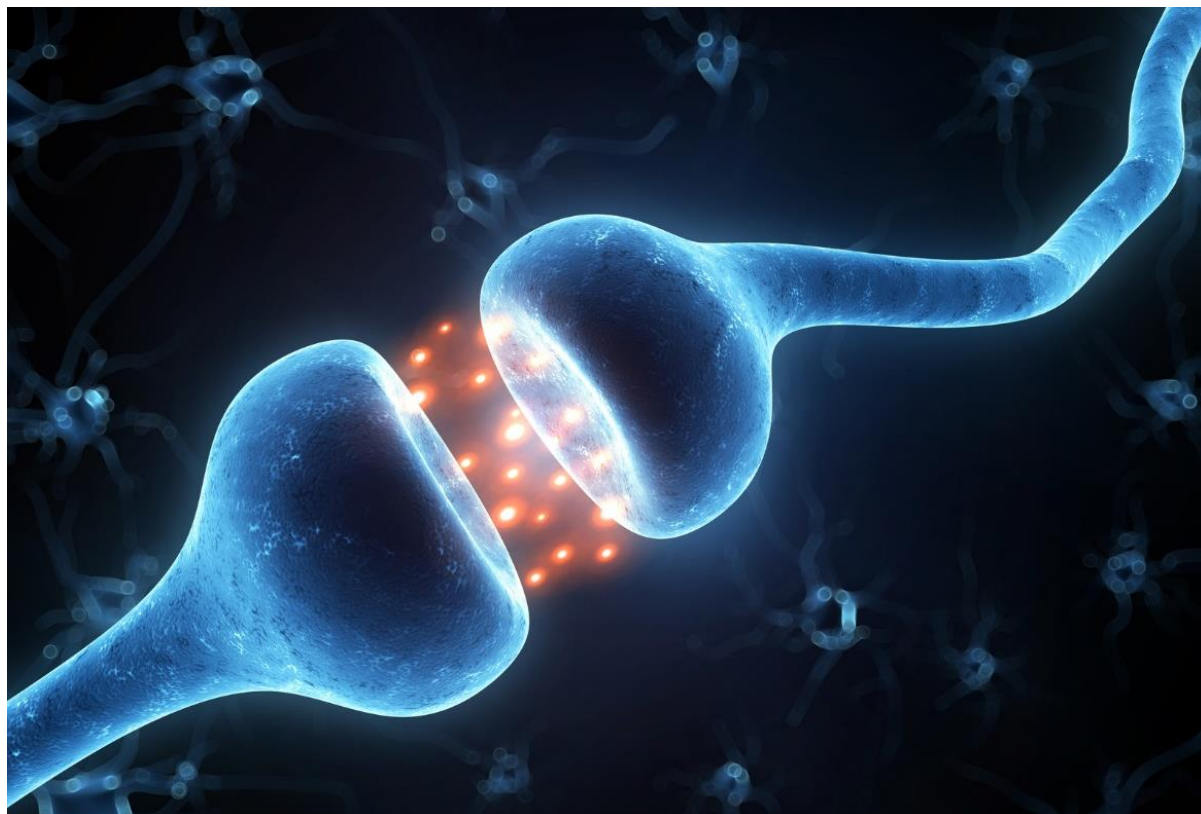
### Further references and information

"When thinking about Long-term success its not really about communicating messages at all, it's about what we call emotional priming, it's about associating brands with emotional states, feelings, instinct, gut feel stuff. That's what's actually makes brands grown in the long-term."

\*Les Binet – Head of Effectiveness at Adam&Eve DDB

\*Roger Dooley – author of Brainfluence, and primary author at Neuromarketing

# And neuroscience backs this up



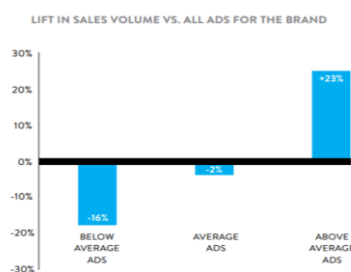
Neuroscience work backs that up too.

## Further references and information

**Paper** *Belanche et al (2014) The influence of arousal on advertising effectiveness. Proceedings of Measuring Behaviours publication.*  
 “Preliminary results of the study confirm that a high arousal design increases ad attitude, brand recall and purchase probability compared to a neutral arousal design.”

**Paper** *Silberstein et al (2012), Measuring emotion in advertising research: prefrontal brain activity. IEEE Pulse publication.*

**Article** *David Brandt (2016), Emotions give a lift to advertising. Nielsen article.*  
 “Ads that generated above-average EEG scores were associated with a 23% lift in sales volume.”





# Emotion only tells part of the story, and without memory can be a problem



But emotion alone isn't enough. If an ad creates a great emotional impact without getting the brand into memory, what you've created is great entertainment, but not necessarily great advertising.

Without memory your brand won't benefit – and in fact competitors might, because the brain will attribute the ad to the category leader, or product that best fits with the feel of the ad.

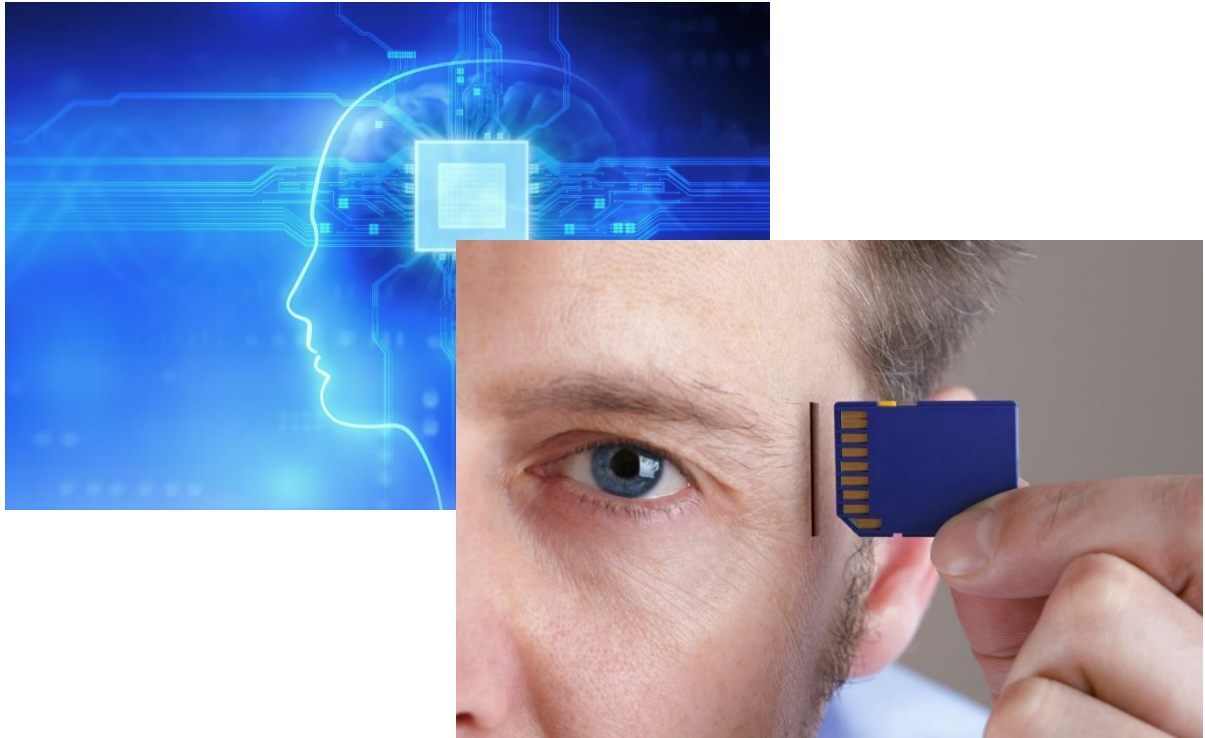
## Further references and information

**Example:** Working in Australia for a financial services institution, Neuro-Insight demonstrated that an ad which elicited a strong emotional response, particularly with reference to a specific service attribute, was associated with only very weak levels of memory encoding. The service attribute in question had historically been associated with a competitor, and our client found through tracking evidence that the appearance of their ad on television was actually boosting perceptions of the competitor's brand, whilst doing nothing for their own.

# **The crucial role of memory**



# So memory is the other crucial factor



Even the greatest emotional ads can only have an impact if the information they deliver is stored into memory and associated with the brand. So the other part of the equation that we need to consider when looking at brands, emotions and decisions, is what gets stored into memory; and this can be measured using a metric that we refer to as Long-Term Memory Encoding.

This metric measures what's being encoded – or stored – into memory as people see or experience something. By “long term” we mean anything more than a few minutes; and by “memory encoding” we mean NOT what's already what's in memory but what's being stored or laid down as people engage with brand communication.

## Further references and information

**Paper** Rossiter, J., et al. (2001), *Brain-imaging detection of visual scene encoding in long-term memory for TV commercials*. *Journal of Advertising Research publication*.  
Memory is not the same as recall or attention. Memory can happen even if you are not consciously attending to something.

**Book** Robert Heath (2012), *Seducing the subconscious: the psychology of emotional influence in advertising*

\*Senior lecturer in advertising theory at University of Bath



# Memory shows a message has a purpose



At the most simple level, if a brand isn't encoded (stored) into memory, it's simply not there in our brains, and can't possibly impact our future behaviour.

But there's more to it than that. The fact that something is encoded into memory is in itself an indicator that our brains find it interesting or potential useful. That is, strong memory encoding indicates that a message it has **a purpose** for us.

**Paper** *Daniel Schacter & Donna Rose Addis (2007), The Ghosts of Past and Future. Nature publication*

"Many researchers believe that remembering the gist of what happened is an economical way of storing the most important aspects of our experiences without cluttering memory with trivial details. We agree."

# Memory encoding links to behaviour



And because of this, there's a correlation between memory and behaviour. This isn't simple cause and effect - we don't remember something and then go out and buy it; it's sort of the other way round. If our brains find something interesting and useful, they store it away – and this indicates that subconsciously we've already decided we might act on this information.

## Further references and information

- Paper** *Silberstein et al (2008) Brain activity correlates of consumer brand choice shift associated with television advertising. International Journal of Advertising publication.*  
“Our findings suggest that SST activity at lateral prefrontal sites during television advertisement branding may be a useful indicator of advertising effectiveness.”
- Paper** *Kennedy et al: EMAC final – Memory as Key Indicator.* Work by Mars Foods, Mountrainview Learning and Ehrenberg Bass  
The paper demonstrated that memory response (measured using fMRI) was a better indicator of subsequent purchase behaviour than any of the conventional pre-testing measures included in the study





**Three key  
drivers of  
memory**

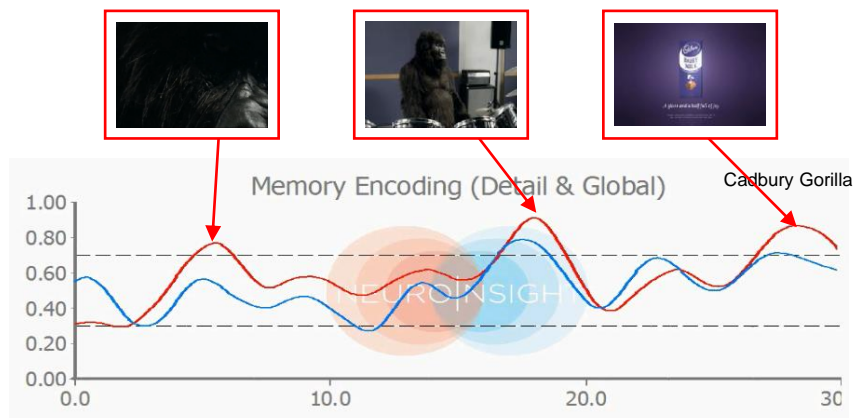


# Narrative is the first key driver

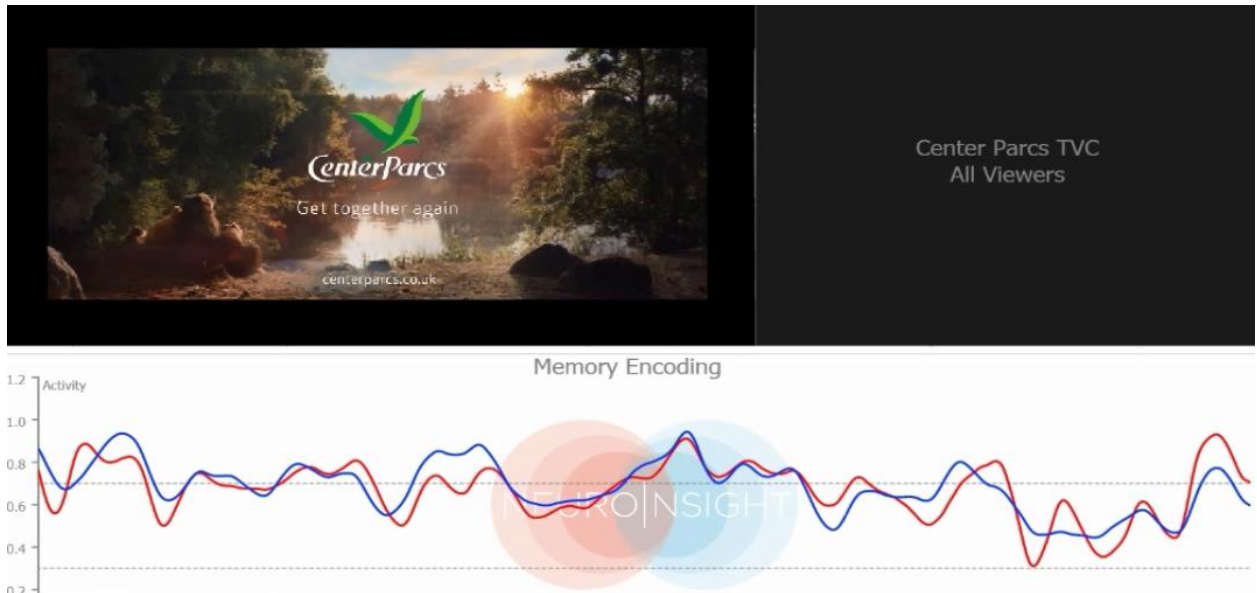


The first driver of memory is narrative – we store away the information we need to make sense of what is going on.

Cadbury Gorilla advert is a clear example of a very simple piece of narrative. Research carried out by Neuro-Insight Australia, found the brain only needed three “snapshots” to make sense of what was going on in the advert – the Gorilla, the drum kit and the Cadbury brand. (Note: “snapshots” defined as brain responses higher than the 0.7 dotted benchmark line). Other parts of the advert elicit high levels of emotion but these are not necessarily vital for the brain to put into memory.



# Narrative – an example



Our brains love stories and tend to follow sequences of events that are connected to one another. In this recent ad for Centreparks the linear narrative development of the bears story helps drive memory encoding throughout the ad.

Developments in the narrative trigger numerous peaks of memory encoding throughout; crucially, the brand and tag line (“Center Parcs- get together again”) offers an explanation to the preceding narrative, and this is why this moment is associated with a strong peak of memory encoding.

## Further references and information

**Article** *Holiday ads – the brains perspective (Mediatel article, 9<sup>th</sup> February, 2016)*  
 “The Center Parcs ad benefits from a developing linear story combined with a strong sense of intrigue, a combination that our brains find highly compelling.”

# Emotion also drives memory



The second key driver is emotion. A strong emotional response primes the brain to remember because it indicates something big and important is going on

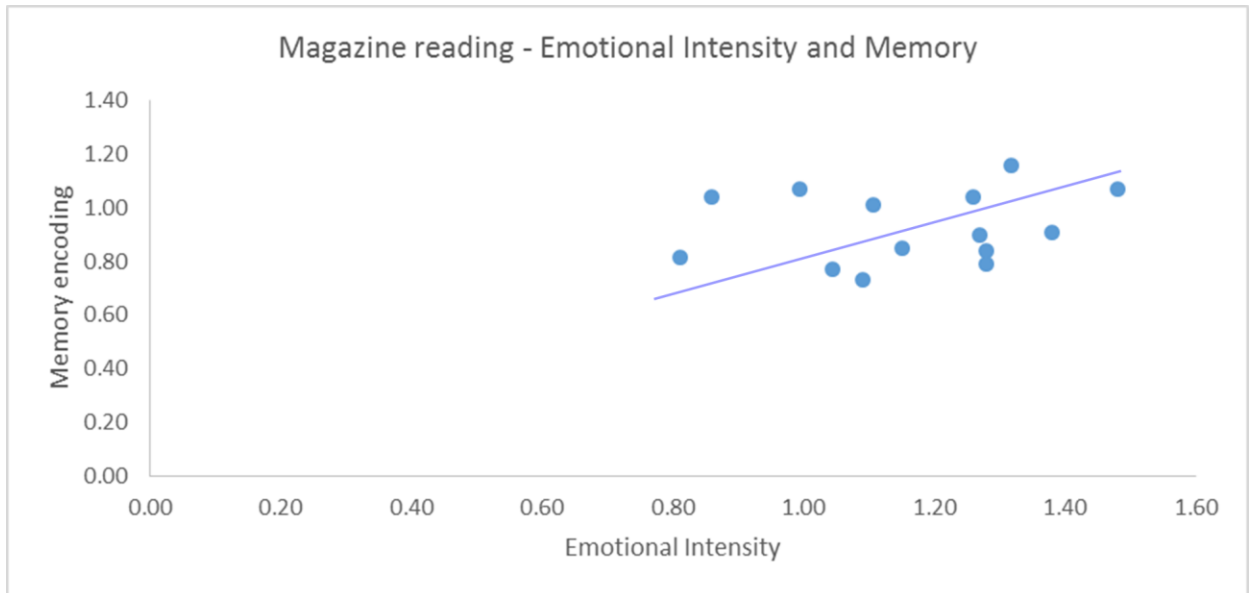
In the days of our distant ancestors, events that elicited a strong emotional impact were likely to have implications for our well-being or survival; e.g. a positive response to finding a source of food, or a negative response to a predator. In an evolutionary sense it was in our interests to remember these events linked to our survival chances, because that would maximise our chance of living longer. So the genes linking emotion and memory were likely to survive and be passed on to our descendants.

**Article** *Nigel Hollis (2010), Emotion in advertising: persuasive, yet misunderstood*  
“Just because we attend to something once does not mean we are going to remember anything about it at a later date. But when facts, ideas and impressions, are emotionally charged, a lasting memory is more likely to be created. The stronger the emotional charge, the more likely we are to consciously reflect on the experience at the time it occurs, and the more memorable the event will be.”

*\*Nigel Hollis – Executive VP and Chief Global Analyst, Millward Brown*



# Emotion – an example

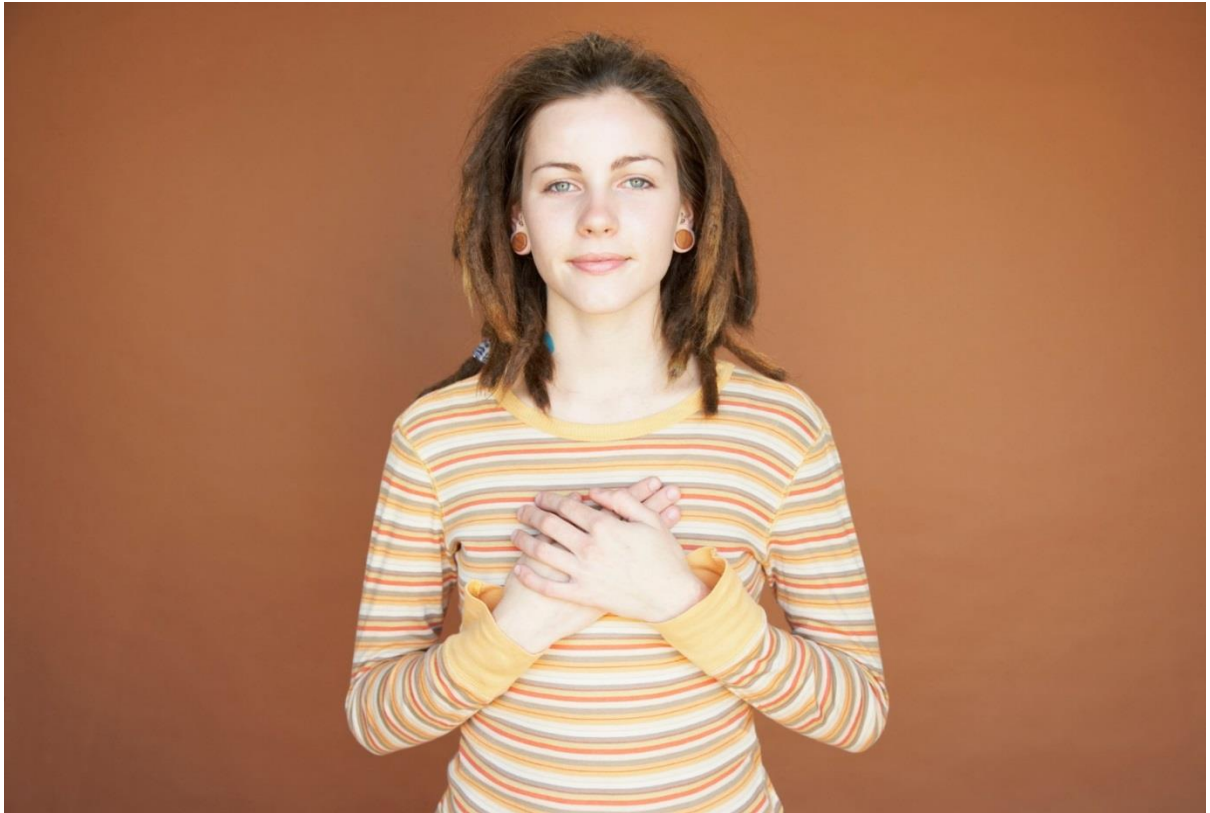


Taking studies where we have looked at brain response to magazine reading (both online and print), levels of both metrics are extremely high, and memory increases in line with emotional intensity. The experience of reading a magazine elicits a strong emotional response, and this is reflected in high levels of memory encoding.

Base data is taken from a series of UK based studies involving both print and online magazines. Work for UK clients, in the time period of 2012 to 2015.

Responses shown are the average levels of emotional intensity and memory encoding throughout the period when participants were exposed to specific pages of the magazines.

# Personal relevance is also key

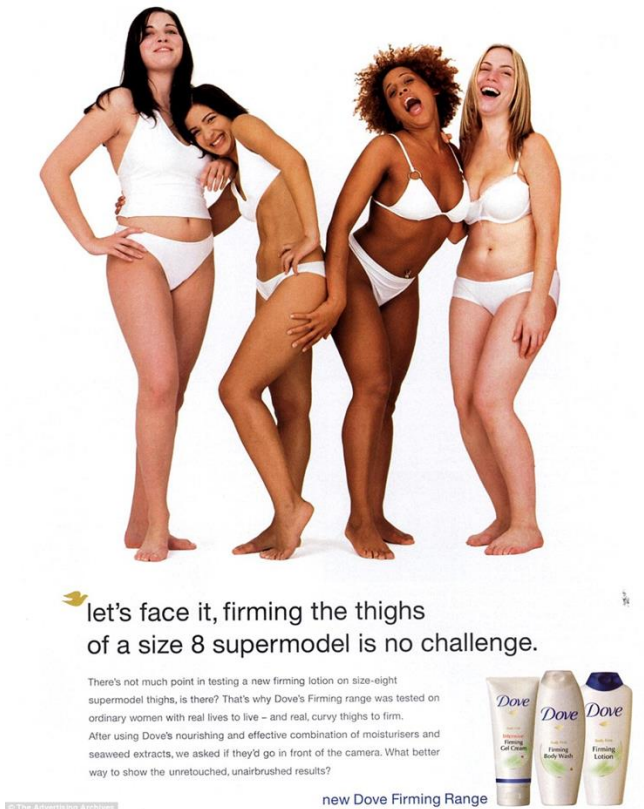


The third key driver is personal relevance – if our brains sense that something is relevant to our own lives, they're more likely to encode that information into memory.

Neuroimaging research suggests that brain activity in a prefrontal region near the forehead known as Brodmann area 10 (BA10) is associated with a sense of personal relevance. We derive the Neuro-Insight Engagement measure from SST measures taken from the forehead electrodes that are closest to BA10.

Work we've done looking at the correlation between each of our key measures, found an extremely strong correlation between memory encoding and engagement of 0.69.

# Great campaigns use all three drivers



let's face it, firming the thighs of a size 8 supermodel is no challenge.

There's not much point in testing a new firming lotion on size-eight supermodel thighs, is there? That's why Dove's Firming range was tested on ordinary women with real lives to live – and real, curvy thighs to firm. After using Dove's nourishing and effective combination of moisturisers and seaweed extracts, we asked if they'd go in front of the camera. What better way to show the unretouched, unairbrushed results?

new Dove Firming Range

*Dove*



The Dove Campaign for Real Beauty campaign cleverly uses all three drivers of memory. There is a strong narrative thread to the whole campaign, built particularly using TV and viral videos but with key elements picked up in other media. This is supported by a high level of emotional intensity and personal relevance – not just because of a topic that strikes a chord with people but also delivered through characters and the way that they interact with one another.



## So...in summary



Emotion colours and drives memory



Memory allows us to access the emotions associated with what we saw or heard.

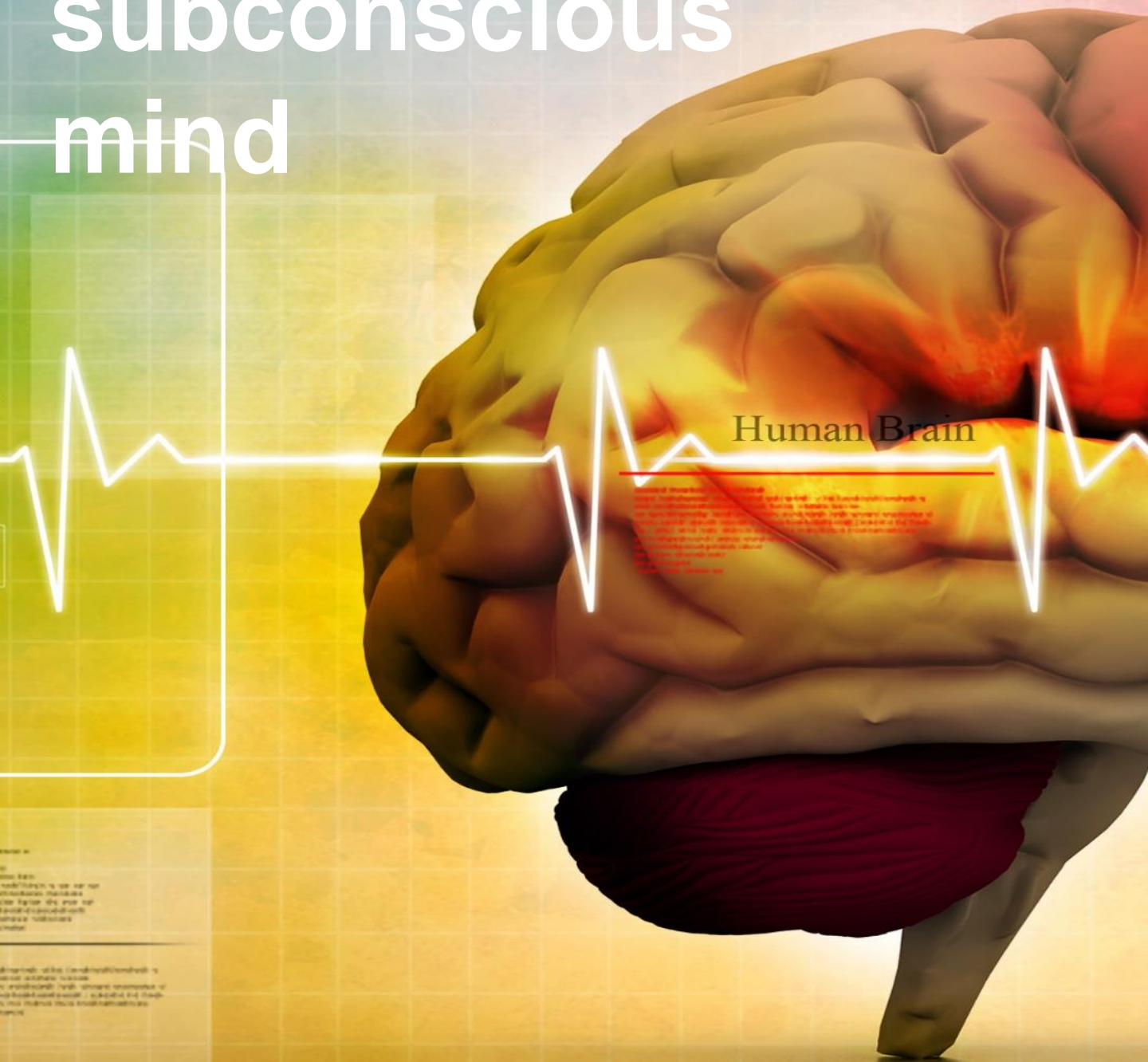


A strong sense of personal relevance underpins both memory and emotion.



The effect is further boosted by the power of context. Content and context are closely entwined. The interlinked roles of emotion, memory and personal relevance are particularly powerful in a context where our brains are in a receptive state. We've done numerous studies that indicate the importance of context on people's receptiveness to communication; if a piece of advertising is congruent with the context in which it is received, its impact is all the greater.

# One more thing about the subconscious mind



# Our brains have built-in blockers, so it's not about shouting the loudest



Our brains have a built-in defence mechanism that prompts us to reject messages that seem to be overtly trying to manipulate or sell to us. So driving emotion and memory is key but it's not about shouting loudest. You'll hear more about this later from another of our speakers.

The human brain has evolved to develop neural systems to facilitate learning from others, and at the same time another system has evolved to inhibit imitation and learning when not appropriate. An important part of this inhibitory system is known as the Orbital Frontal Cortex, which plays a key role in mediating the internal barriers to external cues and messaging (i.e. very overt branding).



# So we have to learn to be subtle

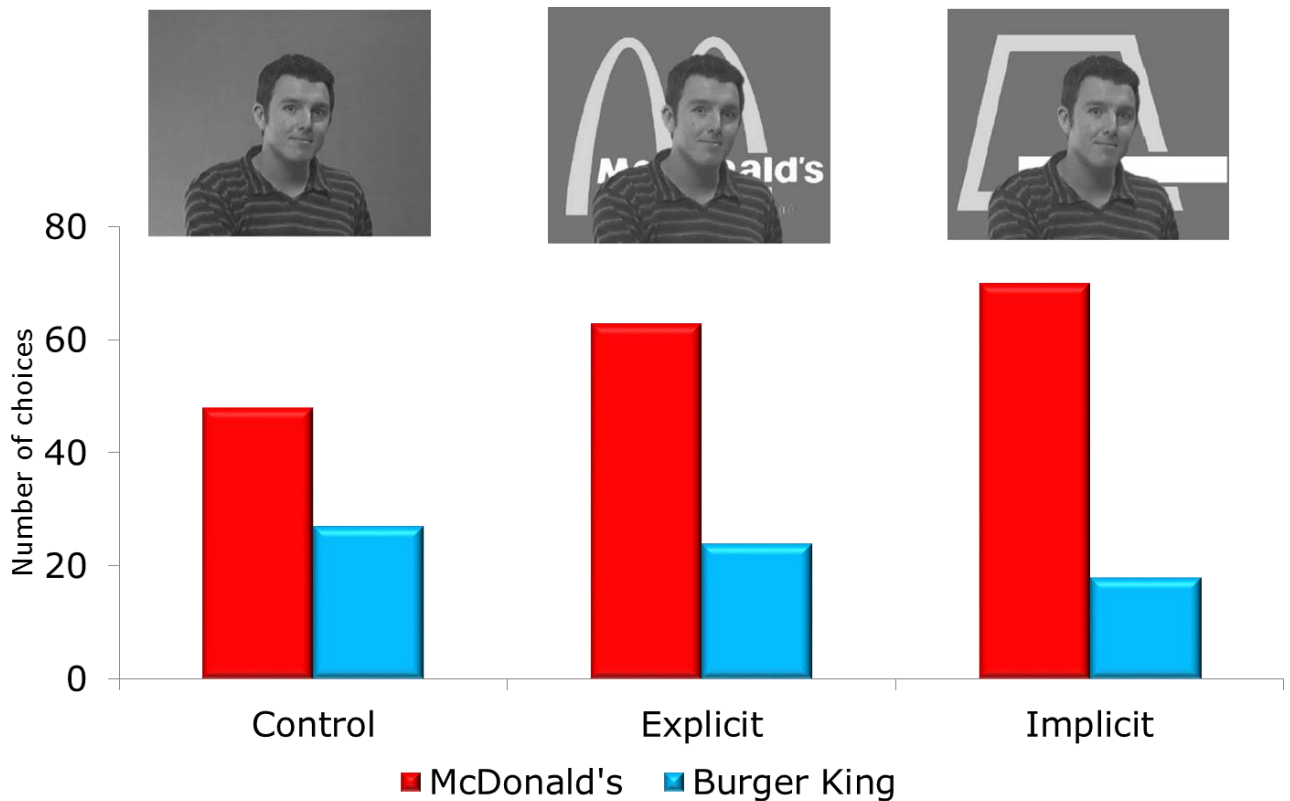


As communicators we have to learn to deliver our messages into memory without simply hammering them home.

## Further references and information

**Article** *Nothing more than feelings (2013); Economist Article*  
“Kahnemanite advertising prizes emotion over information and pays more attention to a brand’s “purpose” than to its products. It exploits system one’s propensity to react to subtle cues.”

## An example...



**Paper** Rafal Ohme (2001), *The implicit conditioning of consumer attitudes: logo substitution effect*. Polish Psychology Bulletin publication.

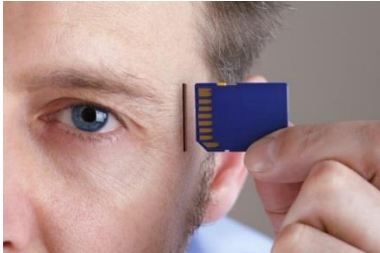
A study run in Poland looked at the impact of three different films on brand perceptions of McDonald's. The first showed a presenter against a plain background. The second showed him with a McDonald's logo behind him. A third showed him with an abstract shape – reminiscent of McDonald's in shape and colour, but certainly not a logo. The one that had the most positive impact on McDonald's brand perceptions, measured via a pre and post survey, was the third film. As the previous slide maintained, explicit or over-emphasised branding actually creates a negative impact in the brain; subtle branding cues can be more effective.

# Implications for brands





# Focus on the key drivers of memory and be subtle, not shouty



Focus on the key drivers of memory



Don't rely on shouting loudest – dare to be a bit more subtle



Deliver messages by eliciting strong and positive emotions

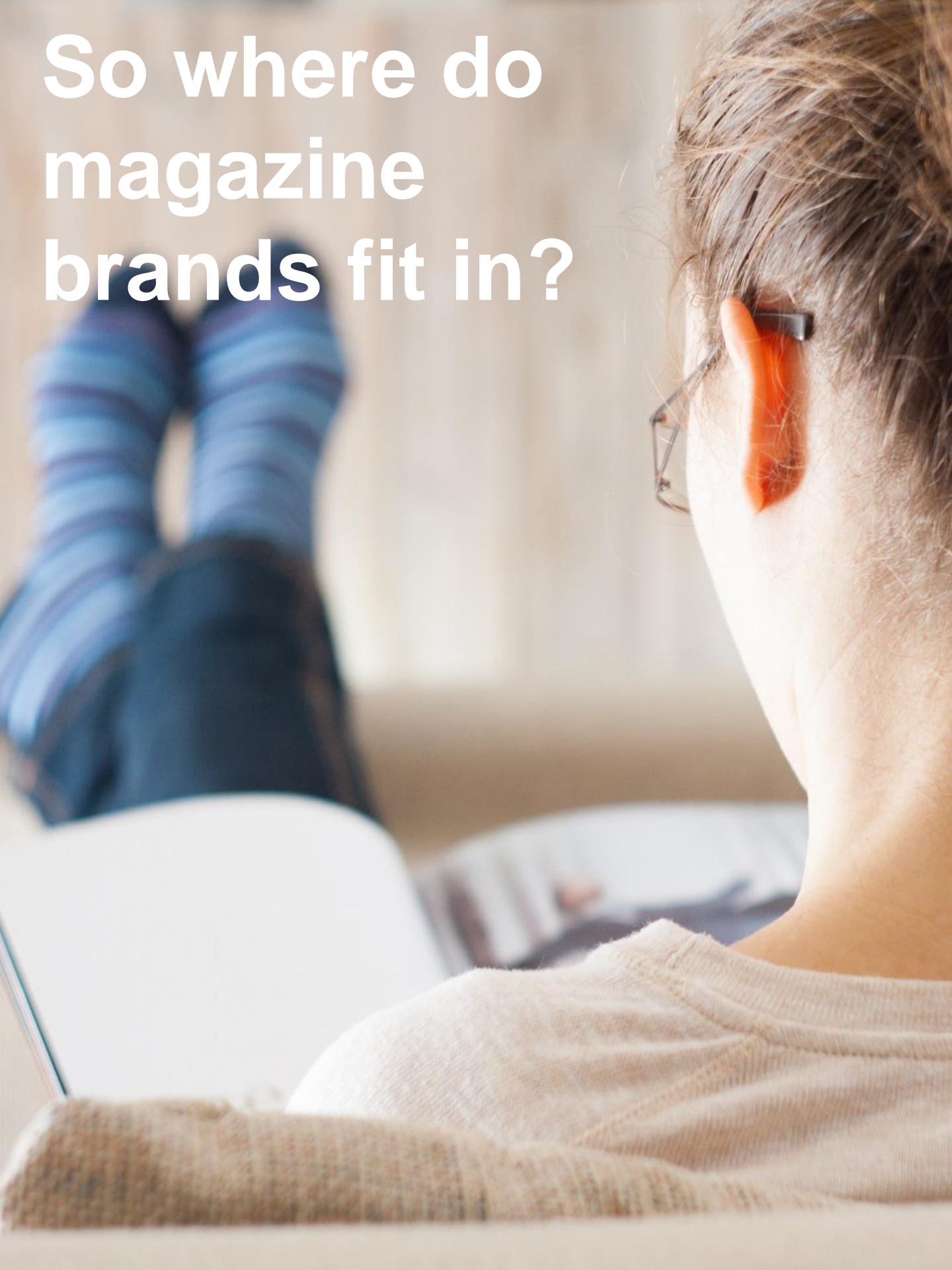


Make it personal – don't ever assume one size fits all



And think about both the message itself and how it's delivered – are the two things congruent?

So where do  
magazine  
brands fit in?



# Magazine brands aren't "shouty"



You're going to hear a bit later about people's relationships with magazine brands but, from a neuro point of view, the first thing to say is that magazine brands aren't "shouty". They can deliver branding in a gentler way, that can be more effective given the brain's tendency to reject overt selling messages.



## For example...



We recorded brain response in 200 women when they read a selection of ACP magazines, relevant to their lifestyles. We looked at reading experience of 11 different magazines and tested 64 advertisements before and after the magazine reading session. We found that the readers immediately engaged with the content of the magazines, that they remained emotionally engaged throughout, and that memory encoding response was maintained at a very high level.

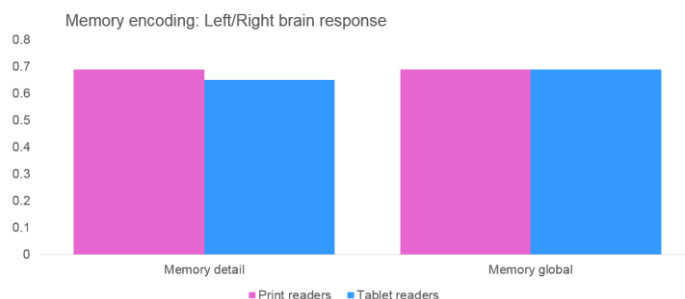
Work carried out by Neuro-Insight Australia. High levels of emotional response to magazines has also been seen in results from UK research, for example the Bauer Media research (see slide 33).

# The impact is strong across formats, for example...



News UK

The impact can be strong whether in print or online. Recent work we did for News UK showed that, despite some differences in the way print and online content are experienced, take out is actually very similar. Specifically, our work demonstrated that content (both ads and editorial) in the online and print versions of newspapers triggered almost identical levels of memory encoding (see graph below).



# Strong targeting is key



We know that magazine reading is associated with positive emotions and high levels of personal relevance and their targeted nature is a key part of that.

## Further references and information

**Article** *James Galpin (2012), The overlooked power of media: enhancing the memorability of communications (Millward Brown article)*  
“Advertising around relevant content is also a tried and-tested route to reaching people when they are most likely to be open to a brand message. Someone who is reading a fashion magazine is more likely to be engaged with women’s fashion and beauty products than someone watching a prime-time TV show, even if they are both members of the brand’s target audience.”

\*James Galpin, Director at Global Media Practise AMAP



## For example...



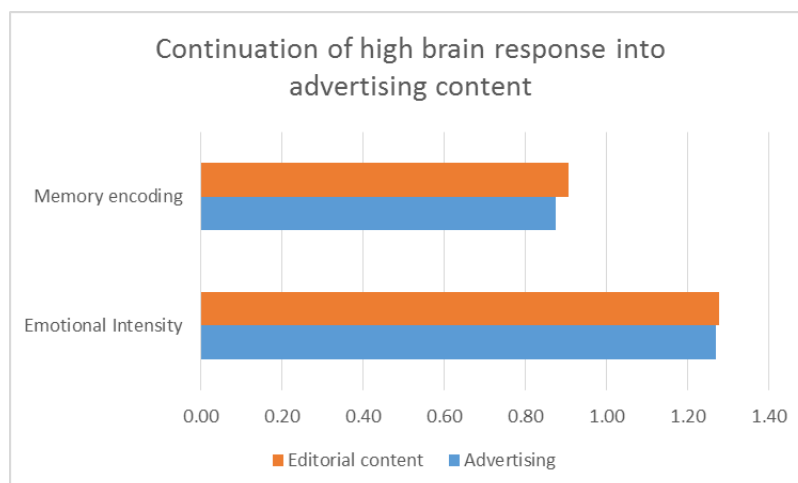
Working for Bauer media we found that a strong brand – Heat magazine – elicited strong responses across all platforms (print, online, TV and radio) amongst its target of 18-34 year old women.

We recruited 180, 18-34 year old women who were exposed to the Heat brand across 4 different platforms: printed magazine, online, radio and TV. Respondents saw editorial content and advertising campaigns for a number of products. Results found that the Heat brand elicited strong responses across all 4 platforms, which was reflected in responses to the advertising displayed in the context of the brand. A far higher level of activity was seen in most brain regions when looking at the advertising campaign within the Heat context, compared to multimedia campaigns across mixed media brands. [<http://bit.ly/1Shveiy>]

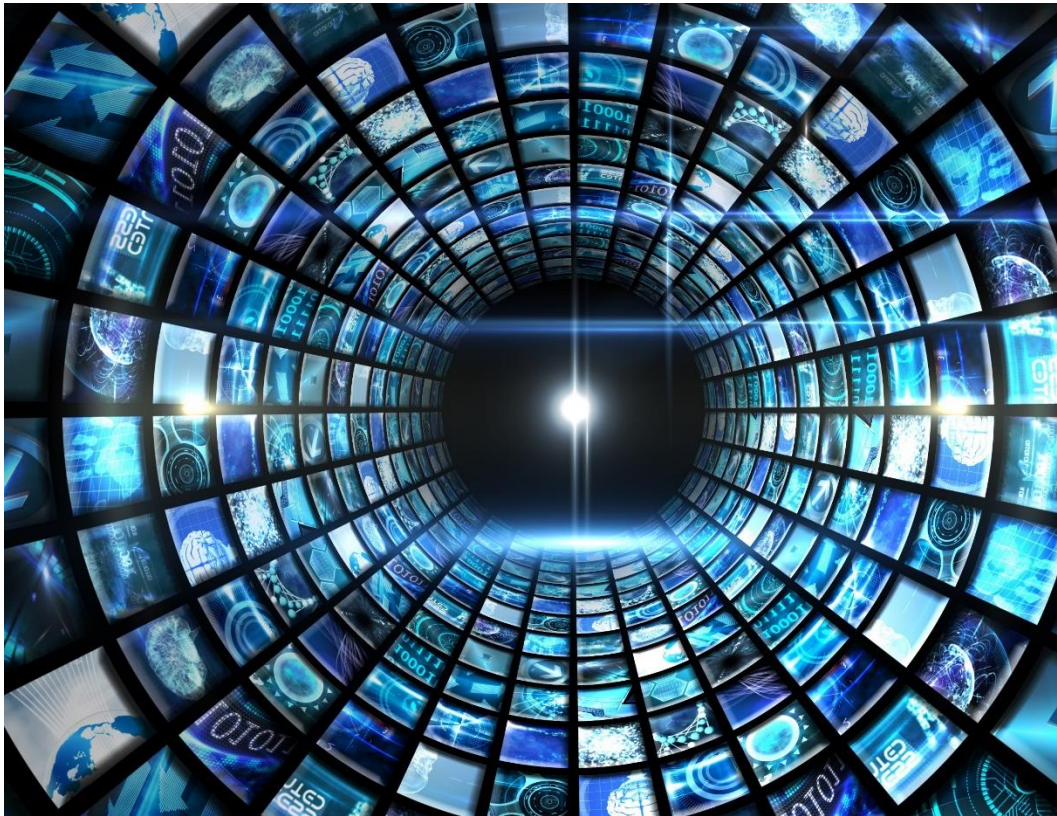
# Magazines elicit a strong brainstate



Across a number of studies we have found consistently that levels of engagement, emotional intensity and long-term memory encoding for magazine reading are higher than for most other media, and the high levels of response to magazine content are carried through into responses to advertising. The chart below shows results from a recent study, illustrating that there is hardly any difference between response to editorial content and response to advertising.



## A concluding thought...



Every medium has unique characteristics and, even in this multi-media world, magazine brands have something very unique to contribute.