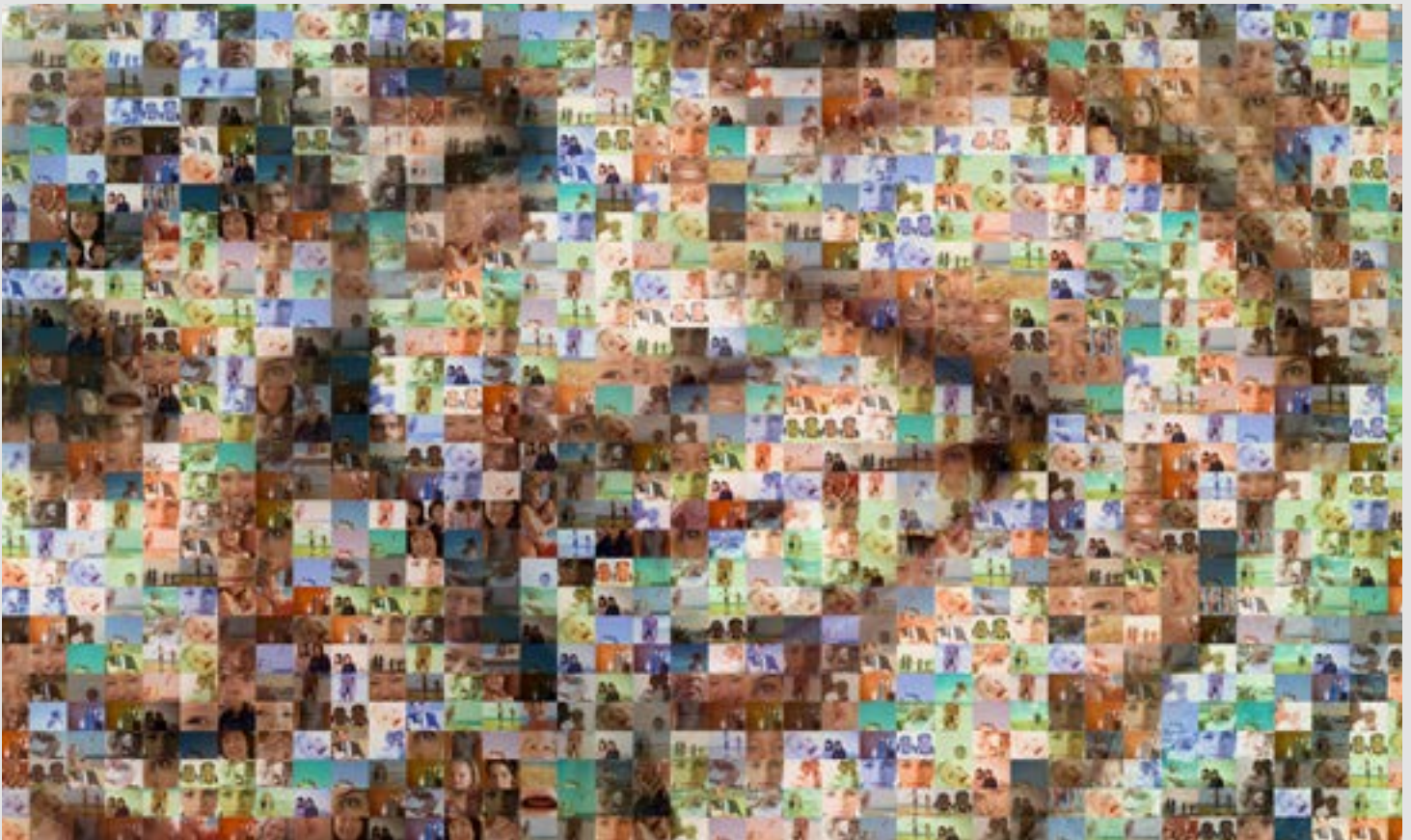

Emotion, Attention and Memory in Advertising

Gailynn Nicks and Yannick Carriou



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How can brand campaigns leverage the interplay of attention, memory and emotion to influence people's choices?



We have always known that stories with the ability to stir our emotions get remembered. They also have the capacity to influence our behaviour. So emotion-based advertising can be highly effective, but to be truly effective it needs to be more than just a good story.

This paper outlines how advertisers can make optimal use of emotional stimuli with the aim of influencing people's brand choices. To do that, we look at how people pay attention to, and both encode into memory and later retrieve, emotion-linked stimuli. Finally, we look at this evidence in the context of advertising to draw some conclusions about how these interact to deliver desired brand outcomes.

Looking for diamonds

The Diamond Producers Association recently released a new set of ads. They aim to reintroduce the idea of diamonds to the relationships and aspirations of millennials. This is a group for whom “forever” is a meaningless concept along with tradition, eternity and commitment. Their focus is the journey, not the destination.

The new theme is about honesty, authenticity and truth, separating the fake from the real. The campaign moves away from “Diamonds are Forever” which has been used since 1947, to the new, “Real is Rare. Real is a Diamond” theme. It is a thoroughly emotional campaign at every level and leverages story-telling in both traditional and digital media.

Diamonds symbolise the dilemma of many leading products and brands with regard to millennials. Although very familiar with the traditional role of diamonds and other brands, younger generations have a different set of motivations and brand relationships from their predecessors at their age. They have more choices than ever, but this comes with a volume of exposure to abundant and complex options and continual bombardment from brands. This has consequences, selective attention being one. How can brands capture their attention to reinforce familiar ideas or to introduce new ones?

Linking emotional advertising to brand choices

The goal of using emotion in advertising is, of course, to influence brand choice. So we need to link emotional stimuli with what we know about attention and memory if we are to use it to influence how people make choices.

The ideas outlined below also link with theories of decision-making. It is fairly widely acknowledged that we use a system of dual processing to make choices, the primary proponent of which is Daniel Kahneman¹. In summary, he proposes that we have two parallel systems for making choices: System 1 is based on automated, non-conscious processing, commonly referred to as “emotion-based thinking” and System 2 which is based on more cognitive, reflective or more conscious processing, often referred to as “rational thinking”.

System 1 and System 2 are often incorrectly labelled “emotional” and “rational”, thus equating emotion with being “irrational”. This is an inaccurate view of the role of emotion in decision-making. In this context emotion or System 1 represents a highly evolved process, enabling us to use automated, intuitive, fast routes (short-cuts) to decision-making, reducing the load on heavy, cognitive, reflective thinking.

Our brains make use of these short-cuts or heuristics in order to select which decisions require cognitive thinking – from a scientific perspective an inherently “rational” approach. Of course, those non-conscious short-cuts or heuristics rely on the neural pathways we have developed and shaped over time, based on our personal experiences and memories. These heuristics help us to process large amount of data and brands can make use of these to their advantage.

How? We know that brands exist in people’s minds as associative memory structures. These are networks of thoughts, feelings, images, associations, colours, sounds, symbols and memories related to the brand in question. Branding, or the “marque”, acts as a heuristic, a shortcut enabling people to draw quickly on this large body of associations and knowledge to facilitate choice when they are called upon to make a decision.

Brand communications can play an important part in capturing attention to either reinforce or disrupt this mental network, creating new ideas and memories or adding strength to those that already exist.

WHY USE “EMOTIONAL ADVERTISING”?

“Emotional advertising” has become very fashionable, but why? Is it down to advertiser FOMO (Fear of Missing Out) or is there clear evidence, both in outcomes and underlying theory, that it works?

The idea is that “emotion” in the form of story-telling performs three key functions:

- *Emotion stimuli* can capture attention with novel, surprising or engaging ideas
- *Emotional* messages can be processed automatically, using lower levels of conscious attention so placing a lower cognitive load on our processing and memory encoding faculties
- *Emotional advertising* creates emotional connections that make a brand easier to retrieve at a moment of choice i.e. making it highly salient

What is emotion?

DEFINING EMOTION FOR THE PURPOSE OF MARKETING AND MEASUREMENT

There is a substantial body of philosophical and psychological work on this topic and “emotion” is an over-used word when linked with brands. A reasonable definition with scientific research behind it, and one that lends itself to the area of brands and measurement comes from Phelps².

Following an event, emotions come first. They may trigger feelings, or an evaluated response and these may be altered or modified (appraised) before they become encoded into memory.

Emotion, evaluation and appraisal can be defined in these terms:

Emotion: The discrete, unevaluated response to an external or internal event that entails a range of synchronised features, including subjective experience, expression, bodily response, and action tendencies. They are generally non-conscious responses. (Facial coding is an example of where we can measure unevaluated response).

Evaluation: The primary function of emotion is to highlight the significance or importance of events so that these events receive priority in further processing through the Limbic System*. Evaluation does not necessarily require conscious processing. We know and can define these feelings, such as anger, surprise or tenderness in response to a stimulus.

Appraisal: Awareness and the cognitive interpretation of the meaning of an event can both initiate and/or alter an emotional response. The appraisal of an event elicits and modifies all the features of emotion – it is the subjective experience of emotion. This is where our past experiences and memories may intercede between our emotional response and the ultimate attitudes or behaviours that result. Survey data inevitably includes appraisal, although the framing of questions can enable us to interpret the degree to which heuristics or biases have been active. It is also helpful to understand this chain of events, since the appraised meaning may well be the de facto response encoded to memory.

These definitions are consistent with other writing and the view that emotions are processed automatically and sub-consciously, with or without subsequent conscious evaluation³.

* The Limbic System is a set of brain structures located on top of the brainstem and buried under the cortex. Limbic system structures are involved in many of our emotions and motivations, particularly those that are related to survival.

How does emotion capture attention?

The amount of information we are exposed to vastly exceeds our ability to process it. If we think of attention, we can call it the set of processes that enhance our perceptions and processing of some information over others. Like a spotlight, attention helps us focus on some stimuli in preference to others⁴. It works in two ways: by helping us to filter information “top-down” depending on things we are interested in or motivate us; and “bottom-up” based on the perceptual properties of the information itself, like movement or colour, novelty or surprise.

In capturing attention, emotional stimuli take priority over neutral stimuli – we notice an angry or happy face quicker than a neutral face. Top-down, relevant emotional stimuli, combined with attention grabbing bottom-up emotional stimuli get priority. Good emotional content first creates attention engagement at an automatic level, and then sustains engagement through relevance to an individual’s personal goals and motivations.

So the nature of the interaction between emotion and attention is dynamic, develops over time and is dependent on both the nature and relevance of the stimuli. Think of watching a movie trailer. It is exciting and features one of our favourite stars, but we only keep watching if the story is one we like and relate to.

For brand communications, it also means that attention is related to both the immediate stimuli (attention salience) and how the stimuli interact with the individual’s motivations or need states (memory salience). The link to motivations and needs is often lost by advertisers in a rush to simply capture immediate attention.

“Like a spotlight, attention helps us focus on some stimuli in preference to others”



What is less clear is the degree to which we pay attention to emotional stimuli in the presence of a high cognitive load. Indications are that the attention paid to emotional stimuli is lower when there is a high cognitive load. In other words, if I am busy doing something on my phone or computer like banking or shopping then I am less likely to pay attention to emotional stimuli than if I am doing something that doesn't require so much cognitive effort. Alternatively, when watching TV, I may be in the ideal state to pay attention to emotional stimuli.

There is also some evidence that attention to emotional stimuli reduces the resources available for cognitive processing⁵. In advertising, this would mean that we may pay less attention to the branding, messages or persuasive elements of the ad if we are focused on the story. So, if we are busy watching a cute performing dog in an ad, we may not bother to notice the name of the brand being advertised. This has implications for designing executions that are trying to both engage and persuade. It also has implications for the media context in which ads appear and the degree of receptivity of the target audience. Ideally, emotional ads find an easy and relevant way to link the brand to the story.

Finally, there is also emerging evidence that these responses vary according to individual pre-disposition. Some individuals are more or less sensitive to emotional content, depending on their nature, development or even current mood state.

So emotional content that is attention-grabbing and relevant can help an ad to achieve sustained engagement, but this can be reduced if other tasks are taking place at the same time. The implication for advertisers: to balance the desire to get across as many messages or cues as possible with the risk of being "screened out" regardless of the emotional content.

How does emotion influence how stimuli are processed in memory?

THE NATURE OF MEMORY

There are well established models of memory. The first way in which we separate areas of memory is to think of things we process and forget (short-term memory) and things we process and keep for later (long-term memory). The area of memory we are interested in is long term memory, things we keep and can later retrieve.

The two key areas of long-term memory are explicit (conscious) and implicit (non-conscious). Memories of things like events and our environment are considered part of our episodic memory, while facts and concepts are stored in our semantic memory. Think of going to a French lesson. What you remember about the lesson, the people, how you got there and so on are stored in episodic memory, while the grammar and vocabulary you learned is stored in semantic memory. The two may, at times, be remembered together but are more likely to be retrieved and used separately.

Our implicit memory capacity is far larger and stores things that may influence us, but in a less conscious way. Perhaps some of the experiences we had in class make it a compelling event in our calendar and we feel very positive towards the next class for reasons we can't articulate. Or the class fits neatly into a time of day that is part of a standard routine, so we find ourselves at the French class more out of habit than conscious desire.

Our long-term memory

LONG TERM MEMORY

EXPLICIT MEMORY (conscious)

IMPLICIT MEMORY (unconscious)
- Much bigger in capacity -

DECLARATIVE MEMORY ("knowing")

PROCEDURAL MEMORY ("doing")

EPISODIC MEMORY
(events, experience)

SEMANTIC MEMORY
(facts and concepts)

SKILLS

HABITS

**What we can directly
say and explain...**

Most scientific evidence is built on
RECALL/RECOLLECTION EXERCISES

**What we cannot directly say or explain
without altering the encoded memory**

Most scientific evidence is built on
RECOGNITION/PRIMING EXERCISES

HOW MEMORIES ARE CREATED AND RETRIEVED

Psychology has long abandoned the idea that memories are stored together in neat, discrete parcels located in particular areas of the brain. It is now proven that memories are distributed all over the brain and linked together by networks of connections⁶.

It was assumed (and still is to a large extent) that active processing would create stronger and more durable memories than low-level processing⁷. In fact, in much the same way that we can process emotions without conscious appraisal, implicit learning occurs without conscious attention⁸.

In addition, Joseph LeDoux⁹ (The Emotional Brain 1998) outlines the fact that memories, even explicit ones, are not carbon copies of the experience from which they were taken. In between the unevaluated response and the appraised response, we each apply elements of our subconscious biases and heuristics to arrive at a suitably analysed memory for storage and retrieval at some later date. These encoded experiences are often referred to as engrams⁶.

For advertisers, this means that whatever is communicated in an ad will be most likely be filtered through the lens of current mental networks before becoming a memory. The implication is that trying to overcome poor brand perceptions or to disrupt, rather than reinforce, mental networks will need more than a good story or subtle brand cues.

HOW EMOTION ADDS TO OR CHANGES THIS PROCESS

Emotional arousal (a response to an emotional stimulus) undoubtedly attracts resources to facilitate some sort of encoding in memory. Evidence has shown, however, that this arousal leads to selective effects on memory.

Emotional stimuli increase the likelihood of select components of an event being remembered. These components include details that capture attention, aspects of the event that are somehow integral to the emotional focus or things about the stimuli that are relevant to the goals or motivations of the individual.

Details that come to mind easily and vividly make people feel more confident that their memory is accurate, regardless



of how accurate those details actually are. These are often related to how the event made people feel, rather than the actual details around the event¹⁰. As an example, supporters of a particular football team will remember a key match they won against a rival in a different way from those on the losing side. The victorious supporters, happy that their team won, remember the overall experience more than the details. Those on the losing side will most likely remember more of the specific detail and less of the overall feeling of the game. Over time, however, much of the negative detail is lost and the memory becomes more general.

That means that the way we encode and subsequently retrieve memories of emotional events depends not only on the degree and valence of arousal, but also on our current networks or engrams and our underlying goals or motivations.

What are the implications of how emotion, attention and memory interact for “emotional advertising”?

This brings us back to the idea of branding as a heuristic. We can see that the use of emotional stimuli can indeed attract more of our conscious and non-conscious resources to pay attention to, and aid the encoding of, advertising into memory. The challenge is to strike the right balance in the way memories are encoded and the way in which they are subsequently retrieved.

This requires an integrated and holistic approach – using distinctive assets and creating emotional connections to things that matter to people in order to facilitate the reinforcement of positive, associative memories or the disruption of those memory structures to encode new information. The more consistent and appealing the emotional connections created and the more fitting the brand cues accompanying an emotion-based advertisement, the more likely they are to be retrieved in the way that the advertiser desired at a suitable “relevant moment”. In behavioural psychology this is known as the “priming effect”¹¹.

We know from research conducted by the IPA¹² that this combination of priming and ensuring that the key information required for short term action together deliver highly effective advertising. On the other hand, emotion for the sake of emotion can easily be ignored if it does not deliver a brand message that is resonant with the story being told.

Can we really measure the impact of emotional advertising?

Defining an ad as emotional or not at the outset is a subjective exercise because to some degree, we react emotionally to everything (at least physiologically). But, as identified above, we can conclude whether or not an ad generates a salient arousal response through our approach and metrics.

When we test advertising, we measure both active and passive aspects of attention and brand impact. By showing the advertisement in a distracted media environment we do





not force highly focussed attention. And by separating the measures of visibility and brand recognition we also ensure that the balance has been achieved between paying attention to the ad and absorbing the brand information.

Facial coding and other neuro-based techniques offer a moment-by-moment assessment of exactly where emotional responses take place, both positive and negative. This continuous observation also shows us where the ad is supporting increased longer-term engagement and attention, making the ad more likely to be adding something to that vital mental network.

Making sure all of these aspects are measured and assessed means that we can see exactly how the emotion is working with other aspects of a piece of brand communications, leveraging both the areas where asking is better (cognitive evaluation like brand linkage) and where observation works best (understanding where engagement and attention are built and sustained).

What about the diamonds?

Coming back to the new campaign by the Diamond Producers Association, it ticks many of the right boxes. It shows real people in real relationships. It includes subtle but consistent cues linking special moments to diamonds. It links the same motivational needs that pull people towards diamonds using a different social context. It moves away from tradition, yesterday, “not us” and leverages things millennials relate to, millennial icons on Facebook and Instagram and displaying diamonds implicitly rather than ostentatiously. It remains to be seen whether or not emotion alone can overcome the more general issues facing the diamond industry in terms of trust and fashion.

For other brands the implications are clear. Capturing people’s attention and making sure your emotional advertising is both encoded and retrieved as you would like requires more than a good story with moments of intensity. It needs to be contextually motivating and linked to the brand.

In summary

Emotion-based advertising can be highly effective but must work within a strong and consistent brand framework.

- Brands need to have a range of distinctive iconography or assets that are consistent, engaging and understood so that they reinforce the stories and emotional stimuli in advertising.
- Advertisers should ensure that emotion-based advertising links to the brand through association with the cues – needs, functions, situations, sounds, sights or smells – that are most relevant in the key moments.
- Effective emotional priming means having stories that are relevant to people's motivations and goals, so that engagement with advertising is sustained and so that people associate the brand with the things that matter most to them.

Advertising assessment needs to take account of all of these aspects. It is also worth noting that emotion is not the only route to effective advertising. Cognitive stimuli are very effective at delivering desired brand outcomes when they align with people's needs and wants and many of the most effective campaigns demonstrate this. In the end, you still need to offer people something that matters to them.



REFERENCES:

1. Kahneman, D. (2011). *Thinking, fast and slow*. London: Penguin Books.
2. Phelps, E. (2006). Emotion and Cognition: Insights from Studies of the Human Amygdala. *Annual Review of Psychology*, 57, pp27-53.
3. Damasio, Antonio R. (2008) [1994]. *Descartes' Error: Emotion, Reason and the Human Brain*. Random House.
4. Jackson, F., Nelson, B. D., & Hajcak, G. (2016). The uncertainty of errors: intolerance of uncertainty is associated with error-related brain activity. *Biological psychology*, 113, pp52-58
5. Schupp, H.T., Cuthbert, B.N., Bradley, M.M., Birbaumer, N. and Lang, P.J. (1997). Probe P3 and blinks: Two measures of affective startle modulation. *Psychophysiology* 34 (1), pp1-6.
6. Schacter, D.L. (1996). *Searching for memory: The brain, the mind, and the past*. New York: Basic Books
7. Craik, F. and Lockhart, R. (1972). Levels of Processing: A Framework for Memory Research 1. *Journal of Verbal Learning and Verbal Behavior*. 11, pp671-684.
8. Eysenck, M. and Keane, M. (2015). *Cognitive Psychology: A student's handbook*. 7th ed. London: Psychology Press.
9. LeDoux, J. (1998). *The Emotional Brain: The Mysterious Underpinnings of Emotional Life*. New York: Simon and Schuster.
10. Phelps, E.A. and Sharot, T. (2008). How (and Why) Emotion Enhances the Subjective Sense of Recollection. *Curr Dir Psychol Sci*. 17 (2), pp147-152.
11. Berger, J. and Fitzsimons, G. (2008). Dogs on the Street, Pumas on Your Feet: How cues in the environment influence product evaluation and choice. *Journal of Marketing Research*. 65, pp1-14.
12. Binet, L. and Field, P. (2013). *The Long and the Short of it: Balancing Short and Long-Term Marketing Strategies*. London, IPA.

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With an academic background in engineering and statistics, Yannick started his career in research 15 years ago at TNS, specializing in the freshly born internet sector and all technology players (gaming, telecom, IT).

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