

How to measure emotional response to advertising

Understanding emotional response is vital to understanding advertising success, but how best can emotional response be measured? **Dominic Twose** of **Kantar Millward Brown** sets out to clarify the confusion surrounding this topic and describes key learnings from the use of facial coding to assess ad responses

Much has been written in recent years about emotional responses to advertising, with much of the discussion being centred on System 1 and System 2 modes of thinking. It is generally understood that System 1 operates automatically and quickly, with little or no effort and no sense of voluntary control, while System 2 involves effortful mental activities. However, some have assumed that System 1 responses are purely emotional, which has led to some muddled thinking.

Kahneman, who has done so much to popularise this area, is clear in his seminal *Thinking, Fast and Slow* that while System 1 is automatic and fast, it is not purely emotional. He says it can generate a “surprisingly complex pattern of ideas”. He points out that you cannot “prevent yourself from knowing that 2 + 2 = 4”. Similarly, in his book *Self Comes to Mind*, Damasio points out that there are cognitive processes that go on subconsciously; he explains, “In all likelihood, there is an important reasoning process going on nonconsciously, in the subterranean mind, and the reasoning produces results without the intervening steps ever being known.”

“Nonconscious processes are capable of some sort of reasoning”, he says. And in considering the way we can make unconscious decisions, he argues this is not about emotions taking charge of what we do. He says that nonconscious processes have been trained. “Unconscious processes do a

lot of work, but the subjects have benefitted from years of conscious deliberation during which the nonconscious processes have been repeatedly trained.” In his book *The Feeling of What Happens*, he adds, “I did not suggest, however, that emotions are a substitute for reason or that emotions decide for us.”

In their acclaimed monograph, *Marketing in the Era of Accountability*, Binet and Field report that 71% of campaigns in the IPA

DataBANK (covering entries for the IPA Effectiveness Awards) consist of both rational and emotional elements. While emphasising the strengths of emotionally based campaigns, they report ‘more complex’ campaigns (most of which combine rational with emotional elements) as having the same ‘Effectiveness Success Rate’ as purely emotional campaigns; and report that campaigns using a Persuasion or information model have an Effectiveness Success Rate of 61%.

To summarise this brief overview: even when decisions are made quickly with little thought, both emotional and rational factors are often likely to be at play. Both are important, and you ignore either at your peril.

Millward Brown have always been strong supporters of the importance of emotional response to advertising. When our copy test Link was introduced in 1989, the launch brochure made it clear that “the commercials which do best ... are generally

FIGURE 1: EMOTIONAL RESPONSES, WITH AND WITHOUT FACIAL EXPRESSIONS

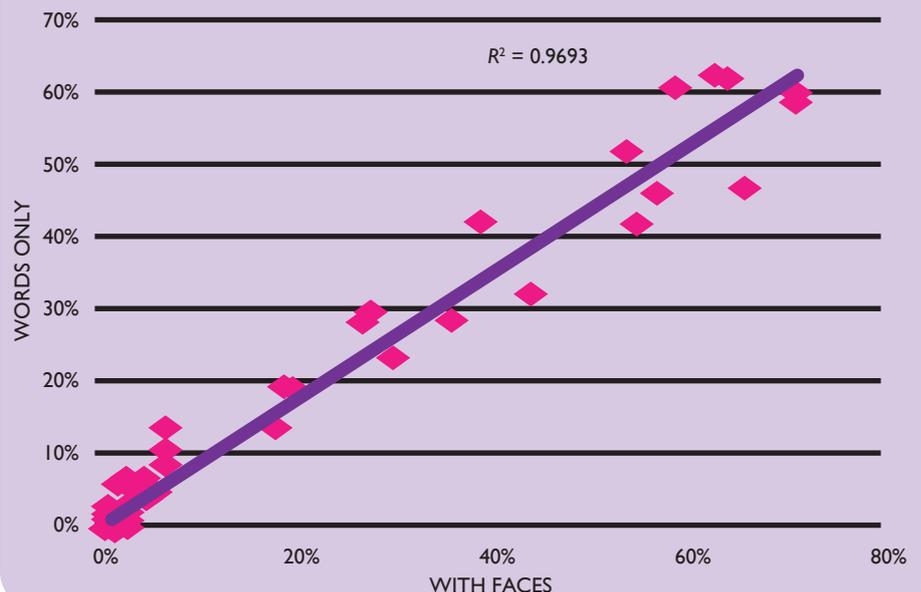


FIGURE 2: FACIAL CODING AD SCORES – OVERALL POSITIVITY



well liked”; and enjoyment was described as a key rating.

In his paper *The emotional drivers of advertising response* (ESOMAR Congress, 2005), Millward Brown’s Graham Page concluded, “Emotionally attractive brands are stronger brands.” And “Emotion is crucial in brand and advertising success.” In 2005, we introduced a bank of sixteen emotional response questions to Link; this gave us the data to conclude (in *Creative Effectiveness*, 2011): “The variety of different emotional responses obtained by award-winning ads highlights that there is no one emotion to trigger for successful advertising. Rather, the successful ad triggers the emotion that is relevant for that brand and positioning.”

But while we believe that creating an emotional response is important for advertising success, we don’t believe emotions are the only thing that matter.

Why are the emotional elements of System 1 thinking so important? Because they

are rapid and automatically activated: System 1 processes are ‘always on’, and any outputs are always available to the brain before the slower System 2 thinking is initiated. One of the consequences of this is that these automatic outputs provide the backdrop for any analytical processing that does occur and will ‘frame’ this thinking.

The most widely known description of this kind of framing comes from Damasio’s work on emotions and their roles in decision-making. He describes memories as having ‘somatic markers’ – emotional ‘tags’ that get ascribed to the mental representation of a situation, object, or place. The tags then act as a signal to the brain whenever it encounters or considers that thing and sets the scene for interpretation or consideration of other things we think or hear about it.

Brands use this principle when trying to build positivity through their advertising. Even though people may not have directly experienced a brand for themselves, telling them good things about it and making them feel positive towards it can result in this positivity becoming associated with the brand itself, framing brand experience, and helping people experience the brand through rose-tinted glasses.

HOW BEST TO MEASURE EMOTIONAL RESPONSE?

Given that understanding emotional response is important to understanding advertising success, there is then the question of how to best assess emotional response. From our nearly thirty years of experience with Link, we know that survey responses work. Key Link measures have been repeatedly proven to relate to real-world sales.

The reason why survey responses work is because they pick up the impact of System 1 processes that frame and influence our more considered answers. When asked how much we like a brand, for example, our automatic emotional response frames the ‘thinking’ about other factors we consider, and has a huge impact on the way we respond to the survey – just as it does when we’re making decisions in the real world.

But how do you best measure emotional responses? A few years ago, we set up a large-scale investigative study to explore

a variety of ways of measuring emotional responses to ads, to make sure we measured them in the most useful ways.

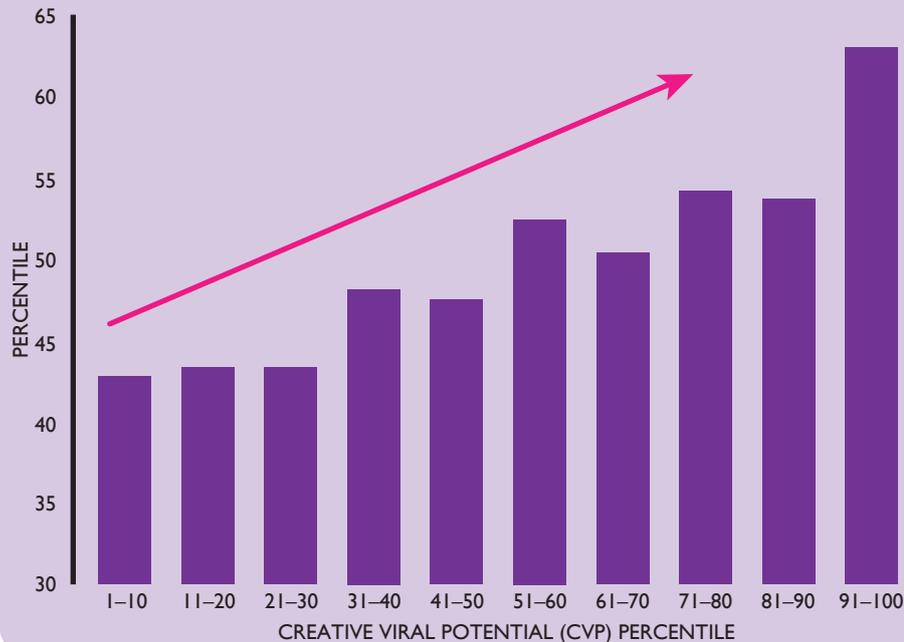
As one leg of this, we looked at two matched cells: one cell was asked for an emotional response through a simple list of words; the second cell was asked the question in exactly the same way, but with a set of photographs of facial expressions, with the emotions listed underneath. We covered three markets (UK, US and China) and asked about three ads in each market, specifically chosen to give a range of likely emotional responses.

We used a database of facial expressions developed by Cambridge University. We had one set for males and one for females. We covered what are generally considered to be Ekman’s universal faces of human emotion: sadness, contempt, surprise, fear, disgust, anger, happiness, neutral. The results were extremely similar (R^2 of 0.97), suggesting that the addition of faces does not get a different type of response compared to simply showing a list of words (Figure 1).

It was clear to us that you may as well ask a simple list of words, as we do in Link. And this is important because one of the great strengths of a direct question is the ability to access a wide range of quite specific emotions. We cover sixteen in Link: Attracted, Excited, Confident, Contented, Affectionate, Surprised, Proud, Inspired, Repelled, Inadequate, Sad, Annoyed, Hatred, Disappointed, Guilty, Unimpressed. We are sometimes asked why we do not cover happiness in this self-report list. The answer is simple: in our R&D work, we found that happiness has a very strong correlation with enjoyment (R^2 of 0.9); and we’ve been measuring enjoyment as a standard measure since the very first Link.

From our R&D work, we concluded that the most helpful route to understanding advertising response involved a multi-method approach (including both self-report and psycho-physiological measurement). This would help us gain a full picture of emotional responses. After much experimentation, we concluded that measuring people’s emotional responses during a piece of creative using facial coding adds a crucial view of ‘fast’ responses to the ad and key creative devices. These indirect measurements supplement other Link metrics in two important regards:

FIGURE 3: RELATIONSHIP BETWEEN EXPRESSIVENESS AND AN AD GOING VIRAL



people's expressions reflect their overall engagement with the spot, and whether this is emotionally positive or negative; expressions also illustrate the emotional journey through the ad, highlighting key elements that were engaged with, and allowing us to judge if responses to key concepts and scenes will be as intended in reality. In particular, we can see if the ad resolves in an emotionally positive way.

As a result, in 2012, we developed a facial coding offer that was simple, scalable, and unobtrusive and which requires only a webcam, and we have conducted around 18,000 facial coding projects already. Since introducing facial coding, we've kept the results under constant review, to ensure they are working. So, what have we found?

Facial coding covers responses such as smiles, frowns, disgust, surprise, attention, expressiveness, and valence – valence being a combination of positive inputs (from smiles) and negative inputs (mainly from frowns and disgust faces). One main finding is that facial coding distinguishes well between ads. Figure 2 (previous page) illustrates the broad range of scores ads receive on this measure.

We find that the outputs behave as we might expect; for instance, valence has some relationship with enjoyment and ad distinctiveness. Frowns are more likely when the ad is hard to understand, but also when the ad is interesting. And ads classified as being humorous tend to generate more smiles, greater expressiveness and more positive valence. We also see a strong relationship between expressiveness, and the likelihood of an ad going viral (Figure 3).

However, the results are sufficiently different to the self-report emotions to be useful; they are measuring different things. Facial coding is truly implicit and captures respondents' spontaneous emotional response as they watch the ad; it is complementary to the questions asked in Link.

HOW USEFUL IS FACIAL CODING?

While, in general, we would review the facial coding responses alongside the self-reported emotional responses, here are a few examples of where the facial coding responses alone provided useful input to the advertising assessment.

One Indian ad, for a new launch, had a persuasive message but weak branding. The ad featured an engaging story involving a mother and her son; however, in the middle, a male voice-over explains the product benefits in a demonstration sequence.

There was a marked dip in positive valence during the demonstration sequence. We explored the valence curve, splitting the sample by those who gave a high branding score compared to those who did not. The findings were clear: the dip in valence was much stronger for those whose branding scores were weaker.

It was clear that the male voice-over interrupted the story. We argued that if the mother explained the benefits instead, the demonstration sequence would be better integrated. Their subsequent ad did this, ensuring the demonstration sequence was seamlessly integrated. The emotional response held steady, and branding was much stronger.

We researched an ad for Save the Elephants, in China. Valence took a sharp dip at one point in the ad, which showed an elephant carcass. In this case, from the rest of the data, it was clear that the shot of the carcass, while sobering, was vital for conveying the full message; while the response was negative, it was still essential.

In a third example, from the US, for a brand of yogurt, levels of engagement and branding were disappointing. The lead character, a boy, drives smiles and positive valence throughout. While valence was positive throughout, it peaked at one particular moment, namely the boy's puzzled response, but then dropped immediately afterwards. This pattern of response led to the boy, rather than the brand, being inadvertently set up as the hero in the ad. The client and agency took this point on board; their next ad for the brand was their strongest in four years.

There is a lot of confusion and misinformation circulating about the role of emotional responses to marketing. The purpose of this article is to shed some useful light on both the role and measurement of emotional response.

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