TV advertising: TV on the mind

David Brennan
Thinkbox

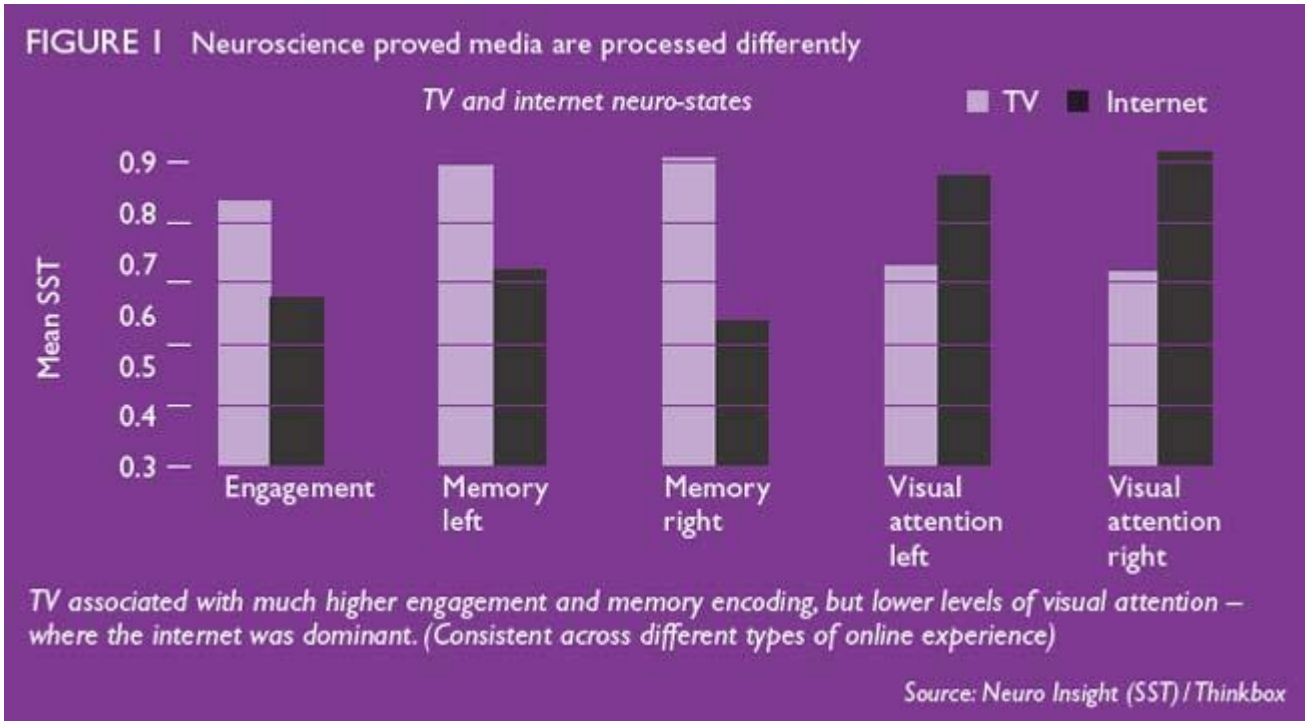
A new study that measured TV viewing's stimuli on the brain shows that creative TV advertising that tells a story triggers deep emotional associations with brands

The application of neuroscience to market research means we don't have to ask people to tell us what is going on in their heads – a research approach that is often inaccurate and subject to misrepresentation. This is especially important when we want to conduct research on the effects of television, which often affects us on an emotional, implicit and subconscious level. So, rather than asking people about these effects after the event, we can understand much more about them by looking at which specific parts of the brain are most active when they are watching TV and what experiences are associated with that activity.

We decided we needed to use two brain measurement techniques: functional magnetic resonance imaging (fMRI);and steady state topography (SST) – a form of electroencephalography. This was so we could understand how the brain was processing TV commercials on a second-by-second basis, in a natural setting, while also understanding which specific parts of the brain were active across the whole commercial. This would provide us with both the depth and breadth of the viewers' experience when they were watching TV.

We recruited 17 major advertisers, who submitted 25 pieces of content to be tested. We set up the research so that we could measure the differences in brain activity when people were watching TV compared to when they were interacting online (via a guided online journey, taking in web browsing, search and on-demand TV content). We also wanted to look at how TV primes the online experience and vice-versa, as this priming effect had been evident in several of our earlier studies looking at the relationship between TV and online.

The results highlighted just how powerful TV ads can be in engaging us in their content and transferring that content into our long-term memory. They also taught us about the importance of media context – how the placement of an ad can turbo-charge the creative impact.



The SST part of the study allowed us to look at how TV commercials affect five main parts of the brain, associated with emotional intensity, emotional direction (attract or withdraw), attention, engagement and long-term memory encoding.

Previous studies have demonstrated that levels of long-term memory encoding (LTME) – especially for those parts of the ad where the brand is featured – appear to have the greatest effect on whether or not we are likely to buy that brand. The challenge for creative agencies is in generating high levels of LTME and ensuring the brand or product is featured in exactly the right places.

Our study demonstrated quite conclusively that it is not attention that creates long-term memory encoding, but engagement. Across all of our measured advertisements, the correlation between levels of engagement and long-term memory encoding was well over 70%. Engagement itself is influenced by emotional intensity, so it is not surprising that this also correlated strongly with LTME. It is interesting that visual attention, in either left brain (detailed) or right brain (global) hemispheres had no relationship with either engagement or LTME. This supports theories such as Robert Heath's theory of low attention processing, which suggests that attention can actually reduce an ad's ability to create associations and alter perceptions.

One other measure also failed to correlate with LTME – that of emotional direction (like/dislike or attract/repel). Normally, one would expect this to correlate with engagement and LTME, with a higher level of liking or attraction relating to higher levels of engagement, but again, we saw no relationship. I think this is due to a part of the creative process that we can't define or measure so easily – the narrative power of an ad to tell a compelling story in a matter of seconds. All great stories have elements of conflict or challenge and, without a degree of ‘negative’ emotion, it would be impossible for the story to create enough of a sense of intrigue or involvement.

Of course, it is all well and good having high peaks of LTME, but it is not much use if the brand is not present when those peaks take place, and our analysis from this study demonstrated quite clearly one of the challenges in making this happen. We know that the brain ‘chunks’ information into manageable pieces, and

when it feels a ‘chunk’ of the storyline has been told, it will go into shutdown for a second or so while it processes the information it has received. This is known as ‘conceptual closure’ and often occurs at the point in the advertisement when the brand or pack shot comes into view, just after the resolution or the ‘punchline’. This is often the point in the ad when the brain is least receptive to new information. We were able to advise a number of our participating advertisers on how to make simple editing changes to overcome this problem.

We were also able to see some clear examples of what makes a TV commercial work creatively. Things like the power of music to drive emotions, engagement and attention was seen a number of times, and those ads that contained music performed significantly better on those parts of the brain than those that didn't. We were able to measure the ability of our mirror neurons to respond well to smiling faces and positive emotions expressed within the ads we tested; there were some clear examples of emotion and engagement following the emotions expressed by the characters in the ads we analysed. And we were able to use the fMRI analyses to see the importance of TV ads in creatively engaging the parts of the brain responsible for purchase decision-making or empathy, both of which have a huge influence on how our brains respond to a piece of advertising.

CREATIVITY IS KEY

All of this work demonstrated the importance of creativity in TV advertising. The central idea, and the way it is structured to tell a story, can have a huge impact on how well an ad works. We provided irrefutable evidence of that effect in a study we commissioned alongside our neuroscience work. We analysed the IPA Databank of entries to the annual Advertising Effectiveness Awards across the past eight years and compared the performance of those that had won major creative awards against those that hadn't. Although the creatively-awarded campaigns generally spent significantly less on TV airtime, they outperformed the non-creatively awarded campaigns on virtually every measure. More importantly, they were able to drive market share far more efficiently – in fact, they drove market share eleven times more efficiently than non-creatively awarded campaigns.

Although the power of good creative planning and execution has always been known to affect how well a TV campaign works, the power of media placement has always been more difficult to evaluate. Our neuroscience work demonstrated that where the advertising appears can also have a profound effect on the campaign's success.

We specifically wanted to investigate the differences between television viewing and online activity, as our previous research had suggested they played a strong complementary role. We looked at brain activity when people watched a TV programme – complete with commercial breaks featuring our participating brands – compared to a range of online activities, such as search, web browsing and on-demand television.

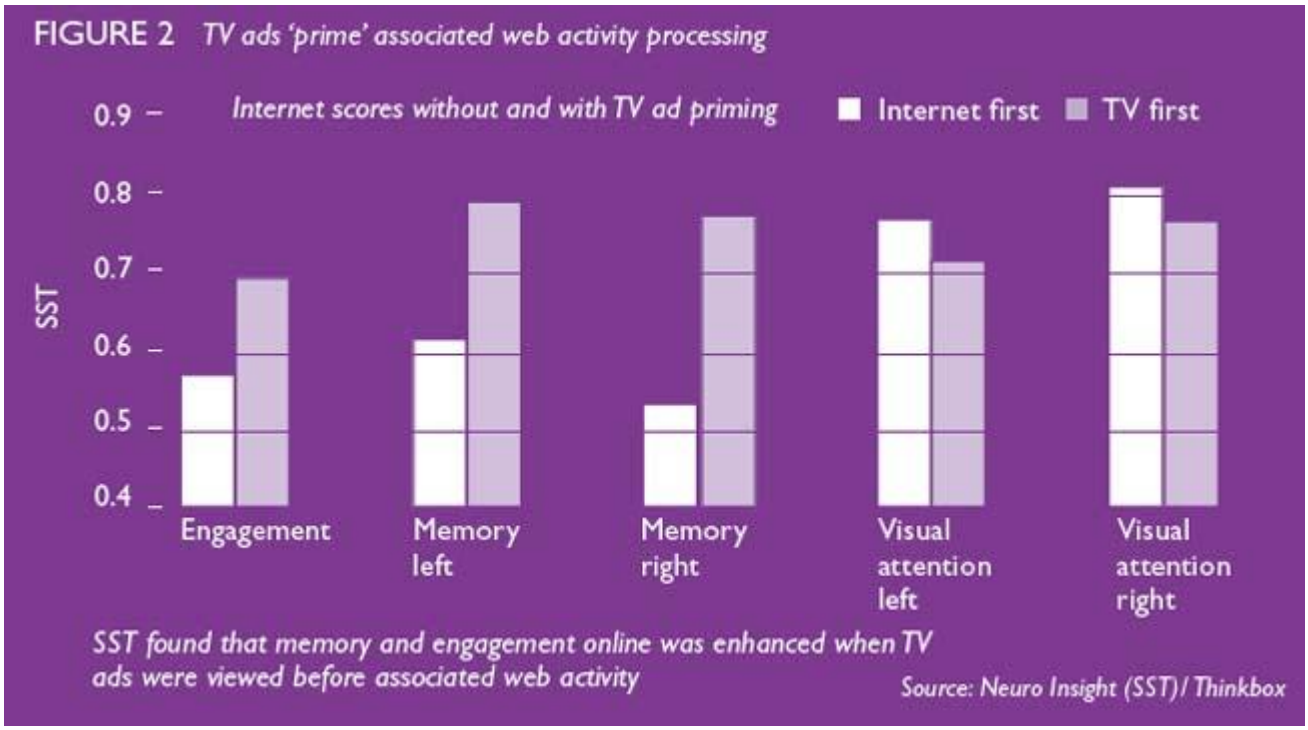
Across all of the commercials and online ad formats that we tested, TV viewing generated much higher levels of emotional intensity, engagement (almost 30% higher), detailed long-term memory (almost 30% higher) and global long-term memory (more than 50% higher). As mentioned earlier, these are the main predictors of future brand purchase.

Online did generate more brain activity for both left-brain and right-brain visual attention (20% to 30% higher than for TV). This is not surprising, considering that online activity tends to be more task-led, and online activity requires active decision-making, which, in turn, requires attention. This means the higher engagement and memory encoding of TV, mixed with the higher attention levels online, produce all the elements needed for both brand building and response generation. This data helps to explain why TV and online work so well together in generating response, purchase and brand activation (Figure 1).

The art of good media planning is not just about placement, but also about timing. Many of our previous studies had identified a priming effect from TV to online. If a commercial had already been seen on TV, the online presence of that brand would stand out far more. When we conducted our study with the IAB in 2007, awareness of online display more than doubled if the respondents had seen the TV work first. We wanted to investigate whether this phenomenon was related to brain activity, as well as to test whether it was a one-way relationship, or whether online could prime TV as well.

We designed this study to investigate the priming effect in depth. Half of our SST sample saw the TV programme and ads first, followed by the online activities; the other half did it the other way round. When we

compared brain activity levels across both activities, it became clear that TV primes online by a significant amount (Figure 2).



Across all the commercials we tested, on average, levels of engagement and LTME for online were much greater if respondents had seen the TV commercials for the featured brands first. It was just over 20% higher for engagement (and a similar level for emotional intensity) and an average 30%-40% higher for LTME. We were also able to map out the different priming effect on different forms of online activity. As expected, the effect was greatest with pre-rolls, although we also observed the effect across web browsing and banner advertising. This absolutely supports our earlier work in this area and shows the added boost TV advertising provides for online activity. The effect was not, however, seen in reverse. If respondents had seen the online activity (search, video ads or website) first, they were not more responsive to the TV advertising.

We were also able to identify some other media effects from the neuroscience. The fMRI analysis showed the importance of congruence – TV commercials that were congruent with the surrounding programming performed significantly better on scores relating to emotional saliency and memory encoding. We were able to demonstrate that ads perform better on average in programmes that are more engaging. We were also able to demonstrate that ads that appear in the early part of the break tended to perform much better than those that appeared later. These are all areas in which we would like to conduct more work, but at this stage, we feel confident in saying that the neuroscience uncovered media effects well above what more traditional research methods have ever been able to demonstrate.

CONCLUSIONS

Neuroscience as a media research tool is still finding its feet, and there is a lot of work to do to 'calibrate' it with actual behaviour. However, much of TV's impact is on the emotional, subconscious and implicit mind,

and the results of this study (as with many others) suggest there is a great deal more going on when people are exposed to TV advertising than they are able to report or articulate for themselves.

We also found with this study that our participating advertisers learned far more about how their ads are working than they could normally get from traditional questionnaire research. It opened up discussions and insights into how the creative worked and where it could be improved that are beyond the scope of most creative pre-testing research.

Finally, it taught us that TV advertising works, often at a very deep level. It is not just about messages and awareness, but about creating emotional associations, telling stories and influencing the way we feel about brands. That is why television consistently comes out top in major effectiveness studies; it's all in the mind.

ABOUT THE AUTHOR

David Brennan is founder of Media Native, having previously been Research and Strategy Director, Thinkbox. He has managed projects including the Thinkbox TV Engagement Study, TV+ Online: Better Together, and Long-term Advertising Payback.
david.brennan@thinkbox.tv