Editor's Desk

How Does Neuroscience Work in Advertising?

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It doesn't quite yet fall into the category of an "empirical generalization," but it's absolutely certain that neuroscience will be an integral part of the future of marketing research. Not only will it open new doors to academic research, but it also will provide new sets of natural grounding for people whose everyday job is to determine how to better connect with consumers.

The dilemma, however, is form, not function. Insights about the methods of the practice have been the focus of intense discussion and study that have resulted in two landmark "Neuro" reports by the Advertising Research Foundation (ARF)—publisher of this journal. Horst Stipp, an ARF evp - research and innovation, who authored those two reports, makes the point clear in his Speaker's Box contribution, "The Evolution of Neuromarketing Research" (please see page 120).

But, as Duane Varan and Steven Bellman (Murdoch University/Audience Labs), Annie Lang (Indiana University/The Media School), Patrick Barwise (London Business School), and René Weber (University of California, Santa Barbara) argue in their Viewpoint offering, "How Reliable Are Neuromarketers' Measures of Advertising Effectiveness? Data from Ongoing Research Holds No Common Truth among Vendors" (please see page 176), transparency is needed. "Each of new neuromarketing methods that potentially can predict advertising effectiveness face a daunting process," the authors write. "Vendors in this evolving industry offer a confusing range of often proprietary differences in methodology."

And, in case anyone has any uncertainty about their findings, the authors' language gets more specific—and stronger: "There is no common truth, no single scientific reality exposed as a result of these new methods. Waves of interest in 'pure' measures of advertising response have come and gone in the past, many times for the same reason: Though grand claims were made, they could not be replicated by other researchers.

"To prevent this happening with this new wave of neuro measures, vendors will have to show that they have sufficient confidence in their measures that they are willing to let others test them independently. Neuro vendors should compete like opinion-poll vendors: on the quality of their data, not the uniqueness of their measures."

Data quality, in fact, grounds "A Psychophysiological Approach for Measuring Response to Messaging: How Consumers Emotionally Process Green Advertising" (please see page 192), a paper that reflects the work of Myriam Martínez-Fiestas (ESAN, Graduate School of Business, Peru) and three colleagues from Spain's University of Granada (María Isabel Viedma del Jesus, Juan Sánchez-Fernández, and Francisco J. Montoro-Rios.

Psychophysiology, in short, is the study of the relationship between the mind and the body. In this instance, the authors investigated whether a message could activate the consumer's defensive motivational system (resulting in inaction) or the appetitive motivational system (inspiring positive physical action). The findings, the research proposed, would offer evidence as to what type of message is better at provoking the kind of emotion that would increase the potential of such campaigns to elicit positive changes in behavior.

By focusing on the wide swath of environmental advertising, the authors identified a line of research designed to deliver more effective advertising campaigns by offering evidence related to what type of stimulation is the most effective in provoking emotion that inspires changes in real behavior. And, in a marketing ecosystem where non-neurological return on investment has become a critical part of every piece of work, the study also offers means that allow improved measurement of results of these campaigns.

Visual-imagery theory is the starting point for Angeline G. Close (University of Texas at Austin), Russell Lacey (Xavier University) and T. Bettina Cornwell (University of Oregon) in "Visual Processing and Need for Cognition Can Enhance Event-Sponsorship Outcomes—How Sporting Event Sponsorships Benefit from the Way Attendees Process Them" (please see page 206). And their research uses the tools of neuroscience to dig down into the principal dilemma posed by any sort of sponsorship program: Are targeted consumers making the connection between the event and the sponsor?

The authors' answer: "Individual differences in visual processing and need for cognition played significant roles in how an attendee perceived the sponsor's products." Furthermore, they offer, overall results of their study "showed how attendees who rated the event as 'higher quality' had a higher attitude toward the sponsor's products that were showcased at the tournament. That relationship was moderated by visual-processing style; that is, attendees who were visual processors showed an especially strong link from event quality to enhanced attitude."

"The Power of Direct Context as Revealed by Eye Tracking - A Model Tracks Relative Attention to Competing Editorial and Promotional Content" (please see page 216) explodes the toolkits of generations of magazine publishers who have insisted that the top half of a right hand page is the most desirable advertising position. Not so, according to Edith G. Smit and Sophie C. Boerman (University of Amsterdam) and Lex van Meurs (GfK/Netherlands). "Although the top of the page traditionally has been regarded as the most effective placement for an advertisement," they state unequivocally, "the current study showed the opposite: Eye fixations were drawn to the bottom of the page."

What's so appealing about the Direct Context work (a study of the entire content an observer can view at the same time he or she views an advertisement) is that it demonstrates how fully new neurologically empowered tools can offer a fresh look at the way we understand and use legacy media:

"Context characteristics appeared to influence the visual attention paid to magazine advertisements, especially visual attention paid to the three main elements of advertisements: Color, page, and the amount of text in the direct context influenced the magazine reader and directed less visual attention to advertisements."

The effect of color on the printed page, the authors found, was particularly powerful: "The results showed that the eye fixates on advertisements with multiple colors but also on direct context represented in multiple colors. This color effect was observed for both types of visual attention."

Using eye tracking to drill even deeper, the study found profound differences in reader reaction to red and blue: "Context in red directs less attention to the main elements of the advertisement and more to the context. Blue works differently: It also directs less attention to the advertisement but only during the first five seconds of viewing."

In the case of the *Journal of Advertising Research*, such color considerations do not play a significant role in our design and presentation. We're strictly black and white. But it's our fondest hope that we'll be read all over.

As always, we welcome your feedback.