



# Engagement, Emotions, and the Power of Radio

## A New Study of How Radio Affects Consumer Emotions Part of the Ongoing Series, "Radio and the Consumer's Mind: How Radio Works," by the Radio Ad Lab

Conducted by Gallup & Robinson (Part One), Published June 2007

---

### Study Highlights

This new Radio Ad Lab study, conducted by Gallup & Robinson, was designed to assess how well radio ads can generate emotional responses and engage with consumers, compared to television ads. And it did so using advanced physiological methods that measure emotional responses in ways that don't require verbal responses.

After evaluating 16 different real ad campaigns within actual programming, one conclusion is clear: **Radio ads have emotional impact on consumers that is equal to that of television ads.**

The 16 radio campaigns in this study generated emotional levels just as high as their TV counterparts on average. And at the individual campaign level, there were four radio campaigns showing significantly higher emotional impact than their TV counterparts, compared to only one higher-level TV spot.

### Introduction

A great deal of modern advertising research now points to a fairly simple conclusion:

"An emotional reaction needs to be established before further cognitive processing of an advertising stimulus takes place. Emotions can be considered as the gatekeeper for further advertisement processing."<sup>1</sup>

But not everything that consumers are feeling about an advertisement can be expressed in words, or even with pictures. The Radio Ad Lab believes that a full understanding

of emotional responses to advertising needs to go beyond what a consumer knows how to explain or illustrate.

For this study, then, the Radio Ad Lab chose to investigate emotional reactions to radio (and television) ads, and we chose a measurement method that works at a deeper, pre-cognitive level.

<sup>1</sup>Poels, Karolien and Siegfried Dewitte, "How to capture the heart? Reviewing 20 years of emotion measurement in advertising," *Journal of Advertising Research*, vol. 46, no. 1 (March 2006), pp. 18-37.

## The Method

Specifically, we used a new physiological testing system to better assess the emotional connection that advertising messaging makes with its audience. Called **CERA (Continuous Emotional Response Analysis)**, this Gallup & Robinson system uses leading-edge measures of emotional response, supplemented with traditional validated metrics of advertising effectiveness.

Emotional activation is gathered in part through the technique of **facial electromyography (EMG)**, and then more traditional cognitive responses about advertising effectiveness were collected through conventional face-to-face interviews.

For our project, two EMG measures were taken:

- The *negative* corrugator measure of the brow frown muscle, and
- The *positive* zygomatic measure of the smile muscle.

Positive *and* negative emotional activations are measured separately because they're indicative of separate evaluative processes, which are independent motivators of consumer behavior. In addition, for this study we also included (for an additional baseline) a more traditional excitement (or "arousal") measure based on skin conductance.

Combined, EMG and skin conductance provide two separate indicators of emotion. EMG provides a measure of the positive or negative *direction* of the emotion, while the skin conductance data provides an indicator of the *strength* of the emotion.

For newcomers to this measurement technique, it may sound a bit exotic. But this combined measurement technique is well supported in academia and is being used as part of the ARF/AAAA joint study of Emotions in Advertising, where it has demonstrated strong viability and received substantial encouragement.

There were several key principles specified by the Radio Ad Lab Research Committee as it worked with Gallup & Robinson on this project. More details on each of these are provided in the full Radio Ad Lab White Paper:

- The matching radio and television ads used for testing were pre-tested in advance with standard methods so that all ads (both radio and television) could be said to be average or better by normal copytesting standards. We wanted some assurance that when we compared radio and television ads to each other, they were reasonably comparable by conventional methods of copytesting.
- Both the radio and television ads should be tested "in context"—i.e., respondents were exposed to both programming and advertising. Radio Ad Lab research has shown that a listener's bond with radio programming is a significant component of attitudes toward radio ads.
- That meant providing respondents with a reasonable choice of programming, so that there would be a reasonable "fit" between respondent and program content.

The sample consisted of adults 18-54 who used television or radio at least two hours per week. The sample size was 80 each for the radio and television groups, and the tests occurred in Baltimore and Chicago. The lab setting was designed to simulate a living room with comfortable furniture.

For each medium (TV and radio), two pods of four commercials each were embedded in the programming. A total of 16 pairs of radio and TV commercials were tested, with each participant being exposed to eight of those commercials for one medium.

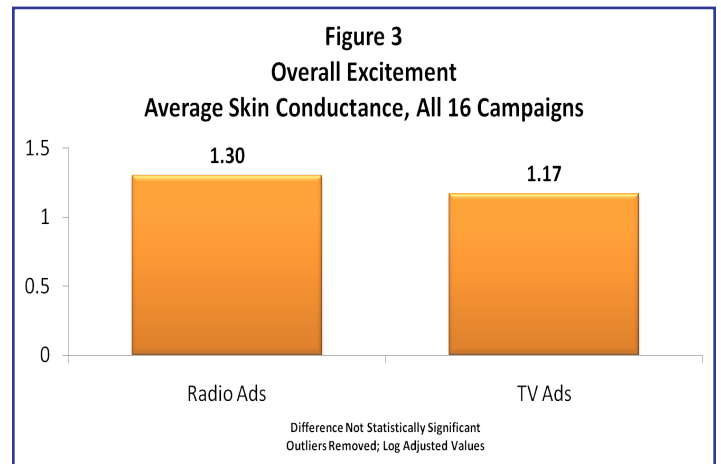
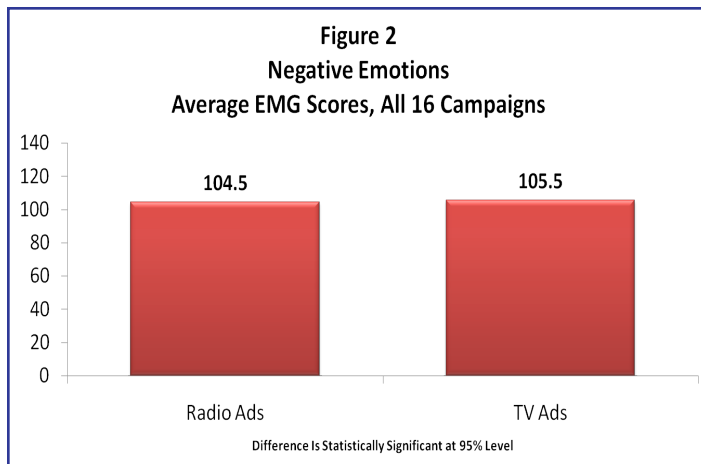
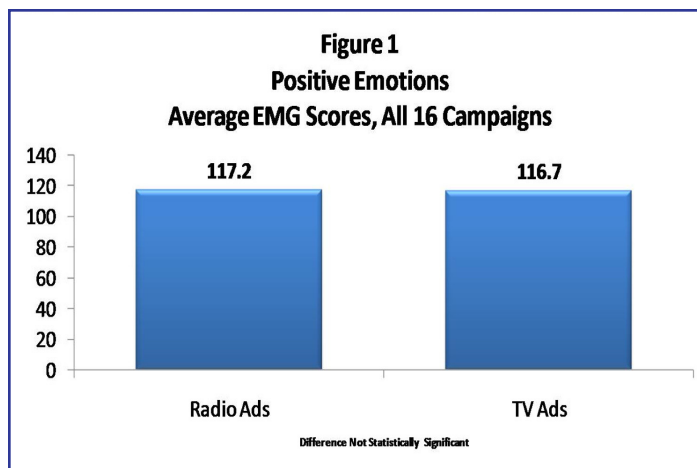
## Results: Radio Ad Emotions Equal to TV

One of our goals for the study was a simple one—to see whether radio ads delivered emotional impact that was similar to, less than, or greater than, their television counterparts. To answer that question, we have three key measures:

- Average Positive Emotion (Positive EMG Scores);
- Average Negative Emotion (Negative EMG Scores);
- Average Excitement Score (Skin Conductance).

For radio and television overall, the Radio Ad Lab's past research suggested that radio has a strong *potential* to connect with consumers at an emotional level. But we weren't quite sure what to expect from *these* 16 campaigns with this new measurement technique. The results were encouraging.

**These radio ads demonstrated positive emotional impact equal to their television counterparts, with an equivalent overall potency (excitement level). See Figures 1 through 3 below.**



As you can see, **the 16 radio ads in this study delivered an emotional impact that was equivalent, overall, to their television counterparts.**

- The positive EMG scores were just as high;
- Radio was actually somewhat lower on the negative emotional score on average;
- And the total excitement (arousal) levels were essentially the same.<sup>2</sup>

## Campaign Variations

Though we observed equality of emotional impact overall, it's no surprise that there were some variations across campaigns. Among the 16 different pairs of radio and TV ads, we did see several in which radio delivered stronger emotional impact than television. And we saw at least one in which the reverse was true.

This variation is clear when we examine the data for Positive Emotions—the positive EMG scores for each of the individual ads. As you'll see in Figure 4 at the bottom of the page, there were several campaigns in which there was a meaningful difference between the radio score and the television score.

In fact, **four of the radio campaigns showed EMG scores that were significantly higher than the TV campaigns, while only one television ad was significantly higher than its radio counterpart.**

## Conclusions

This study was designed to assess how well radio ads can generate emotional responses and engage with consumers, compared to television ads. And it did so using advanced methods that measure emotional responses in ways that don't require verbal responses.

After evaluating 16 different real ad campaigns within actual programming, one conclusion now seems clear: **Radio ads have emotional impact on consumers that is equal to that of television ads.**

The 16 radio campaigns in this study generated emotional levels just as high as their TV counterparts on average. And at the individual campaign level, there were four radio campaigns showing significantly higher emotional impact than their TV counterparts, compared to only one higher-level TV spot.

We think there's more to be learned. We want to further explore how the program environment interacts with the emotional impact of the ads within, and this study's database will allow us to do that in future analyses. And we'd like to better understand the nuances of how radio's emotional impact is *different* from TV's, even when the overall levels are similar. We outlined some specific ideas for additional analysis in the current White Paper.

But in the meantime, we believe these new findings are consistent with the Radio Ad Lab's past research about radio. This medium connects with its listeners in unique ways, and it provides an unusually receptive advertising environment. In particular, radio listeners do have an emotional bond with their programming, and it's now clearer than ever that radio advertisers can benefit from that connection.

<sup>2</sup>In fact, the overall excitement levels measured by skin conductance appear to be higher for radio, but the numbers tell us this still isn't quite a statistically significant difference.

## **Radio Ad Lab Board of Directors and Research Committee**

The Radio Ad Lab Board of Directors is comprised of radio industry executives from the funding organizations and from other key broadcasting constituencies. For more detailed information, and to view a list of the Board members, please visit our website.

The Radio Ad Lab Research Committee is responsible for determining the direction of all research projects funded by the Radio Ad Lab and includes members from the advertising and client communities in addition to the Radio industry. Research Committee members are:

Radio Ad Lab Research Committee: Chair - Jerry Lee (WBEB-FM)

Agencies: Paul Hunt (Burrell Communications); Alyce Abbe (Carat); Shari Anne Brill (Carat Insight); Janice Finkel-Greene (Initiative Media); Matthew Warnecke (Mediacom); Kim Vasey (mediaedge:cia); David Shiffman (Mediavest Worldwide); Jeff Voigt (Mindshare Team Detroit); Agnes Lukasewych (MPG); Kaki Hinton (MPG); Natalie Swed Stone (OMD); Judy Bahary (Starcom Mediavest); Helen Katz (Starcom Mediavest Group); Michele Buslik (TargetCast); Irene Katsnelson (Universal McCann); Chrystie Kelly (Universal McCann); Bruce Williams (Universal McCann); J.P. James (GlobalHue); Lucilla Iturralde-Rachev (The Vidal Partnership); Matt Feinberg (Zenith Media)

Advertisers: Jeni Cramer (At-Large); Debbie Vasquez (Coca-Cola North America); Betsy Lazar (General Motors); Glenn M. Roginski (GlaxoSmithKline); Mark Dorrill (The Home Depot); Paul Silverman (Novartis Pharmaceutical); Rex Conklin (Wal-Mart); Ramon Portilla (Wal-Mart)

Broadcasters: Gary Heller (CBS Radio); Jess Hanson (Clear Channel Radio); Kathleen Bohan (Univision Radio); Lucy Hughes (CBS Radio); Charlotte Lawyer (Consultant)

RAB: Andy Rainey

Networks: Barry Feldman (American Urban Radio Networks); Len Klatt (Premiere Radio Networks); Pamela Lynott (Jones MediaAmerica); Paul Bronstein (Westwood One Radio Networks)

Rep Groups/Other Sales Organizations: Doug Catalanello (Interep); Gerry Boehme (Katz Media Group); John Park (Google)

Arbitron: Ed Cohen; Carol Hanley

ARE: Bill Cook

Consultant: James Peacock (Peacock Research, Inc.)

## **Radio Ad Lab Funding Partners**

Arbitron  
American Urban Radio Networks  
Beasley Broadcast Group  
Bonneville International Corporation  
Buckley Broadcasting Corporation  
Carter Broadcasting  
CBS Radio  
Citadel Broadcasting Corporation  
Clear Channel Communications  
Commonwealth Broadcasting  
Cox Broadcasting, Inc.  
Cromwell Broadcasting  
Emmis Communications  
Entercom Communications  
Federated  
Google  
Greater Media, Inc.  
Hall Communications  
Hubbard Broadcasting Corporation  
Inner City Broadcasting Company  
Interep  
Jones MediaAmerica  
Katz Radio Group  
Morris Network, Inc.  
Premiere Radio Networks  
Regent Communications, Inc.  
Renda Broadcasting  
Saga Communications  
Univision Communications, Inc.  
WBEB-FM  
Westwood One Radio Networks

## **About The Radio Ad Lab**

The Radio Ad Lab is an independent organization established in 2001, funded by Radio industry companies to further the understanding of how Radio advertising works, to measure Radio's effectiveness, and to increase advertiser and agency confidence in Radio.

All Radio Ad Lab research, including White Papers, studies, and summaries, is available in its entirety and for free download at [www.RadioAdLab.org](http://www.RadioAdLab.org). We encourage you to sign up for our email list at the website to make sure that you're notified of new Radio Ad Lab research.

