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Radio: The Emotional Multiplier

How radio boosts consumer happiness and
enhances receptiveness to brand advertising



Key findings from the "Media and the mood of the nation" study

Introduction

Britain Loves Radio!

At least that's what all the audience stats suggest, with RAJAR showing that radio is listened to by more people than ever, and IPA Touchpoints highlighting that it is the second biggest medium in people's lives after TV.

Yet despite all this listener love, radio seems resolutely typecast as a tactical advertising medium; restricted to delivering the rational messages within the ad campaign, tasked with prompting a response or driving the sale.

Now don't get us wrong - radio is incredibly effective at mobilising its listeners to generate business for advertisers, as proven in previous RAB research studies and the myriad results-led case studies on the RAB website.

But it seems that many advertisers remain indifferent to radio's brand building potential, unconvinced about the ability of an image-less medium to influence brand perceptions.

And that's why we commissioned this study - to understand the emotional influence of radio relative to other media, and explore how this can benefit advertisers seeking to build brands.

The findings deliver a potent reminder of the influential emotional role that radio plays in people's lives and suggest that, beyond its current tactical function, the medium should be given far greater consideration for brand communication plans.

If you'd like to find out more about how Britain's love of radio can help build your brand, please give the RAB team a call - we'd love to hear from you.



Simon Redican
Managing Director



Mark Barber
Planning Director

CONTENTS

- Introduction
- 01** Summary of key findings
- 02** Executive summary
- 04** Background
 - Context
 - How the study was done
- 08** Radio's emotional multiplier effect: detailed findings
 - Findings from the smartphone users survey
 - Findings from the EEG neuro-test
- 20** Implications for advertisers
- 21** References





Summary of Key Findings

“Media and the mood of the nation” is a new research study (conducted by Sparkler Research in Spring 2011) that set out to explore how media improve people’s mood. This subject was of particular interest because academic and advertising research shows that ad messages work better in mood-enhancing media.

The five key findings from the study are:

- 1.** Consuming any medium (TV, Online, Radio) has a significant uplift effect on people’s mood
- 2.** Radio generates the highest Happiness and Energy levels of the three media measured, and on more occasions
 - a. On average, when consuming radio, Happiness & Energy scores increase by 100% and 300% compared to when no media is being consumed
 - b. Radio is the highest scoring medium for Happiness & Energy in 70% of dayparts across the week
 - c. Radio is also part of the most potent mood-enhancing media combination, when consumed concurrently with online
- 3.** This mood-boosting effect of radio editorial extends into the ad break generating 30% higher levels of positive engagement with radio advertising
- 4.** So for advertisers, radio represents a unique and powerful opportunity to reach consumers in a positive frame of mind, when they will be more receptive to advertising messages

From this we conclude, that for advertisers:

- 5.** Radio is a powerful Emotional Multiplier, boosting consumer happiness and enhancing receptiveness to advertising





Executive Summary

The study in a nutshell:

People use media to make themselves feel happier, and happier people are more inclined to respond to advertising in an instinctive, emotional way. This study shows that radio excels as a “feel-good” medium, and importantly that this effect extends into enhanced consumer engagement with the advertising.

Why and how the study was done

Three separate developments, related to “the mood of the nation” have contributed to this study:

- recent advertising effectiveness thinking suggests that ads which have an emotional appeal are more effective than those which just use rational arguments
- academic research suggests that we process such messages heuristically, i.e. more instinctively, less critically and in a way that is strongly influenced by context - and that we are more inclined to do this if we are in a happier mood
- media industry research continually demonstrates that people use media to affect their mood, rather than purely for information or interest.

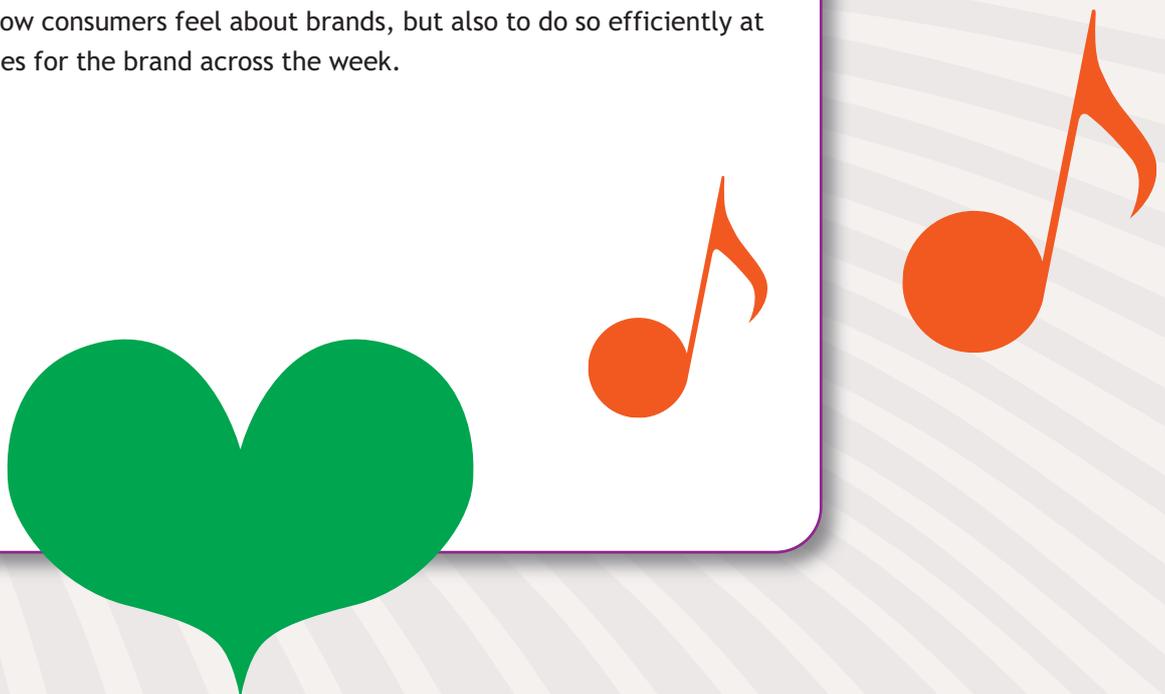
So this study asked: to what extent do media exert a positive influence on the way people feel, how does this happen and how does this affect engagement with advertising - especially on radio?

The study used the findings of the “**Media and the mood of the nation**” research project conducted by Sparkler Research in Spring 2011. Following an in-depth qualitative pilot, 1000 consumers took part in a smartphone-based survey about their mood and media consumption. This was supplemented by neuro-science based lab investigation into the way the brain responds to audio content.





The results

- 1. Media consumption has a significant positive effect on people's mood**
When the respondents reported their media usage and their perceived levels of happiness and energy across the week, there is a clear correlation: people who were consuming media had higher scores for both energy and happiness.
 - 2. Radio has the biggest influence on people's Happiness and Energy, and on more occasions**
Radio is the highest scoring medium (compared to TV and online) for increasing both energy and happiness. This is true across all days of the week and almost all times of day.
 - 3. This radio editorial effect is proven to enhance engagement with advertising**
EEG tests in the lab confirm that radio stimulates positive engagement activity in the brain. They also confirm that when ads are preceded by radio editorial, levels of positive engagement are sustained throughout the ad break.
 - 4. Using the findings to inform planning**
For advertisers, radio represents a unique and powerful opportunity not just to influence how consumers feel about brands, but also to do so efficiently at important times for the brand across the week.
- 

Part 1 Background

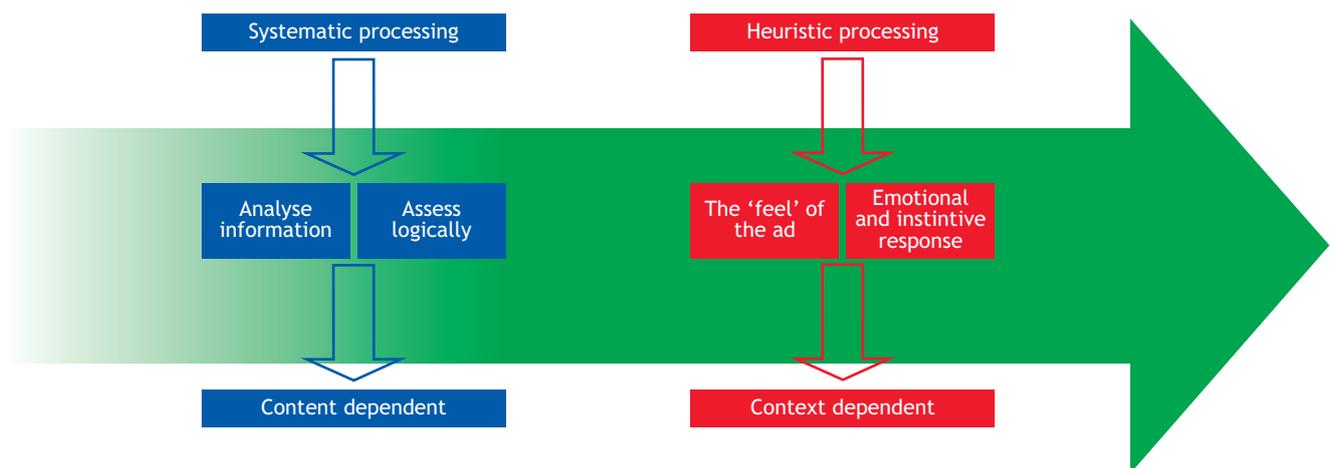
Context

This study, focusing on the way advertising in media (and radio in particular) works, is based on “**Media and the mood of the nation**”, a study conducted by Sparkler Research for the RAB in Spring 2011. The mood of the nation is very much on the agenda at this time, with the Coalition Government using it as an indicator of economic wellbeing, and the launch of Lord Layard’s much-discussed Action for Happiness initiative, a movement committed to building a happier society.

Recent thinking about advertising effectiveness suggests that messages with an emotional appeal have a stronger effect, and a bigger return on investment, than those which rely purely on rational argument (for more details see the IPA’s “Marketing in the era of effectiveness” study and Brainjuicer’s “Using an emotional model to improve measurement of advertising effectiveness” paper - both available online).

As this chart explains, ads which work at the emotional level are processed heuristically rather than systematically, and this kind of processing is strongly influenced by context - where we see/hear the message, the quality of the message and, centrally for this study, the mood we are in when we receive the message.

Shift in Adland thinking from Systematic to Heuristic advertising processing model...



Uleman, *Unintended Thought* (1989) p.212

Murray, Sujan, Hirt & Sujan, 1990, The influence of mood on categorization: a cognitive flexibility, *Journal of personality and social Psychology*

Importantly, studies suggest that the happier we are - the better the mood we are in - the more likely we are to process messages in this heuristic way.

At the same time it's well known in the media industries that, although people often claim to use media purely for information or interest, much of the time they are using it to influence their mood or state of mind - as a relaxant or a stimulant.

So these developments in advertising raise some important questions about the way different media affect people's processing of ad messages and particularly, from a radio industry point of view, the way this might relate to radio advertising.

Questions we set out to answer

1. To what extent do media exert a positive influence on the way people feel?

2. How and when does this happen, and how does it vary by medium?

3. How does this affect engagement with advertising, particularly for radio?



How the study was conducted

The core of the study was a smartphone-based survey of 1000 respondents, who were asked about their mood at various times, and this was cross-tabulated against their media consumption (or non-consumption) at those times.

a) Media selection - TV, Radio & Online

Media consumption is highly complex in today's world of ambient media, sponsorships etc, so to simplify the issue we focused on consumption of three media only - TV, radio and online. Together, according to IPA Touchpoints, these account for 95% of total media consumption time across the week.

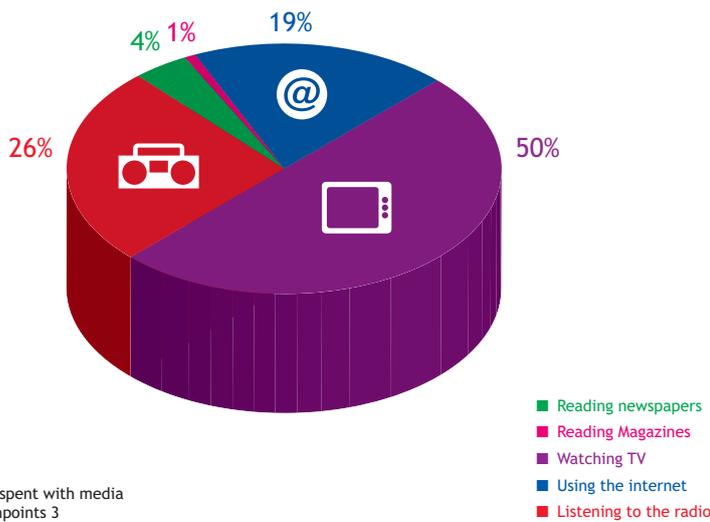
b) Respondent selection - "The Advanced Mainstream"

The sample broadly reflected the UK population in terms of age and commercial radio listening, but to ensure that the findings provide not just a snapshot of the present but also act as a barometer for future technology trends and related behaviours, all were classified as in the "advanced mainstream" group in terms of technology. To fall into this group, respondents had to conform to two additional criteria:

- they had to be smartphone users
- they had to use the internet for entertainment (i.e. not just for search).

Our media focus: TV, Radio and Online

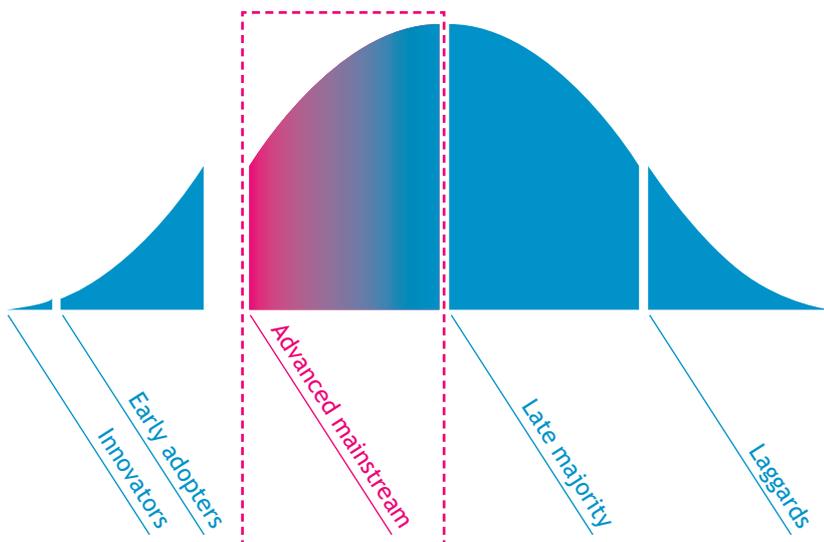
TV, radio and internet comprise 95% of all media consumption...



Share of all time spent with media
Source: IPA Touchpoints 3

Our sample: The Advanced Mainstream

A barometer for future technology trends and behaviours



c) Measuring mood states - Happiness and Energy

The research was based on Russell's circumplex model of affect to measure mood. The key scales on this are Valence (i.e. happiness) on a positive to negative scale, and Arousal (i.e. energy) also on a positive to negative scale. High Arousal and Valence create the most positive mood and therefore make people more likely to respond positively to advertising.

d) Three stages of study

(i) Pilot study

Depth interviews to explore the connection between media and mood and help shape how the main study should best be conducted. This included how people responded to questions about mood, the language used, a written diary exercise of media usage and mood recorded over four days, video snapshots of the experience, etc (6 respondents).

(ii) Main study

1000 smartphone users who were sent a "prompt" to respond to questions via their handset at various times of day and on different days of the week, supplying details about:

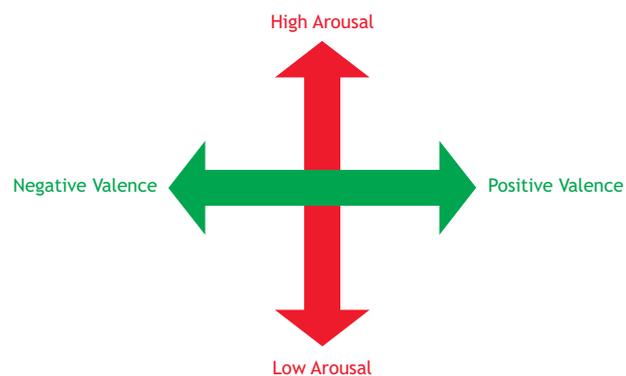
- their location (home, car, workplace, etc)
- any TV, radio or online being consumed
- aspects of their mood (on scales of -5 to +5)
- free text comments about why they felt that way.

(iii) Neuroscience study

This was an in-depth if small-scale EEG (or "brain scan") test conducted with 6 participants following the main study to explore what happens to levels of engagement when people are listening to different elements of radio output.

The research took place across early Spring 2011 and was conducted at all stages by Sparkler Research.

Our scale for measuring emotion



Using James Russell's **circumplex model of affect**, we concentrated on measuring two key scales of emotion:

1. **Valence:** i.e. HAPPINESS (+5 happy to sad -5)

2. **Arousal:** i.e. ENERGY (+5 high to low -5)



Part 2

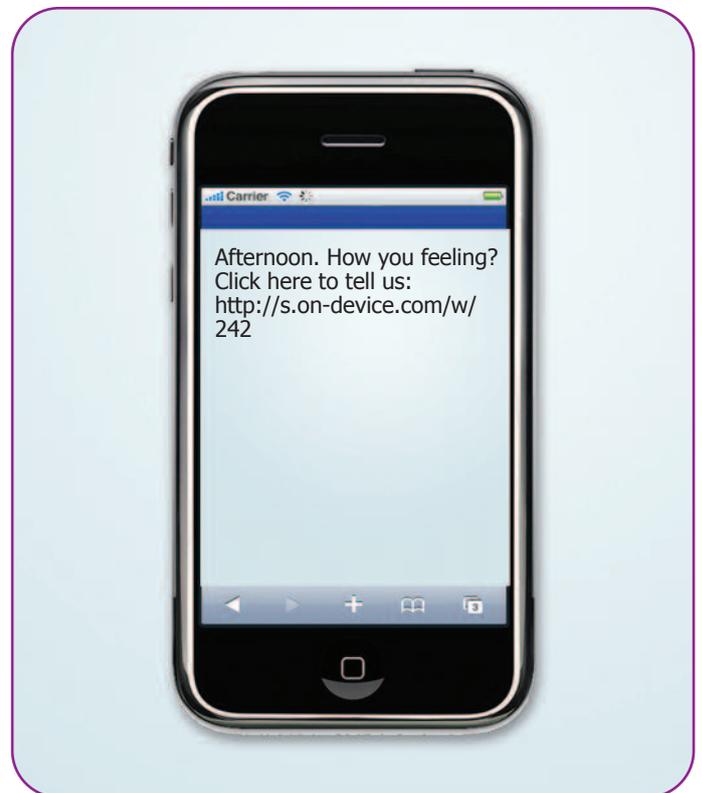
Radio's emotional multiplier effect: detailed findings

A. Findings from the smartphone survey

The 1000 smartphone users who agreed to take part in the research were sent a text “prompt” asking them to respond to our questions at various times of day and on varying days of the week. For simplicity of analysis the day was divided into four dayparts (Breakfast, Daytime, Drive-time, Evening) and the week into four segments (Monday-Thursday, Friday, Saturday, Sunday), acknowledging the days on which behaviour and mood are most likely to vary from the norm.

This simplified week structure allowed us to build stable samples for comparison for each medium across the days and dayparts - the survey targeted a minimum of 50 responses per medium per daypart for each day.

To ensure a high quality of response the survey was developed to be as simple and effortless for the participants as possible. On each occasion they were prompted, respondents were asked to give answers on four screens, as detailed in the schematic.



These questions allowed the researchers to identify how people were feeling:

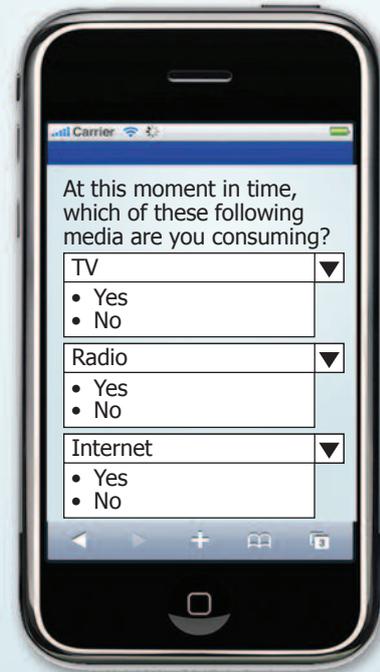
- when consuming none of the three media to provide our Base Level (“No Media”)
- when consuming any TV, radio or online, one at a time or in combination (“Any Media”)
- when consuming a specific medium (“Individual Media”)



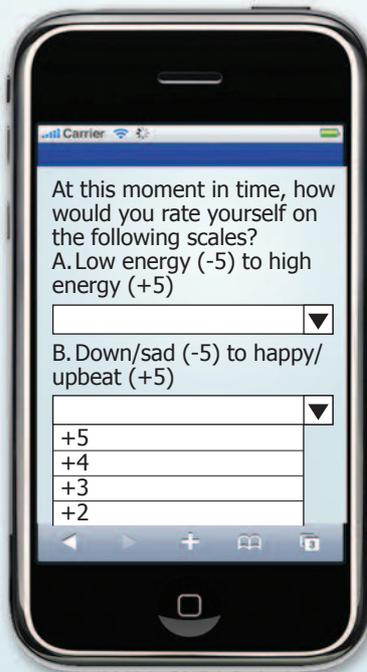
1.



2.



3.



4.



a) Base Level: 'No Media' scores

The 'No Media' reading was used as the base level for comparing subsequent scores of Happiness and Energy in the test (bear in mind that only TV, radio and online are included here - people consuming 'No Media' at the reporting time could have had access to e.g. a newspaper or magazine - however, with IPA Touchpoints data showing that all other media account for around 5% of the media day, the incidence of this will be relatively low.

On average, the respondents gave themselves a slightly positive score on both Happiness and Energy when consuming 'No Media', with men scoring somewhat higher than women. Levels also vary by age with younger people in general scoring lower for both Happiness and Energy.

Overall, our sample were a positive group

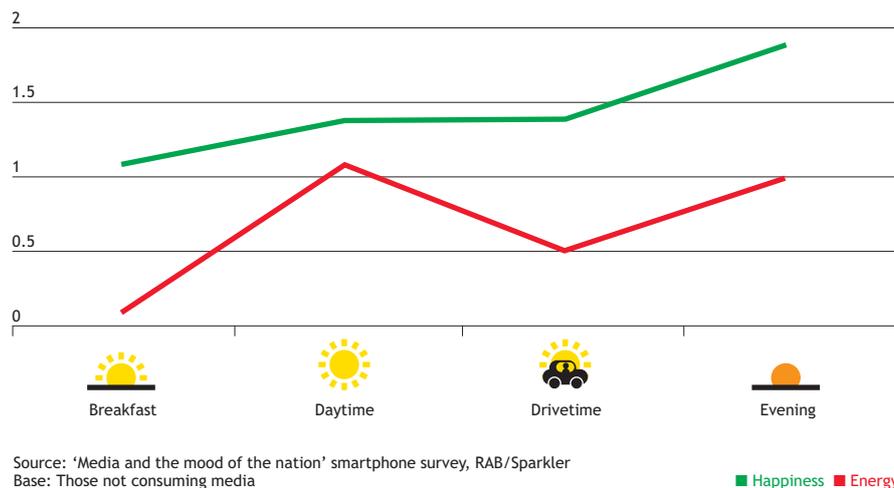


Source: 'Media and the mood of the nation' smartphone survey
Base: Those not consuming media

The 'No Media' base levels for Energy and Happiness both change across the day. Predictably Happiness increases as the day progresses, but Energy peaks during the daytime when people are most active, falling in drive-time as a sense of fatigue sets in after a busy day, only to rise again as spirits lift in the evening.

People get happier as the day progresses, energy levels peak during the working day

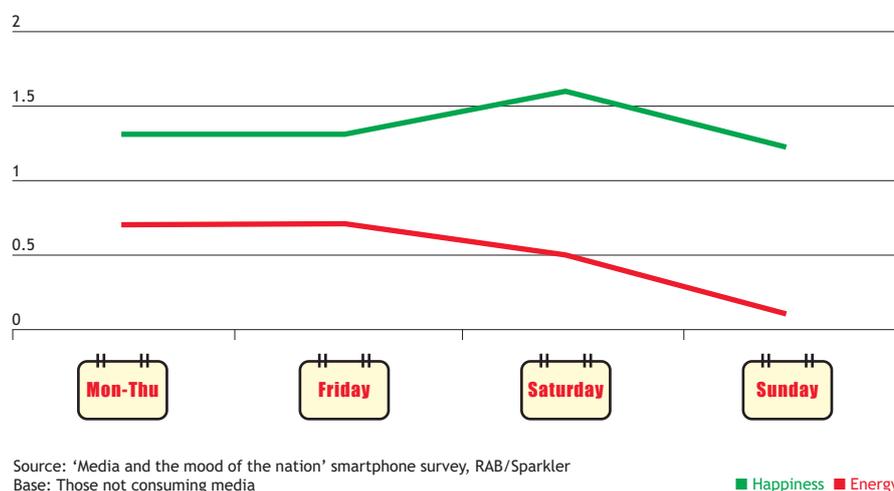
Average 'Happiness' / Energy scores when NOT consuming media, by day (based on scale of -5 to +5)



Interestingly, Energy levels are highest during the week. While Happiness levels show a peak on Saturdays, Energy shows a very clear fall across the whole weekend, as people take the opportunity to relax and recharge their batteries ready for the following week.

People are happiest on a Saturday, and most energetic during the working week

Average 'Happiness' / Energy scores when NOT consuming media, by day (based on scale of -5 to +5)

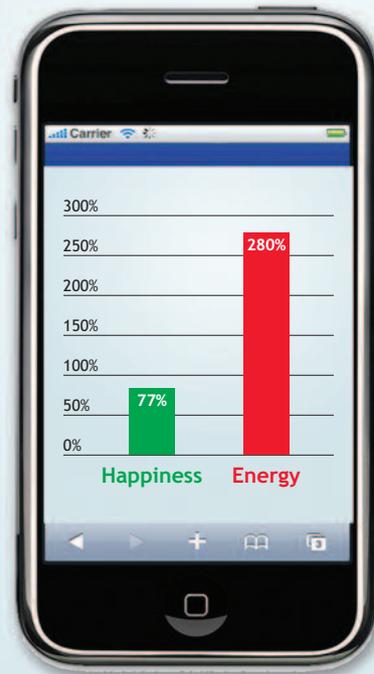


b) 'Any Media' scores

Having established a base level for the study amongst people not consuming media, we move on to explore how 'Any Media' consumption influences the mood scores of people.

There is a very clear finding at the overall level in this category. People consuming 'Any Media' show significantly higher indices for both Happiness and Energy levels than people consuming 'No Media'.

Happiness and the Energy levels increase significantly when consuming Any Media

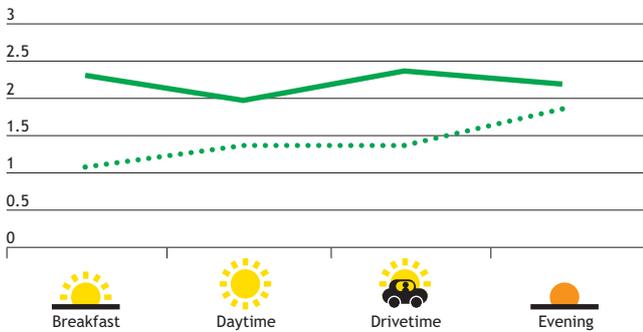


Source: 'Media and the mood of the nation' smartphone survey, RAB/Sparkler
Base: Scores of those consuming Any Media % increase vs. No Media

This finding was consistent across all times of day with the highest gains in the Breakfast and Drivetime dayparts.

Any Media boosts Happiness & Energy across the day

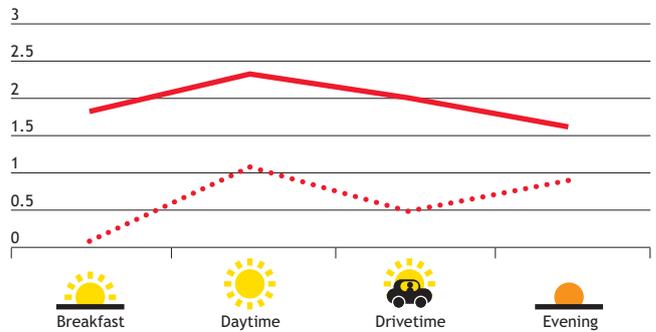
Average 'Happiness' score when consuming Any Media, by daypart (based on scale of -5 to +5)



Source: 'Media and the mood of the nation' smartphone survey
Base: Those consuming Any Media

— Any Media
..... No Media

Average 'Energy' score when consuming Any Media, by daypart (based on scale of -5 to +5)



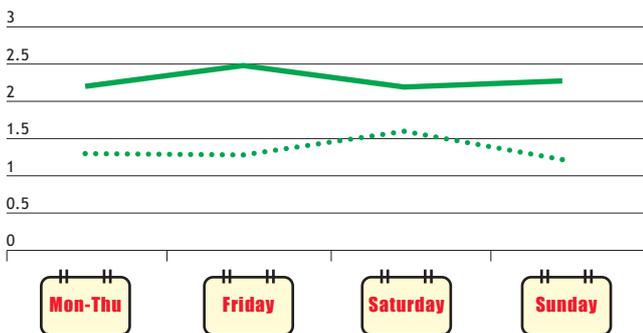
Source: 'Media and the mood of the nation' smartphone survey
Base: Those consuming Any Media

— Any Media
..... No Media

'Any Media' scores for Energy are much higher than the base level (No Media) all across the week, but show the biggest boost on Fridays and Sundays. Happiness scores show a similar pattern, again with the biggest gains on Fridays as well as Sundays.

Any Media boosts Happiness & Energy across the week

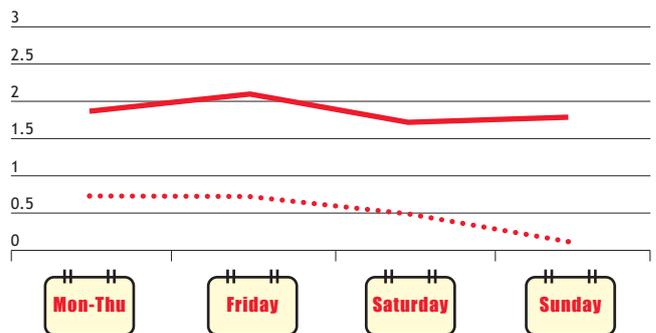
Average 'Happiness' score when consuming Any Media, by day (based on scale of -5 to +5)



Source: 'Media and the mood of the nation' smartphone survey
Base: Those consuming Any Media

— Any Media
..... No Media

Average 'Energy' score when consuming Any Media, by day (based on scale of -5 to +5)



Source: 'Media and the mood of the nation' smartphone survey
Base: Those consuming Any Media

— Any Media
..... No Media

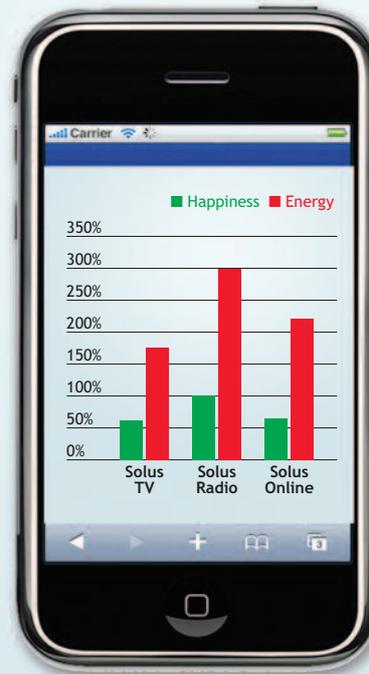
These comparisons give the important and unequivocal finding that people who are consuming any media (of TV, radio or online) feel much happier and significantly more energised than people who aren't consuming media.

c) 'Individual Media' scores

Having established the significant effect of consuming any medium on mood, we then moved on to look at the scores of people who were consuming either TV, or radio, or online in isolation.

When we look at the headline pattern, as the chart shows, people consuming radio are much Happier and more Energetic than those consuming TV or online.

Radio generates the highest increase in Happiness and Energy levels



Source: 'Media and the mood of the nation' smartphone survey
Base: Scores of those consuming Individual Media % Increase vs. No Media

When we drill down into different dayparts and days of week, sample sizes become too small to give meaningful trends at a solus media consumption level because a high proportion of respondents were consuming two or more media at the same time. However we have been able to analyse each medium based on any occasion it has been consumed - whether in isolation or with another medium.

So when looking for variances by medium over the day or across the week, we have reviewed each medium based on any occasion it has been consumed - whether in isolation or with another medium.

Unsurprisingly, the scores for people who are consuming 'Any TV', 'Any Online', or 'Any Radio' all show a similar pattern when compared to those consuming 'Any Media' (see section b).

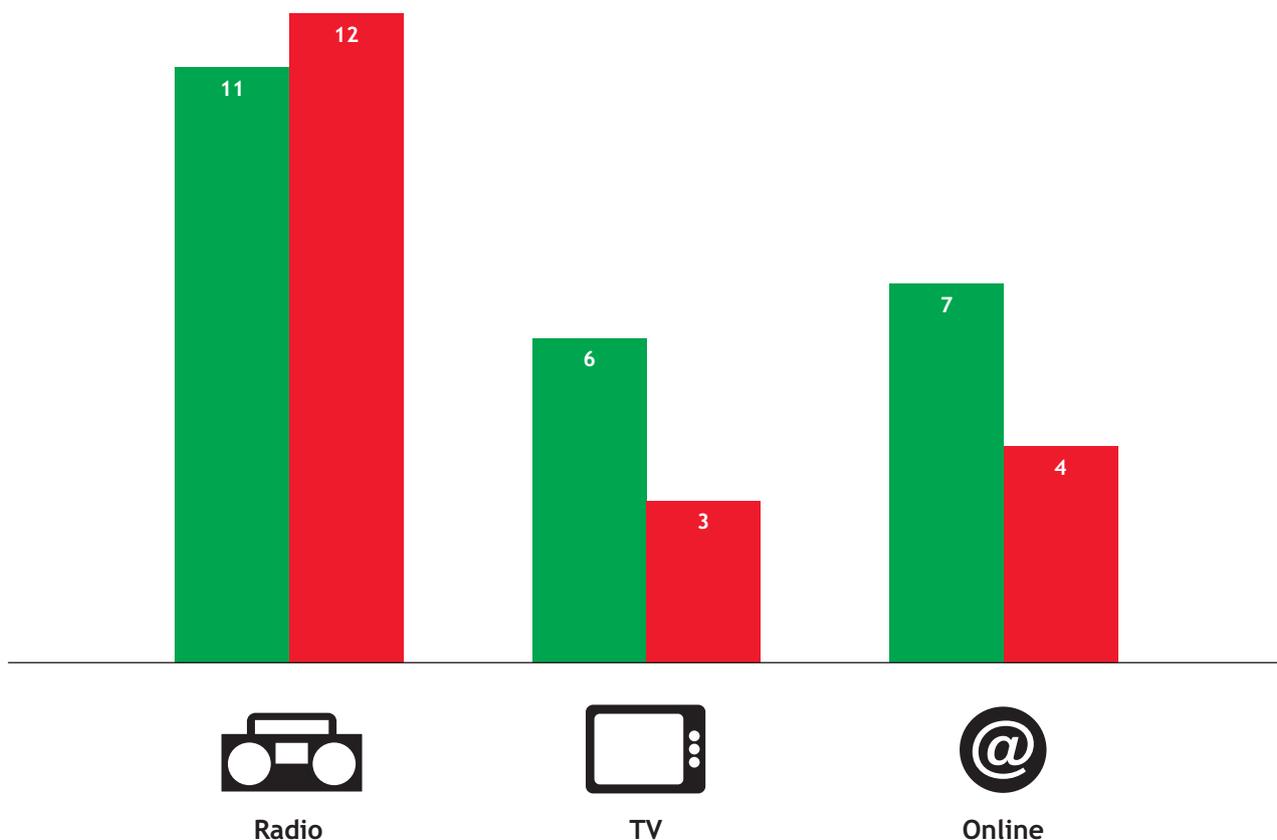
In terms of Happiness, all media show a significant increase compared to base levels on every day across the week, with the biggest increments occurring on Fridays and Sundays. In general, the Happiness scores for TV, Online, and Radio users are comparable with 'Any Media' users - although radio shows an exception in that it has a particularly strong peak for increased Happiness on Fridays (“that Friday feeling” which radio stations cultivate).

There is a very similar story for Energy levels, with all three media showing increases compared to base levels across the week and especially on Sundays.

So whilst it's true to say that the three media show more commonality than differences, suggesting that they have a broadly similar effect on people's levels of Happiness and Energy - it's clear that radio has the strongest effect of all. Detailed analysis of the top scoring media by daypart by day (see chart below) indicates that this pre-eminent position is prevalent across all days of the week and almost all dayparts.

Radio has the highest influence on Happiness and Energy in over 70% of dayparts across the week

Number of dayparts in which each medium scores highest for Happiness and Energy levels



Source: "Media and the mood of the nation" smartphone survey, RAB/Sparkler
Base: Those consuming Any TV; Any Radio; or Any Online by daypart

■ Happiness ■ Energy

d) Qualitative aspects of media usage

The findings so far are that all three researched media generate uplifts in people's levels of Energy and Happiness, but of course this is not to suggest that they are all playing the same role in people's lives.

People use TV, radio and online for different reasons and the qualitative stage of the study gave some insight into how this varies for each medium.

Given that **Television**'s central role lies in the area of escapism and entertainment, it's perhaps surprising that it does not score highest of the three media for generating increases in happiness. Evidence suggests this may be because the key strength of TV - its ability to transport you elsewhere - brings with it an inevitable flat feeling when you return to the real world. And whilst live 'event' TV (such as X-Factor) is undeniably incredibly powerful content, it is simply not possible to sustainably fill the schedules with this genre of programming in today's multi-channel 24-hour TV broadcasting world. These results suggest that the reality of day-to-day TV programming, whilst still highly valued by viewers and advertisers, has less effect on the viewer's mood than perhaps anticipated.

Medium	Characteristics	Things people said
TV	<ul style="list-style-type: none"> • Chilled - helps people wind down and relax • Communal - often a shared medium • Escapist - takes you elsewhere • Varying intensity - programmes and dayparts 	<ul style="list-style-type: none"> • <i>"Sat chilling in front of the TV, happy & relaxed"</i> • <i>"The TV is on and I'm with my family which is giving me happy vibes"</i> • <i>"Chilled me out as it's keeping the kids entertained"</i> • <i>"Little stressed at the minute but TV helping me to relax"</i> • <i>"When it finishes, it's boring - back to reality"</i>
Radio	<ul style="list-style-type: none"> • Companion - keeps you going, offsets isolation and stress • Connected - real-time human link with the outside world • Energising - uplifting, stimulant role • Feel-good factor - typically well-loved music 	<ul style="list-style-type: none"> • <i>"It's company whilst I'm doing the housework"</i> • <i>"I like the presenter, feel like I know him"</i> • <i>"Your aches and pains are always worse in the morning - it's hard work to get ready. But the fact you know that when you put the radio on it's going to cheer you up, it's a nice feeling"</i> • <i>"Radio in the background, humming along to a few songs and feeling good"</i> • <i>"It's Friday. I feel great and the only media is radio!"</i>
Online	<ul style="list-style-type: none"> • Responsive - allows direct access, now • Sociable - catch up with friends • Fulfilling - completes searches and tasks • Surprising - new uses and applications 	<ul style="list-style-type: none"> • <i>"On the internet doing research and listening to music at the same time"</i> • <i>"Enjoying a chat with a friend on Facebook"</i> • <i>"Listening to my favourite music on YouTube"</i> • <i>"Job searching and feeling a bit more upbeat"</i> • <i>"Been on Flirtomatic for about 3 hours, I feel happy"</i>

Source: "Media and the mood of the nation" study smartphone survey & qualitative interviews, RAB/Sparkler

The role of **Online** is still developing of course, as the user's experience of internet based services becomes more blurred with other platforms e.g. TV, radio, etc. But it's clear from these comments that part of the reason why people like accessing things online is the multiplicity of possibilities it offers - beyond the functional offering of search, the internet is home to easily accessible myriad entertainment such as gaming, music, social contact, and beyond. Respondents explained how they felt a sense of achievement if they found what they were seeking online. However, they also raised their irritations with the internet, e.g. the misdirection of some links, and the frustration they experienced when streamed content was buffering.

Meanwhile these qualitative inputs help to explain why **Radio** generally outperforms the other media in terms of generating happiness and energy. Firstly, people use it to generate exactly that, Happiness and Energy. It's chosen as a kind of lifestyle support system, to help people feel better as they go about their daily lives. In this context, it was interesting that some respondents participating in the qualitative phase talked about how they didn't realise how important radio is in their lives until they had participated in this exercise.

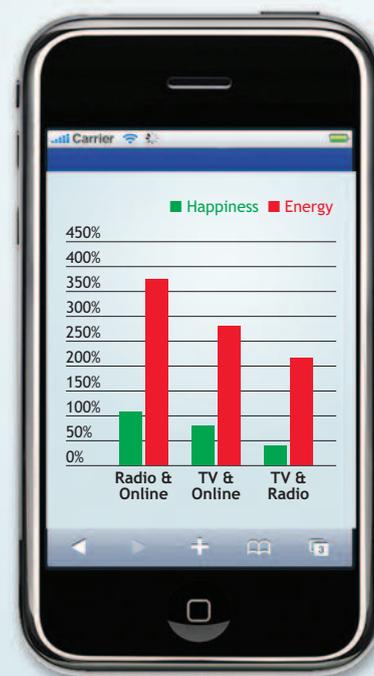
Secondly, the nature of radio programming also plays a role. Rather than the peaks and troughs that people claimed to experience with TV and Online, Radio provides a consistent environment themed and shaped to suit the listener's needs at any given time of day, and one that is generally upbeat in tone. Radio presenters are focused 100% on delivering a positive experience for the listener.

e) Media combinations

As we have already referred to in this report, the research recorded a high level of multi-media consumption - in fact, around 50% of all media consumption occasions involved more than one medium.

There are many media research studies that highlight the multiplier effect of media combinations on advertising effectiveness. As the chart suggests, there also appears a multiplier effect of combining media on people's Happiness and Energy levels. Data suggests that the combination that has the most positive effect on how people feel is Radio and Online, which reflects earlier learning from the RAB & IAB about the compatibility of the two media (see the report 'Using radio with online' on the RAB website).

When used concurrently, Radio and Online have the highest effect on Happiness & Energy levels



Source: 'Media and the mood of the nation' smartphone survey, RAB/Sparkler
Base: Scores of those consuming media combinations % increase vs. No Media

B. Findings from the EEG brain scan

Having established the way that media improve people's feelings of Happiness and Energy, we needed to find out more about what this means for advertising.

Specifically we wanted to find out whether the positive mood created by radio editorial extended to radio advertising - or might listeners disengage when the ads came on?

Details of the method

EEG (Electro-Encephalography) using 64 electrodes attached to the heads of participants was used to detect electrical impulses, second by second, in their brains while they were exposed to a series of audio stimuli:

1. radio editorial

- edited from actual radio output from the previous week
- featuring presenter conversation & song fragment

2. radio ads

- representative mix of 20 radio ads taken from RadioGauge database
- different creative approaches
- strong and weak performers, based on RadioGauge results

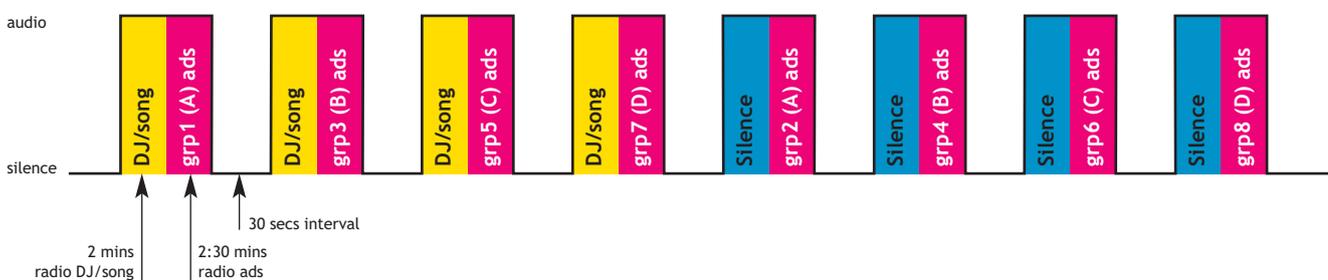
3. silence

Participants were asked to complete a simple 40-minute typing task to simulate normal radio listening conditions and to "naturalise" conditions as much as possible.

The audio material was structured so that we could measure levels of brain activity:

- when the radio content was playing, compared to silence
- when radio ads were preceded by radio content, compared to ads without preceding radio editorial.

EEG test audio stimulus design



In particular, this experiment focused on exploring Gamma band activity, which indicates a high level of brain activation. When Gamma band activity is prevalent in the left hemisphere of the brain, which is associated with 'approach' behaviours, the brain is responding positively to the stimulus, and displaying signs of 'positive engagement'.

Results

The EEG data represents high-levels of brain activity as a red-coloured area - when the activity subsides the colour indicated is blue.

As the EEG charts show below, average levels of left hemisphere Gamma activity were clearly raised in both of the comparisons we had set up:

- there was more activity in the left brain hemisphere while the radio was playing, compared to when it wasn't - indicating positive engagement with radio content
- there was more activity in the left brain hemisphere when the ads were preceded by radio editorial, than when the ads weren't preceded by radio editorial.

A recent study (Vechiato et al., 2010) reported similar left hemispheric dominance in the gamma band while watching TV commercials, suggesting that radio engages people with advertising in a similar way to TV.

These findings suggest two significant conclusions:

- firstly, radio output creates high levels of positive engagement in the brain
- secondly, those levels of positive engagement extend to radio advertising when it is preceded by radio editorial.

We can therefore conclude that the mood enhancing effects of radio editorial extend into the ad break, generating higher levels of positive engagement with radio advertising.

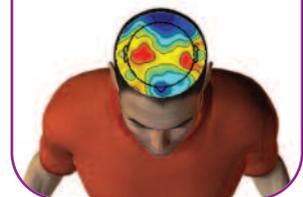


1. People positively engage with radio content

During silence



During radio editorial
Positive engagement

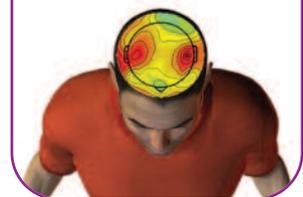


2. The radio content effect enhances positive engagement with advertising

Ads not preceded by radio editorial



Ads preceded by radio editorial
Positive engagement



Source: Sparkler EEG study



Implications of 'Media and the mood of the nation' study for advertisers

This unique multi-method study has three important conclusions:

- Media plays an important role in helping people feel more energetic and happier, and therefore creates a positive context to enhance receptiveness to advertising messages
- Radio generates the highest levels of Happiness and Energy, and on more occasions across the week than TV and online
- The mood enhancing effects of radio editorial extend into the ad break, generating higher levels of positive engagement with radio advertising

In summary, Radio can play a powerful emotional multiplier role within an advertiser's brand communication plan.

This has the following implications:

- **For advertisers investing in brand-building campaigns**
 - Radio offers the most cost-effective opportunity for advertisers seeking to enhance positive perceptions of their brands
- **Media planning**
 - Radio provides a unique opportunity for advertisers to exploit mood enhancement at important times for brands
- **Tactical radio advertisers**
 - Radio always influences how the listener feels about advertised brands, so why not exploit this through creative development?

If you would like to find out more about how Radio's Emotional Multiplier effect could benefit your brand campaign, please give us a call at the RAB.



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