

The role of ad memory in ad persuasion – rethinking the hidden persuaders

Dr A. Goode

Abstract

In 1957 Vance Packard wrote *The Hidden Persuaders* arguing how ads could persuade at a sub-conscious level. However since Freud first popularised the concept of the “sub-conscious”, psychologists have been advancing the understanding into what the systems underlying sub-conscious processing are and the extent to which it affects behaviour. Cognitive psychologists have focussed much of their effort on exploring differences between “Explicit” memory (the conscious recollection of events) as opposed to “Implicit” memory (a ‘sub-conscious’ memory that affects behaviour without the necessity of awareness of prior exposure). Using current knowledge about Implicit memory, this paper provides a testable psychological mechanism by which advertising can persuade sub-consciously. A case study is presented which illustrates how ads work at a ‘sub-conscious’ level and how this understanding led to insight into why creative ads often fail in conventional qualitative research.

Introduction

The assumed role of memory in the persuasive process of advertising.

Most practitioners still assume the role of memory in persuasion is that set out by such models as AIDA and DAGMA. The focus is on raising awareness of a brand, then communicate something about it via a brand positioning. The assumption is that consumers pay attention to ads and retain information in a way that will later allow them to consciously consider the proposition and act on it accordingly. Hence the assumed role of memory within this is that of a store for the ad information, which at some future point can be brought to the consumer’s conscious mind (recalled) and acted on. Because of this, it has been assumed that ad recall will be a reliable index of ad success. Models such as the awareness index (Brown 1994) are generally accepted as the benchmark for measuring ad success. In fact Brown himself has described ads that have a poor recall as a disaster and ads that achieve high recall as a triumph (Brown 1985).

However this perspective is hugely at odds with the psychological literature on memory. It would be reasonable to assume that positive shift in a consumer’s emotional response would have a positive effect on the persuasive process and a negative shift would be detrimental. However two psychological literatures have demonstrated that emotional responses occur completely independently of conscious recall.

Observations of The Mere Exposure Effect (Zajonc 1980, Bornstein 1989) demonstrate that a person increases their liking for briefly presented stimulus even when they cannot consciously recognise it. In other word emotional increase occur in the absence of any conscious memorial experience. Also the phenomenon of Evaluative Conditioning (Field 2000) has shown that the rating of a neutral image is increased when it has been previously presented with a positive image. Again this increase occurs even when its paring with the positive image cannot be consciously recalled.

Both Evaluative Conditioning and the Mere Exposure Effect show it is completely possible for our positive emotional response toward a stimulus to positively change without the need for us to be aware of having experienced it before. The Mere Exposure effect has also been demonstrated on a number of occasions with both print and TV advertising (Perfect and Askew 1994, Goode, 2001, Goode 2006). So if this is the case it is completely possible for an ad to increase a person's emotional response to itself or the brand it contains without them in any way being consciously aware that they have seen the ad. Consequently an index that measures awareness will never accurately represent the positive emotional response an ad has induced. Beattie and Mitchell (1985) conducted a study that 'cast serious doubts on recall as a measure of advertising effectiveness'. Similarly Heath and Hyder (2005) concluded that recall 'seriously underestimates' ad effectiveness.

If recall falls short as a measure, how else should ad memory be assessed to indicate ad effectiveness? To answer this the psychological literature on memory should be reviewed.

Applying a better understanding of memory and its role within the persuasive process - Fluency of processing and the attributional nature of memory.

Many accounts of memory describe it as comprising of two processes, which have been termed Explicit and Implicit memory (Graf & Masson 1993). These dual process theories describe us as having two different experiences of our past. Retention in the Explicit memory system, allows for the consciously mental reconstruction of a past event however Implicit memory, which retains a more fundamental representation of the world, only allows for a sense of 'pastness' to occur of which we are less aware. (Jacoby & Dallas 1981, Jacoby 1991, Roediger 1990, Mandler 1980, 1989, Squire, 1982, Tulving 1985, Tulving 1995).

Perhaps the most influential approach to dual process memory has been that of Larry Jacoby. His focus has been on the nature of the Implicit memory process. One of his major observations is the way in which prior exposure leads to an item appearing to 'jump out' of a page or a test screen. He concluded that it was this was due to prior exposure causing a 'fluency of processing'. In other words actually experiencing something leads to an increase in the ease with which it is processed during any subsequent encounter and further that this ease of processing could be experienced. The important aspect of fluent processing is that Jacoby considered it to be an attributional process. (Jacoby, Kelly & Dywan 1989), Jacoby et al (1989). In essence this meant that experience of 'fluent processing' would automatically be interpreted as (attributed to) past experience. The term Jacoby chose to describe this was familiarity. In contrast to this he described the experience of Explicit memory, (the ability to mentally reconstruct a past event) being 'recollection'.

In summary the Implicit memory mechanism described by (Jacoby, Kelly & Dywan 1989), was that of a fluent processing system which, when experienced could be attributed to past exposure leading to a feeling of familiarity. In contrast he described an Explicit memory process that allowed for the recollection of past events also existed. Key to this theory was that Jacoby theorised that the processes behind Implicit and Explicit memory were independent of each other.

Familiarity & Recollection, there are two ways in which we can recognise things.

Due to the dual nature of memory Jacoby (1991) hypothesised that there were two ways in which people could recognise, one based on Explicit and the other on Implicit memory. Firstly on encountering a previously experienced stimulus, people would be able search their Explicit memory and, if stored there, consciously mentally reconstruct the previous encounter, resulting in the experience of recollection of the past experience.

However Jacoby theorised that recognition could also occur through Implicit retention. When re-encountering a stimulus, the previous exposure would result in the stimulus being processed more fluently (as described in the previous section). The experience of fluently processing would then be attributed to past experience and hence be interpreted as resulting from a previous encounter.

These two processes can be termed recollective recognition and familial recognition. The key difference is that recollective recognition allows the individual to consciously reconstruct and mentally re-experience the first encounter. In contrast familial recognition results in a feeling something has been experienced before without any awareness of the precise detail of the prior encounter.

Jacoby is not alone in suggesting that there are two processes by which recognition occurs. Others such as Mandler (1989), (1981), Hintzman and Curran (1994), Horton and Pavlick (1993), have all suggested similar dual process recognition systems.

False Fame the misattribution of fluent processing - dissociation by source identification.

Jacoby devised an ingenious way of estimating the individual contribution of Explicit and Implicit memory to recognition. He observed that one key difference would be that individuals would be able to identify the source of a recollective recognition, for example the context in which it happened, where as they would not when the recognition was familial. Consequently he theorised that this differential quality of Implicit and Explicit memory could be used to dissociate them during test.

The first example of how he used this observation to dissociate these different memory processes was the false fame study (Jacoby et al 1989). In this study Jacoby gave a 'training list' of non famous names to two different groups of participants (group 1 & group 2) to study for a short time. He then gave each group a second longer list, which contained three kinds of names. Firstly some real famous names, secondly some non-famous names not included in the training list and finally the some names the respondents had seen on the list they had first studied.

The two groups however were given different information. Group 1 were told that the first list they had seen contained obscure but none the less truly famous names. Group 2 were told that the original list contained non famous names. Both were then instructed to indicate the famous names on the second list. The key interest was what happened when the two groups encountered a name that had been contained on the first list.

When Group 1 (first list famous) encountered a first list name their memory of the name would result in one of three different outcomes. Firstly, if they had an Explicit memory of seeing the name they would be able to consciously recollect it being on the training list and hence would be able to identify it as being famous as instructed. Secondly if they only had an Implicit memory of the name, it would feel familiar but they would not be able to consciously recollect it being on the list. This feeling familiarity however would then be falsely attributed to the name having been encountered elsewhere, the assumption being because the name was actually famous. Hence the respondent would again indicate the name as being famous because they falsely believed it was. Finally of course if they had no memory of the name it would not be marked.

The influence of memory for the Group 2 (training list non-famous) was different. When this group encountered a list 1 name and had an Explicit memory of it they would correctly identify it as being from list 1 the first list of non-famous names and correctly NOT indicate it as famous as instructed. However if they had an Implicit memory of having seen the name on list 1 it would again feel familiar and as with Group 1 they would falsely indicate that the name was famous.

To summarise with Group 1 both Implicit and Explicit memories would result in a list 1 name being marked a famous however with Group 2, Implicit memory would lead to the name being indicated as famous where as an Explicit memory of the name would not.

The probability of Group 1 (G1) and Group 2 (G2) marking the list 1 names as famous could be expressed mathematically.

$$p(\text{famous G1}) = E + (1-E) \times I$$

Where p (famous) = the probability the list 1 name was indicated as famous

E = The Explicit memory of the name

I = The Implicit memory of the name.

In contrast the probability of Group 2 marking a list 1 was.

$$p(\text{Famous G2}) = (1-E) \times I$$

By solving these equations simultaneously, Jacoby et al (1989) were able to identify the strength of two types of memory. The probability of Explicit memory i.e. the probability a name was recollected as being from the list and the probability of Implicit memory i.e. the probability the name was familiar and falsely attributed as being a real famous name.

$$\text{Explicit memory } E = p(\text{famous G1}) - p(\text{famousG2})$$

$$\text{Implicit memory } I = \frac{p(\text{famousG2})}{1 - p(\text{famous G1}) + p(\text{famousG2})}$$

In 1991 Jacoby advanced this procedure by introducing the inclusion / exclusion protocol. Working on exactly the same principles as the false fame study individuals

were given two tests one where they were asked to *include* items from list 1, and the second where they were asked to *exclude* items from list 1. Under *inclusion* instructions both Implicit and Explicit memory produced a positive identification where as under *exclusion* conditions an Implicit memory of a list 1 item would lead to its false identification whereas an Explicit memory of the item would not. This had the advantage of obtaining information for the two equations from one individual.

Process Dissociation Summary

By using the process dissociation procedure, Jacoby identified two levels of memory he termed Recollection and Familiarity. These definitions are by no way a global account of Implicit / Explicit memory, however the underlying principle of dual process memory dissociated by source identification has had a considerable impact on the psychological literature regarding implicit and explicit memory.

The next section will outline why dissociating memory by source identification readily applies itself to the understanding of persuasion and, for the first time, provides testable mechanism by which an ad can persuade without the consumer being consciously acknowledging it has done so.

Applying source identification to ad persuasion.

In 1957 Vance Packard assumed that ads were 'Hidden Persuaders'. Modern cognitive psychology might disagree with some of the psychological detail Vance Packard gave, however, by applying the understanding of memory provided by Jacoby a measurable and testable mechanism can be understood by which advertising can work without the individual being consciously aware that it has affected them. In other words, this mechanism allows for a consumer to actually recall an ad and have the conscious experience of believing it has not affected them when it actually has.

When an individual is in the process of purchasing a brand it would be reasonable to assume that they will bring to mind all relevant information about the brand (their brand knowledge) to assist with the decision. Of course a significant proportion of what they bring to mind will have been communicated by that brand's advertising. Due to the dual nature of memory, some of the advertising experience will have been retained in Explicit memory and some in Implicit memory.

If the brand knowledge is stored only in their Explicit memory of the ad, the individual will have the experience of consciously recollecting it as being part of the ad communication and of course will attribute the information to the ad. The consumer will then be aware that it is information the brand has deliberately chosen to communicate to them.

In contrast if the brand knowledge is stored only in Implicit memory the individual will experience a feeling that this information is familiar to them however they will not be aware of the source from which it originated, namely the ad. Consequently it has the potential to be attributed to being a generally accepted truth about the brand rather than what a brand communication has told them.

Quite clearly these two experiences will differentially affect the persuasive process. What is recollected from the ad will be considered within the context of it being communicated by the brand and hence will always be vulnerable to counterargument by the sceptical media aware consumer. However what has been implicitly retained and just feels familiar is likely to be misattributed as being global brand knowledge and hence can be accepted as being truth about the brand. (In exactly the same way the familiar feeling of the list 1 names in Jacoby et al's (1989) study led to them being misattributed as being truly famous).

To summarise, as calculated by the Process Dissociation Procedure, Explicit ad memory indexes what a consumer is aware that brand has communicated, in contrast Implicit ad memory indexes what the ad communicated that feels familiar and can be misattributed to be believed as being a global brand truth. It is by this mechanism that an individual can recall an ad (their Explicit memory of it) and reject what they are aware an ad has communicated while at the same time their Implicit memory of the ad (what they have retained about the brand but are not able to attribute it as having originated from the ad) and if different from their explicit ad memory can end up being believed as a truth about the brand.

Of course in the real world consumers are bombarded with ad messages constantly and often there are hours and even days between ad exposure and purchase opportunity. Both of these factors are only ever likely to lead to a reduction in Explicit ad memory, hence underlining the importance of understanding the influence Implicit ad memory has on consumer behaviour.

What will be retained Explicitly from an ad and what will be retained Implicitly?

As the application of implicit memory testing to understanding ad effectiveness is a new topic within advertising research there is little evidence on how ads might differentially affect Implicit and Explicit memory. However it is likely that what will be retained Implicitly and what will be retained explicitly will differ.

Both memory systems are likely to be affected in a similar way as other stimuli. Positive influences on Explicit memory are likely to be what people intend to learn from an ad, salient elements such as anything unusual or something stated clearly and concisely, the focus of attention that is repeated clearly a number of times, or anything that grabs the viewer's attention. Due to the nature of Implicit memory it is likely that all of these things will be committed to Implicit memory also. However Implicit memory will also store all the less-salient elements of an ad, the sensations evoked by the ad, the passive associations an individual might have with the imagery and the assumptions we need to make that allows us to make sense of the ad.

Despite there being many potential insights from understanding advertising in terms of its differential retention in Implicit and Explicit memory one specific insight is understanding why there is a negative relationship between conventional research and advertising creativity due to the passive implicit nature in which creative advertising is retained by the viewer. The next section will provide a case history of an ad pre-testing study carried out for Virgin Trains. By any conventional research judgement the ad in question failed badly. However by applying this approach we were able to

identify some of the more subtle levels of communication consumer retained in their Implicit memory, which revealed how the ad was persuading 'sub-consciously'.

Case Study

Falling in Love Again with Virgin Trains.

Rainny Kelly Campbell Rolfe, Y&R, were set the challenge of promoting the new Virgin trains service. With the introduction of new rolling stock and faster train times this would seem to have been an easy job, however they were cautious and rightly so. Virgin trains had started life running services on a neglected rail network with old rolling stock and consequently had earned a reputation for poor reliability and service. It was feared any communication of the new facts about new trains and faster services was likely to be rejected by a sceptical public.

As such, a strategy was adopted to emotionally engage with the audience via a TV campaign to 'open their hearts' to the idea of rail travel, after which new information, it was hoped, would be less likely to be rejected. The campaign 'Falling in Love again' was written to this brief. The creative idea was to digitally overlay old stars from famous train based films (such as the Railway Children and Cary Grant & Eva Maria Saint in North by North West) on new Virgin Trains. The aim was to associate the new positives of train travel with a time which was believed to be the golden age of trains. The agency were concerned that it would not research well as it was likely to be assessed by a rationalising research group as a gimmick to cover up the bad reputation they accepted as being the truth.

Researching Falling in Love

The qualitative ad pre-testing of the script for Falling in Love again was conducted within six focus groups run by Duckfoot research. The total numbers of respondents was 48 who all fitted the profile requested by the client as being between the ages of 21 and 50 who all travelled on business or leisure between London and Birmingham or Manchester. In addition to the guided discussion we also conducted a modified version of the process dissociation procedure outlined above except including a guessing criterion (Buchner et al 1996, Goode, 2001). This contained the inclusion and exclusion conditions describes previously with the addition of an initial questionnaire, which assessed the respondents existing brand knowledge to be assessed and taken into consideration when calculating the memory scores for the ad.

Materials

The materials for the groups were a composite video of the intended clips from the old films cut together with film of the new Virgin trains taken from a previously broadcast ad. In addition a narrative audio-tape was played to elaborate on some of the detail that was not illustrated on the video. Ninety Five statements were generated across a broad cross section the concepts Virgin Trains and the agency wanted to be retained from the ad. A selection of negative expressions of the same concepts was also included. (The broad categories are outlined in Table 1) Using these statements

within the three stages of the Process Dissociation Procedure we could establish the probability that our respondents retained these statements Explicitly or Implicitly, hence the relative probabilistic strengths of whether the concepts were attributed to the ad or were misattributed and were expressed as a truth about Virgin Trains. We could also reveal any qualitative differences between the way in which the ad script was retained Explicitly and Implicitly.

Broad categories of the concepts covered in the Process Dissociation Procedure	No of statements
Positive expressions of Virgin trains brand image	7
Negative expressions of Virgin trains brand image	3
Positive expressions of the experience of travelling on Virgin trains	6
Negative expressions of the experience of travelling on Virgin trains	3
Positive expressions of the facilities on Virgin Trains	6
Negative expressions of the facilities on Virgin Trains	2
Positive expressions of how travelling on Virgin Trains would make the traveller feel	9
Negative expressions of how travelling on Virgin Trains would make the traveller feel	3
Positive expressions of quality of food on Virgin trains	4
Negative expressions of quality of food on Virgin trains	2
Positive expressions of the modernity and innovation of Virgin Trains	9
Negative expressions of the modernity and innovation of Virgin Trains	3
Positive expressions of the golden age of train travel (core message of the ad)	9
Negative expressions of the golden age of train travel (core message of the ad)	3
Positive expressions of the shop on Virgin Trains	3
Negative expressions of the shop on Virgin Trains	1
Positive expressions of the speed an convenience of travelling on Virgin Trains	9
Negative expressions of the speed an convenience of travelling on Virgin Trains	3
Positive expressions of the staff's attitude on Virgin Trains	3
Negative expressions of the staff's attitude on Virgin Trains	2
Positive expressions of the Virgins Value	3
Negative expressions of the Virgins Value	2

These were counterbalanced equally across Q1, Q2, & Q3 over the design of the study.

Method

The respondents were asked to complete the first process dissociation questionnaire (Q1) containing a third of the statements and were asked to tick any they had heard before about Virgin trains. They then saw the composite video and listened to the audio-tape. Afterwards they were given the second process dissociation questionnaire (Q2) containing another third of the statements and were instructed to again tick any statements that they had heard before about Virgin Trains but this time were to *include* anything they understood the video & audio tape had communicated to them. Finally they were given the third process dissociation questionnaire (Q3) containing the final third of the statements and were instructed to again indicate anything they had heard before about Virgin trains but this time they were to *exclude* anything they believed the video & audio tape had communicated to them. This instruction was designed so that when they encountered a statement corresponding to something they had retained only in implicit memory, the resulting feeling of familiarity would cause them to indicate it as being part of their global knowledge of the brand. In contrast if

it had been retained in Explicit memory the statement would be attributed to the ad hence not be marked (excluded as instructed).

Values for Implicit and Explicit memory were calculated according to the equations given in Buchner et al (1996) & Goode (2001).

$$p(\text{Inclusion}) = E + (1 - E) \times I + (1 - E) \times (1 - I) \times G$$

$$p(\text{Exclusion}) = (1 - E) \times I + (1 - E) \times (1 - I) \times G$$

Where

E = Explicit retention (attributed to ad).

I = Implicit retention (not attributed to ad).

G = Guessing criterion from stage 1.

NB: Due to the variance resulting from to the size of the sample group some values calculated for Explicit and Implicit memory were outside the expected range of 0–1 hence. Any that were greater or less than this range were taken as either 0 or 1 values.

Results

Group discussion

The discussion followed the pattern that had been expected by the agency, there was usually a brief acknowledgement that the ad was enjoyable however the conversation soon turned to damning the ad as it in no way represented what the respondents knew to be true about Virgin Trains. Despite a few who had had a recent good travel experience and would nominally ‘stick up’ for the ad and Virgin Trains, the overall consensus was negative and the ad was rejected as being an inappropriate, idealistic view of the brand. The creative idea of evoking the golden age of train travel, through using old movie stars was also rejected. Often respondents questioned the use of ‘old celebrities’ and argued that current celebrities should have been used that were aspirational to the public such as David and Victoria Beckham despite the fact they would never travel on public transport and would not invoke the desired idea of the golden age of rail.

Based on the discussion alone the ad was not accepted as being persuasive in any way and hence by this conventional means of testing had failed, raising a question over its production.

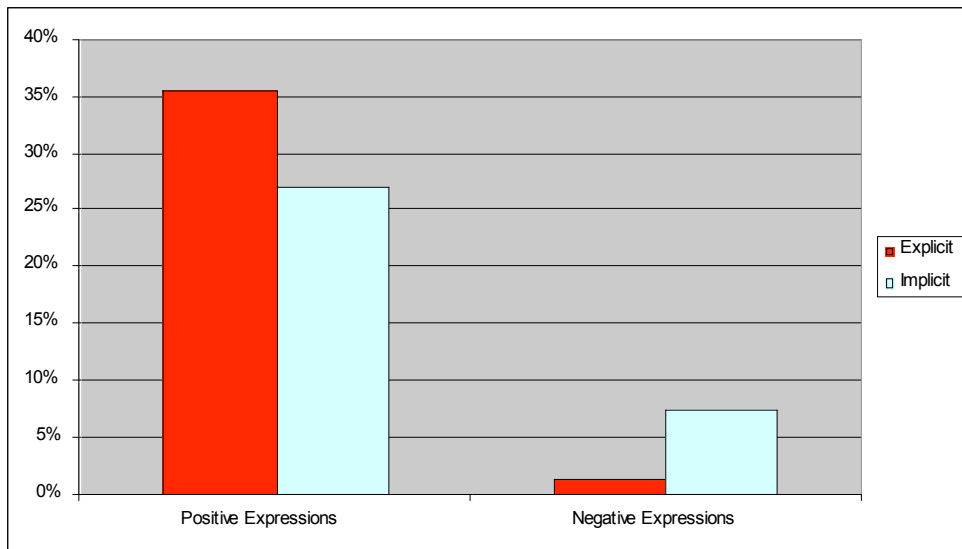
Results - Process Dissociation Procedure Results

A full table of the analysis is carried in appendix 1

Over all the level of retention was not as high as might have been expected but this was probably due to the wide variety of the statements included.

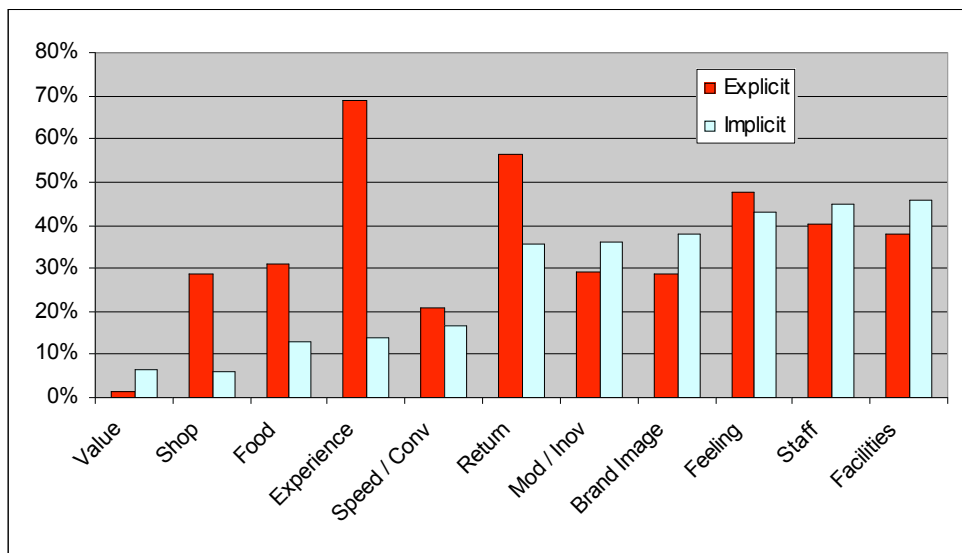
A 2 x 2 ANOVA (positive expression vs negative expression x probability of Implicit vs probability of Explicit) was carried out on the mean levels of retention for the conceptual platforms. A main effect of positive vs negative was found, $F(1,10) =$

37.2, $p < 0.01$ indicating the probability of Explicit and Implicit retention was significantly greater for positive expressions of the concepts than negative.



These data clearly indicated that then negative comments within the group discussion in no way represented what had been retained in memory from the ad. So it was clear that the ad had successfully communicated a positive message about the brand but in discussion the respondents had consciously considered this and rejected it as being false.

Qualitative difference between Explicit and Implicit retention.



When the mean values for the pre determined categories were calculated a qualitative difference could be found between the levels of Explicit and Implicit retention for the different concepts.

This was taken to indicate that the respondents had consciously attributed information about the positive experience of travelling on Virgin Trains to the ad, specifically that they were amazing, exciting, fantastic and not boring, also that there was an element of awe and wonderment for children. It was also clear the respondents had

consciously attributed the communication of the nostalgia of rail travel to the ad. This split into three main concept groups namely the positive nature of past train travel, that current travel could be as good as this golden age and that Virgin trains are making this possible. This indicated the respondents were aware of the intended communication of the creative idea.

Over all there were four categories where Implicit memory was stronger than Explicit memory, albeit marginally, meaning that it was more likely the concept would be accepted as being a brand truth than be consciously recollected as being communicated by the ad. These were how Virgin were a modernising innovative company, positive expression of the Virgin trains brand, and that their staff and facilities were praiseworthy.

Over all there were 19 of the statements where the Implicit retention was 20% or more higher than Explicit retention, of these only 3 were negative. Of the remaining 16 statements there were 6 where the probability of Implicit retention was approximately 50% higher than Explicit retention. These represented a description of Virgin trains as being a modern, comfortable, well staffed, agreeable, fast and indeed revolutionary way to travel.

In summary, the results of the Process Dissociation procedure demonstrated many positives had been retained and that there were a proportion of these positives about the service and brand communicated by the ad that had been falsely attributed to being an accepted truth about the brand. This illustrated the mechanism by which the ad had persuaded the respondent to believe positives about Virgin trains.

Discussion.

This paper set out to provide the theoretical framework by which advertising can work at a 'sub-conscious' level based on cognitive psychological model of dual process memory. The pre testing conducted for Virgin Trains ad 'Falling in Love Again' illustrates firstly how creative advertising persuades at this sub-conscious level and secondly the limitations of researching creative advertising using only focus group discussion.

Assessing how Falling in Love Again persuaded sub-consciously

Although being a qualitative exercise the Process Dissociation Procedure illustrated how the advert was persuading in the sub-conscious way outlined in the introduction.

Only two of the statements used within the Process Dissociation Procedure made reference to children's awe and wonder at the new Virgin Trains. These were included as the opening scene of the ad containing footage from the Railway Children. The average probability of Explicit retention for these two statements was 86% where as the probability of Implicit retention was only 32%. This indicated that when the respondents came across these statements they actively searched their memory, recalled having seen the reaction of the Railway children characters and hence were able to consciously attribute these concepts to the ad.

In contrast four statements included the concept 'modern'. Although not explicitly stated there were many linking shots within the ad of the new Pendelino trains. The average probability of Explicit retention of the concept of modern was 30% where as the probability of Implicit retention was 43%. This would indicate that when reading these statements the respondents were more likely to feel these statements were familiar but were not consciously aware that it was the ad that had led them to feel this. Consequently the 'modern' concept was misattributed as being part of the respondent's own global knowledge about the brand rather than being consciously acknowledged as originating from the ad.

Although this was a qualitative exercise with a wide range of statements, the theoretical process described in the introduction was illustrated. With respondents showing specific concepts were retained Explicitly and hence be attributed to the ad, and also Implicitly so were misattributed as being an accepted truth about the brand.

Implications for researching advertising

By any assessment of the conventional pre testing research discussion this ad failed badly. However because of the memory assessment conducted it was still made and released in June 2005. It received major critical acclaim, being cited by the BBC's on line's favourite ad of the year. In terms of ROI the ads release coincided with nearly a 20% increase in use in the west coast mainline in 2005. The econometric model acknowledged the ads contribution to this increase. Why was it then that conventional research was so completely inadequate at predicting this success?

When assessing advertising within a qualitative research group many different things can influence the respondent's expressed opinion. In this case the apparent overriding need for the respondents was to publicly align themselves with the popular held belief of Virgin Trains negative image. Against this background it was likely that any creative idea might have failed. However the approach taken here by assessing the ad in terms of what had been retained in memory about it, revealed a different story.

Even if we had merely considered this exercise as conducting a brand questionnaire before and after the ad experience we would have noted that there was no increase in negatives towards the brand. Hence even this superficial analysis would have revealed that negatives expressed within the discussion did not originate from the ad and were not increased by it.

However by using the Process Dissociation Procedure we could go further and identify two levels at which the positive brand message was being retained. Firstly we could identify what the respondents had retained Explicitly and hence were likely to consciously acknowledge as being communicated from the ad and secondly what they retained Implicitly and hence were likely to misattributed as being a known truth about the brand. We could also show the qualitative the difference between these two types of retention, in this case both different but both positive. There is anecdotal evidence to suggest the existence of a negative correlation between research and creativity. This study sheds some light on why this is the case.

Ads are 'hidden persuaders'

The concept of what the sub-conscious is has changed dramatically since Vance Packard wrote his book. However by isolating the two levels at which ads are retained in Implicit & Explicit memory we can identify what respondents are consciously aware an ad has told them about a brand, from what they have retained Implicitly (sub-consciously) from the ad which can become falsely attributed as being a brand truth. Despite the change in the nature of psychology it is still likely that a potent way an ad can exert its influence is at an implicit memory driven 'sub-conscious' level.

References

- Beattie, Ann E., and Mitchell, Andrew A., The relationship between advertising recall and Persuasion: An Experimental Investigation, in Psychological Processes and Advertising Effects. Linda F. Alwitt and Andrew A. Mitchell, eds., Erlbaum, Hillsdale, NJ, 1985, pp. 129-155
- Bornstein R. F. (1989) Exposure and affect: Overview and meta-analysis of research, 1968–1987. *Psychological Bulletin*, 106, 265–289
- Brown G. (1986) Modelling advertising awareness, *The Statistician*, 35, p286.
- Brown G. (1985) Tracking Studies and sales effect. A UK perspective. *Journal of advertising research*, Feb. Mar pp. 56, 57.
- Buchner, A, Erdfelder, E., & Vaterrodt-Plunnecke, B. (1995). Toward unbiased measurement of conscious and unconscious memory processes within the process dissociation framework. *Journal of Experimental Psychology: General*, 124, 137-160.
- Field, A. P. (2000a) I like it, but I'm not sure why: can evaluative conditioning occur without conscious awareness? *Consciousness and Cognition*, 9, 13-36.
- Graf, P. Masson, M. (1993) *Implicit Memory. New Directions in Cognition, Development and Neuropsychology*. Lawrence Erlbaum associates.
- Goode, A. (2001) The Value of Implicit memory. *Admap*, December 2001, Issue 423
- Goode, A. (2006) What Happens at x30 fast forward. *Admap*, January 2006, Issue 468
- Heath, R. Hyder, P (2005) Measuring the Hidden Power of Emotive Advertising. *International Journal of Market Research*. Volume 47 Issue 5.
- Hintzman D. L., & Curran T. (1994). Retrieval dynamics of recognition and frequency judgements: evidence for separate processes of familiarity and recall. *Journal of Memory and Language*, 33, 1-18
- Horton, D. Pavlick, T. (1993). Semantic cues, rhyme cues, and two varieties of recognition memory . *Bulletin of the Psychonomic Society*. Vol 31(1) 16 – 18.
- Jacoby & Dallas. (1981). On the relationship between autobiographical memory and perceptual learning. *Journal of Experimental Psychology: General*, **110**, 306-340.
- Jacoby, L.L., Kelley, C.M. & Dywan, J. (1989) Memory attributions. In H.L. Roediger III, & F.I. Craik, *Varieties of memory and consciousness: Essays in honour of Endel Tulving* (pp. 391-422). Hillsdale. NJ. Erlbaum.
- Jacoby, L. L., Kelley, C., Brown, J., & Jasechko, J. (1989). Becoming famous overnight: Limits on the ability to avoid unconscious influences of the past. *Journal of Personality & Social Psychology*, 56.

Jacoby, L. L (1991). A process Dissociation Framework: separating automatic from intentional uses of memory. *Journal of memory and Language* Vol 30(5):513-541

Mandler, G (1980) Recognizing: The judgement of previous occurrence. *Psychological review*. Vol 87(3) 252-271.

Mandler G. (1981) The recognition of previous encounters. *American Scientist*. 1981 Mar – Apr, Vol 69(2): 211-218.

Mandler, G. (1989). Memory: Conscious and unconscious. In P. R. Solomon, G. R. Goethals, C. M. Kelley, & B. R. Stephens (Ed.), *Memory: Interdisciplinary approaches* (pp. 84-106). New York: Springer Verlag

Packard, Vance, (1957). *The Hidden Persuaders*, New York

Perfect, T.J.; Askew, C. (1994) Print Adverts: Not remembered but memorable. *Applied Cognitive Psychology*. 1994 Dec; Vol 83 (3, Pt 1): 1091-1094.

Roediger, H.L. (1990). Implicit Memory: Retention without remembering. *American Psychologist*. Vol 45(9): 1043-1056.

Squire, L.R. (1982). Comparisons between forms of amnesia: Some deficits are unique to Korsakoffs syndrome. *Journal of Experimental Psychology: Learning, Memory and Cognition*. Vol 8(6): 560-571.

Tulving, E. How many memory systems are there? *American Psychologist* 1985 Apr; Vol 40(4): 385-398.

Tulving, E. Organization of memory: Quo vadis? In Gazzaniga, *The cognitive neurosciences*. Micheal S. (Ed) (1995). (pp 839-853). Cambridge, MA, US: The MIT press.

Zajonc, R. B. (1980). "Feeling and thinking: preferences need no inferences." *American Psychologist*. vol. 35: p. 151-175.

Appendix 1 Total results for The Process Dissociation procedure for ‘Falling in Love Again’.

Statement	Category	Explicit	Implicit	Implicit - Explicit
Virgin Trains are equipped for the modern age	Mod / Innov	0.32	1.00	0.68
Travelling with Virgin Train is a comfortable way to travel	Facilities	0.33	1.00	0.67
You can plug your laptop in on a Virgin Train	Facilities	0.37	1.00	0.63
Travelling on Virgin Trains is agreeable	Feeling	0.37	1.00	0.63
Virgin Trains travel very quickly	Speed / Conv	0.05	0.59	0.53
The design of Virgin Trains is revolutionary	Mod / Innov	0.15	0.68	0.53
There is always a steward who can help you on a Virgin Train	Staff	0.53	1.00	0.48
Travelling on Virgin Trains is a pleasing experience.	Feeling	0.62	1.00	0.38
Virgin have taken the lead in improving the customer experience of trains	Brand Image	0.44	0.80	0.37
Train travel can be as good as it was in the olden days	Return	0.66	0.99	0.33
Virgin Trains have earned respect for what they have done	Brand Image	0.00	0.30	0.30
People get a sense of satisfaction travelling on a Virgin Train	Feeling	0.52	0.81	0.29
People tend to choose against travelling by Virgin Train.	Speed Conv Neg	0.00	0.28	0.28
There is much to admire about Virgin Trains	Brand Image	0.57	0.82	0.25
There is nothing to buy on a Virgin Train	Shop Neg	0.00	0.25	0.25
Travelling by Virgin Trains is the modern way to travel	Mod / Innov	0.24	0.47	0.23
The Virgin Trains’ stewards care about their customers	Staff	0.13	0.34	0.21
It doesn’t feel very nice travelling on a Virgin Train	Feeling Neg	0.00	0.21	0.21
Taking a Virgin Train would save on travel time	Speed / Conv	0.00	0.20	0.20
Virgin Trains have not innovated anything	Mod / Innov Neg	0.00	0.19	0.19
Virgin Trains have been able to recapture the good feeling of train travel	Return	0.83	1.00	0.18
Travel on Virgin Trains is very affordable	Value	0.04	0.19	0.15
Virgin have done nothing to make the train service any better than it was in the olden days	Return Neg	0.00	0.13	0.13
Travelling on a Virgin Train is not a very pleasant experience	Experience Neg	0.00	0.12	0.12
Virgin Trains are uncomfortable	Facilities Neg	0.00	0.12	0.12
Travelling by Virgin Trains beats travelling by car	Speed / Conv	0.07	0.17	0.11
Virgin Trains are an out of date way to travel	Mod / Innov Neg	0.00	0.10	0.10
Virgin Trains are futuristic	Mod / Innov	0.38	0.47	0.09
The staff on Virgin Trains don’t care about their customers	Staff Neg	0.00	0.08	0.08
There isn’t a lot of choice of things to eat on a Virgin Train	Food Neg	0.03	0.11	0.08
Virgin Trains are offering the best service they can given the problems with the track infrastructure	Brand Image	0.00	0.07	0.07
There are better ways to travel than by Virgin Trains	Experience Neg	0.00	0.07	0.07
The food on a Virgin Train isn’t very good.	Food Neg	0.00	0.07	0.07
The staff on Virgin Trains don’t provide a good service	Staff Neg	0.00	0.05	0.05
Virgin Trains have radios you can listen to	Facilities	0.54	0.59	0.05
Virgin Trains make use of cutting edge technology	Mod / Innov	0.29	0.34	0.04
The Virgin Trains’ experience is one that is appealing	Feeling	0.38	0.39	0.01
Taking a Virgin Train is a cost effective way to Travel	Value	0.00	0.00	0.00
There is much more that Virgin could do to improve the quality of their service	Brand Image Neg	0.00	0.00	0.00
Virgin could do much better to try and improve the rail service	Brand Image Neg	0.00	0.00	0.00
Virgin Trains have a reputation for poor service	Experience Neg	0.00	0.00	0.00
Travelling on a virgin Train isn’t very enjoyable	Feeling Neg	0.00	0.00	0.00
Travelling by train has never been very pleasant	Return Neg	0.00	0.00	0.00
The railway is an out of date way to travel	Return Neg	0.00	0.00	0.00
Virgin Trains are a slow and inefficient way to travel	Speed Conv Neg	0.00	0.00	0.00
It is much less convenient to travel by Virgin Train than by other forms of transport	Speed Conv Neg	0.00	0.00	0.00

Travelling on a Virgin Train is great value for money	Value	0.00	0.00	0.00
Travelling on Virgin Trains is expensive	Value Neg	0.00	0.00	0.00
Travelling on Virgin Trains is not good value	Value Neg	0.00	0.00	0.00
Travelling on Virgin Trains is as convenient as driving	Speed / Conv	0.00	0.00	0.00
It's never very pleasant to travel on a Virgin Train	Feeling Neg	0.04	0.00	-0.04
The service on Virgin Trains is much better than other rail services	Brand Image	0.38	0.33	-0.05
Virgin Trains offer you good food	Food	0.56	0.51	-0.05
Virgin Trains are not very well equipped	Mod / Innov Neg	0.05	0.00	-0.05
You can put your trust in Virgin Trains	Brand Image	0.17	0.10	-0.07
Virgin Trains are as good as any other way to travel	Speed / Conv	0.24	0.16	-0.08
Virgin Trains offer a modern and up-to-date service	Mod / Innov	0.34	0.23	-0.11
Tilting trains are a sign of Virgin's innovation	Mod / Innov	0.11	0.00	-0.11
Virgin Trains have not really done much to improve the rail service	Brand Image Neg	0.11	0.00	-0.11
Children stare in wonder at the new Pendolino Virgin Train	Experience	0.76	0.64	-0.11
There is nothing to entertain you on a Virgin Train	Facilities Neg	0.13	0.00	-0.13
Virgin Trains are spacious	Facilities	0.20	0.04	-0.15
Virgin Trains have shops with many different products in them	Shop	0.29	0.13	-0.16
Virgin are making travelling on trains as pleasant as it used to be	Return	0.37	0.20	-0.17
You would never get bored on a Virgin Train	Experience	0.24	0.05	-0.18
There are always lots of tasty things to eat on a Virgin Train	Food	0.18	0.00	-0.18
People who travel on Virgin Trains have a feeling of contentment	Feeling	0.31	0.12	-0.19
The shops on Virgin Trains are really well stocked	Shop	0.19	0.00	-0.19
It was always special to travel in the golden age of rail	Return	0.42	0.21	-0.21
Virgin Trains care about the quality of service they provide	Brand Image	0.44	0.22	-0.21
Virgin rail travel will make you smile	Feeling	0.23	0.00	-0.22
Taking a Virgin Train is a more efficient way to travel	Speed / Conv	0.24	0.00	-0.24
The standard of service on Virgin Trains is similar to when you fly	Speed / Conv	0.34	0.10	-0.25
Virgin provide entertainment for you on their trains	Facilities	0.25	0.00	-0.25
The quality of food served on Virgin Trains is very high	Food	0.25	0.00	-0.25
There was always something special about train travel	Return	0.53	0.27	-0.25
There is a wide selection of food on Virgin Trains	Food	0.25	0.00	-0.25
Virgin Trains travel at high speed	Speed / Conv	0.55	0.29	-0.26
Virgin Trains have new modern trains now running on its network	Mod / Innov	0.28	0.00	-0.28
Virgin Train travel is as good as train travel was before	Return	0.32	0.00	-0.32
You can buy lots of different things on a Virgin Train	Shop	0.38	0.05	-0.33
Travelling on Virgin Trains is a rewarding experience	Feeling	0.68	0.31	-0.36
Travelling by Virgin Trains is better than by aeroplane	Speed / Conv	0.37	0.00	-0.37
People can enjoy travelling on trains as much as they used to	Return	0.70	0.34	-0.37
Virgin Trains are high tech	Mod / Innov	0.52	0.07	-0.44
The new Virgin Trains are a fantastic place to be	Experience	0.51	0.06	-0.45
People who travel on Virgin Trains are happy they do	Feeling	0.57	0.11	-0.46
Travelling on a Virgin Train is a quality experience	Facilities	0.60	0.13	-0.48
Travelling on a Virgin Train is enjoyable	Feeling	0.61	0.13	-0.48
Virgin have made rail travel as enjoyable as it used to be	Return	0.68	0.15	-0.52
Travelling by train in the old days was always pleasant	Return	0.59	0.03	-0.55
The staff on Virgin Trains are attentive and look after you	Staff	0.55	0.00	-0.55
It's exciting to travel on a Virgin Train	Experience	0.77	0.00	-0.77
The new Virgin Trains are an amazing experience	Experience	0.90	0.06	-0.84
Children are in awe of the new Virgin Trains	Experience	0.96	0.00	-0.96