



Citation for published version:

Heath, R 2007 'Emotional Persuasion in Advertising: A Hierarchy-of-Processing Model' Bath.

Publication date:
2007

[Link to publication](#)

University of Bath

Alternative formats

If you require this document in an alternative format, please contact:
openaccess@bath.ac.uk

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

**Emotional Persuasion in Advertising:
A Hierarchy-of-Processing Model**

Robert Heath
University of Bath
School of Management
Working Paper Series
2007.07

This working paper is produced for discussion purposes only. The papers are expected to be published in due course, in revised form and should not be quoted without the author's permission.



**University of Bath School of Management
Working Paper Series**

School of Management
Claverton Down
Bath
BA2 7AY
United Kingdom
Tel: +44 1225 826742
Fax: +44 1225 826473
<http://www.bath.ac.uk/management/research/papers.htm>

2007		
2007.01	Fotios Pasiouras	International evidence on the impact of regulations and supervision on banks' technical efficiency: an application of two-stage data envelopment analysis
2007.02	Richard Fairchild	Audit Tenure, Report Qualification, and Fraud
2007.03	Robert Heath & Paul Feldwick	50 Years using the wrong model of TV advertising
2007.04	Stephan C. Henneberg, Daniel Rohrmus & Carla Ramos	Sense-making and Cognition in Business Networks: Conceptualisation and Propositional Development
2007.05	Fotios Pasiouras, Sailesh Tanna & Constantin Zopounidis	Regulations, supervision and banks' cost and profit efficiency around the world: a stochastic frontier approach
2007.06	Johan Lindeque, Mark Lund & Steven McGuire	Non-Market Strategies, Corporate Political Activity and Organizational Social Capital: The US Anti-Dumping and Countervailing Duty Process
2007.07	Robert Heath	Emotional Persuasion in Advertising: A Hierarchy-of-Processing Model

**EMOTIONAL PERSUASION IN ADVERTISING:
A HIERARCHY-OF-PROCESSING MODEL**

Dr. Robert G. Heath
University of Bath
School of Management
Claverton Down
Bath
BA2 7AY
United Kingdom
Tel:+44 1225 386884
Fax: +44 1225
e-mail: r.g.heath@bath.ac.uk

Abstract

There is a widespread belief that effective advertising works persuasively within an information processing paradigm. High attention is regarded as being of critical importance in facilitating this process, and emotional content is seen as supporting information processing by raising levels of attention. Recent research, however, suggests that emotional content in advertising can influence brand favourability even when rational content has no effect. This article explores the psychology behind the processing of emotion and attention, and presents a ‘hierarchy-of-processing’ model which shows how advertising can influence brand choice without the need for informational persuasion or high attention. The implications this model has for the development of successful advertising are discussed.

1. The Information Processing Model

It is widely held by both practitioners and academics that advertising works best by delivering a unique persuasive informational message. Rosser Reeves assertion that ‘*Advertising is the art of getting a unique selling proposition into the heads of the most people at the lowest possible cost*’ (1961: 121) is mirrored nearly 40 years later by Duncan &

Moriarty in *Advertising Age*, who describe advertising as ‘... *one-way communication: creating and sending messages...*’ (1999: 44). Jones describes advertising as an activity which ‘...*increases people's knowledge and changes people's attitudes*’ (1990: 237) and states that ‘...*the selling message must be unmistakable*’ (2002: 36). Meyers-Levy & Malaviya consider ‘...*only theories that adopt an information-processing perspective*’, and assert that ‘*Regardless of their content and the techniques they employ, most [advertising] messages share a common final goal: persuading target consumers to adopt a particular product, service, or idea*’ (1999: 45). Even Petty & Cacioppo (1986), although presenting two routes in their Elaboration Likelihood Model (ELM), see the low attention Peripheral Route as weak and only effective if tied in to high levels of repetition.

But not all academics accept that advertising works in a persuasive attitude-changing hierarchy. Krugman pointed out 40 years ago that much of the content of TV advertising did not fit the traditional persuasion models prevalent at the time: ‘*Does this suggest that if television bombards us with enough trivia about a product we may be persuaded to believe it? On the contrary, it suggests that persuasion as such ... is not involved at all and it is a mistake to look for it... as a test of advertising's impact*’ (1965: 353). A decade later Ehrenberg, contesting the failure of persuasion-based theory to explain many of the facts of marketing, stated ‘*Advertising... is not as powerful as is sometimes thought, nor is there any evidence that it actually works by any strong form of persuasion or manipulation*’ (1974: 25).

Ehrenberg's ‘reinforcement’ model advanced a theory that ‘*Advertising's main role is to reinforce feelings of satisfaction with brands already being used*’ (1974:33). But his boldest assertion was that attitude change was *not* a mandatory precursor to purchase: ‘*It seems to be generally assumed that improving the attitudes of a nonuser towards a brand should make him use the brand, or at least become more predisposed to doing so. But this amounts to*

assuming that people's attitudes or image of a brand can in fact be readily changed, and that such attitude changes must precede the desired change in behavior. There is little or no evidence to support these assumptions.' (1974: 30).

This controversial statement suggests Ehrenberg's reinforcement model has nothing to do with persuasion. However, persuasion is capable of being defined in more than one way.

Persuasion Defined

The Oxford Compact English Dictionary's general definition of persuade is '*Cause someone to believe, convince*' (Oxford Compact English Dictionary 1996: 746). In rather more eloquent language the Longman Dictionary defines persuasion as '*to move by argument, reasoning, or pleading to a belief, position, or course of action*' (Longman Dictionary 1984: 1096). The emphasis this definition places on argument reasoning or pleading suggests persuasion under this definition is using 'propositional representations' – '*...language-like representations that capture the ideational content of the mind.*' (Eysenck & Keane 2000: 246). This identifies persuasion as an information processing activity, in which thoughts are actively manipulated to create new beliefs and attitudes.

This definition of persuasion corresponds closely to the Central Route of the ELM. The ELM operationalises motivation and involvement and develops two routes for persuasion: a more strongly persuasive Central Route and a less strongly persuasive Peripheral Route. A requirement for Central Route processing is the motivation to process the message on the part of the consumer, which leads to a more thoughtful level of processing and more enduring attitude changes. The Central and Peripheral routes differ according to '*the extent to which the attitude change that results ... is due to active thinking*' (Petty & Cacioppo 1996: 256).

But this 'active thinking' definition is not the only definition of persuasion. The Oxford Dictionary also defines persuasion as '*to induce, lure, attract, entice*'. (op. cit.). This implies

a verbal or rational process is not necessarily needed for persuasion to take place, as the words used (induce, lure, attract, entice) all relate more to feelings and emotions as they do to thinking. This suggests that persuasion can be rational, or emotional, or both rational and emotional. The fact that Ehrenberg sees reinforcement working by taking '*... an emotional instead of an informative tone...*' (1974: 27) suggests it is mainly this 'Emotional Persuasion' he sees happening in reinforcement advertising.

In modern parlance persuasion encompasses both definitions, and is often used to describe *any* activity which changes the attitudes of the recipient. Again, Ehrenberg's definition differs somewhat. As mentioned earlier, the reinforcement model denies that advertising always has to change attitudes to influence behaviour. In this way the reinforcement model might seem to define a step beyond even the peripheral route of the ELM.

In practice Reinforcement and the ELM have some marked similarities. One characteristic of Peripheral Processing is that the resulting attitude changes are weak and relatively transient compared with Central Processing: '*Attitude changes via the Central Route appear to be more persistent, resistant, and predictive of behaviour than changes induced via the peripheral route*' (Petty & Cacioppo 1986: 191). So in the longer term both models predict that there will be no attitude change. A second similarity is the role of emotion. Although Petty & Cacioppo's Elaboration Likelihood Model does not use emotion as a primary construct, they describe peripheral processing as being '*... based on affective associations...*' (1986: 191) and propose '*...when motivation or ability to process issue-relevant arguments is low, attitudes may be changed by associating an issue position with various affective cues*' (1986:130).

So both models support a role for repetitive advertising that relies less on information than on emotional cues, and fails to achieve a demonstrable or long-lasting change in attitudes. The difference of course is that Ehrenberg sees this type of advertising as being effective, and

Petty & Cacioppo regard it as being relatively ineffective.

Current thinking on Emotion

Emotion occupies a rather strange position in the practitioner textbook view of advertising. Marketers seem nervous of it, as exemplified by Adcock et al. who avoid the words emotion and affect entirely, adopting the view that advertising's remit is simply to '*... be read, understood, believed, remembered, and finally, acted upon*' (1998: 275). More recently, Armstrong & Kotler see the objective of advertising as being to '*... inform, persuade, or remind*' (2007: 371), but nowhere do they reference the role of emotion or affect, and again neither word appears in the chapter.

The earliest explicit reference to emotion in a model of advertising appears in Lavidge and Steiner (1961). Their model advocates three sequential components of advertising effectiveness – Cognitive (the realm of thought), Affective (the realm of emotions), and Conative (the realm of motives), and describes a sequence of Awareness (cognitive) → Knowledge (cognitive) → Liking (affective) → Preference (affective) → Conviction (conative) → Purchase (conative). From this it is evident that not only was affect considered a consequence of cognition, but its realm in the model was limited to the decision-making area of liking and preference.

Holbrook and Hirschman (1982) elevated emotion to having a more independent role in advertising. Their Hedonic Experiential Model (HEM) extended cognitive responses beyond conscious information processing to encompass subconscious experiential processing, and also extends the traditionally limited view of affective processing beyond liking and disliking to encompass emotions such as '*love, hate, fear, joy, boredom, anxiety, pride, anger, disgust, sadness, sympathy, lust, ecstasy, greed, guilt, elation, shame, & awe.*' (1982: 137). However, although they identified a distinct and separate role for emotion, their conclusions suggest

that they still saw emotion as no more than an adjunct which operates alongside information processing: *'Abandoning the information processing approach is undesirable, but supplementing and enriching it with ... the experiential perspective could be extremely fruitful'* (1982:138).

Three streams of thought seem to have developed after this. The first is illustrated by Jones' description of effective advertising as a *'... rational idea enclosed as it were in an emotional envelope'* (2002: 36). This notion, that emotion actively facilitates information processing, can be traced back to Berlyne (1964), who saw arousal as being critical for learning to take place. Berlyne's thinking was developed by Kroeber-Riel into his 'Activation Theory' (1979, 1984), which held that *'The emotional content of a stimulus induces 'phasic' activation (i.e. arousal) and activation promotes information processing'* (1984: 152). Ray & Batra (1983) extended this, postulating that emotion increases attention and memory: *'...affective advertising may ... be more effective ... because it is attended to more, processed more, evaluated more favourably, and remembered more'* (1983: 544). This idea now recurs frequently in both practitioner and academic literature (Biel 1990, Doyle 1994, Du Plessis 2005).

A second stream saw the power of emotion in advertising arising from the feelings that arise towards the advertisement itself (Smit, Van Meurs & Neijens 2006). Shimp advocated that attitude towards an ad can be 'transferred' to and influence attitude towards a brand when category involvement is low (1981). In simple terms, if the brand decision is not critical then ad liking can become brand liking, an idea echoed by Ray & Batra (1983). Srull (1983) offered an explanation why ad liking can result in product liking, suggesting that mood at the time of encoding information from advertising can influence the mood at the time of retrieval. So *'positive mood states led to more favourable evaluations'* and vice versa (Srull 1983: 524). However, a subsequent study by Gresham & Shimp questioned the assertion that

ad liking would affect brand choice (1985). This later study, aimed at establishing ad liking as classical conditioning, suggested that the transfer effect might *not* be present in advertising for established brands, and would be weak even in other cases, and further work by Machleit & Wilson (1988) suggested a variety of interactions between ad liking and brand liking. But in advertising agencies the link appears to be unquestioned: Kover Goldberg & James, in a study of creativity and effectiveness which interviewed both consumers and ad agency staff, found '*Copywriters believe the connection with advertising is always emotional*' (1995: 34) and that '*Positive affect is elicited by the advertising (and) is then transferred to the brand or product advertised*' (1995: 37).

A third stream examined the nature of consumers' emotional response to advertising. Rossiter & Percy (1985) operationalised both the informational and transformational ability of advertising, later categorising the nature of emotional response towards advertising and proposing this as a means of predicting effectiveness (Rossiter & Percy 1991, Rossiter, Percy & Donovan 1991). But Kover & Abruzzo found this categorization of 10 emotional responses too simplistic, listing no less than 58 different types of response (1993: 27).

The complexity of emotions and the difficulty encountered in analysing and measuring them is a common theme in literature, but nowhere is emotional content seen to play more than a supporting role to information processing. Research, however, suggests that emotion may be a great deal more influential on brand decision-making than has previously been supposed.

2. The Power of Emotion

In this section empirical evidence which supports the power of emotion in advertising is reviewed first. This is followed by learning from interpersonal behavioural psychology and cognitive psychology, both of which help to explain the power of emotion.

Empirical Evidence

It has long been held that communication can exert an influence on emotions that confounds cognitive processes. Wells & Petty confirmed experimentally that affective head movements can covertly interfere with communication (1980). They played a variety of auditory stimuli to subjects through headphones ostensibly designed for jogging and bike riding. The subjects were asked to rate the performance of the headphones on a number of dimensions, and in order to replicate the conditions of jogging and bike riding one group was asked to nod their head up and down, the other to shake their head from side to side. The ‘nodding’ group’s ratings were consistently higher than the ‘shaking’ group’s ratings. And not just a little higher: Zajonc & Markus, commenting on the results, observe that the effect was *‘stronger...than it would have been had Wells & Petty tried to change these attitudes by simple persuasion’* (1985: 130).

Evidence that advertising can interfere with rational processes in a post-purchase reinforcement situation has been produced by Kathryn Braun’s recent experimental work (1999). Braun created samples of Orange Juice of varying quality and gave it to subjects to taste, claiming it was a trial for a new brand. Following a distraction task, half the subjects were exposed to advertising for the brand. It was found that the advertising confounded the subject’s ability to judge accurately the quality of the juice, leading to substandard product being highly rated. Braun’s conclusion in her own words is that *‘...advertising received after a direct product experience altered consumers’ recollection of both objective sensory and affective components of that experience’* (1999: 332).

But there has been little hard evidence to support the idea that emotional content in advertising can work *better* than a rational persuasive message. Partly this is because advertising evaluation has historically been dominated by metrics which measure ‘thinking’ rather than ‘feeling’ (Wiles and Cornwell 1990). The problem is compounded by the

difficulty of isolating and measuring the impact of emotional content on the attitudes of the target market. As Vakratsas & Ambler observe, '*...cognition usually intervenes in measurement. Asking about feelings brings cognitive processes into play and induces cognitive bias*' (1999: 32). But recent studies conducted by Heath Brandt & Nairn appear to have overcome this problem.

Heath, Brandt & Nairn (2006)

These studies were conducted on a random selection of TV advertisements from a cross-section of different categories which had been on-air recently. 23 ads were tested in the USA and 20 in the UK, and all fieldwork was conducted via the internet. Firstly, a sample of respondents from each country determined the *in vivo* performance of the advertisements on brand attitudes. A 10 point semantic scale measured favorability towards the brands being advertised, after which respondents were exposed to clips from the ads to find out whether or not they had seen them. The brand favorability scores were then split between those who recognized and those who did not recognize the advertisement, enabling the change in favorability resulting from exposure (fav-shift) to be computed. It should be noted that levels of usage were controlled to ensure that there was no bias introduced by having significantly more users in either the recognizer or non-recognizer samples.

A second set of respondents from each country then tested the content of the ads, used a battery of scales derived from a large scale study by Holbrook & Batra (1987). Two of the six content dimensions elicited in this study – Emotional and Cerebral – were operationalised by Heath Brandt & Nairn to score the 'emotional content' (creativity) of advertising and the 'cerebral content' (message) respectively, using the three highest scale items from Holbrook & Batra to quantify each content dimension. Thus Emotional Content was measured using 'Emotive', 'Moody', and 'Soft-sell' as scale items, and Cerebral Content was measured using 'Rational', 'Newsy', and 'Informative' as scale items.

The data was next tested using stepwise multiple regression to see what if any correlations there were between favorability changes (Fav-shift), emotional content and cerebral content. The USA study (Table 1) showed a highly significant positive relationship between Emotional Content and Fav-shift ($R^2 = 0.283$, $B = +.014$, $p = 0.009$), but an insignificant positive relationship between Cerebral Content and Fav-shift ($R^2 = 0.290$, $B = +.002$, $p = 0.661$).

Table 1: Correlation Coefficients – US Data

The UK study (Table 2) showed a slightly stronger significant positive relationship between Emotional Content and Favorability Shift ($R^2 = 0.345$, $B = +.006$, $p = 0.006$), and in this case an inverse non-significant relationship between Cerebral Content and Favorability Shift ($R^2 = 0.364$, $B = -.001$, $p = 0.486$).

Table 2: Correlation Coefficients – UK Data

Combining the two samples raises the significance of the Favorability Shift – Emotional Content correlation to 99.9% ($R^2 = 0.255$, $B = +.008$, $p = 0.001$) but the negative UK relationship between Cerebral Content and Favorability Shift vanishes ($R^2 = 0.258$, $B = +.001$, $p = 0.673$). A Pearson Correlation (Table 3) confirms the results.

Table 3: Pearson (Zero Order) Coefficients versus Partial Coefficients

What these findings show is that for a random cross-section of 43 TV advertisements there is no significant influence on brand favourability from the Cerebral Content (message) in the ads, but there *is* a significant influence from the Emotional Content (creativity) in the ads. What is more, the absence of ‘Liking’ from the Emotional Content scale items suggests this is more than simply a matter of liking of ad transferring to liking of brand.

A possible explanation for the poor performance of Cerebral Content comes from Berlyne. Although he saw arousal as a critical precursor to learning, he found that high arousal did not

always facilitate learning: *'Degree of arousal is presumably crucial, since low arousal would presumably exclude learning (but) These verbal learning studies certainly indicate that high arousal can impede recall during the early stages of learning'* (1964: 131). This suggests that advertising with high levels of emotional content may interfere with the learning that is necessary in order for information processing to be effective.

Another possible explanation is that the randomly chosen ads were all deficient in the motivational ability of their message. This is perhaps not surprising in today's high pressure marketing environment, where product improvements are often matched within weeks, but TV advertisements may take months to get on air. Support for this explanation is provided by a study of 36 advertisements in the UK which found that only 14% contained information that was not already known to consumers (Ehrenberg et al 2000).

Regardless of these possible explanations, it is undeniably the case that the Emotional Content in the advertising is shown to have exerted an influence on brand favourability in the absence of any apparent contribution from a rational message. Curiously, this finding is also predicted in psychotherapy research into interpersonal communication.

Emotion in Interpersonal Communication

A foundation text amongst those who study interpersonal communication is the work of Watzlawick, Bavelas & Jackson (1967). Watzlawick et al. posit five axioms for communication, and it is the first three of these that are relevant to advertising. Their first axiom is that communication is always taking place: *'One cannot not communicate'* (1967: 51). They establish that even when two people are saying nothing they are still engaged in communication, via their body language and the very fact that they are maintaining silence. This they expand on in their second axiom: *'Every communication has a content and a relationship aspect such that the latter classifies the former and is therefore a*

metacommunication' (1967: 54). So the communication is the message itself, and the metacommunication is all the non-verbal paraphernalia which accompanies the message.

In their third axiom Watzlawick et al. draw an analogy between these two types of communication and the concept of 'digital' versus 'analogue'. They see 'communication' as the rational 'digital' message, which is clear, unequivocal, recognizable, easily analyzed and classified, but lacks emotional values. In contrast, the 'metacommunication' is the emotional 'analogue' qualifier, which is often subtle, disguised, hard to classify, sometimes even difficult even to identify. It needs only a little imagination to see that their description of interpersonal communication is analogous to the terms that advertising practitioners use when describing advertising. Where Watzlawick et al. talk of 'rational digital communication', the practitioner talks of the 'message'; and where Watzlawick et al. describe 'emotional analogue metacommunication', the practitioner talks of 'creativity'.

Watzlawick et al.'s study of the way in which relationships develop and break down sheds further light on how these two types of communication operate. They found that when relationships between couples were on the verge of collapse, the 'communication' was often perfectly reasonable and sensible, but it was the 'metacommunication' that was causing the breakdown. In other words, although people were saying good things, the *manner* in which they communicated caused friction and negativity. They found that by correcting the metacommunication they could often repair the relationship rift, even when damaging and negative things were occasionally said. From this, they conclude that it is this analogue metacommunication aspect of communication that is the main driver of relationships. So Watzlawick et al. indicate that it isn't likely to be the rational message that builds brand relationships, but the emotional creativity.

Watzlawick et al.'s findings explain how emotion in advertising can influence favorability towards brands. But there is also good evidence to show that emotion is a powerful driver of

decision-making.

Emotion in Decision-making

The idea that emotion is involved in decision-making goes back at least to the Lavidge & Steiner model, described earlier, but in their model the role emotion is limited to 'liking and preferences' (1962). The model also reflects the thinking of the time, which was that emotion was assumed to be post-cognitive, a function not a determinant of thinking (Schachter & Singer 1962). In 1980 Zajonc successfully challenged this assumption, showing that affective reactions were unavoidable, hard to verbalise, and, most important of all, need not depend upon prior cognition. As he points out, *'If ... preferences were nothing more than cognitive representations of object features marked with affect, then the problems of predicting attitudes, decisions, aesthetic judgements, or first impressions would have been solved long ago.'* (1980 p.158).

In later work, Zajonc & Marcus confirmed that preferences are *'...primarily affectively based behavioural phenomena'* (1982:124). Although some affective responses can appear post-cognitive, the cognition is always preceded by at least some level of affective response: *'...there are many circumstances in which the affective reaction precedes the very cognitive appraisal on which the affective reaction is presumed to have been made.'* (1982: 125). They also argued that decision-making research overestimated the role of cognition, because people believe they should act rationally and therefore claim rational behaviour in decision making that they haven't actually used.

Later still, Zajonc & Markus (1985), drawing on psychotherapy, suggested that Affective elements were critical to preference change: *'in the end it is the Affective element that must be altered'* (1985: 127), concluding that cognition and affect may depend on separate psychological and biological systems. Recently this idea has been confirmed by Damasio

(1994). Referencing cases where rational decision-making capability is impaired, he shows that emotions and feelings act as a gatekeeper to decisions, providing a bridge between the rational activity of the neo-cortex and the non-rational (limbic) functions of the sub-cortex. *'The apparatus of rationality, traditionally presumed to be neocortical, does not seem to work without that of biological regulation, traditionally presumed to be sub-cortical'* (1994: 128). His conclusion is that cognition is 'hard-wired' (sic) via the emotions, and that feelings are therefore capable of impeding cognition and even driving decisions in the face of negative cognition. This he used to explain intuitive decision-making, which he believes arises from 'somatic markers' (sic) – defined as *'...emotions and feelings... connected by learning to predicted future outcomes of certain scenarios'* (1994:174). A negative somatic marker associated with a particular outcome acts as a disincentive, but *'when a positive somatic marker is juxtaposed ... it becomes a beacon of incentive'* (1994: 174).

Damasio's findings indicate a far more important role for emotion in decision-making. He finds no evidence for a direct link between 'reasoning strategies' (sic) and decisions, but shows that emotions moderate *all* decisions. He also shows that emotions can be responsible for driving decisions on their own. If a prior situation has been experienced which has laid down a marker relevant to the present situation, then this marker can *'...lead to a decision directly, as when a gut feeling impels an immediate response'* (2004: 149). This sort of behaviour he predicts is likely to be enhanced when time is constrained.

Mittal (1994a) empirically confirmed the presence of a negative relationship between 'information processing mode' and the 'affective choice mode' but suggests that they are not dichotomous, and both can exist together. But Damasio's theory that feelings drive intuitive decision-making *has* been validated empirically by Shiv & Fedhorikhin (1999). By constraining decision time they were able to encourage the choice of chocolate cake over fruit salad and vice versa. Thus they were able to show that a time-poor environment encouraged

behaviour associated with positive affective responses, even though the associated cognitive responses were demonstrably negative. In other words, when time is limited (e.g. busy parents shopping for groceries with their children) our choices are likely to be driven by our feelings rather than by logic or rationality.

Mick Broniarczyk & Haidt (2004) describe the rise in choice coupled with a fall in available time as 'Hyperchoice'. They show that hyperchoice confuses people, and although initially attractive it is '*...ultimately unsatisfying ... and psychologically draining.*' (2004: 207)

Heath (2001) attributes a rise in intuitive decision-making to the fact that most categories offer a number of brands, all perfectly capable of satisfying consumers' basic needs. As a result, improvements to brands tend either to be trivial, or if important, to be matched with consummate rapidity. He cites as an example the introduction of no less than four brands of bagless vacuum cleaner being launched within 6 months of the introduction of Dyson's innovative machine.

Elliott (1998) presents a conceptual model of emotion-driven choice as an alternative to information-processing model. He suggests it is possible to 'emotionalise' (sic) product categories using advertising, citing instant coffee and ice cream as examples of categories that have been '*...repositioned successfully as products with romantic / sexual connotation*' (1998:105). He predicts emotion-driven choice will be non-linear and faster than reason-based decision-making. Pham states '*Recent developments in social psychology suggest that Affect may play a more central role in the decision-making process than previously recognised*' (1998: 144) and later he experimentally validates Elliott's prediction, finding also that feelings-based judgements are not only faster but '*more stable and consistent ... and... more predictive of the number and valance of people's thoughts*' (Pham et al 2001: 167)

But in order to be able to develop a reliable model of how emotion operates within

advertising it is necessary to understand better exactly how emotion is processed. Literature on this topic is reviewed in the next section.

3. The Processing of Emotion

Processing models tend to reflect the general view that Emotion is a relatively weak force alongside cognition. The MacInnis and Jaworski MOA model is an example (1989). The MOA divides advertising processing into three stages – Antecedents, Processing, and Consequence. Within the antecedent stage they have three mediating influences on the nature of processing – Motivation, Ability, and Opportunity.

The main driver of the Processing section of the model is the amount of cognitive resource (i.e. attention) deployed, and six levels are hypothesised, from total distraction to full attention. In the first level of processing the focus is entirely on secondary tasks, and processing capacity is extremely low. In the second level, attention is divided between the ad and the secondary task, and processing capacity is still low. At the third level attention is focused but processing capacity is still low. In levels four to six, attention is seen as focused, capacity is moderate to high, and active cognitive processing is taking place.

Emotion operates at a number of these levels. In level one *'feature analysis'* leads to *'mood-generating affect'*, but this has little effect on behaviour: *'Because attention is devoted primarily to the secondary task, brand or ad attitudes are unlikely to be formed'* (1989: 8). Those attitudes that are formed are expected to be weak and confused because *'Consumers do not pay enough attention to the ad to distinguish the ad from the brand'* (1989: 9). In level two, attention is divided, and *'pure affect transfer'* takes place. At this level they concede that affect may be tied to the ad, and with repetition, may *'... make the brand a conditioned stimulus for the evoked feeling. As a result, the brand may be capable of generating affective*

reactions on its own' (1989: 10).

Level three, however, opens the door to a different operation by emotion. The MOA speculates that level three will operate when '*attention is focused on the ad*' and '*low-moderate*' processing capacity is available, with the consequence that '*heuristic evaluation*' (consideration of past experiences and ideas) will take place (1989: 4). Note that it is in exactly this area of past experiences that Damasio's somatic markers are formed. MacInnis and Jaworski accept the potential of this, discussing the nonanalytical processing of '*schema-based knowledge*', and speculating that easily processed cues may infer brand attributes or benefits. They cite as an example how '*... a kitten in a tissue ad is likely to lead to the inference that the brand is soft*' (1989:11). But they see this as a lazy way of information processing, referencing Chaiken, who classifies this type of processing as '*Heuristic Information Processing*', and speaks of it as having '*... the economic advantage of requiring a minimum of cognitive effort*' and '*... a less reliable way of judging message validity*' (1980: 753). MacInnis & Jaworski do not commit themselves on whether this level of processing is likely to be able to influence behaviour on its own, i.e. in the absence of a comprehensible message.

Level four corresponds to the Central Route of the ELM, where persuasion is argument-based, and emotion appears not to need to play a part. But in level five and six emotion appears in its traditional role, in *support* of cognitive processing, to produce 'empathy-based' and 'self-generated' persuasion.

Meyers-Levy and Malaviya adapt the MOA into two main processing strategies – systematic and heuristic (1999). Their version of heuristic processing seems to assign slightly more power to emotion, suggesting it will be influential when consumers are seeking to minimise the effort of decision-making: '*The affective implications of these heuristic inferences then are used as a convenient basis of judgement*' (1999: 52). But again this route assumes that

emotions are being consciously consulted, in the form of ideas and experiences.

Meyers-Levy and Malaviya do consider the possibility of subconscious influence taking place, in a third processing strategy – Experiential Processing. This they characterise as being when ... *the amount of cognitive resources that people are willing or able to devote to processing is so meagre that only the most fleeting and scant message processing occurs*' (1999: 53). This they dismiss as a weak route to persuasion.

But Bagozzi et al. speculate that somatic markers may exert a subconscious influence during processing: '*We suggest that such unconscious processes influence or bias a number of antecedents to decision making*' (2002: 98). And the idea that emotional biases may operate at subconscious or even unconscious levels is strongly supported by psychology research.

Emotion and Attention

Experiments by Damasio have shown that emotions are processed autonomically, i.e. independent of will (2000: 55) and are always formed pre-cognitively (2000: 281). He finds that emotions and feelings are formed in what is called the '*proto-self*' (sic), whereas thoughts are formed in what is known as *core consciousness*. He shows that activity in the proto-self always precedes activity in core consciousness. He also finds that, whilst cognitive processing depends on working memory, processing of feelings and emotions is *independent* of working memory (2000: 122). Fitzsimmons et al. support this, claiming '*There is considerable evidence of non-conscious processes within each of these main categories of affective responses*' (2002: 274).

Bornstein goes a step further, and provides evidence that emotion is *more* effective when it is processed subconsciously (1989). Initially, using a meta-analysis of mere exposure research, he found that emotional attitudes are greatly enhanced in subliminal exposure; '*... exposure to subliminal stimuli actually results in attitude enhancement greater than that produced by*

briefly presented recognisable stimuli' (1989: 278). He referenced Kihlstrom (1987) for an explanation, who found that 'conscious countercontrol' (sic) processes are available to counter-argue against recognisable stimuli, but these processes are not available when the exposure is subliminal. But of more relevance is Bornstein's hypothesis that Kihlstrom's idea will not only apply to subliminal stimuli but also to '*unnoticed, unattended stimuli*' (Bornstein 1989: 281). Bornstein suggests that '*The most obvious application probably lies in the area of advertising, in which repeated, unreinforced exposure ... has long been one general approach used to enhance attitudes towards a product*' (1989: 283). In later work he confirms that the less aware consumers are of emotional elements in advertising, the better they are likely to work, because the viewer has less opportunity to rationally evaluate, contradict, and weaken their potency of the stimuli (1992).

If Emotional Content is processed better at low levels of attention, then this will explain why Emotion is able to influence consumer behaviour without appearing to be a 'strong' form of persuasion. It also dictates that any model which explains *how* emotion works will need to be based upon different levels of attentional processing. Attention in advertising is therefore reviewed next, prior to a new model being proposed.

4. Attention in Advertising

Although attention featured only sporadically in psychology in the first half of the 20th century (Nääätänen 1992) it has always been regarded as important in the field of advertising. In their review of over 250 papers Vakratsas & Ambler (1999) identify St Elmo Lewis' AIDA (Attention → Interest → Decision → Action) as the first formal advertising model, and between then and the mid fifties at least 8 similar sequential models starting with 'A' for attention are recorded by Barry & Howard (1990). From 1960 mentions of attention in

advertising models generally ceased (Vakratsas & Ambler 1999), probably because of the difficulty attached to measurement of attention on an ongoing basis (Heath & Nairn 2005). This conclusion is lent weight by the fact that ‘A’ for Attention is replaced by ‘A’ for Awareness from 1960 onwards, awareness being something which is more easily measured (Barry & Howard 1990).

But the absence of Attention from post 1960 advertising models does not signify that it has become irrelevant. What appears to have happened is that high attention has been accepted as *mandatory* to advertising effectiveness, and this is clear if one surveys current marketing textbooks. Kotler et al., for example, assert that “*The advertiser has to turn the ‘big idea’ into an actual ad execution that will capture the target market’s attention and their interest*” (Kotler, Armstrong, Saunders & Wong 1999: 800). Likewise Rossiter and Percy state that “*...advertising associations attempt to accomplish three things: attention, brand awareness, and persuasion.*” (1998: 279) Even the UK’s most celebrated marketing academic, the late Peter Doyle, wrote “*For an advertisement... to be effective it must achieve first exposure and then attention*” (1994: 240).

This ‘messianic’ belief that attention is necessary for effective advertising processing arises in part from Craik & Lockhart’s theory (1972) that deeper processing results in more enduring memories. However, this idea was challenged some by Eysenck (1978), and the authors were forced to accept that “*... the notion of depth of processing by itself is insufficient to give an adequate characterisation of memory processes*” (Lockhart & Craik 1978: 174). In later work they completely revised their view that shallow processing leads to rapid forgetting, accepting that shallow processing of sensory information could persist “*... for hours, minutes, and even months*” (Lockhart & Craik 1990: 98). So what exactly is the relationship between attention and memory, and where does emotion fit in?

Psychology of Attention

Part of the problem is that marketing textbooks use the word attention in the same rather simplistic way it was defined by the psychologist William James at the end of the 19th Century: “... *the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought*” (James 1890: 403). Attention, however, is not an on-off process, any more than consciousness itself. Damasio states ‘...*both consciousness and attention occur in levels and grades, they are not monoliths, and they influence each other in a sort of upward spiral*’ (2000: 91). It is important therefore to consider not just the direction of attention but the *level* of attention being paid. In this article, the level of attention is defined as the amount of cognitive resource being deployed, in line with MacInnis & Jaworski (1989).

James defines two important boundary levels of attention – active and passive. Active Attention is when learning is wilful or deliberate, and the process is controlled by the individual’s goals. This corresponds to what is known as ‘top-down processing’ (Eysenk & Keane 2000: 2), in which the processing strategy is goal-driven. Passive Attention is when learning is inadvertent and is controlled by external stimuli. This corresponds to what is known as ‘bottom-up processing’, in which the processing strategy is stimulus-driven. (Eysenck & Keane 2000: 119). Active and Passive learning both occur when the subject is *aware* that learning is taking place. However, awareness is not mandatory for learning: ‘*meaning may be processed without awareness*’ (Eysenck & Keane 2000: 122). Learning which takes place without awareness is defined as Implicit Learning (2000: 532).

It has been accepted for over a century that much of what we process is perceived subconsciously: ‘*Hamilton, Carpenter & Laycock observed that the human perceptual system operates largely outside of conscious awareness, an observation also made by Herman Helmholtz*’ (Wilson 2002: 10). What is more of an issue is our ability to use

cognition subconsciously. Wilson asserts that '*... the unconscious mind may have limited cognitive abilities*' (2002: 65). And Damasio (2004) has established that implicit learning is independent of cognitive resource and working memory, which means *by definition* it cannot analyse and interpret messages. He finds, however, that implicit learning is fully automatic, and, unlike active and passive learning, it never switches off. It operates continuously and subconsciously:

It is important to stress that subconscious is *not* the same as subliminal. The term subliminal applies to stimuli that operate '*below the threshold of sensation or consciousness*' (Oxford Compact English Dictionary 1996: 1030). *Subliminal* advertising refers therefore to things we cannot consciously perceive, for example, frames in film exposed for less than about 1/10th of a second. Advertising which operates like this (i.e. below the threshold of perception) has been shown by Moore (1982) to be weak at best and generally ineffective, a conclusion supported by a meta-analysis of 23 studies by Trappey (1996) which showed '*...that the effect of subliminal marketing stimuli on influencing consumers' choice behaviour or selection process is negligible*' (1996: 528). In contrast, *subconscious* processing takes place when the advertising is capable of being seen or heard but no active attention is paid to it. Likewise, *semiconscious* processing takes place when the advertising is capable of being seen or heard but is processed with a low or divided level of attention. Shapiro Macinnis & Heckler (1997) have confirmed empirically that subconscious processing of advertising can influence buying decisions. Using a computer-controlled magazine in which test material was placed in a column to one side whilst visual attention was constrained on the centre columns via the performance of two tasks, they concluded that advertising can affect buying decisions '*...even when subjects ... do not process the ad attentively and ... do not recollect ever having seen the ad*'. (1997: 102).

Implicit Memory

Implicit learning stores information in implicit memory (Berry & Dienes 1991), and Meyers-Levy and Malaviya have suggested that implicit memory might shed further light on their low attention experiential processing strategy: *'A particularly promising approach which might be taken to advance our understanding of persuasion that occurs through an experiential processing strategy is to follow up on clues offered in the implicit memory literature.'* (1999: 55).

Implicit memory has some important properties. Not only has it been shown to be independent of attention (Jacoby, Toth and Yonalinas 1993), but it differs from explicit (i.e. attentive) memory in three further ways:

- 1) Implicit memory is more durable than explicit memory. (Allen & Reber 1980, Hunt, Kernan & Bonfield 1991).
- 2) Implicit memory is more capacious than explicit memory (Standing 1973).
- 3) Implicit memory, like implicit learning, cannot operate cognitively, i.e. cannot analyse and interpret information and develop new opinions from it (Berry & Dienes 1991).

But although Implicit Memory does not operate cognitively it has been shown to be capable of operating conceptually, i.e. to be capable of retrieving meanings (e.g. emotional markers) from semantic memory and attaching these to what is perceived (MacAndrews, Glisky & Schacter 1987, Vaidya et al. 1995). This has been experimentally confirmed in an advertising context by Shapiro (1999), who exposed artificially-created advertisements for made-up brands in a variety of permutations (product alone, product + relevant and irrelevant contextual elements etc.) in conditions designed to minimise attentive fixation. Shapiro's findings confirmed that advertising processed implicitly is able to connect with semantic

memory and therefore is able to influence attitudes towards brands.

What this shows is that advertising which is *capable* of being perceived can be processed without active attention yet can influence brand attitudes and choice. Alba (2000) claims this sort of inattentive perception is a manifestation of '*mindlessness*' (sic) by consumers. He cites Dickson & Sawyer's (1990) finding of low awareness of grocery prices even under very favourable conditions as evidence that the consumer's '*...knowledge is generally low and skills are weak or irrelevant?*' (Alba 2000: 1). Bargh, however, identifies such behaviour not as mindless, but as a result of the '*real, noisy, busy world*' where '*deliberate conscious choice processes*' are rejected in favour of automatic choice (2002: 281). His view accords with the experimental findings of Shiv & Fedorikhin (1999) mentioned earlier. In summary, Implicit Memory is independent of cognitive resource, operates continuously and automatically whether we are paying a lot or a little attention or even no attention at all, and is capable of attaching emotional meaning to anything that it perceives.

Damasio's finding discussed earlier that emotions and feelings are formed pre-cognitively, subconsciously and autonomically suggests that the majority of affective processing must take place within implicit not explicit memory. This points to a complex sequence in which affect is processed initially and pre-cognitively by implicit memory, after which we then start cognitively processing (i.e. 'thinking') using explicit memory, and during this second phase we will 'think' about what we felt. Le Doux confirms this, stating '*It is, indeed, possible for your brain to know that something is good or bad before it knows exactly what it is*' (1998: 69).

The idea that we process the emotional aspects of communication automatically is also supported by Watzlawick et al (1967), who find that the patterns in metacommunication are processed and learned by us automatically, regardless of how much attention we pay. More important is that they find that the digital 'message' in communication fades and vanishes

over time, whereas the subtle creative patterns evoked by the analogue relationship-building metacommunication endure, often for years.

So the emotional values arising from creativity which are automatically stored in implicit memory are going to be far more durable than the rational ‘messages’ which are systematically stored in explicit memory. However, the durability of implicit memory will count for nothing unless these emotional values are linked to the brand in some way, and this linkage is likely to be facilitated by repetition.

Repetition

Petty & Cacioppo, writing about the ‘affectively-based’ Peripheral Processing route, describe it as ‘*automatic, shallow, heuristic, and mindless*’ (1986: 191), and it is clear from the use of the word ‘automatic’ that they see Peripheral Processing as a substantially low attention process. One of the significant findings of the second experiment that led to the development of the ELM was that Peripheral Processing, like many forms of associative learning, benefits from repetition (1986). MacInnis & Jaworski, writing of their level one and two processing, draw a similar conclusion, stating that ‘*Though the emotional or evaluative linkage between the ad and brand may be ephemeral at first exposure, repeated associations between the affectively-laden stimulus and the brand may make the brand a conditioned stimulus*’ (1989: 10).

The value of repetition in a low attention environment has been demonstrated by D’Sousa & Rao, who exposed subjects to repeated radio advertising for a mature market in a divided attention situation (1995). They found evidence of ‘small but significant’ (sic) increases in top-of-mind brand awareness, predicted brand share, and brand choice, resulting from increased repetition.

Repetition does not always have a beneficial effect, and low attention repetition seems to

work best if the same execution is used. Manchanda et al (2006), investigating banner advertising on the internet, found that number of exposures, web pages, and sites all had a positive effect on the likelihood of repeat purchase. But they found that increasing the number of creative executions had a negative effect. Experimental work by Christie Nordheim (2002) explains this. She found that repetition when ads are subject to deeper processing caused a downturn in affective responses – wear-out if you prefer. But when ads were processed in a shallow fashion, affective responses are enhanced and there was no evidence of a downturn after repetition. In effect, Nordheim shows that consumers' behaviour of paying less attention to ads they have seen before is likely to greatly extend their acceptability. Indeed, it would seem perhaps that it is only ads which actively *seek* to provoke high levels of attention that are likely to annoy consumers.

This brings us to the core problem facing the information processing paradigm, which is that consumers mostly try quite hard to avoid paying more attention to advertising than they need to. A survey in 1994 found half of consumers disliked TV advertising, and one third admitted to actively avoiding paying any attention to ads (Mittal 1994b). Tellis, even though he endorses Doyle's view of the importance of attention, points out that consumers, when bombarded by advertising, use selective attention to '*...simply ignore most messages that reach them...*' (1998: 120). This explains the finding discussed earlier, that emotional content in TV advertising is correlated with increased brand favourability and cerebral content is not. Emotional content – the creative elements in advertising – appears to be able to be repeatedly and implicitly processed at low attention, build strong relationships and attach emotional values to brands, all without disturbing the consumers' peace of mind much if at all. Cerebral content – the message in advertising – cannot do this, because it needs active attentive processing in order to be understood and stored. But it is exactly this attentive processing, which marketing textbooks unanimously exhort us to strive for, which

bores and irritates consumers. And their boredom and irritation incites them to counter-argue the message, and so nullifies its effect.

5. A Model of Emotional Processing

Summarising the finding so far:

1. Emotion is generally seen as exerting a weak influence on brand choice, mostly operating to facilitate improved levels of attention and information processing
2. However, it has been shown that feelings and emotions play an important role in driving decision-making, especially when decision time is constrained.
3. It has also been shown that emotional content in interpersonal communication is capable of building strong relationships.
4. It has also been shown that emotion is processed automatically and regardless of how much attention is paid, and may very possibly be processed *more* effectively at a subconscious level, when counter-argument is inhibited.
5. *In vivo* research into the effect of advertising has demonstrated that emotional content appears to have a significant positive effect on brand favourability, but cerebral content (i.e. the message) appears to have no significant influence.
6. It is concluded that brand choice is likely to be vulnerable to influence from emotional content in advertising, especially when this is exposed repeatedly.

The above indicates the need for a model which allows emotional content on its own to exert a similar 'persuasive' influence on brand decisions as traditional informational (i.e. message-based) content. Vakratsas & Ambler include a section on 'pure affect' models, and it might be thought that this route is most appropriate for developing a model in which emotion has

the greatest influence. But they observe that ‘...models based purely on affective responses are rather improbable, because some awareness appears to be a necessary condition for advertising effectiveness’ and ‘Advertising typically works on both the cognitive and affective planes’ (1997: 32). The model proposed follows this advice.

A Hierarchy-of-Processing Model

As discussed earlier, emotion is processed implicitly and automatically, which means the effects of Emotional Content are not always evident to consumers. This in turn leads to the role of emotional content being underestimated. Because of this a ‘hierarchy-of-effects’ approach is rejected in favour of a ‘hierarchy-of-processing’ model which integrates new learning in psychology.

A rationally-persuasive hierarchy-of-processing model is relatively straightforward to design. If it is assumed that high attention is paid to an advertisement, this will lead to explicit processing and Active Learning taking place. Active Learning will form ‘perceptual’ memories (literally what is seen and heard) but it will also analyse and interpret these perceptions – cognitively process them, as Brock & Shavitt describe it (1983) – and form what we might call ‘analytical’ memories. These analytical memories will create brand-linked beliefs, and if these beliefs are sufficiently persuasive then attitudes will be changed and purchase decisions influenced. This route, depicted in Figure 1, illustrates traditional rational persuasion.

Figure 1: Rational Hierarchy-of-Processing Model

The weakness of this route is that it makes ‘Descartes Error’ (Damasio 1994), and assumes Active Learning is able to lead to persuasion without the help of any emotional input. As every psychology textbook will tell you, Active Learning is always accompanied by lower attention learning (Eysenk & Keane 2000), and, as Damasio shows, persuasive decision-

making cannot take place unless the emotions concur (1994, 2004). Indeed, by excluding automatic processing, this rationally persuasive route does not provide for emotional content to have any effect other than enhancing attention and Active Learning.

In order to incorporate a greater influence for emotional content it is necessary to generate a second lower-attention processing route. It has already been established that low attention processing comprises both shallow processing and fully automatic processing, and these lead to Passive Learning and Implicit Learning respectively. Passive Learning is able to perform cognitively, so it can produce good perceptual memories but relatively weak analytical memories. This is an important property when it comes to processing advertising, as it means Passive Learning can link perceptions to brand names, and produce strong brand associations, without the need for Active Learning.

Implicit Learning, as we have established, is non-attentive and automatic. It is also non-cognitive, so it cannot analyse or interpret anything, and cannot contribute to analytical memories at all. It can, however, perceive things extremely well – if it didn't then most of us wouldn't be here, because we would have been run over by the first car we didn't spot out of the corner of our eye. So Implicit Learning contributes to perceptual memories.

But the most important role of Implicit Learning in the model is that it is responsible for emotional processing: it automatically processes the emotional values in the advertising content and stores these in semantic memory as what we might call 'conceptual' memories. Of course, Implicit Learning can only link these to a brand name if Passive Learning also takes place, and even then the effect is likely to be the weak '*pure affect transfer*' described in level two of MacInnis & Jaworski's MOA (1989:4).

But suppose a familiar scenario is presented in the advertising – say a clown, or a baby, or Father Christmas, or a cowboy. Implicit Learning will be able to automatically activate

‘somatic markers’ which the consumer has built up around the scenario, from personal past experiences, TV and films etc., and present a much more complex and powerful set of emotional values. Provided this scenario is repeated a few times, and is reasonably unique, Passive Learning will be able to link the whole scenario to the brand as a brand association. In this way the scenario association acts as a ‘bridge’ between the brand and the powerful emotional values.

Processing like this will not establish strong rational brand performance benefits in the consumer’s mind, but instead it will build equally tangible ‘brand associations’ which are emotionally charged, or ‘*emotionally competent*’ as Damasio describes it (2004: 91). The key difference is this: the brand performance benefit derives from a rational message, which consumers can subject to scrutiny and examine for credibility; the emotionally-competent brand association is unlikely in itself to be seen to convey any rational message, so the credibility of the association is unlikely ever to be questioned. Even more important, the brand performance benefit results in an *overt* change in attitudes which consumers can counter-argue and nullify, but the emotional response generated by the brand association is automatic, internal, and self generated, and the resulting changes in attitude will therefore be covert. And you *cannot* counter-argue attitude changes which are covert and which you are not aware of. The implication is that Emotion presented in this way, through the medium of an emotionally competent brand association, can influence your buying decision – ‘persuade’ you, if you like – without you being aware of it. The full model is shown in Figure 2.

Figure 2: Rational and Emotional Hierarchy-of-Processing Model

At face value the formation of emotionally competent brand associations appears to correspond to the level three ‘*heuristic evaluation*’ of the MOA (1989:4). But there are important differences between the MOA and this new model:

- 1 In the MOA, attention needs to be *'focused on the ad'* (1989:4). The new model requires only inattentive shallow and automatic processing to be taking place.
- 2 In the MOA, heuristic evaluation appears to be active and conscious: *'schema-driven knowledge is used to interpret and evaluate... salient ad cues'* (1989:11). In the new model the evaluation is automatic and therefore likely to be subconscious.
- 3 In the MOA, heuristics operate in respect of the message: *'Note that though responses are generated from the execution, the consumer uses them to make inferences about the message'* (1989:11). In the new model the message does not need to play any part in the emotional processing.
- 4 In the MOA, credibility and comprehensibility of the message is important: *'Cognitive and emotional responses to the credibility (and) comprehensibility of the ad ... will be the strongest determinants of brand attitude'* (1989: 11). In the new model, issues of credibility and comprehensibility surrounding the brand association will address whether or not it has relevance to the product category and is convincingly portrayed. Neither of these will impinge on brand attitudes changes, which will happen automatically and mostly subconsciously.

Examples of the success of Emotional Persuasion

Is there any evidence that this route produces advertising that builds successful brands? Take the four examples alluded to earlier. Everyone remembers Ronald McDonald, whose tenure of McDonald's advertising coincided with a period of astonishing business success. Perhaps not so many will recall the sweet and helpless-looking baby which ran for 16 years in Michelin tyre ads, a period in which the brand's reputation grew consistently. Is it any coincidence that the most famous icon in the world – Father Christmas – was developed in advertising by possibly the most successful brand in the world – Coca Cola? And everyone

associates the cowboy, a symbol of freedom and independence, with Marlboro, the world's most successful cigarette brand. Nowadays of course the association is with Michael Schumacher, Ferrari, and Formula One car racing, which trigger emotional values arguably even more potent amongst young people: speed, excitement, danger, success, wealth, celebrity status, etc.

All of these campaigns share important similarities. All ran or have run for long periods, achieving the level of repetition identified as important in both Ehrenberg's (1974) Reinforcement model and Petty & Cacioppo's (1986) Peripheral Processing route. And in all of them the message was relatively irrelevant, and has long been forgotten, whilst the emotive power of the association lives on undiminished. This is entirely in accord with the enduring nature of emotional meta-communication, as identified by Watzlawick et al (1967).

Two further qualifications are needed to complete the model. It would be foolish to deny that emotionally competent associations can sometimes also have an overt effect on attitudes. It is possible, for example, that a few consumers might make a rational decision to visit a McDonald Hamburger Restaurant because they know their children like clowns, or buy a Michelin tyres because they approved of the babies shown in the ads. These eventualities are illustrated by connecting lines between 'Brand-linked Emotionally Competent Associations' and 'Brand-linked Beliefs' and 'Overt attitude change towards Brand'. It is also possible for emotional content in advertising to contribute towards the successful formation of beliefs, and this is reflected in a dotted connection between 'Conceptual memories' and 'Brand-linked Beliefs'. Further links may be conjectured, and the author invites others to contribute to this discussion.

6. Implications for Advertising Development

In an ideal world every product has a unique selling promise: as Rosser Reeves put it, ‘...one strong claim, or one strong concept’ that the consumer remembers from the advertisement (Reeves 1961: 34). But the start of the third millennium is not an ideal world. Product and service improvements are matched by competitors with effortless ease (Heath 2000) and certainly within the time frame it takes to write, cast, film, and post-produce a TV commercial. The reality is that there is no longer much if any strategic ‘high ground’ left. Yet every client and every ad agency still brief their advertising using message-linked terminology (Hall & Maclay 1991, Heath & Feldwick 2007). And there appears to be no doubt in anyone’s mind that this is the *right* way to approach communication. As Heath & Feldwick put it: ‘*The ideas and the words that continue to dominate advertising’s professional discourse –attention, recall, proposition, benefits, message – are taken for granted... as simple descriptions of an objective reality, or absolute truths beyond questioning*’ (Heath & Feldwick 2007).

The matter is made worse by the behaviour of the consumer. As Tellis so eloquently points out, consumers ‘... do not yearn for ads’ (1998: 121). Clancey (1992) reveals two thirds of respondents are doing some other activity when watching television, and Soley (1994) quotes various studies which find between 20% and 40% of people leave the room when the advertising breaks are on. And as long ago as 1989 Gilmore & Secunda quoted sources which found that between 70% and 90% of viewers ‘zipped’ (i.e. played them through fast forward) ads in previously recorded material.

But in this article there are some important new constructs which help to overcome these problems. Emotional content in advertising is revealed as being not just a crutch to increase attention and support message communication, but a persuasive communication mechanism *in its own right*. Moreover, emotional content is infinitely variable and is thus more easily made unique to the brand. Emotional content can be ‘owned’ by a brand in a way that is

mostly no longer possible with a factual message. Best of all, emotional content actually appears to work better when less cognitive resource is used and less attention is paid.

Given this scenario it is clear that marketers need not just to embrace emotional content in advertising, but *plan* it. The paragraphs in the creative brief that refer to ‘creativity’ or ‘mood’ or ‘tone-of-voice’ should not be there as an afterthought alongside the informational message, they should be elevated alongside it. And they should be subject to exactly the same amount of discussion, consideration, market research, and soul-searching as the proposition and the informational message it contains. Indeed, there is an argument in this article which suggests that the creative elements should be given *more* attention than the message, as the message is quite possibly not going to be either new or interesting to the consumer.

A case study illustrates what can happen when the message is ignored and the focus of effort is directed entirely onto the emotional communication. Heath & Feldwick (2007) quote a campaign in 1999 for a snack food product aimed at teenagers. The TV advertising consisted of a pop song accompanying a series of surreally linked and sometimes bizarre scenes through which the product passed. But what was unusual about this song was that the lyrics were nonsense – meaningless gibberish. So the ad contained no factual message at all.

The ad was pre-tested using standard metrics for ‘ease of understanding’, ‘believability’, ‘relevance’, ‘branding’ and ‘persuasion’. Not surprisingly, since the ad contained no message, the results were disastrous. Even the music was disliked. But because of timing consideration the ad was put on air.

The results were exceptional. The ad became the most recalled and liked ad among teenagers and adults for three months in a row, in an independent survey of all advertising in its geographical market. It achieved high spontaneous recall, with 93% liking the ad very much,

especially the song. Most importantly, the brand took a substantial share of the market.

How the ad achieved this can be explained by this article. It was exposed repeatedly, and so the visuals and music became closely linked with the brand as an association. It can be assumed that this emotional content triggered a whole variety of emotional markers in the audiences' mind. We can speculate what these markers might have been: some would have seen it as crazy art, some just a bit of fun, others perhaps viewed it as an iconoclastic attack on advertising itself. All of these would have changed attitudes towards the brand, made consumers feel it was young, fresh, bold, and exciting. Probably most consumers never actively realised their attitudes were being influenced in this way, but it clearly worked, because the sales results were not only excellent, but could not be attributed to any other influence.

7. Discussion

This article has reviewed existing opinions on the role of emotion in advertising, new research which suggests emotional content may be more effective in creating strong brands than rational factual messages, and new learning on the psychology of emotional communication and its role in decision-making. The findings point to emotional content being a powerful aid to marketers in what are fairly troubled times.

In order to help marketers and advertisers to use emotional content more effectively, a hierarchy-of-processing model, incorporating both emotional and rational persuasion, is proposed. This model is not intended to invalidate previous models, it adds to them, increasing the importance of emotional communication so that it can stand alongside and operate in tandem with its rational counterpart.

What the model does do is call into question assumptions that have been made about other constructs. Perhaps the level of attention (i.e. *cognitive* resource being deployed) being paid

to advertising is not a vital as marketers think it is? Perhaps *engagement*, which can be defined as the amount of *feeling* being deployed, is what we should all be concerning ourselves with? The author welcomes further discussion on these issues.

The model also raises an ethical dilemma. If emotional content in advertising *is* able to work at low attention and influence attitudes covertly, then advertising cease to behave ‘... *openly, in the bare and pitiless sunlight*’ (Reeves 1961: 70) and starts to behave like Vance Packard’s ‘Hidden Persuader’ (1957). This brings with it new responsibilities. It is easy, in hindsight, to condemn Phillip Morris’s use of the iconic cowboy to sell cigarettes. It is a great deal harder to predict what harm may be being done right now by seemingly innocuous emotional elements in advertising. This topic needs much more discussion.

In conclusion, it appears that Duncan & Moriarty’s view of communication being about ‘...*creating and sending messages...*’ (1999: 44) is oversimplistic, misleading, and plain wrong. As Watzlawick says, ‘*Every communication has a content and a relationship aspect such that the latter classifies the former and is therefore a meta-communication*’ (1967, p.54). If he is right, and the evidence suggests he is, then it is this contextual affective relationship-building meta-communication which changes fundamental feelings and attitudes towards brands, not the message it qualifies. The advice to those developing advertising is never to forget that the ‘message’ is really only one part of advertising, and that what might be called the ‘messenger’ – the advertising itself – is arguably a greater influence on the way people behave.

Table 1: Correlation Coefficients – US Data

		Cerebral	Emotional	Fav-Shift
Cerebral Content	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	23		
Emotional Content	Pearson Correlation	.403	1	
	Sig. (2-tailed)	.057		
	N	23	23	
Fav-Shift	Pearson Correlation	.291	.532 **	1
	Sig. (2-tailed)	.178	.009	
	N	23	23	23

** Correlation is significant at the 0.01 level (2-tailed).

Table 2: Correlation Coefficients – UK Data

		Cerebral	Emotional	Fav-Shift
Cerebral Content	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	20		
Emotional Content	Pearson Correlation	-.241	1	
	Sig. (2-tailed)	.307		
	N	20	20	
Fav-Shift	Pearson Correlation	-.275	.587 **	1
	Sig. (2-tailed)	.240	.006	
	N	20	20	20

** Correlation is significant at the 0.01 level (2-tailed).

Table 3: Pearson (Zero Order) Coefficients versus Partial Coefficients

Correlation with Favorability Shift (Fav-shift)						
	USA & UK		USA only		UK Only	
	Zero-Order	Partial	Zero-Order	Partial	Zero-Order	Partial
Cerebral Content	+0.09	+0.07	+0.29	+0.10	-0.28	-0.17
Emotional Content	+0.50**	+0.50*	+0.53**	+0.47*	+0.59**	+0.56*
* Correlation is significant at the 0.05 level of confidence						
** Correlation is significant at the 0.01 level of confidence						

FIGURE 1:

Rational Hierarchy-of-Processing Model

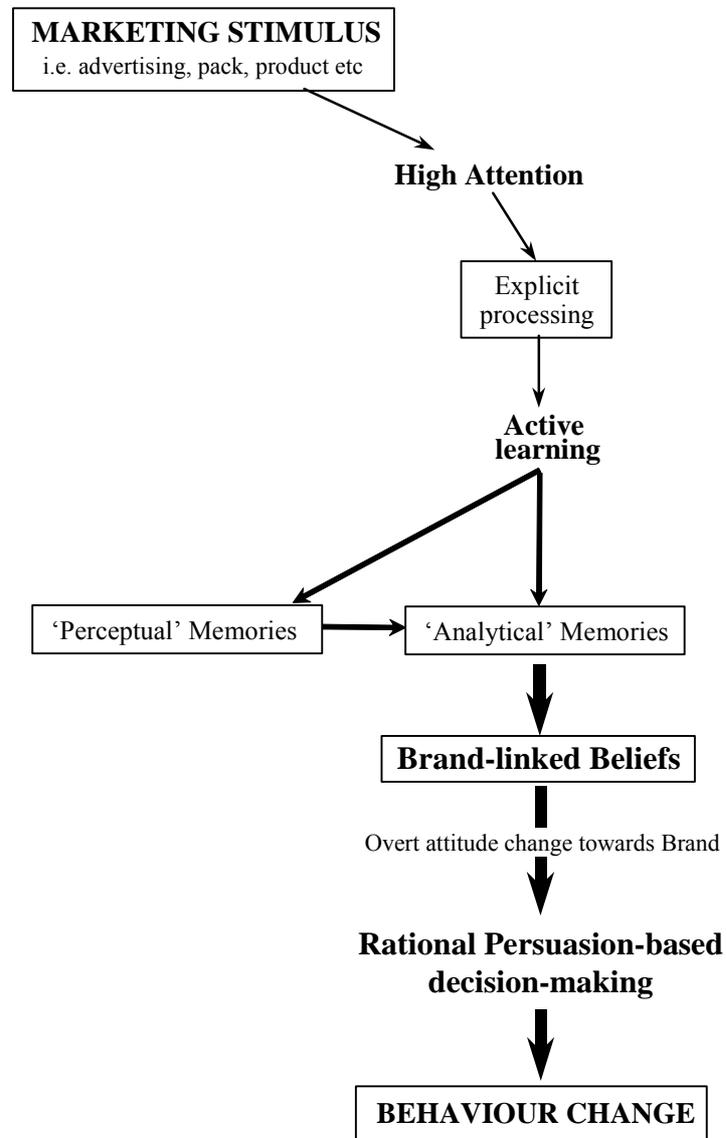
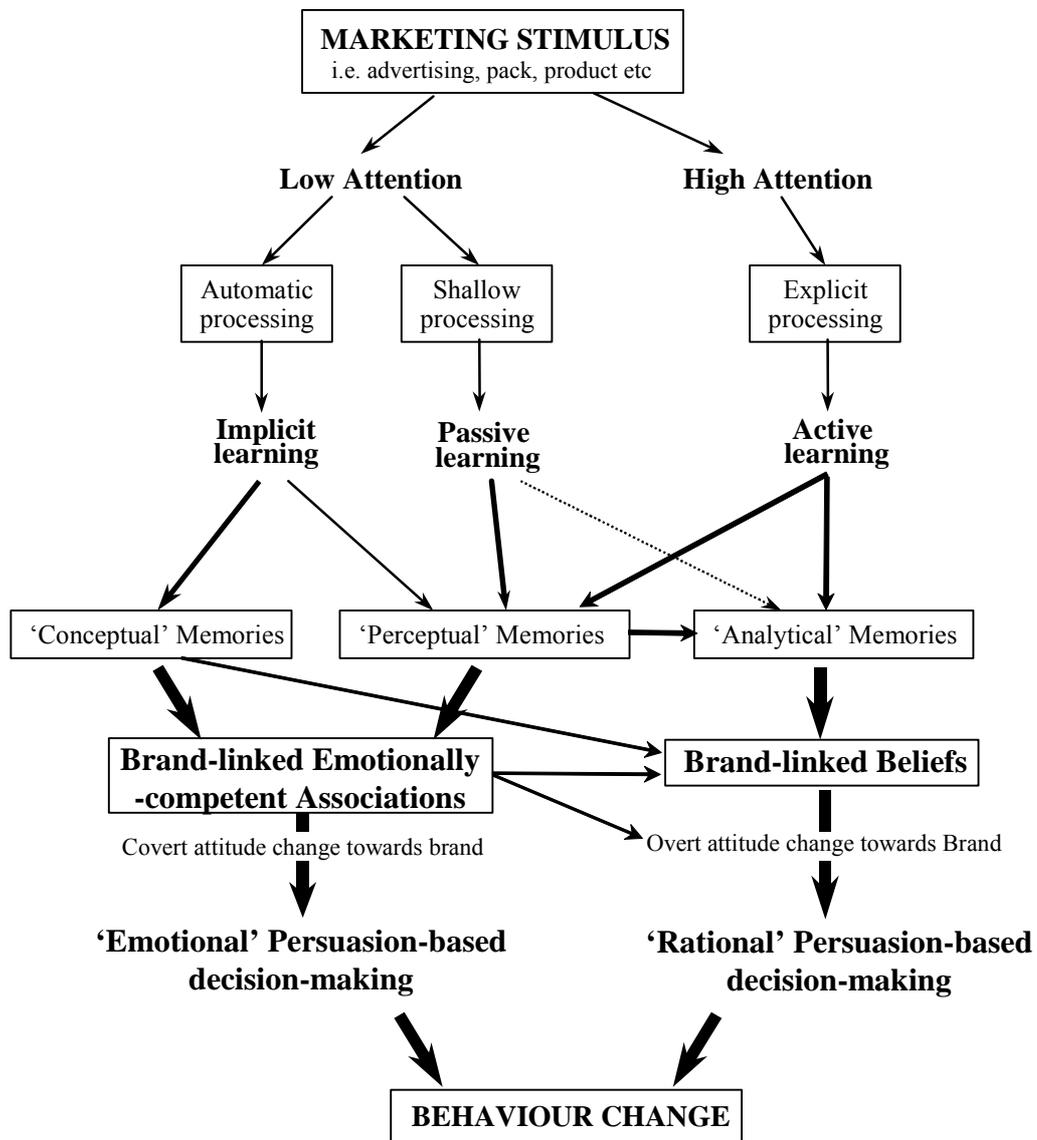


FIGURE 2:

Rational and Emotional Hierarchy-of-Processing Model



REFERENCES

- Adcock, D., Bradfield, R., Halborg, A. & Ross, C. (1998) *Marketing Principles and Practice*, Financial Times, London, UK
- Alba, J.W. (2000) Dimensions of consumer expertise... or lack thereof, *Advances in Consumer Research* Vol. 27, No.1: 1-9
- Allen, R. & Reber, A.S. (1980) Very long term memory for tacit knowledge. *Cognition* Vol. 8: 175-185, cited in Berry & Dienes (1991)
- Armstrong, G. & Kotler, P. (2007) *Marketing - An Introduction*, Pearson Prentice Hall, Upper Saddle River, NJ
- Bagozzi, R.P., Gürhan-Canlii, Z. & Priester, J.R. (2002) *The Social Psychology of Consumer Behaviour*, Open University Press, Buckingham, Philadelphia, USA.
- Bargh, J.A.. (2002) Losing Consciousness: Automatic Influences on Consumer Judgement, Behavior, and Motivation. *Journal of Consumer Research* Vol. 29, Issue 2: 280-285
- Barry, T.E. & Howard, D.J. (1990) A review and critique of the hierarchy of effects in advertising, *International Journal of Advertising* Vol. 9 Issue 2: 121-135
- Berlyne, D.E (1964) Emotional Aspects of Learning. *Annual Review of Psychology*, Vol. 15: 115-142
- Berry, D.& Dienes, Z. (1991) The relationship between implicit memory and implicit learning, *British Journal of Psychology* Vol. 82, Issue 3: 359-374
- Biel, A. L, (1990) Love the Ad. Buy the Product? Why Liking the Advertising and Preferring the Brand Aren't Such Strange Bedfellows After All," *Admap*, September
- Bornstein, R.F. (1989) Exposure and Affect: Overview and Meta-Analysis of Research, 1968-1987, *Psychological Bulletin* Vol.106, Issue 2: 265-289

- Bornstein, R.F. (1992) Subliminal mere exposure effects, in *Perception without awareness: Cognitive, clinical, and social perspectives*, R.F. Bornstein and T.S. Pittman, eds, Guilford, NY. 191-210
- Braun, K.A. (1999) Postexperience advertising effects on consumer memory, *Journal of Consumer Research* Vol.25, Issue 4: 319-334
- Brock, T.C. & Shavitt, S. (1883) Cognitive Response Analysis in Advertising, in *Advertising & Consumer Psychology*, Percy, L. & Woodside, A.G. eds, Lexington Books, Lexington MS, Chapter 5: 91-116
- Chaiken, S. (1980) Heuristic vs. Systematic Information Processing and the Use of Source vs. Message Cues in Persuasion, *Journal of Personality and Social Psychology* Vol. 39 (May): 752-766
- Clancey, M. (1994) The Television Audience Examined. *Journal of Advertising Research*, Vol. 34 Issue 4: 76-86
- Craik, F.I.M. & Lockhart, R.S. (1972) Levels of Processing: a Framework for Memory Research, *Journal of Verbal Learning and Verbal Behaviour* Vol. 11, 671-684
- Damasio, A.R. (1994) *Descartes' Error*. G.P. Putnam's Sons, New York.
- Damasio, A.R. (2000) *The Feeling of What Happens*. Heinemann, London
- Damasio, A.R. (2004) *Looking for Spinoza*, Vintage edition, Random House, London
- Dickson, P.R. & Sawyer, A.G. (1990) The Price Knowledge and Search of Supermarket Shoppers, *Journal of Marketing* Vol. 54, Issue 3: 42-53
- Doyle, P. (1994) *Marketing Management & Strategy*. Prentice-Hall, Hemel Hempstead, Herts, UK
- D'Sousa, G & Rao, R.C. (1995) Can repeating an advertisement more frequently than the competition affect brand preference in a mature market? *Journal of Marketing* Vol.59, Issue 2: 32-42

- Duncan, T. & Moriarty, S. (1999) Brand relationships key to agency of the future, *Advertising Age*, Vol. 70, Issue 10: 44
- Du Plessis, E (2005) *The Advertised Mind*, Kogan Page, Pentonville Road, London, UK
- Ehrenberg, A.S.C. (1974) Repetitive Advertising and the Consumer. *Journal of Advertising Research* Vol. 14, Issue 2: 25-34.
- Ehrenberg, A., Barnard, N., Kennedy, R. & Bloom, H. (2000). Brand Advertising as Publicity, *Journal of Advertising Research* Vol. 40, Issue 6: 39-48
- Elliott, R. (1998) A Model of Emotion-Driven Choice. *Journal of Marketing Management* Vol. 14, Issue 1/3: 95-108
- Eysenck, M.W. (1978) Levels of processing: A critique, *British Journal of Psychology* Vol. 69: 157-169
- Eysenck, M.W. & Keane, M.T. (2000) *Cognitive Psychology*, 4th edn. Psychology Press Ltd., Hove, UK.
- Fitzsimons, G.J., Hitchinson, J.W., Williams, P., Alba, J.W., Chartrand, T.L., Huber, J., Kardes, F.R., Menon, G., Raghurir, P., Russo, J.E., Shiv, B., & Tavassoli, N.T. (2002) Non-conscious influences on consumer choice, *Marketing Letters* 13.3, 269-279
- Gilmore, R.F. & Secunda, E. (1993) Zipped TV Commercials Boost Prior Learning. *Journal of Advertising Research*, Vol. 33 Issue 6, p.28-38
- Gresham, L.G. & Shimp, T.A. (1985) Attitude toward the advertisement and brand attitudes: a classical conditioning perspective. *Journal of Advertising* Vol.14 Issue 1: 10-19
- Hall, M. and Maclay, D. (1991) *How Advertisers Think Advertising Works*, Davies Riley-Smith Maclay, London, UK
- Heath, R.G. (2000) Low involvement processing- a new model of brands and advertising. *International Journal of Advertising* Vol.19, Issue 3: 287-298
- Heath, R.G. (2001), *The Hidden Power of Advertising*, Admap Monograph No. 7, World

Advertising Research Centre, Henley-on-Thames, Great Britain

Heath, R.G. & Nairn, A.C. (2005) Measuring Emotive Advertising – implications of Low Attention Processing on recall. *Journal of Advertising Research* Vol. 45 Issue 2: 269-281

Heath R.G., Brandt D. & Nairn A. (2006). Brand Relationships - Strengthened by Emotion, Weakened by Attention, *Journal of Advertising Research*. Vol. 46, Issue 4: 410-419.

Heath, R.G. & Feldwick, P. (2007) 50 years using the wrong model of TV advertising, *Proceedings of the 50th Market Research Society Conference*, Brighton, March..

Holbrook, M.B. & Batra, R. (1987) Assessing the role of emotions as mediators of consumer responses to advertising. *Journal of Consumer Research* Vol. 14, Issue 3: 404-420

Holbrook, M.B. & Hirschmann, E.C. (1982) The Experiential Aspects of Consumption: Consumer Fantasies, Feelings, and Fun. *Journal of Consumer Research* Vol. 9, Issue 2: 132-140

Hunt, J.M., Kernan, J.B., & Bonfield, E.H. (1991) Memory structure in the processing of advertising messages: How is unusual information represented? *The Journal of Psychology*, Vol. 126, Issue4: 343-356

Jacoby, L.L., Toth, J.P., & Yonelinas, A.P. (1993). Separating conscious and unconscious influences of memory: Measuring recollection. *Journal of Experimental Psychology: General* 122: 139-154

James, W. (1890) *Principles of Psychology*, Dover, New York

Jones, J.P. (1990) Advertising: Strong Force or Weak Force? Two Views an Ocean Apart. *International Journal of Advertising* Vol. 9, Issue 3: 233-246

Jones, J.P. (2002) *The Ultimate Secrets of Advertising*, Sage Publications, Thousand Oaks, Ca.

- Kihlstrom, J.F., Barnhardt, T.M., Tatarzyn, D.J. (1992) Implicit Perception, in *Perception without awareness: Cognitive, clinical, and social perspectives*, R.F. Bornstein and T.S. Pittman, eds, Guilford, NY. 191-210
- Kover, A.J. & Abruzzo, J. (1993) The Rossiter-Percy Grid and Emotional Response to Advertising: An Initial Evaluation. *Journal of Advertising Research*, Vol. 33 Issue 6: 21-27
- Kover, A.J., Goldberg, S.M. & James, W.L. (1995) Creativity vs effectiveness. *Journal of Advertising Research* Vol. 35, Issue 6: 29-40
- Kotler, P., Armstrong, G., Saunders, J. & Wong, V. (1999) Principles of Marketing, 2nd European Edition, Prentice Hall Europe. Kotler, P. (1991) *Marketing Management*. Prentice-Hall, Englewood Cliffs, New Jersey USA
- Kroeber-Riel, W. (1979) Activation Research: Psychobiological Approaches in Consumer Research. *Journal of Consumer Research*, Vol. 5 Issue 4: 240-250
- Kroeber-Riel, W. (1984) Effects of emotional pictorial elements in ads analyzed by means of eye movement monitoring, *Advances in Consumer Research*, Vol. 11 Issue 1: 591-596
- Krugman, H.E. (1965) Impact of television advertising: learning without involvement. *Public Opinion Quarterly* 29 (Fall): 21-38.
- Lavidge, R.J. & Steiner, G.A. (1961) A Model for Predictive Measurements of Advertising Effectiveness. *Journal of Marketing* Vol. 25, Issue 6: 59-62
- Le Doux, J. (1998) *The Emotional Brain*. Weidenfeld & Nicolson, London.
- Lockhart, R.S. & Craik, F.I.M. (1978) Levels of Processing: A reply to Eysenck, *British Journal of Psychology* Vol. 69, Issue 2: 171-175
- Lockhart, R.S. & Craik, F.I.M. (1990) Levels of processing: A retrospective commentary on a framework for memory research, *Canadian Journal of Psychology*, Vol. 69: 87-112
- MacAndrew, M.P., Glisky, E.L. & Schacter, D.L. (1987) When priming persists: Long-lasting implicit memory for a single episode in amnesiac patients. *Neuropsychologia*, Vol.

25: 497-506

Machleit, K.A. & Wilson, R.D. (1988) Emotional Feelings and Attitude toward the Advertisement: The Roles of Brand Familiarity and Repetition. *Journal of Advertising* Vol. 17 Issue 3: 27-35

MacInnis, D.J. & Jaworski, B.J. (1989) Information processing from advertisements: towards an integrative framework. *Journal of Marketing* Vol. 53, Issue 4: 1-23

Manchanda, P., Dubé, J.P., Goh, K.Y. & Chintagunta, P.K.. (2006) The Effect of Banner Advertising on Internet Purchasing. *Journal of Marketing Research* Vol. 43 Issue 1: 98-108

Meyers Levy, J., & Malaviya, P. (1999) Consumers' Processing of Persuasive Advertisements: An Integrative Framework of Persuasion Theories. *Journal of Marketing* Vol. 63, special issue: 45-60.

Mick, D.G, Broniarczyk, S.M, & Haidt, J (2004) Choose, choose, choose, choose, choose, choose, choose: Emerging and Prospective research on the deleterious effect of living in Consumer Hyperchoice. *Journal of Business Ethics* Vol.52: 207-211

Mittal, B. (1994a) A Study of the Concept of Affective Choice Mode for Consumer Decisions. *Advances in Consumer Research*, Vol. 21 Issue 1: 256-263

Mittal, B. (1994b) Public Assessment of TV Advertising: Faint and Harsh Criticism. *Journal of Advertising Research*, Vol. 34 Issue 1, p. 35-53

Moore, T.E. (1982) Subliminal Advertising: what you see is what you get, *Journal of Marketing* Vol. 46, Issue 2: 38-47

Näätänen, R. (1992) *Attention and Brain Function*, Lawrence Erlbaum Associates, Hillsdale, N.J.

Nordheim, C.L. (2002) The Influence of Level of Processing on Advertising Repetition Effects, *Journal of Consumer Research* Vol.29, Issue 3: 371-382

Packard, V.(1957), *The Hidden Persuaders*, Longmans, Green and Co, London

- Petty, R.E. & Cacioppo, J.T. (1986) *Communication and Persuasion: Central and Peripheral Routes to Attitude Change*. Springer, New York
- Petty, R.E. & Cacioppo, J.T. (1996) *Attitudes and Persuasion: Classic and contemporary approaches*. Westview Press, Boulder, Colorado.
- Pham, M.T. (1998) Representativeness, Relevance, and use of Feelings in Decision-Making, *Journal of Consumer Research* Vol. 25, Issue 2: 144-159
- Pham, M.T., Cohen, J.B., Pracejus, J.W. & Hughs, G.D. (2001) Affect monitoring and the Primacy of Feelings in judgement, *Journal of Consumer Research* Vol. 28, Issue 2: 167-188
- Ray, M.L. & Batra, R. (1983) Emotion and Persuasion in Advertising: What we do and don't know about Affect. *Advances in Consumer Research* Vol. 10, Issue 1: 543-548
- Reeves, Rosser (1961), *Reality in Advertising*, Alfred A Knopf, New York, NY
- Rossiter, J. & Percy, L. (1985) Advertising Communication Models. *Advances in Consumer Research* Vol. 12, Issue 1: 510-524
- Rossiter, J. & Percy, L. (1991) Emotions and Motivations in Advertising. *Advances in Consumer* Vol. 18, Issue 1: 100-110
- Rossiter, J.R.; Percy, L., & Donovan, R.J. (1991) A Better Advertising Planning Grid., *Journal of Advertising Research* Vol. 31 Issue 5: 11-21,
- Rossiter, J. & Percy, L. (1998) *Advertising, Communications, and Promotion Management*. International Editions, McGraw Hill, Singapore
- Schachter, S. & Singer, J.E. (1962) Cognitive, social, and physiological determinants of emotional state. *Psychological review* Vol. 69: 379-399
- Shapiro, S., MacInnis, D.J., & Heckler, S.E. (1997) The effects of incidental ad exposure on the formation of consideration sets. *Journal of Consumer Research* Vol. 24, Issue 1: 94-104
- Shapiro, S. (1999) When an ad's influence is beyond our conscious control: perceptual and conceptual fluency effects caused by incidental ad exposure. *Journal of Consumer Research*

Vol. 26, Issue 1: 16-36

Shimp, T.A. (1981) Attitude towards the ad as a mediator of consumer brand choice, *Journal of Advertising* vol. 10, issue 2: 9-15, 48

Shiv, B. & Fedorikhan, A. (1999) Heart & Mind in Conflict: The interplay of Affect and Cognition in Consumer Decision Making, *Journal of Consumer Research* Vol. 26, Issue 3: 278-292

Smit, E.G., Van Meurs, L. & Neijens, P.C. (2006) Effects of Advertising Likeability: A 10-Year Perspective, *Journal of Advertising Research* Vol. 46, Issue 1: 73-83

Soley, L.C. (1984) Factors Affecting Television Attentiveness: A Research Note. *Current Issues & Research in Advertising* Vol. 7, Issue 1: 141-148

Strull, T.K. (1983) Affect and Memory: The impact of affective reactions in advertising on the representation of product information in memory. *Advances in Consumer Research* Vol.10, Issue 1: 520-524

Standing, L. (1973) Learning 10,000 pictures. *Quarterly Journal of Experimental Psychology: Learning, Memory, and Cognition* Vol. 19: 582-602

Tellis, G.J. (1998) *Advertising and Sales promotion Strategy*, Addison-Wesley, Massachusetts, USA

Trappey, C. (1996) A Meta-Analysis of Consumer Choice. *Psychology and Marketing* Vol. 13: 517-530

Vaidya, C.J., Gabrielli, J.D.E., Keane, M.M. & Monti, L.A. (1995) Perceptual and conceptual memory processes in global amnesia. *Neuropsychology* Vol. 10: 529-37.

Vakratsas, D. & Ambler, T. (1999) How advertising works: what do we really know? *Journal of Marketing* Vol. 63, Issue 1: 26-43

Watzlawick, P., Bavelas, J.B. & Jackson, D.D. (1967) *Pragmatics of Human Communication*, Norton & Co. Inc, New York

- Wells, G.L. & Petty, R.E (1980) The effects of overt head movement on persuasion: compatibility and incompatibility of responses, *Basic and Applied Social Psychology* Vol. 1: 219-230
- Wiles, J.A. & Cornwell, T.B. (1990) A review of methods utilized in measuring affect, feelings, and emotion in advertising. *Current issues in Research in Advertising* Vol. 13, Issue 2: 241-274
- Wilson, T. D. (2002) *Strangers to Ourselves*, The Belknap Press of Harvard University, Cambridge, MS, USA
- Zajonc, R.B. (1980) Feeling and Thinking: Preferences need no Inferences. *American Psychologist* Vol. 35: 151-175
- Zajonc, R.B. & Markus, H. (1982) Affective and Cognitive Factors in Preferences, *Journal of Consumer Research* Vol. 9, Issue 2: 123-131;
- Zajonc, R.B. & Markus, H. (1985) Must All Affect Be Mediated By Cognition? *Journal of Consumer Research* Vol. 12, Issue 3: 363-364

**University of Bath School of Management
Working Paper Series**

School of Management
Claverton Down
Bath
BA2 7AY
United Kingdom
Tel: +44 1225 826742
Fax: +44 1225 826473
<http://www.bath.ac.uk/management/research/papers.htm>

2006		
2006.01	Neil Allan and Louise Beer	Strategic Risk: It's all in your head
2006.02	Richard Fairchild	Does Auditor Retention increase Managerial Fraud? - The Effects of Auditor Ability and Auditor Empathy.
2006.03	Richard Fairchild	Patents and innovation - the effect of monopoly protection, competitive spillovers and sympathetic collaboration.
2006.04	Paul A. Grout and Anna Zalewska	Profitability Measures and Competition Law
2006.05	Steven McGuire	The United States, Japan and the Aerospace Industry: technological change in the shaping of a political relationship
2006.06	Richard Fairchild & Yiyuan Mai	The Strength of the Legal System, Empathetic Cooperation, and the Optimality of Strong or Weak Venture Capital Contracts
2006.07	Susanna Xin Xu, Joe Nandhakumar and Christine Harland	Enacting E-relations with Ancient Chinese Military Stratagems
2006.08	Gastón Fornés and Guillermo Cardoza	Spanish companies in Latin America: a winding road
2006.09	Paul Goodwin, Robert Fildes, Michael Lawrence and Konstantinos Nikolopoulos	The process of using a forecasting support system

2006.10	Jing-Lin Duanmu	An Integrated Approach to Ownership Choices of MNEs in China: A Case Study of Wuxi 1978-2004
2006.11	J.Robert Branston and James R. Wilson	Transmitting Democracy: A Strategic Failure Analysis of Broadcasting and the BBC
2006.12	Louise Knight & Annie Pye	Multiple Meanings of 'Network': some implications for interorganizational theory and research practice
2006.13	Svenja Tams	Self-directed Social Learning: The Role of Individual Differences
2006.14	Svenja Tams	Constructing Self-Efficacy at Work: A Person-Centered Perspective
2006.15	Robert Heath, David Brandt & Agnes Nairn	Brand relationships: strengthened by emotion, weakened by attention
2006.16	Yoonhee Tina Chang	Role of Non-Performing Loans (NPLs) and Capital Adequacy in Banking Structure and Competition
2006.17	Fotios Pasiouras	Estimating the technical and scale efficiency of Greek commercial banks: the impact of credit risk, off-balance sheet activities, and international operations
2006.18	Eleanor Lohr	Establishing the validity and legitimacy of love as a living standard of judgment through researching the relation of being and doing in the inquiry, 'How can love improve my practice?'
2006.19	Fotios Pasiouras, Chrysovalantis Gaganis & Constantin Zopounidis	Regulations, supervision approaches and acquisition likelihood in the Asian banking industry
2006.20	Robert Fildes, Paul Goodwin, Michael Lawrence & Kostas Nikolopoulos	Producing more efficient demand forecasts