

Consumer attitude confusion, mental imagery and purchase intentions

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Abstract

The purpose of this study was to examine consumer attitudes towards mental imagery. In this quantitative study, it was proposed that consumers may feel an ambivalent attitude towards the maturity of relying on mental imagery and its usefulness to solve problems and develop purchase intentions. Attitude ambivalence exists when there is conflict within the attitude (Chaiken and Yates, 1985). The structural equation modelling results suggest that problem solving is positively related to purchase intentions. However, imagery as an acceptable adult behaviour is negatively related to both problem solving and purchase intentions. The results suggest that consumers are confused in their attitude towards imagery and this can affect their purchase intentions.

Key words: Attitude, mental imagery, purchase intentions

Introduction

Mental imagery (seeing images in the mind) has been studied in marketing in terms of being a problem solving technique through the process of mental trial and error (Kihlstrom *et al.*, 1991; Beach, 1993; d'Astous and Deschênes, 2005) and consumption visions (Childers and Houston, 1983; Hirschman, 1983; Escalas, 2004). From this previous research, imagery has been identified as a motivating force that can help consumers to visual product ownership. However, there has been an assumption that using imagery is acceptable adult behaviour despite the *truism* (a widely held belief that lacks cognitive support (Maio and Olson, 1998) that imagery is childish, mere fantasy, daydreaming and a waste of time. The existence of the truism affects the assumption about imagery usage in consumer problem solving and may result in a confused consumer attitude.

Attitude ambivalence, also known as attitude confusion, is a widely studied area in both psychology (Chaiken and Yates, 1985; Clark, Wegener, and Fabrigar, 2008) and marketing (Fazio, Powell, and Williams, 1989; Priester, Petty, and Park, 2007; Lau-Gesk and Meyers-Levy, 2009). Attitude ambivalence affects the consumer's ability to have a consistent attitude because there is a conflict between the positive and negative beliefs within the attitude (Nordgren, van Harreveld, and van der Pligt, 2006). For example, a consumer may believe drinking too much alcohol can be unhealthy, but they continue to drink because they like the feeling. The conflict within the attitude can affect a consumer's confidence and future behaviour as the consumer tries to create a more consistent attitude towards drinking alcohol. This is a preliminary study into the effect of attitude ambivalence on purchase intentions, specifically focusing on a conflict between relying on imagery as unacceptable adult behaviour and using imagery as a problem solving technique.

Literature Review

Seminal attitude models such as Fishbein and Ajzen's (1972) theory of reasoned action contain multiple elements such as beliefs, consequences and normative social values. These aspects combine together and are evaluated to determine the consumers' overall attitude (Ryan and Bonfield, 1975; Kaynama and Smith, 1994). The ABC attitude model is another traditional model that also consists of multiple concepts: affective (feeling), behavioural (action) and cognitive (belief). For the attitude to be fully formed each component needs to be consistent (Festinger, 1962; Holbrook, 1978; Thompson and Zanna, 1995). The structure of the seminal models suggest that an overall attitude is constructed from many variables and that the consumer can be confused about their attitude if one of the elements is out of sync. Both classic and contemporary models argue that when the inconsistency within the attitude reaches a certain magnitude the consumer will be motivated to reduce the conflict by changing their actions or beliefs (Festinger, 1962; Priester *et al.*, 2007).

However, asking someone to reflect on their attitude can result in even more cognitive confusion as the person no longer understands the attitude they hold. This process is known as attitude polarisation where thinking about the components of an attitude results in opposite perspectives of that attitude being developed (Chaiken and Yates, 1985; Thompson and Zanna, 1995). In practical terms this suggests that advertising messages that are attempting to change attitudes may only result in creating a confused consumer (Clark *et al.*, 2008; Nordgren and Dijksterhuis, 2009). In addition, the conflict can affect the way the consumer makes a decision because they want to avoid unpleasant consequences (Nowlis, Kahn, and Dhar, 2002; van Harreveld *et al.*, 2009). In this way, an ambivalent attitude can affect a consumer's behaviour. For example, asking a consumer to imagine (daydream) about owning a car when they believe that buying a car should be a very rational process (more than daydreaming) may cause attitude ambivalence towards that brand of car.

Despite the consumers' desire for consistency, they seem to be able to engage in purchasing behaviours even if the attitude components are in a state of dissonance. This is particularly true in the case of mixed emotions where the consumer can simultaneously hold opposing feelings in their attitude (Williams and Aaker, 2002) and conflicting motivations (Huffman, Ratneshwar, and Mick, 2003). However, attitude inconsistency can affect the individuals' decision making process because it influences the way they process information (Newby-Clark, McGregor, and Zanna, 2002; Costarelli and Colloca, 2006; van Harreveld *et al.*, 2009). For example, consumers may try to reduce dissonance by not thinking about the element that caused the inconsistency. If the consumer continues to acknowledge the inconsistency in their attitude they may experience a more negative attitude (Newby-Clark *et al.*, 2002; Williams and Aaker, 2002). Given the concept of attitude ambivalence, the intention of this research is to examine the effect on purchase intentions when consumers' use of imagery as a problem solving technique is influenced by their belief that relying on imagery is unacceptable adult behaviour. The hypotheses can be formally stated as:

H1: *Imagery Problem Solving* will positively affect *Purchase Intentions*

H2: Believing *imagery is Unacceptable Behaviour* will negatively affect *Imagery Problem Solving*

H3: Believing *imagery is Unacceptable Behaviour* will negatively affect *Purchase Intentions*

Methodology

The sample was taken from an online Australia-wide research panel. The sample size was 512, but in the end 482 were usable. The use of online survey panel as a sample frame is gaining acceptance because it is easy to use, is recorded as electronic data (Wilson and Laskey, 2003) and can provide a rich stimulus environment for participants (Tingling, Parent, and Wade, 2003). However, the sampling process is more likely to be a quota (non-probability) than random sampling which may affect the generalisability of the results.

Purchase Intentions defined as the probability that the consumer will purchase the product given certain conditions (Morwitz, Steckel, and Gupta, 2007) was measured using two scales. The Juster scale which was created in the 1960's is a measure used to predict actual purchase based on stated intentions. The participants are shown a product and are asked to respond to a single question "Taking everything into account, what would be the chances that you would buy this product?" The response options range on an 11 point scale from *certain practically certain* to *no chance*. The results from numerous studies indicate that the Juster scale has high predictability (Juster, 1966; Day and Gan, 1991; Brennan, 2004). Another popular scale in the marketing literature called Purchase Intentions was developed to measure responses to advertising by Baker and Churchill (1977). The scale has three questions asking the participant to respond on a seven point scale from *yes, definitely* (will purchase/try/seek) to *no, definitely not*. The scale is designed to measure the behavioural aspect of purchasing attitude. The scale has construct validity and a Cronbach Alpha of 0.73 and 0.91 respectively (Baker and Churchill Jr, 1977; Kilbourne, Painton, and Ridley, 1985).

The Imaginal Processes Inventory (IPI) (Singer and Antrobus, 1972) has 345 items and 33 dimensions. Two dimensions in particular will be used in this study: (a) *Imagery Problem Solving* and (b) *Using Imagery is Unacceptable Behaviour*. These dimensions measure the overall temperament of consumers towards the use of imagery in problem solving and as acceptable adult behaviour. The first factor measures how the individual can use mental images to solve problems because it can bring a *fresh approach, original ideas* and provide *sudden answers*. The second factor measures whether or not it is socially acceptable for an adult to rely on mental images with items such as thinking that imagery is a *childish activity, waste of time* or *normal*. The questions for the two dimensions were randomly sorted to avoid priming the respondents. The participants were asked to respond to a four point scale of *certainly true for me* to *certainly false for me*. Giambra (1980) conducted factor analysis using principal components analysis on the IPI. The study found limited evidence of construct validity for both constructs with low factor loadings ranging from 0.60 to 0.41 for *Unacceptable Behaviour* and for *Problem Solving* it ranged from 0.76 to 0.45 (Giambra, 1980). This suggests that the constructs have construct validity issues. However, these are the only scales that measure the concepts.

The data were evaluated in SPSS prior to analysis where it was tested for normality, scale reliability and exploratory factor analysis. Then the data were analysed using structural equation modelling (SEM) in AMOS 16. SEM is a data analysis method that maps the relationship between latent and manifest factors (Kline, 1998; Byrne, 2001). This method was chosen because it can be used to draw complex pathways and determine the strength of the relationships between the constructs (Ullman, 2007). Thus, SEM is an appropriate technique to use to analyse the research question.

Results

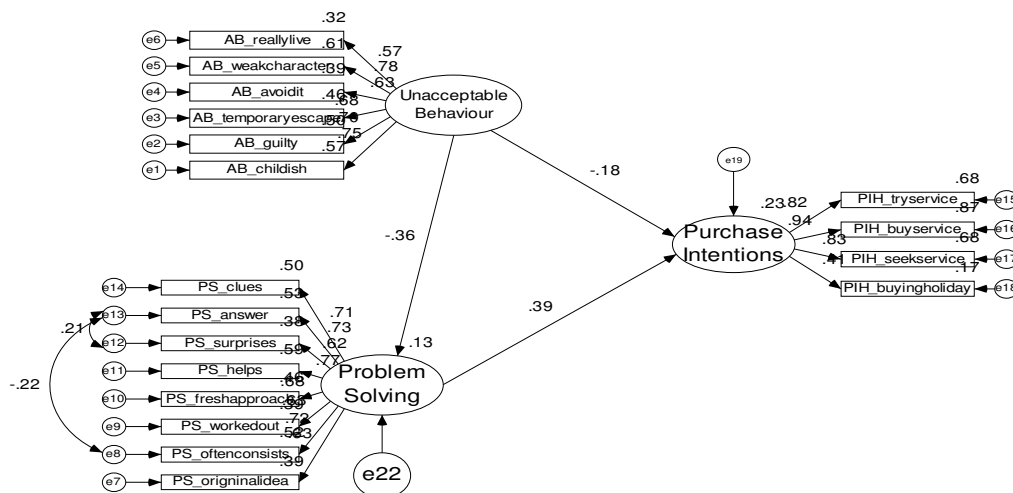
First, the data were tested for reliability and validity. Table 1.1 shows the Cronbach Alpha scores (shown on the diagonal in italics*) are all above 0.7 which suggests evidence for reliability (Churchill, 1979). Table 1.1 also shows the average variance extracted compared to the squared correlations. The average variance extractions are significantly larger than the square correlations which provides evidence to suggest that each scale has discriminant validity (Belk, Bahn, and Mayer, 1982; Hair *et al.*, 2006). Finally, Table 1.1 shows the factor loadings for the constructs to provide evidence for convergent validity with all the factors. Acceptable factor loading levels are affected by sample size, for samples of 250 then a factor loading of 0.35 is an acceptable level at 0.05% level (Hair *et al.*, 2006 p.112).

Table 1.1 Evidence of Validity and Reliability

	Purchase intentions	Unacceptable Behaviour	Problem Solving
Purchase intentions	<i>.891*</i>		
Unacceptable behaviour	0.099	<i>.835*</i>	
Problem Solving	0.197	0.123	<i>.875*</i>
Average variance extracted	0.603	0.405	0.475
Factor loadings	0.940 to 0.413	0.782 to 0.569	0.771 to 0.616

Next, the measurement and structural models were developed and tested for goodness-of-fit. The results, for the Fit statistics used in this study, were Goodness-of-Fit (GFI) was 0.942, the Comparative Fit Index (CFI) was 0.966 and the RMSEA was 0.045, the CMIN/DF was 1.957. Also, all estimates were significant at the 0.05 level. The fit indices suggest that the model fit the data well. Although several alternative models were developed, the one with sound theoretical support and the best fit statistics was adopted. Figure 1.1 shows the structural model and the relationship between the constructs.

Figure 1.1 Structural Model of Imagery Attitude Ambivalence and Purchase Intentions



Interpretation of Results for Hypotheses

H1: Imagery as a *Problem Solving* technique has a direct, positive, significant and moderate (.39) affect on *Purchase Intentions*. This suggests that as a consumer's use of imagery as a problem solving technique increases their purchase intentions increase too. Thus, there is evidence to accept H1.

H2: The results of the model suggest that as believing imagery to be *Unacceptable Behaviour* increases, the use of imagery as a *Problem Solving* technique decreases. The effect is moderate (-.36) negative and significant. This suggests as a consumer increases in their belief that using imagery is unacceptable behaviour, then their use of imagery as problem solving technique decreases. In this way, H2 is supported.

H3: Imagery is *Unacceptable Behaviour* has a direct negative affect on *Purchase Intentions*; it is small (-.18) and significant. This suggests at as a consumer's belief that imagery is unacceptable behaviour increases, its use to develop purchase intentions will decrease. The total effect of imagery as an unacceptable adult behaviour on purchase intentions is negative, significant and moderate (-.31). Thus, H3 should be accepted. The results imply that as a consumer's belief that imagery is unacceptable adult behaviour increases, it reduces their use of imagery as a *Problem Solving* technique this indirectly reduces their *Purchase Intentions*.

Discussion and Conclusions

Attitude ambivalence exists where there is a conflict between the elements within the attitude. Previous research has indicated that ambivalence can affect consumer behaviour because it can cause the consumer to be confused, develop a negative attitude or change their information processing style. In this study, the attitude conflict consisted of the belief that mental imagery is a childish temporary escape and should not be relied on for decision-making. However, imagery itself is a useful problem solving technique. The results suggest that consumers use mental imagery problem solving techniques in a positive and direct manner to develop purchase intentions, but when the concept of unacceptable adult behaviour is considered the effect on purchase intentions is negative. Moreover, the total effect of unacceptable adult behaviour on imagery problem solving and purchase intentions is also negative. This implies that even though consumers use imagery as a problem solving technique this experience can become negative if they consider engaging in imagery to be unacceptable behaviour. Thus, as with previous research, the effect of conflict in the attitude is to confuse the consumer and increase the likelihood that the ambivalence will have a negative affect on their intentions.

A limitation of this study is the generalisability of the findings because the sampling method was a quota sample (non-probability) rather than a simple random. This research has several implications for marketers. The first implication is that the elements in consumers' attitudes may be inconsistent and yet they are capable of developing purchasing intentions. This suggests that consistency in attitudes is not essential for consumers. Another implication is that consumers may develop negative intentions if they are asked to rely on imagery for products that seem to require maturity to make the decision such as high involvement, complex or technical products. Future research for imagery ambivalent attitude can be to test the influence of different cultures and their truisms, values or perceptions of mental imagery.

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