

Why Qualitative Researchers Squint: A Micro Analysis of the Temporal Aspects for Grocery Shopping

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ABSTRACT

This paper discusses the rewards for the researchers when they adopted a multidimensional approach, incorporating temporal aspects, to the analysis of emotion factors for in-store shopping behavior. Of particular interest was the role these emotions play in brand selection. Whilst emotional research is not unique, little has been done to understand it from an internally consumer-driven perspective for grocery brands. We used videography to capture the behavior. As a result of our findings, it is proposed that the temporal affect becomes the moderating variable in developing emotive bonds between the consumer and the brand whilst making in-store decisions.

INTRODUCTION

This paper discusses how the implementation of ethnographic techniques reveals consumers unconsciously using emotions to make conscious decisions about brands within the supermarket. This research demonstrates that the longer the time taken to make such a choice, the greater the revelation of emotional displays. We propose that the temporal affect becomes the moderating variable in developing emotive bonds between the consumer and the brand whilst making in-store decisions.

It is still assumed that, based upon the amount of information available to the consumer, attitudes tend to direct intentions towards behavior (Bettman, 1979, Hirschman and Holbrook, 1982). Certainly, in situations where there are higher financial and personal risks this is most likely to be the case, however does this also apply for those environs where these risks are lower, such as fast moving consumer goods (FMCG)? Does the wide variety of available products outweigh a consumers' need for undertaking rational and affective behavior?

With the number of grocery products in the Australian supermarket heading towards twenty thousand per store (Lee, 2004), it is suggested that even relatively simple decisions have now become more challenging processes for the consumer (Nelson, 2001). To such an extent that too much choice causes consumers to rely more on their internal reference sources such as emotion, trust, memory and familiarity. These then become a key factor of brand differentiation rather than the superficial prompts of price, and perceived quality. If this is the case, then there are implications even for FMCG. It is important to understand the interactions consumers have with their repertoire of brands rather than just monitoring purchase-repeat purchase cycles (Rundle-Thiele, 2006).

It is acknowledged that the role of the intangible aspects of consumer decision-making within the marketing context has been extensively researched. Both from a purely theoretical perspective (Bagozzi, Nyer, Gopinath, 1999), to specific case studies concerning 'high' involvement categories such as cars (Mowen, 1988), furniture (Roy & Tai, 2003) through to physical store surroundings (Donovan & Rossiter, et al 1992, Sherman, Mathur, Smith, 1997, Hansen, 2002, Sweeney & Wyber, 2002). However little in this area has examined the relationship between the intangible and the consumers' in-store supermarket brand choices.

Our research challenges the notion many decisions are of an automatic and habitual nature. Past research suggests that consumers tend to react 'mindlessly' to stimuli, a situation which could easily be adapted to the grocery environment and thus negate the need for any detail interrogation such as this (Loewenstein, 2001).

Debate has resurfaced as to the influence of conscious decisions made by consumers (Simonson, 2005) in comparison to those instances where automated, unconscious processes dominate (Bargh, 2002, Dijksterhuis, Smith, van Baaren & Wigboldus, 2005). Whilst automated decisions are made, in many situations there is a degree of consciousness. What is not made obvious is the process influencing that decision (Chartrand, 2005). In other words, the decision maker is aware of the outcome of the choice, but they may not always be aware of what triggers that decision.

These 'triggers' could be the presence of a significant other (such as a child or partner), or environmental cues such as store atmospherics and store layout (Chartrand, 2005). If we recognize these triggers, what is it that makes the consumer conscious of their decision making process?

If this is taken into the context of the supermarket, it is argued that many choices made here are highly habitualized and the perception of a product will automatically stimulate an attitude (Dijksterhuis, Smith van Baaren & Wigboldus, 2005). Many of these automated responses are based on information gained at a prior purchase occasion or in response to the surrounding environment (Holbrook & Gardner, 1998). But they rarely, take into account the emotional aspects of the consumer at the point of decision. This is partly due to the challenges in the past of being able to accurately capture such data. However, with the increasing sophistication of technology, it is now possible to capture such information.

It is with this premise that this study uses videographic observations to capture naturalistic grocery shopping behavior. It is suggested that there is a causal inference that the time taken to make a choice reflects the saliency of the emotive memory of that selection, which in turn, sets the scene for future choices made.

METHODOLOGY: IMPLEMENTING AN OBSERVATIONAL TECHNIQUE.

Direct imagery of consumers is seen as a way to capture more detailed information about emotions, motivations, and underlying value systems which previously relied on more survey based methods. (Heisley & Levy, 1991, Heath, 1997, Belk & Kozinets, 2005,). These topics can be difficult to articulate, however the visual images often reveal so-called 'hidden' meanings. The use of observational methods can uncover far more accurate measures of understanding in consumer behavior rather than relying just on recall surveys (Newman & Lockeman, 1975, Lee & Marshall, 1998). Observation studies for this research provide a way to gain insight into the meanings behind the behavior allowing the researcher to capture the actions of the informant, and the environment surrounding them (Deshpande, 1983). This is beyond the observatory role of the focus group setting where the artificial location dominates.

In this case, digital data capture was implemented as a way of increasing the accuracy and reliability of the results, whilst at the same time decreasing influence of the researchers' subjective interpretation of the phenomenon. With a permanent record, the subject was repeatedly viewed by other researchers who offered a differing interpretation of the situation (Heath, 1997).

Subsequently a small hand held video camera was used to capture the data. It should be noted at this point, that unlike other research into this area, the data was all captured within a naturalistic

environment as opposed to a stimulated or experimental situation. Prior permission to access specific supermarkets was gained in advance. The respondents were a cross section of demographics ranging from single person households to large family units, a younger age group (minimum 18 yrs) through to the older age group (in excess of 80yrs).

There were some questions about the influence of a video camera potentially distorting true behavior, but this was found not to be a significant factor in any of the recordings undertaken. It was felt that by offering a full explanation of the process, the informants were conscious of the methodology and their expected level of participation well before the event.

Prior to commencing the shopping trip, the respondents were aware of the general purpose of the research but not told specifically it was with reference to the emotive aspects of grocery shopping. This was regarded as the best option because to introduce the concept of emotional inputs into a routine activity may encourage the respondent to 'show emotion' be that consciously or unconsciously. Instead, they were told that the purpose of the observation was to capture 'real time' shopping visits as a way of understanding how consumers select certain brands during a normal shopping trip. They were also informed that there would be no interaction with the researcher until after their shop had been completed.

The researcher also ensured that they were a comfortable distance from the informant so as not to feel intrusive to any 'personal space'. After the informants' initial self-consciousness, their attention quickly focused on fulfilling their shopping requirements rather than the presence of a camera. Even the children, after only a few moments of surveying the camera, became more interested in providing input to the selection of brands. The observation was carried out at the convenience of the informant and at a supermarket of their choice. This aimed to reduce the unnecessary influence of an artificial environment, and encouraged a comfort zone for the informant because their surroundings were familiar to them. To decrease any further bias that may occur through the presence of an observer, the informants provided up to six weeks of previous shopping receipts that could be used to confirm their normal brand repertoire.

Videotaping began the moment the respondent entered the grocery aisle, as opposed to fresh food (fruit and vegetables, meat and seafood, delicatessen counter). The video camera was kept on for the entire shopping trip to capture the points at which the consumer undertook searching behavior, especially in relation to their surroundings at the time. Given that past research has suggested that consumer emotions can be influenced by in-store atmospherics (Donovan and Rossiter, 1982), it was important to consider the consumers' movements prior to brand selection and just after. Videotaping finished once the respondent began to make their way to checkout registers.

A central objective for this research was to ascertain the nature, depth and role of emotions in brand selection during grocery shopping. To assess this emotional content of brand choice, various theories of emotions were utilized to develop an emotion recognition framework (Putchik, 1980, Frijda 1986). In addition, Blum (1998) identified there are six universal expressions of emotion—fear, sadness, disgust surprise and happiness—all of which can be easily identified across all ethnic races. This perspective is similar to that of Plutchik (1980) and Izard (1990) who believe that there are a small number of core emotions from which all other emotions are derived. It was these aspects, which were used as part of defining the analysis boundaries once the data had been collected.

We expected to be able to use the established emotion recognition criteria (Plutchik, 1980, Izard, 1990) but actually found that such existing models had limited application to this research. It was

a case of using the boundaries of these which didn't tell a complete story. There were other dimensions that could not be explained in the initial analysis. When we added the temporal aspect and body language into the analytic mix, a more complex and complete outcome emerged.

ANALYSIS BOUNDARIES: OBSERVATIONS OF CONSUMER IN-STORE BEHAVIOR

Each videotape was viewed multiple times by researchers other than those who captured the data. It was felt that providing different perspectives from different people about the same recording could provide further insight into the video images. On several occasions the researcher who captured the recording provided input relating to conversations with the respondent prior and after the recording, together with any other instances that might have occurred outside the camera frame (eg: the presence of other shoppers, store staff) and general situational feedback (eg: size and presence of promotional displays, product out of stocks). This was to aid in comprehension for those researchers who were not present at the time of video capture.

It is worth noting that where multiple researchers were used without prompting they tended to look at different cues, some immediately looked the face to demonstrate emotion, whereas others looked at the body language.

Using a second researcher to view the recordings aided in reducing bias by provision of interpretation without undue recall of the actual shop. Instead the recording would be their only source of analysis.

Both researcher viewers were asked to note the following aspects of the video:

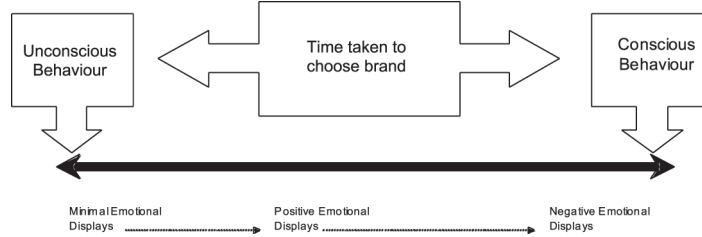
1. The timing of each product selection from the point when the consumer undertook seeking behavior (monitored by their eyes specifically searching the shelves)
2. The stance of the respondent during product selection
3. The number of products visually inspected versus how many products were actually picked up
4. If products were inspected, how long and what was inspected
5. Of those products that did undergo a physical inspection, how many products were returned to the shelf versus how many were put in the shopping trolley
6. The number of times an inspection was made (visual or physical) but no product was selected

The resulting video interrogation revealed that all informants exhibited a repeated pattern of behavior ranging from minimal displays of emotion through to obvious signs of consternation such as frowning, touching their face, wringing their hands, and hair tugging. Throughout all of these aspects, body attitude in terms of posture, hand gestures, head movements (Lee & Marshall, 1998) facial expression (ie: smiles, yawning, frowning, grimacing) and eye movements (Lee & Marshall, 1998 Reeve, 2005) were taken into consideration. These behavioral groupings were chosen because they tend to be non-culturally specific and are a common human response (Reeve, 2005).

TEMPORAL EFFECTS AS MODERATING VARIABLES

Brand selection episodes were defined as commencing when the respondent either slowed down or stopped at a certain aisle section of the supermarket, and their eyes were noticeably seeking out a product. The selection episode was considered completed once the respondent moved away from the section and began further

DIAGRAM 1.0
The temporal effects of decision-making



product-seeking activity for another category. This was based on the practices of previous studies. For example, Fenwick and Kendall (1979) report that brand selection in supermarkets can take as little as eight seconds through to thirty-eight seconds (in selected product categories). A similar finding was established in these results, with the average response ranging from seven seconds to forty-nine seconds. On a few occasions, the time spent to make a decision extended further into the nearly three minutes and accordingly increased emotive displays were presented. In total 342 product selections were captured across the sample.

Initially we had not seen time taken to make a decision as being an indication of emotion, rather it was seen as a display of more complex decision making. Research had demonstrated that tracking consumer attention in store is indicative of decision-making at the point of sale (Schier and Egner 2003). The longer the consumer pays attention, the greater the complexity of the decision making, but we found that it also indicates the degree of emotional connectedness to the brand.

When the tapes were analyzed we found that observing emotional cues such as facial expression and body language whilst being useful in understanding the nature of the emotion being experienced did not necessarily indicate the depth of feeling. Past research has demonstrated the ability we have to identify emotions from body language with the same ease as facial expressions. (Meeren, van Heijnsbergen and De Gelder 2005). Indeed, researchers working in the field of Emotional Body Language (EBL) (De Gelder 2006) have discussed the need for taking a multidimensional approach to identifying emotions and the ability that we have to put together these dimensions to interpret and respond. De Gelder (2006) goes so far as to suggest that whilst the presence of a fearful face indicates a threat, this information alone, does not provide enough information about the source of the threat or the best way to deal with it.

This was reflected in the post interviews where respondents talked about their feelings in relation to some of the behaviours we had observed. Whereas the researchers had identified the emotion through using both facial and EBL cues, the depth of feeling remained hidden. The simple answer lay in viewing time taken at the point-of-sale as being indicative of depth of feeling as well as being an invaluable cue as to the decision making process the consumer was involved in. It is interesting to note that the majority of these expressed emotions more of a negative nature than positive. As the level of brand selection awareness increases, then the greater the display of conscious evaluations—for example: a longer time to make a choice, increased comparison between the brands, and increased body language such as hair pulling, touching of the face, and facial expressions

Diagram 1.0 shows how this concept can be presented. That is, the longer the time taken, the greater awareness of conscious awareness involved in making that decision.

It should be noted that the model in Diagram 1.0 focuses on purely on the behavioral components on the study, however it provides a summary to indicate how emotions reveal themselves at the time of the actual shop. The differing displays of consciousness appeared to be influenced by both environmental cues (eg: store price promotions, stock availability) and internal cues (eg: facial expressions such as frowning, smiling) without a distinct bias towards either. Whilst internal decisions are an influence in brand choice, the environment in which the choice is made must also be taken into account (Engel, Kollat & Blackwell, 1968).

A consumers' current emotional state will influence their decision making process be that consciously or otherwise. These have already been identified by Sherman, Mathur and Smith (1997) who suggest that consumers with a positive emotional state will reduce their decision intricacy and have a shorter decision time than those who have a negative emotional state. The results of the videographic observations appear to confirm this status.

Prior work in this area (Donovan and Rossiter, 1982, Sherman, Mathur and Smith, 1997) did not focus specifically on the impact that conscious decisions have over brand choice in comparison to unconscious selections. The emphasis has been mostly on the external surrounds impacting the consumer's emotional state and how marketers and retailers can manipulate these in order to increase the likelihood of a positive experience (eg; in-store music, product selection, sales staff etc) rather than looking internally at how the consumer interacts with their brand repertoire from their perspective and not the marketers.

LIMITATIONS

It is important to note that this research was only one component of a larger study researching the role of emotions towards supermarket brands. The videographic component clearly showed how the temporal aspects of decision making manipulates the resulting emotive influence. However, this method alone did not reveal the reasons why such delays in decision occurred. This particular aspect was investigated in a subsequent stage of the study that is not covered here. For the purpose of this paper, the emphasis in on understanding the importance of time taken to make a decision which in turn, provides a starting point as to why consumers select specific brands.

CONCLUSION

This research has shown that consumers don't have an all-purpose procedure to decide how they should behave. Rather they appear to perform a two stage process—the first being to determine what kind of condition they are in (eg: access to their preferred brand or category, the influence of others), and then to embrace choice rules that are suitable for that situation (eg: brand availability, pricing options). If the situation fulfils their norm expectation,

then their analysis of the situation will remain unchanged. It is only if their perception of the situation doesn't live up to their expectations that conscious awareness increases. The consumer appears to resent most intrusions that cause disruption to the routine shopping trip. The scale of this disruption can be as small as an in-store reposition of a brand but the consequences can be far reaching. The importance of the temporal aspect will impact not only the time taken to complete a routine shopping trip, but also has potential to alter emotive connectedness between the brand and the consumer.

REFERENCES

- Bagozzi, Richard P. and Mahesh Gopinath, et al. (1999). "The Role of Emotions in Marketing." *Journal of the Academy of Marketing Science* 27(2): 184-206.
- Bargh, John A. (2002). "Reflections and Reviews: Losing Consciousness: Automatic Influences on Consumer judgment, Behaviour and Motivation." *Journal of Consumer Research* 29(2): 280-285.
- Belk, Russell W. and Robert V. Kozinets (2005). "Videography in marketing and consumer research." *Qualitative Market Research* 8(2): 128-141.
- Bettman, James R. (1979). "Memory Factors in Consumer Choice: A Review." *Journal of Marketing* 43(2): 37-54.
- Blum, Deborah (1998). Face it! *Psychology Today*. 31: 32-40.
- Chartrand, Tanya L. (2005). "The Role of Conscious Awareness in Consumer Behaviour." *Journal of Consumer Psychology* 15(3): 203-210.
- De Gelder, Beatrice (2006) "Towards the Neurobiology of Emotional Body Language" *Nature* Vol.7 242-248
- Deshpande, Rohit (1983). "Paradigms Lost": On Theory and Method in Research in Marketing." *Journal of Marketing* 47(4): 101-110.
- Dijksterhuis, Ap and Pamela K. Smith, et al. (2005). "The unconscious consumer: Effects of environment on consumer behaviour." *Journal of Consumer Psychology* 15(3): 193-202.
- Donovan, Robert J. and John R. Rossiter (1982). "Store Atmosphere: An Environmental Psychology Approach." *Journal of Retailing* 58(1): 34-57.
- Engel, James F., , David T. Kollat, and Roger D. Blackwell (1968), *Consumer Behavior*, Holt, Rinehart, and Winton, New York, NY
- Fenwick, Ian and K. W. Kendall (1979) "What do you learn standing in a supermarket aisle?" *Advances in Consumer Research* 6(1): 53-160
- Frijda, Nico H. (1986) *The Emotions. Studies into Emotion and Social Interaction*, Cambridge University Press, UK
- Hansen, Torben (2002). "The effect of physical surroundings in usage situations on consumer perception of food quality and on consumer emotions." *Journal of International Consumer Marketing* 15(1): 31.
- Heath, R. P. (1997). "Seeing is Believing." *American Demographics*: 4-9.
- Heisley, Deborah D. and Sidney J. Levy (1991) "Autodriving: A Photoelicitation Technique." *Journal of Consumer Research* 18(3): 257-283
- Hirschmanm Elizabeth C. and Morris B. Holbrook (1982). "Hedonic Consumption: Emerging Concepts, Methods and Propositions." *Journal of Marketing* 48: 92-101.
- Holbrook, Morris B. and Meryl P. Gardner (1998). "How motivation moderates the effects of emotions on the duration of consumption." *Journal of Business Research*, 42(2): 241-253
- Izard, Carroll E. (1990) "Facial Expressions and the Regulation of Emotions" *Personality and Social Psychology*. Washington (58) 3: 487
- Lee, Christina K. and Roger Marshall (1998). "Measuring influence in the family decision making process using an observational method." *Qualitative Market Research* 1(2): 88-98.
- Lee, Julian (2004) "Supermarket rivals locked in battle for home brand supremacy" *Sydney Morning Herald*, 26 August, 2004
- Loewenstein, George (2001). "Reflections and Reviews: The Creative Destruction of Decision Research." *Journal of Consumer Research* 28(3): 499-505.
- Meeren, Hanneke K., Corné C. van Heijnsbergen, and B. de Gelder (2005) "Rapid Perceptual Integration of Facial Expression and Emotional Body Language Perceptual Integration" *Proceedings of the national Academy of Science USA* pp 16518-16523
- Mowen, John C. (1988) "Beyond Consumer Decision Making." *The Journal of Consumer Marketing* 5(1):15
- Nelson, Emily (2001). "Too Many Choices-Nine Kinds of Kleenex Tissues, Eggo Waffles in 16 Flavors: Blame Brand Managers." *Wall Street Journal* (Eastern Edition), April 20: B1
- Newman, Joseph W. and Bradley D. Lockeman (1975). "Measuring Prepurchase Information Seeking" *Journal of Consumer Research* 2(3): 216-223
- Plutchik, Robert (1980). *Emotion, theory, research and experience. Theories on Emotion*. New York, Academic Press.
- Reeve, Johnmarshall (2005). *Understanding Motivation and Emotion*, Fourth Edition John Wiley & Sons, Hoboken NJ
- Roy, Abhik. And Susan T. C. Tai (2003) "Store environment and shopping behaviour: The role of imagery elaboration and shopping orientation." *The Journal of International Consumer Marketing* 15 (3) : 71
- Rundle-Thiele, Sharyn (2006). "Look after me and I will look after you!" *Journal of Consumer Marketing* 23(7): 414-420
- Scheier, Christian and Steffen Egner (2003) „Tracking Consumer Attention at the Point of Sale“ *proceedings of ESOMAR Conference*. Dublin
- Sherman, Elaine and Anil Mathur, et al. (1997). "Store Environment and Consumer Purchase Behaviour: Mediating Role of Consumer Emotions." *Psychology and Marketing* 14(4): 361-378.
- Simonson, Itamar (2005). "In Defense of Consciousness: The Role of Conscious and Unconscious Inputs in Consumer Choice." *Journal of Consumer Psychology* 15(3): 211-217.
- Sweeney, Jillian C. and Fiona Wyber (2002). "The role of cognitions and emotions in the music-approach-avoidance behaviour relationship." *Journal of Services Marketing* 16(1): 51-69.