MEMORY

I. Consumers’ memories are crucial components of understanding consumer behavior

A. Prior expectations based upon information in memory are critical for perceptions, quality judgments, and so on, as we have seen.

B. Beliefs and other information in memory are a critical component of decision making.

C. Marketers use memory-based criteria to judge effectiveness of marketing efforts
   1. Ad claims - e.g., day after recall
   2. Package or brand name recognition
   3. Beliefs and other brand associations in memory are often used as indicators of brand equity

D. Understanding how items get into and out of memory is crucial, and there is a huge literature on it. We will examine a very limited set of topics and focus on several areas where Fuqua faculty and students have done work.

II. Memory Structure- there are two major components of internal memory systems

A. Short-term or working memory
   1. Currently activated portion of memory
   2. Limited capacity of information (4-7 chunks) can be processed at one time
   3. If items in working memory are elaborated upon, they can be transferred to long-term memory

B. Long-term memory
   1. Essentially unlimited capacity
   2. Organized as network of related, linked concepts - spreading activation (perfume example on page 87 in text)
   3. Retrieval is the major issue, i.e., characterizing the strategies and task factors that affect how easy it is for people to retrieve and how accurately they retrieve information

C. There is also external memory
   1. Displays, packages
   2. Brochures, Consumer Reports tables, etc.
   3. Lists or notes

D. Recent work in neurobiology suggests that different brain systems are involved in declarative memory for facts and events; skills and habits; and classical conditioning. So, for example, memory of doing a web search the day before (an event) may work differently than memory about how to do that web search (procedural skill).

E. The process of memory
   1. Memory is constructive, i.e., people do not retrieve an exact copy of an event
or ad claim from memory. Usually people retrieve partial details and fill in the blanks based upon whatever else they know (i.e., they construct what must have been). People make inferences when attempting to recall, based upon expectations and prior knowledge.

2. In some instances, memory can be reconstructive. That is, people’s memories can be changed or biased by some intervening event. Such processes can even change consumers’ memories of their own brand experiences or autobiographical events (Kathy Braun’s research – JCR, 3/99, 319-334). For example, a consumer may remember an experience with a brand as being better than it was after seeing an ad post-experience. Also, the consumer may recall other autobiographical events differently (e.g., whether they shook hands with Mickey Mouse at Disney World) based upon seeing an ad suggesting such events (a phenomenon called imagination inflation). The notion of reconstructive memory raises the issue of the accuracy of memory, not just how much is remembered.

3. Examples
   a. Eyewitness testimony and repressed memories
   b. Memory for ads – bunny ads (people associate with Duracell)
   c. Memory for consumer experiences

III. Issues in consumer memory

A. Recall vs. recognition
   1. Two distinct memory modes - distinctiveness (recognition), association (recall); recognition involves showing consumers ads or other stimuli and asking whether they have seen them before. Recall involves asking consumers to report what they have seen without any cues. Recognition is usually easier than recall.
   2. Use of recognition vs. recall
      a. Often marketers want brand/package recognition in the store; since recognition is easier, you try to convert the consumer’s task to recognition rather than recall
      b. How to achieve this
         i. Focus on package, name in ad so that the consumer will have a memory trace for them
         ii. Put a scene from ad or other retrieval cue on package - Mikey and Life cereal (Kevin Keller’s research – JCR, 12/87, 316-333), Energizer - can help solve misidentification problems
      c. By comparing recognition and recall scores, can diagnose ad problems (e.g., both scores low implies encoding problems, high recognition but low recall may imply that the ad context is overshadowing ad content)

B. Media properties
   1. Print - rate controllable by consumer; TV - rate not controllable; radio - only one modality, no visuals. These properties can affect processing and therefore memory. For example, for complex information requiring elaboration and rehearsal, having the rate of processing controllable by the
consumer may lead to better memory, all else equal.

2. Coordinated campaigns
   a. Issue - how does a campaign in one medium influence the way you perceive stimuli in another? Example: music video vs. song itself.
   b. Radio-TV – Different orders of seeing radio and TV ads can have quite different effects – e.g., radio-TV and TV-radio are not the same. For the TV-radio order, the consumer may use the radio ad as a trigger for replaying the TV ad and video in their head (Julie Edell and Kevin Keller, JMR, 5/89, 149-163).

C. Modality
   1. Memory for visual stimuli is very good, especially recognition (distinctiveness).
      a. Shepard had Ss view 600 ads, then tested recognition using ads really seen and distractors. The percents correctly recognized, at various time delays between the series of ads and the recognition test, were quite remarkable:

      | Delay | % Correct |
      |-------|---------|
      | 0     | 96.7%   |
      | 2 hrs | 99.7%   |
      | 3 days| 92%     |
      | 7 days| 87%     |
      | 120 days| 58% |

      b. Bahrick studied memory for faces of high school classmates (based on yearbook pictures) – recognition memory was 75% correct up to 30-40 years after graduation.
      c. Framed ads (pictures, words consistent) are remembered better (Edell and Staelin, JCR, 7/83, 45-61)

   2. Children and visual vs. verbal memory
      a. Children use visual more than verbal memory up to about 11-12.
      b. Children's preferences can differ, therefore, depending upon whether you measure those preferences by using recall or recognition.
      c. Issue - which preference measure do you want? It depends upon how the purchase/influence process works (e.g., child tells parent before parent leaves for store (recall) vs. child sees item in store (recognition)).

   3. If modes compete, you get interference and poorer comprehension and memory – this can be a policy issue with information (usually warnings or disclaimers) superimposed in fine print over a TV ad

D. Autobiographical memory - we have mostly considered memory for beliefs and other aspects of products so far, and the flavor has been fairly "cold" and cognitive.
   1. Autobiographical memory is memory for specific events in a person's life.
   2. Autobiographical memories are often emotional, laden with feelings - "hot" rather than "cold"
   3. Ads can therefore evoke feelings or emotions by triggering autobiographical memories. Such ads can be very emotional because they cause the viewer to think about what are called the core relational themes of emotions (e.g., irretrievable loss for sadness, facing existential threats for anxiety, progressing toward a goal for happiness, transgressing a moral imperative for guilt)
      a. Hallmark card ads
b. Ads for Disney World – one issue is that the marketer cannot control what autobiographical memories one retrieves (e.g., a happy time vs. standing in line for the attractions), although people seem to have a bias toward retrieving positive memories.

4. Our research (Sujan, Bettman, Baumgartner, JMR, 11/93, 422-436) has shown that making autobiographical retrievals more likely leads to
   a. More reported feelings during the ad
   b. More favorable attitude toward the ad
   c. More favorable attitude toward the brand if the episode is linked to the brand.

5. Products can often easily be tied to such autobiographical memories, which can lead to a rich array of affective reactions
   a. Nostalgia - relies on warm feelings about the past, anxiety about the present, but have to consider how long it will last, worry about why old appeals were changed in the first place, or how conditions in the market may change and make current appeals obsolete. K
   b. Attachment - souvenirs, photos, products

E. Music in ads and memory - Wanda Wallace has done a good deal of research on the effects of music in ads and its effects.
   1. Music in ads can be background, jingles, new songs, old songs.
   2. Memory effects of jingles or slogans
      a. Do you remember? Even if you think you do not, you might be surprised.
      b. Consumers often have stable memories over a long time period; so?
         i. Can be a source of brand equity
         ii. Gets brand into consideration set
         iii. Helps remember claims
      c. Comes back quickly, can encourage replay to oneself
      d. Sung slogan remembered better than spoken; having the music helps
   3. Music generally can have many effects in an ad
      a. Can make whole ad more memorable
      b. Can increase attitude toward the ad, upbeat and warm feelings (depends upon specific piece, of course), decrease skeptical reactions
      c. But, music can also act as a distractor and lead to less thought and elaboration on the meaning of the message. So, music may not be good if you want to have consumer think carefully about what you said and compare attributes (figure-ground issues).
   4. Effects of old songs in ads
      a. An old song can encourage thoughts, emotions from past - indexicality
      b. These thoughts can distract, need to attach them to product
      c. Fit of music to product critical - tone