Observational Methods

(Click icon for audio)
“Anthropologists! Anthropologists!”
Scientific Observation Is Systematic

“YOU SEE, BUT YOU DO NOT OBSERVE.”
--Sherlock Holmes
What Can Be Observed?

- Physical actions
- Verbal behavior
- Expressive behavior
- Spatial relations and locations
- Temporal patterns
- Verbal and pictorial records
## What Can Be Observed?

<table>
<thead>
<tr>
<th>Phenomena</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human behavior or physical action</td>
<td>Shoppers movement pattern in a store</td>
</tr>
<tr>
<td>Verbal behavior</td>
<td>Statements made by airline travelers who wait in line</td>
</tr>
<tr>
<td>Expressive behavior</td>
<td>Facial expressions, tone of voice, and other form of body language</td>
</tr>
</tbody>
</table>
## What Can Be Observed?

<table>
<thead>
<tr>
<th>Phenomena</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial relations and locations</td>
<td>How close visitors at art museums stand to paintings</td>
</tr>
<tr>
<td>Temporal patterns</td>
<td>How long fast-food customers wait for service</td>
</tr>
<tr>
<td>Physical objects</td>
<td>Brand name items stored in consumers’ pantries</td>
</tr>
<tr>
<td>Verbal and pictorial records</td>
<td>Bar codes on product packages</td>
</tr>
</tbody>
</table>
Categories of Observation

• Human versus mechanical
• Visible versus hidden
• Direct versus contrived
NOW JACOBS WILL GIVE US A RUNDOWN OF THE LATEST UNOBSERVABLE RESEARCH IN ICE CREAM SALES...
Scientifically Contrived Observation

Creation of artificial environment to test a hypothesis
An Example of Contrived Observation

Bank: Competitor B
Location: Cranston
Clerk: Mrs. L.

Date: 6/8/83
Time: 10:20 A.M.
Account: Savings

I entered the bank and approached a teller, Miss L., and asked who I would see to find out about a savings account. She said I should see Mrs. L., indicating her. Mrs. L. had a customer at her desk, so the teller suggested I have a seat and wait. She said, “There’s a pamphlet on savings accounts on the rack over there you might like to look over while you’re waiting.” I thanked her, took a pamphlet, and sat down. After about two minutes Mrs. L. was free and I told her I was interested in a savings account. She took out a pamphlet and said, “I see you have one of these; maybe it would be best if we go through it together.” She then went over each type of savings plan offered, adding comments on each that were not in the brochure. She told me I could save by mail or come in to the office and gave me their hours. She also mentioned that if I had a checking account I could have money saved automatically. I said I did not have a checking account, so she went over them fully, giving me literature. At the end she said, “We’re a full service bank—we have loans, safe deposit boxes, even a credit card!” I had already told her I wouldn’t be opening anything “until payday.” She said, “right over where you got that first brochure, we have literature on all our services; why don’t you take one of each and look them over, and come back and see me on payday?”

Mrs. L. was extremely knowledgeable, well organized, and very pleasant.
An Example of a Structured Observation Report Form

<table>
<thead>
<tr>
<th>Bank</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Time</td>
</tr>
<tr>
<td>Teller</td>
<td>Transaction</td>
</tr>
</tbody>
</table>

**Appearance**
- Well groomed  Yes  No

**Behavior**
- Chewing gum or eating  
- Smoking  
- Personal conversations:  
  - with customer  
  - with other employees  
  - on telephone  
- Other poor behavior  

**Window**
- Nameplate visible  Yes  No  
- Loose cash or checks  Yes  No  
- Cluttered work area  Yes  No  
- Personal belongings visible  Yes  No  

**Transaction (General)**
- Waited on immediately  Yes  No  
- If no, waited (_______) minutes  
  - presence acknowledged  Yes  No  
- Teller was:  
  - helping customer  
  - talking with employee:  
    - business  
    - personal  
  - working:  
    - at station  
    - at back counter  
    - at drive-in window  
    - other  

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Sample Observation Form

SECTION II: BY OBSERVATION ONLY

H1. IF ANYONE WAS PRESENT DURING THE INTERVIEW OTHER THAN R AND INTERVIEWER GIVE THE FOLLOWING DETAILS FOR EACH:

<table>
<thead>
<tr>
<th>PERSON 1</th>
<th>PERSON 2</th>
<th>PERSON 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1a. Age, approximately</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1b. Relationship to R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1c. Present for how much of the interview?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M1d. How closely was (s)he listening?</td>
<td>1. CLOSELY</td>
<td>1. CLOSELY</td>
</tr>
<tr>
<td></td>
<td>2. CASUALLY</td>
<td>2. CASUALLY</td>
</tr>
<tr>
<td></td>
<td>3. HARDLY AT ALL</td>
<td>3. HARDLY AT ALL</td>
</tr>
<tr>
<td>M1e. Did (s)he make any comments on R's answers?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

H2. R's Race? 1. WHITE 2. BLACK OTHER: (Specify)

H3. Rate R's physical appearance:

| 1. STRIKINGLY HANDSOME OR BEAUTIFUL | 2. GOOD-LOOKING (ABOVE AVERAGE FOR AGE AND SEX) |
| 3. AVERAGE LOOKS FOR AGE AND SEX | 4. QUITE PLAIN (BELOW AVERAGE FOR AGE AND SEX) |
| 5. HOMELY |

H4. How tall would you say R was? ______ FEET ______ INCHES

H5. Rate R's apparent intelligence?

| 1. VERY HIGH | 2. ABOVE AVERAGE | 3. AVERAGE | 4. BELOW AVERAGE | 3. VERY LOW |

H6. How suspicious did R seem to be about the study, before the interview?

| 1. NOT AT ALL | 3. SOMEWHAT | 5. VERY SUSPICIOUS |

H7. Overall, how great was R's interest in the interview?

| 1. VERY HIGH | 2. ABOVE AVERAGE | 3. AVERAGE | 4. BELOW AVERAGE | 5. VERY LOW |

H8. How sincere did R seem to be in his answers, especially to the ones using the CARD 3?

| 1. COMPLETELY SINCERE | 2. USUALLY SINCERE | 3. OFTEN SEEMED TO BE INSINCERE |
Observation of Physical Objects

• Physical-trace evidence
• Wear and tear of a book indicates how often it has been read
• Unobtrusive measures
• Garbology
Unobtrusive Measure

- Philadelphia neighborhood
- Aerial shots of AC units
- Pattern not random

XXX X X X X X X
XXX XXX XXX X
XXXXXXX XXX
XXX X X X

Therefore, diffusion via *word of mouth*
Mechanical Observation

- Traffic Counters
- Web Site Monitors
- Store Scanners
- Peoplemeters
- Physiological Measures
Physiological Measures

- Eye tracking
- Pupilometer
- Psychogalvanometer
- Voice pitch
- Response latency
Eye Tracking Monitors

• Record how subjects actually read or view ads
• Measure unconscious eye movements
## Organized Unit Price Shopping List
*(In order of Increasing Price per Quart)*

<table>
<thead>
<tr>
<th>Item</th>
<th>Size</th>
<th>Unit price</th>
<th>Price per quart</th>
</tr>
</thead>
<tbody>
<tr>
<td>Par</td>
<td>48 oz.</td>
<td>54¢</td>
<td>36.0¢</td>
</tr>
<tr>
<td>Par</td>
<td>32 oz.</td>
<td>38¢</td>
<td>38.0¢</td>
</tr>
<tr>
<td>Sweetheart</td>
<td>32 oz.</td>
<td>55¢</td>
<td>55.0¢</td>
</tr>
<tr>
<td>Brocade</td>
<td>48 oz.</td>
<td>85¢</td>
<td>56.7¢</td>
</tr>
<tr>
<td>Sweetheart</td>
<td>22 oz.</td>
<td>39¢</td>
<td>56.7¢</td>
</tr>
<tr>
<td>Supurb</td>
<td>32 oz.</td>
<td>59¢</td>
<td>59.0¢</td>
</tr>
<tr>
<td>White Magic</td>
<td>32 oz.</td>
<td>59¢</td>
<td>59.0¢</td>
</tr>
<tr>
<td>Brocade</td>
<td>32 oz.</td>
<td>63¢</td>
<td>63.0¢</td>
</tr>
<tr>
<td>Brocade</td>
<td>22 oz.</td>
<td>45¢</td>
<td>65.5¢</td>
</tr>
<tr>
<td>Supurb</td>
<td>22 oz.</td>
<td>45¢</td>
<td>65.5¢</td>
</tr>
<tr>
<td>White Magic</td>
<td>32 oz.</td>
<td>45¢</td>
<td>65.5¢</td>
</tr>
<tr>
<td>Brocade</td>
<td>12 oz.</td>
<td>27¢</td>
<td>72.0¢</td>
</tr>
<tr>
<td>Supurb</td>
<td>12 oz.</td>
<td>29¢</td>
<td>77.3¢</td>
</tr>
<tr>
<td>Ivory</td>
<td>32 oz.</td>
<td>80¢</td>
<td>80.0¢</td>
</tr>
<tr>
<td>Dove</td>
<td>22 oz.</td>
<td>56¢</td>
<td>81.5¢</td>
</tr>
<tr>
<td>Ivory</td>
<td>22 oz.</td>
<td>56¢</td>
<td>81.5¢</td>
</tr>
<tr>
<td>Lux</td>
<td>22 oz.</td>
<td>56¢</td>
<td>81.5¢</td>
</tr>
<tr>
<td>Palmolive</td>
<td>32 oz.</td>
<td>85¢</td>
<td>85.0¢</td>
</tr>
<tr>
<td>Ivory</td>
<td>12 oz.</td>
<td>32¢</td>
<td>85.3¢</td>
</tr>
<tr>
<td>Palmolive</td>
<td>22 oz.</td>
<td>60¢</td>
<td>87.3¢</td>
</tr>
<tr>
<td>Palmolive</td>
<td>12 oz.</td>
<td>34¢</td>
<td>90.7¢</td>
</tr>
</tbody>
</table>
Pupilometer

Device observes and records changes in diameter of subjects’ pupils
Psychogalvanometer

- Measures galvanic skin response
- Involuntary changes in electrical resistance of the skin
- Assumption: Physiological changes accompany emotional reactions
Voice Pitch Analysis

Measures emotional reactions through physiological changes in a person’s voice
Response Latency

• Recording decision time necessary to make choice between two alternatives
• Presumed to indicate strength of preference between alternatives
Observation of Human Behavior: Benefits

- Communication with respondents unnecessary
- Data without distortions due to self-report (e.g., social desirability) bias
- No need to rely on respondents memory
- Nonverbal behavior data may be obtained
Observation of Human Behavior: Benefits (cont.)

- Certain data may be obtained more quickly
- Environmental conditions may be recorded
- May be combined with survey to provide supplemental evidence
Observation of Human Behavior: Limitations

- Cognitive phenomena cannot be observed
- Interpretation of data may be a problem
- Not all activity can be recorded
- Only short periods can be observed
- Observer bias possible
- Possible invasion of privacy
Naturalistic Inquiry

• Avoid lab bias
• Distinguishing characteristics
  – Conducted in situ
  – Human as instrument
  – Maximum variation sampling
  – Inductive data analysis
  – Data → Theory
• Ethnography (study of cultures)
Flow of Naturalistic Inquiry

Natural setting
  demands
  Human instrument
  building on
  Tacit knowledge
  using
  Qualitative methods
  engaging in
  Purposive sampling
  Emergent design
  iterated until redundancy
  Grounded theory
  involving
  Negotiated outcomes
  leading to
  Case report
  which is both
  Idiographically interpreted
  Tentatively applied
Content Analysis

• Obtains data by observing and analyzing contents of ads, letters, articles, etc.
• Study of message itself
• Measures extent of emphasis or omission
• Sample ad study #1
• Sample ad study #2
Recap

• Many aspects of consumers’ behaviors may be observed
• People or machines may observe
• Observations may be visible or hidden
• Objects or people may be observed
• Machines may make physiological or non-physiological measurements
• Naturalistic inquiry differs from conventional marketing research