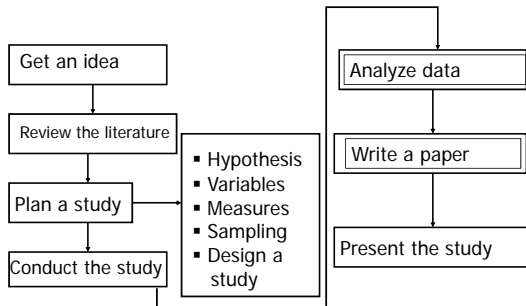


Steps in the Research Process



Research Designs

Part II. Non-experimental Designs

Outline of Part II

- **Observational research/physical trace**
- **Case / Small N studies**
- **Survey / Correlational studies**
- **Developing a questionnaire**
- **Longitudinal research**
- **Quasi-experimental designs**

Research Methods Lecture 7

Observational Research

Outline

- **Types of observational research**
 - **Naturalistic observation**
 - **Participant observation**
 - **Evaluations**
 - **Advantages vs. disadvantages**
- **Physical Traces**
 - **Use traces**
 - **products**
 - **Evaluations**
 - **Advantages vs. disadvantages**

Observational research

- **Goal: Describing behaviors**
- **Two types of observational research**
 - Is the researcher involved in a situation?
 - **Yes - Participant observation**
 - **No - Naturalistic observation**

Naturalistic Observation

- minimal involvement in observed situations
 - example: Konrad Lorenz
Airport study

Naturalistic Observation

- Konrad Lorenz (1903-1989)
 - Imprinting
 - any irreversible behavioral response acquired early in life and normally released by a specific triggering stimulus or situation
 - “King Solomon’s ring (1949)”



Attachment Theory

- Origin of adult attachment
- John Bowlby (1960s)
 - attachment - enduring emotional ties that children form with their primary caregivers



Attachment Theory

- Mary Ainsworth (1978)
 - through “strange situation”
 - Secure
 - Anxious
 - Avoidant

Naturalistic Observation

- Airport study (Fraley & Shaver, 1999)
 - 109 couples
 - avoidant – pull away from their partners
 - anxious – keep partner nearby, feel more internally distressed



Participant Observation

- the researcher are actively involved in observed situations
 - example: “When Prophecy fails”

Participant Observation

"Heaven's gate" "Branch Davidians" "People's temple"
David Koresh Jim Jones



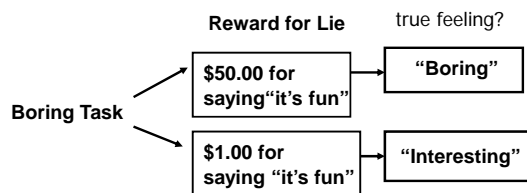
Participant Observation



- "When prophecy fails" (Festinger, 1956)
 - News headline in late September, 1955
"Prophecy from planet. Clarion call to city: Flee that flood. It'll swamp us on Dec. 21."
 - Mrs. Marian Keetch claimed to receive messages from aliens.
 - interested in how Mrs. Keetch and her followers would react after the prophecy failed.
 - to justify their efforts, they believed that their efforts saved the world.

Participant Observation

- in a lab study (Festinger & Carlsmith, 1959)



Evaluations

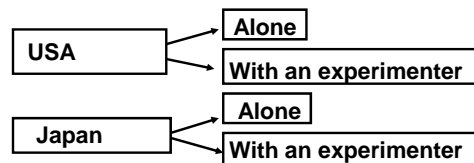
- strength
 - behavior in the natural environment – contain rich information
 - bases for hypotheses to be used in experimental research

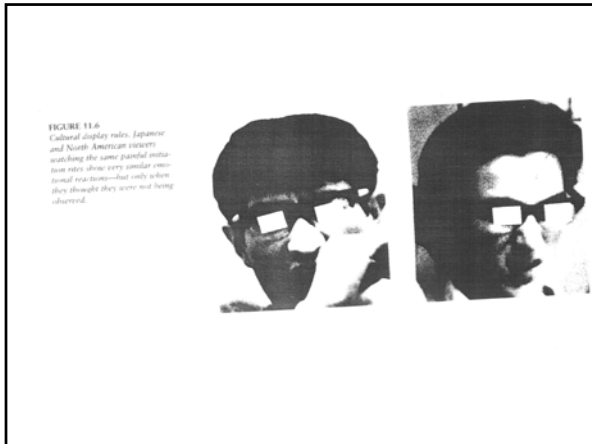
Evaluations

- Weakness
 - absence of control – no causal inference, only associations among behaviors
 - observer bias
 - multiple observers (interobserver reliability)
 - subject reactivity
 - unobtrusive measures (e.g., hidden camera)

Ekman's display rule

- Cultural differences in emotional expression
- "Display rules" (Ekman & Friesen, 1975)





Physical Traces

- A form of unobtrusive observation/measurement
- This consists of the physical evidence that individuals leave behind in the world
- Two categories:
 - Use Traces
 - Products

Use Traces

- physical evidence that results from use (or nonuse) of an item.
- Examples

Use Traces

- physical evidence that results from use (or nonuse) of an item.
- Examples

Trace	Variable
Graffiti on walls of public rest rooms	
Lengths of cigarette butts across different cultures	
Garbage	
Liquor bottles in trash cans	
Nose prints on windows of museum exhibit (windows wiped clean each night)	
Wear on floor mats placed in specific areas	

Use Traces

- physical evidence that results from use (or nonuse) of an item.
- Examples

Trace	Variable
Graffiti on walls of public rest rooms	Sexual preoccupation
Lengths of cigarette butts across different cultures	Cultural differences in death rate due to lung cancer
Garbage	Food use and life style
Liquor bottles in trash cans	Alcohol consumption of households
Nose prints on windows of museum exhibit (windows wiped clean each night)	Popularity
Wear on floor mats placed in specific areas	Amount of foot traffic

Physical Traces - Example

- e.g., Levine (1990)'s cultural differences in punctuality

FIGURE 2.6 Measures of accuracy of a country's bank clocks, pedestrian walking speed, and the speed of postal clerks performing a routine task served to describe the pace of life in a country. In the graph a longer bar represents greater accuracy of clocks or greater speed of walking and performing a task. (From Levine, 1990).

Country	Bank clocks	Walking speed	Postal clerks' speed
Japan	High	High	High
United States	Medium	Medium	Medium
England	Medium	Medium	Medium
Taiwan	Medium	Medium	Medium
Italy	Medium	Medium	Medium
Indonesia	Low	Low	Low

Products

- The creations or artifacts of past or present behavior
- e.g., art, clothing, books, etc.



Products

- Examples
 - Right-handedness (Coren & Porac, 1977)
 - Due to physiological or sociocultural reasons?
 - more than 12,000 works of art including paintings, sculptures, other products that spanned more than 50 centuries of human endeavor
 - results: 93% of the artworks with right hand – no cultural differences

Products

- examples
 - examine bumper stickers to investigate ethnic differences in degree of emotional expressiveness (Newahgen & Ancell, 1995)



Products

- examples
 - examine bumper stickers to investigate racial differences in degree of emotional expressiveness (Newahgen & Ancell, 1995)
 - suburban Blacks and Whites in the Washington, DC, area
 - higher usage in low income areas regardless of race
 - high-income White neighborhoods – express more intense positive emotions
 - high-income Black neighborhoods – least frequently observed, and when they did, the messages were the most subdued

Limitations of the Use of Physical Traces and Products as Data

- **Advantages:** can avoid the problem of “subject reactivity”
- **Disadvantages:**
 - The meaning of data is often ambiguous (i.e., multiple explanations are often valid)
 - e.g., settings of clocks and punctuality
 - quality of clocks?
 - irregular electrical service?
 - Too weak to support a hypothesis alone – more often used as a mean of confirming the validity of conclusions reached by other methods

Writing an empirical journal article in Psychology

- **General guideline**
 - **Clarity** is the first priority.
 - **Interest** is second.
 - **Style** is third.
 - Write simply
 - Read your own writing from the viewpoints of the potential reader.
 - Be willing to revise and restructure.
 - Be compulsive.

Writing an empirical journal article in Psychology

- APA format
- Title:
 - Should summarize the main idea of the paper
 - should also grab the attention of the reader
 - should identify the actual variables and the relationship between them
 - should be self-explanatory

Writing the empirical journal article in Psychology

- Introduction
 - Include the history and background of your topic
 - Include purpose of your study, definitions of your variables, and your hypotheses
- Cover page (1 page)
- Introduction (1-3 page)
- References (1 page; minimum 5 references)

Title Page

Running head: FACIAL SYMMETRY AND PHYSICAL ATTRACTIVENESS

The Relationship between Various Measurements of Facial Symmetry and Ratings of Physical Attractiveness

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Introduction

Facial Symmetry and Physical Attractiveness 2

The Relationship between Various Measurements of Facial Symmetry and Ratings of Physical Attractiveness

The nature of human attraction has always been an enigmatic topic of research. It seems that, though everyone is attracted to different traits in a mate, there are some universal aspects of attraction that everyone shares. The perception of attractiveness in certain celebrities, for example, appears consistent between observers, regardless of age or cultural background. Why is that? What is it that makes a face look beautiful? Recent research has shown that people seem to have similar ideas about what constitutes an attractive face.

Beauty is experienced through visual stimuli. While there are some variations, the human face is generally symmetrical in design. From an evolutionary perspective, facial asymmetry is linked to a variety of physiological and psychological abnormalities; whereas facial symmetry serves as an indicator of general health and well being (Shackelford & Larsen, 1997). As such, it has been argued that humans and other species are evolutionary innate to become drawn to facial symmetry by perceiving such features as "beautiful".

Introduction

Facial Symmetry and Physical Attractiveness 3

Several studies have been conducted to try and determine a positive correlation between facial symmetry and rating of attractiveness (Baudouin & Tiberghien, 2004, Grammer & Thornhill, 1994, Jones et al., 2001, and Rhodes et al., 2001). Since 1992, Randy Thornhill has studied physical attractiveness and its link to facial symmetry. In his studies, involving a total of more than one thousand students who were asked to rate photos of faces with varying degrees of symmetry, Thornhill was able to demonstrate an "overwhelming preference for symmetrical faces" (Gangestad & Thornhill, 1997). Furthermore, Gangestad & Thornhill (1997) revealed an increase in extra pair copulations (EPC) in males expressing heightened facial symmetry and masculinity.

Based on this previous research, we hypothesize that there is a positive correlation between facial symmetry and ratings of attractiveness. We propose to quasi-duplicate Thornhill's study. Supplementary to this study we will try and determine whether facial symmetry, as an indicator of attractiveness, is more prominent in males or in females. In a preliminary test, black and white photos of both males and females age 18 to 28 will be presented on a large screen. Test subjects will be asked to rate the attractiveness of the faces

Introduction

Facial Symmetry and Physical Attractiveness 4

presented using a seven-point Likert scale ranging from 1 (very unattractive) to 7 (very attractive). We hypothesize that Thornhill's original findings will be supported: facial symmetry has a positive effect on facial attractiveness. We also suggest that females and males will rate the various faces comparably.

References

Facial Symmetry and Physical Attractiveness 5

References

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Introduction

Contents

- Begin by introducing the topic in a very general way, then become more specific, focusing on your hypotheses/area of investigation.
- The introduction should include a review of the past literature that illustrates what has been done already.
- Make sure you relate the past research to your study, be sure to discuss the RELEVANT aspects of each study.
- Do not simply describe the past studies one after another. You should integrate them together in a logical manner. Discuss how the findings of one study relate to the findings of another study. Lastly and most importantly, discuss how the studies relate to your study.