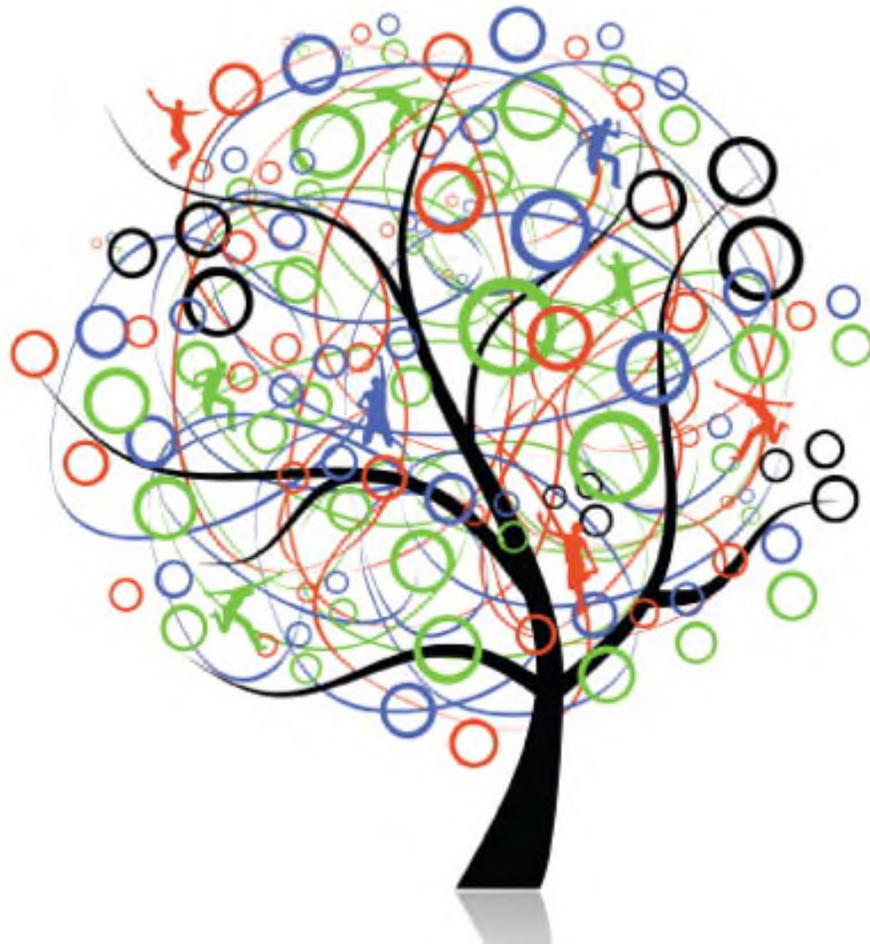


# The Psychology of Gender

Fourth Edition



## Chapter 2

### Methods and History of Gender Research



# The Scientific Method

# Key Elements of the Scientific Method

- Based on **empiricism**: information **(data)** collected using our senses
- Data are used to make statements **(facts)**
- Collection of facts used to develop **theories**
- Theories provide explanations for a set of facts

# Key Elements of the Scientific Method (cont'd)

- Theories can be used to generate **hypotheses**, i.e., predictions of certain outcomes under specific sets of conditions

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**Age effect:** Effect due to the age of the respondent.

**Cohort effect:** Effect due to the cohort or generation of the respondent.

**Correlational study:** Study in which one observes the relation between two variables, often at a single point in time.

**Cross-sectional study:** Study in which the data are collected at one point in time, usually from a cross section of different age groups.

**Data:** Information (e.g., thoughts, feelings, behaviors) collected for the purpose of scientific examination.

**Demand characteristics:** The ways participants of an experiment can influence the outcome of a study.

**Dependent variable:** Variable that is expected to be influenced by manipulation of the independent variable; the effect.

**Empiricism:** Basis of scientific method that involves the collection of information via one of the major senses (usually sight).

**Experimenter effects:** Ways in which the experimenter can intentionally or unintentionally influence the results of a study.

**Experimental method:** Research method in which the investigator manipulates one variable and observes its effect on another variable.

**External validity:** The confidence that the results from an experiment generalize to the real world.

**Facts:** Statements made about data.

**Field experiments:** Experiments in which the investigation is taken into the environment where the behavior to be studied naturally occurs.

**Hypothesis:** Prediction that a certain outcome will occur under a specific set of conditions.

**Independent variable:** Variable manipulated during an experiment; the cause.

**Internal validity:** The confidence that the true cause of the effect is being studied.

**Longitudinal study:** Study in which data are collected at multiple time points.

**Meta-analysis:** A statistical tool used to synthesize the results of studies.

**TABLE 2.3** Key Terms Used in Scientific Method

**Negative correlation:** Correlation in which the level of one variable increases and the level of the other variable decreases.

**Positive correlation:** Correlation in which the levels of both variables increase or the levels of both variables decrease at the same time.

**Random assignment:** Method of assignment in which each participant has an equal chance of being exposed to each condition.

**Random selection/random sampling:** Method of selecting a sample in which each member of the population has an equal chance of being a participant in the study.

**Replication:** Repetition of a study, often with different measures of the independent variable and the dependent variable.

**Selection bias:** Result of participants not being randomly sampled or not being randomly assigned to condition.

**Social desirability response bias:** A demand characteristic; ways in which participants behave in experiments to give socially desirable answers.

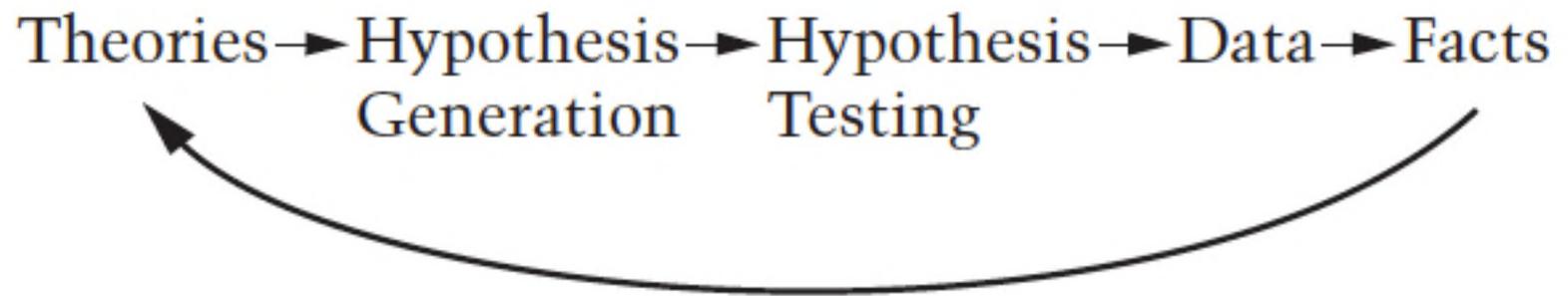
**Stimulus/target variable:** Variable that can be manipulated in an experiment.

**Subject variable:** Variable that is a permanent characteristic of the person (subject) and may affect the person's response to another variable.

**Theory:** Abstract generalization that provides an explanation for a set of facts.

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**TABLE 2.3 (cont'd)** Key Terms Used in Scientific Method

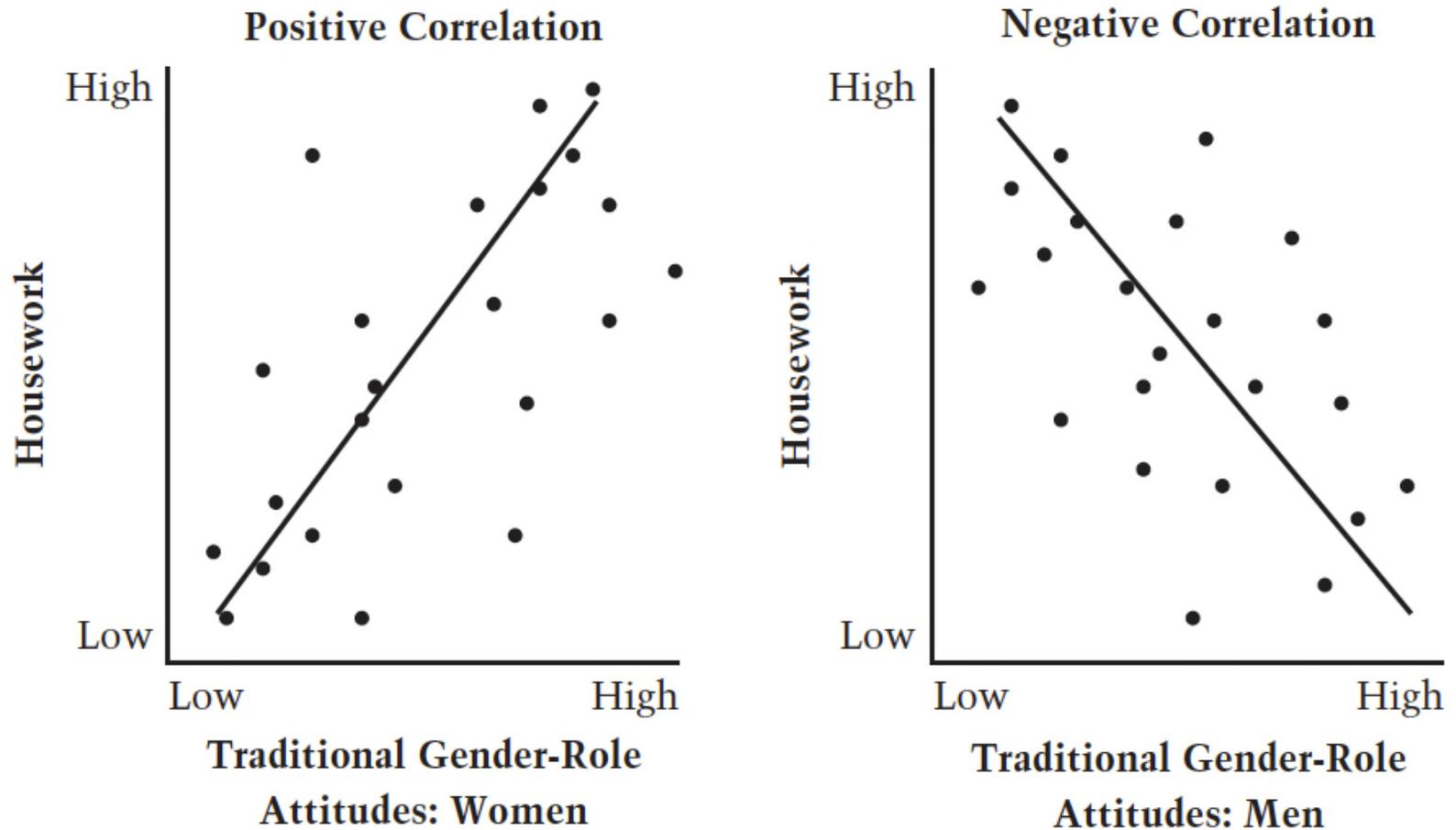


**FIGURE 2.1** Steps in the research process.

# Types of Research Designs

- **Correlational Study**

- Observe relation between two variables, often at a single point in time
- Value of a correlation can range from -1 to +1
- **Positive correlation:** levels of both variables increase or decrease at the same time
- **Negative correlation:** level of one variable increases as the level of the other decreases



**FIGURE 2.2** Examples of a positive and negative correlation.

# Types of Research Designs (cont'd)

- **Correlational Study**
  - Strive for **random selection** of participants
  - Use caution when generalizing findings

# Types of Research Designs (con't)

- **Experimental Study**

- Method in which the investigator manipulates one variable and observes its effect on another variable
- **Independent variable (IV)** is the manipulated variable (cause)
- **Dependent variable (DV)** is the variable expected to be influenced by the manipulated variable (effect)

<i>Research Question</i>	<i>Independent Variable</i>	<i>Dependent Variable</i>
Is employment harmful to women's health?	Employment	Health
Does testosterone increase aggression?	Testosterone	Aggression
Do African Americans have more traditional gender-role attitudes than Caucasians?	Race	Gender-role attitudes
Which relationships are closer—same sex or other sex?	Relationship type	Closeness
Are men or women smarter?	Sex	Intelligence
Does commitment in a relationship decrease power?	Commitment	Power
Are lesbians more masculine than heterosexual women?	Sexual orientation	Gender role
Is touching a function of status?	Status	Touching
Is housework divided more evenly among egalitarian couples?	Egalitarian vs. traditional	Division of labor
Do we smile more at male infants or at female infants?	Infant sex	Smiling

**TABLE 2.1** Examples of Independent and Dependent Variables

# Types of Research Designs (cont'd)

- **Random assignment** of participants is key feature

# Correlational Methods vs. Experimental Methods

- Advantages and disadvantages to each method
- Correlational research usually easier to conduct; has high **external validity** but low **internal validity**
- Experimental research usually has high internal validity but low external validity if conducted in the laboratory

	<i>Experimental</i>	<i>Correlational</i>
Strength	Internal validity	External validity
Weakness	External validity	Internal validity

**TABLE 2.2** Experimental Methods vs. Correlational Methods

# Can “Sex Differences” Studies Be True Experiments?

- Sex cannot be manipulated or randomly assigned so not a true IV
- Usually a **subject variable**, i.e., a characteristic of a person
- Most research that compares men and women is correlational and not experimental

# Can “Sex Differences” Studies Be True Experiments? (cont'd)

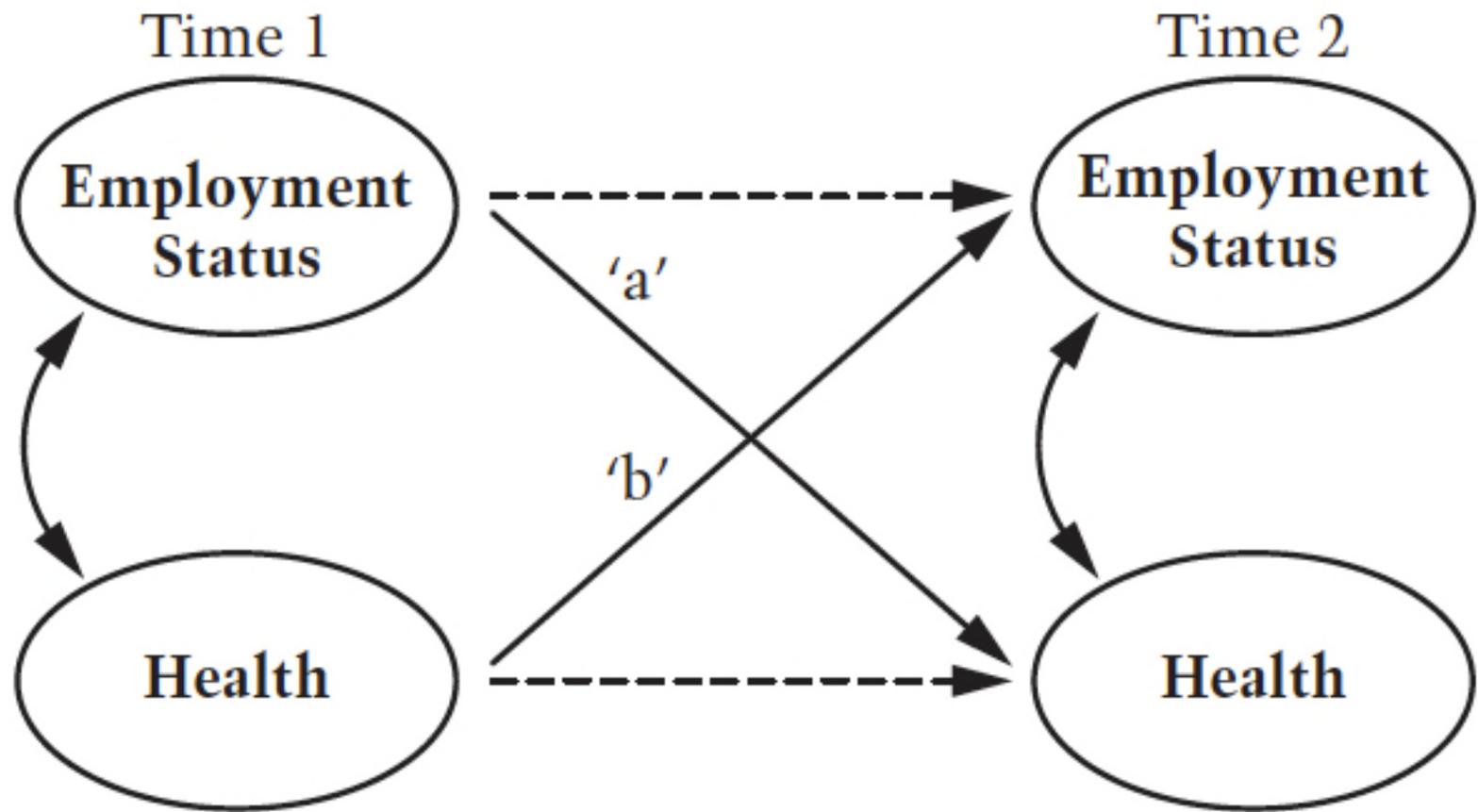
- However, when sex is a **stimulus** or **target variable**, a true experiment can be conducted

# What Can Help Enhance Validity?

- **Field experiments**, conducted in the field where behavior naturally occurs, can maximize both internal and external validity
- **Longitudinal studies**, with multiple time points, can boost the internal validity of correlational research

# What Can Help Enhance Validity? (cont'd)

- **Cross-sectional** studies provide data at only one time point, usually from a cross section of different age groups



**FIGURE 2.3** Depiction of a longitudinal design in which one can disentangle the causal relation between employment and health.



# Meta-Analysis

- Statistical tool to summarize the results of many studies
- Meta-analyses have been conducted on sex comparisons in a wide variety of domains
- Considers both statistical significance and size of the difference



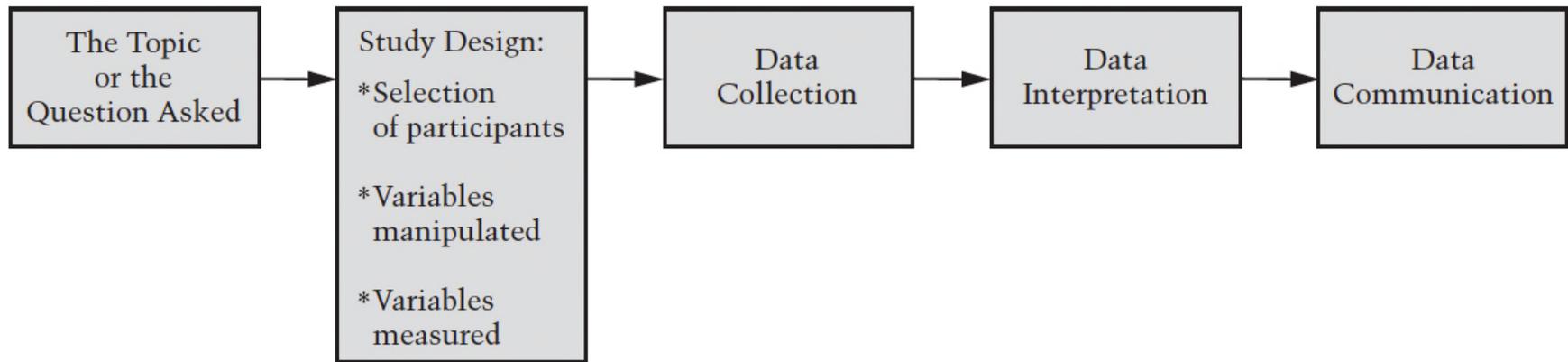
# Difficulties in Conducting Research on Gender

# Experimenter Effects

- Ways in which the experimenter can intentionally or unintentionally influence the results of a study
  - Questions asked and study design
  - Study design: Participants
  - Study design: Variables manipulated and measured
  - Data collection
  - Data interpretation
  - Communication of results

# Experimenter Effects (cont'd)

- Remedies: team of scientists with opposing beliefs conduct the research; replication



**FIGURE 2.4** Stages of the research process that can be influenced by the experimenter.

# Participant Effects

- **Demand characteristics** refer to the ways that participants can influence study outcomes
  - Social desirability response bias
  - More likely to occur when behavior is in public rather than private setting
- Remedies: ensure confidentiality; disguise purpose of study; have multiple measures of a behavior

# Setting: Laboratory vs. Field

- Gender differences *less* likely to be found in laboratory rather than in field settings
- In laboratories, men and women face similar conditions
- In the real world, men and women often do not face similar situations

# Setting: Laboratory vs. Field (cont'd)

- Laboratory studies often rely on college students, who differ from the general population in a number of ways

# Variables Confounded with Sex

- When comparing the sexes, can't be certain that differences are due to sex alone
- Sex may be confounded with:
  - Status
  - Gender role
  - Other factors



# Situational Influences

- Need to consider situational constraints that can affect whether or not gender differences will emerge
- More behaviorally constrained situation, more gender similarity
- Certain situations, e.g., weddings, can accentuate differences

# Situational Influences (cont'd)

- Need to study gender in context, the situation in which men and women interact, and the people with whom they interact

		<b>Masculinity</b>	
		Low	High
<b>Femininity</b>	Low	Undifferentiated	Masculine
	High	Feminine	Androgynous

**FIGURE 2.7** This is a sex-typing typology based on people's scores on masculinity and femininity.

# 1894–1936: Sex Differences in Intelligence

- Tried to establish that men more intelligent than women:
  - Size of brain
  - Size of specific brain areas
- Experimenter biases a problem
- *Sex and Personality* by Terman and Miles (1936): no sex differences in intelligence

# 1936–1954: Masculinity-Femininity as a Global Personality Trait

- Notion of gender roles introduced
- Construct of masculinity-femininity (M/F) studied
  - Attitude Interest Analysis Survey (AIAS; Terman & Miles, 1936)
    - 456-item inventory with seven subject areas
    - First comprehensive measure of M/F
    - M/F opposite ends of a single continuum

Responses with a (+) are indicative of masculinity; responses with a (-) are indicative of femininity; responses with a 0 are neutral and not scored as either.

*Word Association*

Look at the word in capital letters, then look at the four words that follow it. Draw a line under the word that goes best or most naturally with the one in capitals; the word it tends most to make you think of.

1. POLE	barber (0)	cat (+)	North (-)	telephone (+)
2. DATE	appointment (-)	dance (+)	fruit (+)	history (+)

*Inkblot Association*

Here are some drawings, a little like inkblots. They are not pictures of anything in particular but might suggest almost anything to you, just as shapes in the clouds sometimes do. Beside each drawing four things are mentioned. Underline the one word that tells what the drawing makes you think of most.

- 1. bush (0)
- lady (+)
- shadow (+)
- mushroom (-)



- 2. flame (-)
- flower (+)
- snake (-)
- worm (-)



**TABLE 2.4** Sample Items from the Attitude Interest Analysis Survey

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*Information*

---

In each sentence, draw a line under the word that makes the sentence true.

1. Marigold is a kind of	fabric (+)	flower (-)	grain (-)	stone (+)
2. Tokyo is a city of	China (-)	India (-)	Japan (+)	Russia (0)
3. A loom is used for	cooking (+)	embroidering (+)	sewing (+)	weaving (-)
4. The number of players on a baseball team is	7 (-)	9 (+)	11 (-)	13 (0)

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*Emotional and Ethical Response*

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Below is a list of things that sometimes cause anger. After each thing mentioned, draw a circle around VM, M, L, or N to show how much anger it causes you.

VM means VERY MUCH; M means MUCH; L means A LITTLE; N means NONE.

1. Seeing people disfigure library books	VM (-)	M (-)	L (+)	N (+)
2. Seeing someone trying to discredit you with your employer	VM (+)	M (0)	L (+)	N (-)

Below is a list of things that sometimes cause disgust. After each thing mentioned, draw a circle around VM, M, L, or N to indicate how much disgust it causes you.

VM means VERY MUCH; M means MUCH; L means A LITTLE; N means NONE.

1. An unshaven man	VM (-)	M (-)	L (+)	N (+)
2. Gum chewing	VM (-)	M (-)	L (+)	N (+)

Below is a list of acts of various degrees of wickedness or badness. After each thing mentioned, draw a circle around 3, 2, 1, or 0 to show how wicked or bad you think it is.

3 means EXTREMELY WICKED; 2 means DECIDEDLY BAD; 1 means SOMEWHAT BAD;  
0 means NOT REALLY BAD.

1. Using slang	3 (-)	2 (-)	1 (+)	0 (+)
2. Excessive drinking	3 (-)	2 (+)	1 (+)	0 (0)

**TABLE 2.4 (cont'd)** Sample Items from the Attitude Interest Analysis Survey

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*Introvertive Response*

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Answer each question as truthfully as you can by drawing a line under YES or NO.

1. Did you ever have imaginary companions?	YES (-)	NO (+)
2. Do you worry much over possible misfortunes?	YES (-)	NO (+)
3. As a child were you extremely disobedient?	YES (+)	NO (-)
4. Do people ever say that you talk too much?	YES (+)	NO (-)

---

*Source: Terman and Miles (1936).*

**TABLE 2.4 (cont'd)** Sample Items from the Attitude Interest Analysis Survey

# 1936–1954: Masculinity-Femininity as a Global Personality Trait (cont'd)

- Masculine men and feminine women seen as healthy

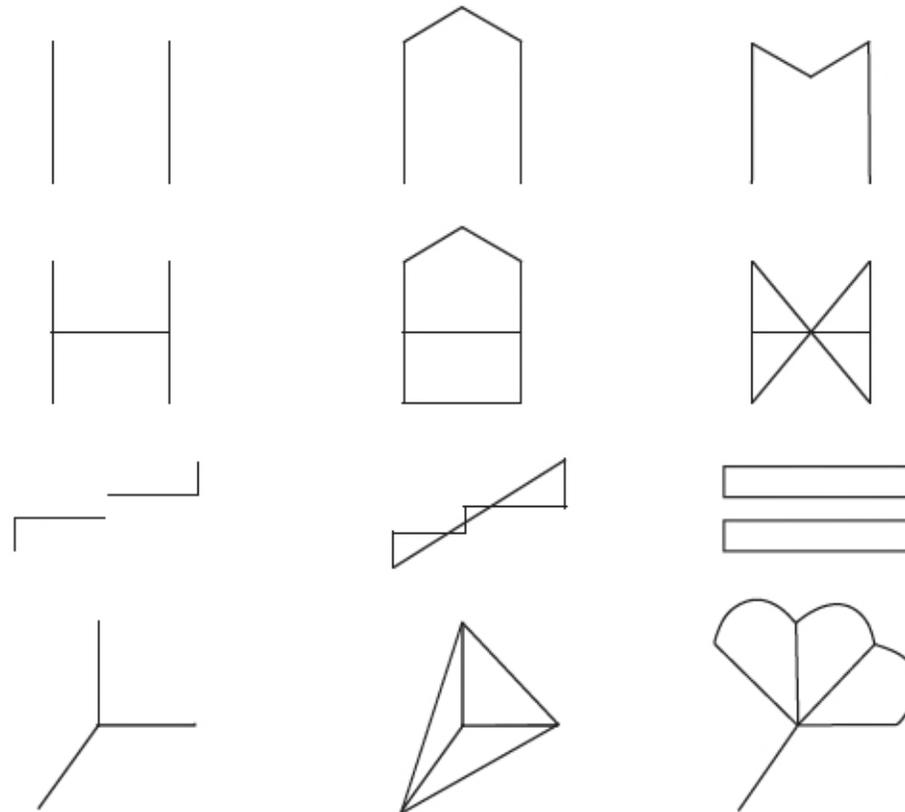
# Measures of Masculinity-Femininity (cont'd)

- Problems with M/F scale of Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1940)
  - Femininity items validated on homosexual men

# Measures of Masculinity-Femininity (cont'd)

- Projective tests introduced to reduce demand characteristics of self-report measures
  - Problem: Drawings interpreted as evidence of masculinity and femininity
- All M/F scales developed during this period had conceptual weaknesses

Sample Stimulus    Masculine Scored    Feminine Scored



**FIGURE 2.6** Examples of the kinds of incomplete drawings that appeared on Franck and Rosen’s (1949) projective test of masculinity/femininity. How the drawings were completed was taken as an indication of masculinity or femininity. The second column represents masculine ways of completing the drawing and the third column represents feminine ways of completing the drawings. *Source:* Adapted from Franck and Rosen (1949).

# 1954–1982: Sex Typing and Androgyny

- Influential book: *The Development of Sex Differences* by Maccoby and Jacklin (1966)

# 1954–1982: Sex Typing and Androgyny (cont'd)

- Innovation in conceptualization and measurement of gender: M/F not bipolar opposites
  - Masculinity/ femininity as separate dimensions
    - Instrumental vs. expressive distinction
    - Linked to gender roles in two widely used measures:
      - *Bem Sex-Role Inventory (BSRI; Bem, 1974)*
      - *Personal Attributes Questionnaire (PAQ; Spence et al., 1974)*

<i>Masculinity (M+)</i>	<i>Femininity (F+)</i>	<i>Masculinity–Femininity (M/F)</i>
Independent	Emotional	Aggressive
Active	Able to devote self to others	Dominant
Competitive	Gentle	Excitable in major crisis
Can make decisions	Helpful to others	Worldly (vs. home-oriented)
Never gives up	Kind	Indifferent to others' approval
Self-confident	Aware of others' feelings	Feelings not easily hurt
Feels superior	Understanding of others	Never cries
Stands up well under pressure	Warm in relations to others	Little need for security

*Source: Spence, Helmreich, and Stapp (1974).*

*Extension of Personal Attributes Questionnaire*

*Unmitigated Agency (M–)*

Arrogant	Dictatorial
Boastful	Cynical
Egotistical	Looks out for self
Greedy	Hostile

*Source: Spence, Helmreich, and Holahan (1979).*

**TABLE 2.5** Personal Attributes Questionnaire

# Androgyny

- Outgrowth of M/F inventories (e.g., BSRI)
- Initially determined by similar scores on M/F scales and later by high scores on M and F scales
- Thus, androgynous person displayed both masculine and feminine traits

		<b>Masculinity</b>	
		Low	High
<b>Femininity</b>	Low	<b>Undifferentiated</b>	<b>Masculine</b>
	High	<b>Feminine</b>	<b>Androgynous</b>

**FIGURE 2.7** This is a sex-typing typology based on people's scores on masculinity and femininity.



## Androgyny (cont'd)

- Androgyny thought to be a healthy ideal but valued traits overlapped with masculine traits
- Inventories criticized for socially desirable items

# Undesirable Aspects of Masculinity and Femininity

- Need to consider and measure the socially undesirable aspects of male and female gender roles
- Led to personality constructs of **unmitigated agency** and **unmitigated communion**
  - Unmitigated agency: focus on self to the exclusion of others
  - Unmitigated communion: focus on others to the exclusion of the self

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Instructions: Using the following scale, place a number in the blank beside each statement that indicates the extent to which you agree or disagree. Think of the people close to you—friends or family—in responding to each statement.

Strongly Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Strongly Agree
1	2	3	4	5

---

1. I always place the needs of others above my own.
  2. I never find myself getting overly involved in others' problems.\*
  3. For me to be happy, I need others to be happy.
  4. I worry about how other people get along without me when I am not there.
  5. I have no trouble getting to sleep at night when other people are upset.\*
  6. It is impossible for me to satisfy my own needs when they interfere with the needs of others.
  7. I can't say no when someone asks me for help.
  8. Even when exhausted, I will always help other people.
  9. I often worry about others' problems.
- 

*\*Items are reverse scored.*

*Source: Helgeson and Fritz (1998).*

**TABLE 2.6** Unmitigated Communion Scale

# 1982–Present: Gender as a Social Category

- Two important shifts in thinking about gender
  - Gender role as multifaceted, multidimensional: two dimensions are not enough
  - Emphasis on social context in which gender occurs
- Consideration of strain arising from norms associated with gender roles

# Gender Roles as Multifaceted

- Masculinity and femininity as broad categories that include personality traits, physical appearance, occupational interests, and role behaviors
- Need M/F research on more diverse populations

# Emphasis on Context

- Consideration of situational forces that influence whether gender differences are observed (Deaux & Major, 1987)
- Social context influences display of sex differences and meaning of gender
- **Social construction** of gender
  - Gender arises from our interactions with others

# Gender-Role strain

- **Gender-role strain** occurs when norms (social expectations) for one's gender role have negative consequences for the individual
- Two theories of gender-role strain (Pleck, 1995)
  - **Self-role discrepancy theory**
  - **Socialized dysfunctional characteristic theory**

# Gender-Role Strain (cont'd)

- Male Role Norms Inventory (Levant & Fischer, 1998): Measure of male gender-role strain
- Among men, includes homophobia, competitiveness, emotional inhibition, aggression, reluctance to seek help

# Gender-Role Strain (cont'd)

- Less studied among women, but includes fear of physical unattractiveness, fear of victimization, problems with behaving assertively, uncertainty about how to behave in traditional male settings
- Nature of gender-role strain differs across race, ethnicity, and culture