

## Chapter 2

# Personality Assessment, Measurement, and Research Design

### Chapter Outline

#### Sources of Personality Data

##### Self-Report Data (S-Data)

- Information provided by a person, such as through a survey or interview
- Individuals have access to a wealth of information about themselves that is inaccessible to anyone else
- S-data personality tests
  - Unstructured items—open-ended
  - Structured items—response options provided
- Limitations of S-data
  - People may not respond honestly
  - People may lack accurate self-knowledge

##### Observer-Report Data (O-Data)

- Information provided by someone else about another person
- Key features of O-data
  - Provide access to information not attainable through other sources
  - Multiple observers can be used to assess a person
- Selecting observers
  - Professional personality assessors
  - People who actually know the target person
    - Often in better position to observe target's natural behaviours than professional personality assessors
    - Allows for assessment of multiple social personalities
    - Because of relationship to target, however, observer may be biased
- Naturalistic versus artificial observation
  - Naturalistic observation: Observers witness and record events that occur in the normal course of lives of the participants
  - Artificial observation: Occurs in artificial settings or situations
  - Naturalistic observation has the advantage of being able to secure information in realistic context, but at the cost of not being able to control events witnessed
  - Artificial observation has the advantage of controlling conditions and eliciting relevant behaviour, but at the cost of sacrificing realism

##### Test-Data (T-Data)

- Information provided by standardized tests or testing situations

- Idea is to see if different people behave differently in identical situations
- Situation designed to elicit behaviours that serve as indicators of personality
- Elicited behaviour “scored” without reliance on inference
- Limitations
  - Participants might try to guess what trait is being measured and then alter their behaviour to create certain impressions
  - Difficult to know if participants define testing situation as intended by experimenter
  - Researcher might influence how participants behave
- Mechanical recording devices
  - “Actometer” used to assess children’s activity
  - Strengths
    - Not hampered by biases of human observer
    - May be used in naturalistic settings
  - Disadvantage: few personality dispositions lend themselves to mechanical assessment
- Physiological data
  - Includes information about a person’s level of arousal, reactivity to stimuli—potential indicators of personality
  - Functional magnetic resonance imaging (fMRI)
  - Key benefit is that it is difficult to fake responses
  - Disadvantages
    - Often used in artificial laboratory setting
    - Accuracy of recording hinges on whether participant perceives situation as experimenter intended
- Projective Techniques
  - Person presented with ambiguous stimuli and asked to describe what she sees; assumption is that person “projects” personality onto ambiguous stimuli
  - Strengths: May provide useful means for gathering information about wishes, desires, fantasies that a person is not aware of and could not report
  - Disadvantages: Difficult to score, uncertain validity, and reliability

#### Life-Outcome Data (L-Data)

- Information that can be gleaned from events, activities, and outcomes in a person’s life that is available for public scrutiny—e.g., marriage, speeding tickets
- Can serve as important source of “real life” information about personality

#### Issues in Personality Assessment

- Links among different data sources
  - When they do and do not exist and how to interpret these linkages
- Fallibility of personality measurement
  - All sources of data have limitations

- Results that replicate through “triangulation” (across different data sources) are most powerful

## Evaluation of Personality Measures

### Reliability

- Degree to which measure represents “true” level of trait being measured
- Types of reliability
  - Test-retest reliability: scores at one administration positively correlate with scores at second administration
  - Inter-rater reliability: applicable only to observer-based personality measures; ratings provided by one observer correlate with ratings provided by another observer
  - Internal consistency reliability: items within test positively correlate

### Response Sets

- Acquiescence: Tendency to agree with items, regardless of content; psychologists counteract by reverse-keying some items
- Extreme responding: Tendency to give endpoint responses
- Social desirability: Tendency to answer items in such a way so that one comes across as socially attractive or likable
  - Two views on social desirability:
    - Represents distortion and should be eliminated or reduced
      - Resolved by (1) measuring and statistically removing, (2) designing surveys that are less susceptible to this response set, or (3) using forced-choice format
    - Valid part of other desirable personality traits, such as agreeableness, and should be studied
      - Self-deceptive optimism versus impression management
  - *Highlight on Canadian Research: The Balanced Inventory of Desirable Responding*

### Validity

- Degree to which test measures what it claims to measure
- Types of validity
  - Face validity: whether test appears to measure what it is supposed to measure
  - Predictive or criterion validity: whether test predicts criteria external to the test that it is expected to predict
  - Convergent validity: whether test score correlates with other measures that it should correlate with
  - Discriminant validity: whether test score does *not* correlate with other measures it should *not* correlate with

- Construct validity: subsumes other types of validity; broadest type of validity

### Generalizability

- Degree to which measure retains validity across different contexts, including different groups of people and different conditions
- Generalizability subsumes reliability and validity
- Greater generalizability not always better; what is important is to identify empirical contexts in which a measure is and is not applicable

## Research Designs in Personality

### Experimental Methods

- Used to determine causality—whether one variable *causes* another
- Two key requirements:
  - Manipulation of variables—experimenter manipulates independent variable and measures effects on dependent variable
  - Ensuring that participants in each experimental condition are equivalent to each other—accomplished through random assignment

### Correlational Studies

- Correlation is a statistical procedure for determining whether there is a relationship between two variables
- Designed to identify “what goes with what” in nature, and not designed to identify causal relationships
- Major advantage is that it allows us to identify relationships among variables as they occur naturally
- Correlation coefficient varies from  $-1$  (perfect negative relationships) through  $0$  (no relationship) to  $+1$  (perfect positive relationship)
- Correlation does not indicate causation
  - Directionality problem
  - Third variable problem

### Case Studies

- In-depth examination of the life of one person
- Advantages
  - Can find out about personality in great detail
  - Can give insights into personality that can be used to formulate a more general theory that is tested on a larger sample
  - Can provide in-depth knowledge about an outstanding figure, such as a political or religious figure
- Disadvantages
  - Results based on the study of single person cannot be generalized to others

### When to Use Experimental, Correlational, and Case Study Designs

- Each design has strengths and weakness; strength of one is weakness of another
- Which design a researcher uses depends on the research question and the goal of research
- Taken together, three designs provide complementary methods for exploring personality

### SUMMARY AND EVALUATION

- Decisions about data source and research design depend on the purpose of study
- There is no perfect data source
- There is no perfect research design
- But some data sources and some methods are better suited for some purposes than for others

KEY TERMS

Self-Report Data (S-Data)	Criterion Validity
Structured and Unstructured	Convergent Validity
Likert-type Scale	Discriminant Validity
Experience Sampling	Construct Validity
Observer-Report Data (O-Data)	Theoretical Constructs
Inter-Rater Reliability	Generalizability
Multiple Social Personalities	Experimental Methods
Naturalistic Observation	Manipulation
Test-Data (T-Data)	Random Assignment
Functional Magnetic Resonance Imaging (fMRI)	Counterbalancing
Projective Techniques	Statistically Significant
Life-Outcome Data (L-Data)	Correlational Method
Reliability	Correlation Coefficient
Repeated Measurement	Directionality Problem
Response Sets	Third Variable Problem
Non content Responding	Case Study Method
Acquiescence	
Extreme Responding	
Social Desirability	
Forced-Choice Questionnaire	
Validity	
Face Validity	
Predictive Validity	

**Chapter Overview**

This chapter provides students with an introduction to the sources of personality data, how personality measures are evaluated, and to research designs in personality. The authors first address the four primary sources of data collected by personality psychologists. These are Self-report data (S-data), Observer-report data (O-data), Test-data (T-data), and Life-outcome data (L-data). The authors then address the conditions under which links are and are not expected among data collected from the different sources. Because personality data are fallible, the authors recommend collecting data from more than one data source. Results that transcend data sources are more powerful. The authors then discuss how personality measures are evaluated. This section of the chapter includes discussions of a measure’s reliability, validity, and generalizability. Next the authors discuss the three key research methods used by personality psychologists. These are experimental designs, correlational designs, and case studies. Each research method has strengths and weaknesses. The strength of one design is a weakness of another, and the weakness of one design is a strength of another. The authors note that the type of design one uses will depend on the research question and the purpose of the investigation. The authors close by noting that no source of data is perfect and that no research method is perfect. Whether a data source or method is appropriate will depend on the research question and the purpose of the research.

## Learning Objectives

1. Describe and provide examples of the four sources of data collected by personality psychologists: Self-report data (S-data), Observer-report data (O-Data), Test-data (T-data), and Life-outcome data (L-data).
2. Identify the strengths and weaknesses of each source of personality data.
3. Discuss how each source of data can provide information not provided by the other sources of data.
4. For O-data, discuss the problems of selecting observers and of naturalistic versus artificial observations.
5. For T-data, discuss the strengths and weaknesses of mechanical recording devices and physiological recording devices, and provide examples of each type of device.
6. For T-data, discuss and provide examples of projective techniques, including identifying the strengths and weaknesses of these sources of data.
7. Discuss the conditions under which one might expect links among different sources of data, and how the presence or absence of these links can be interpreted.
8. Define reliability, including a discussion of test-retest reliability, inter-rater reliability, and internal consistency reliability.
9. Define validity, including a discussion of face validity, predictive or criterion validity, convergent validity, discriminative validity, and construct validity.
10. Define and discuss generalizability, including a discussion of the different “contexts” to which a measure might be generalizable.
11. Describe and provide examples of the three types of research methods used by personality psychologists: experimental methods, correlational designs, and case studies.
12. Identify the strengths and weaknesses of each type of research method
13. Identify and discuss when it might be appropriate to use one of the three research methods instead of the others.
14. Discuss how each type of research method can provide information not provided by the other research methods.

## Lecture Topics and Lecture Suggestions

1. *Personality and Mate Preferences: Five Factors in Mate Selection and Marital Satisfaction* (Botwin, Buss, & Shackelford, 1997). Students will appreciate the presentation of a research paper in personality psychology that employs multiple sources of data. In addition, the topics of mate preferences, mate selection, and relationship satisfaction are consistently well received. Instructors can use this study as a spring board for discussions of the different sources of data, including such issues as the limitations of self-report and observer-report, as well as the relationship of personality to “real world” outcomes such as relationship satisfaction.

- Personality characteristics figure prominently in what people want in a mate (see, e.g., Buss, 2004, for a review)
- Little is known, however, about
  - which personality characteristics are most important among mate preferences
  - whether men and women differ in their personality preferences
  - whether individual men and women differ in what they want in a mate, and
  - whether individuals actually get what they want in a mate
- To explore these issue, two parallel studies were conducted, one using a sample of dating couples ( $N = 118$ ) and one using a sample of married couples ( $N = 216$ )
- The Five-Factor Model (FFM) of Personality (proposing five major dimensions covering the range of personality variations: Surgency or Extraversion, Agreeableness, Emotional Stability, Conscientiousness, and Openness/Intellect) guided investigation
- The FFM, operationalized in adjectival form, was used to assess personality characteristics from three data sources
  - Self-report (S-data)
  - Partner-report (O-data)
  - Independent interviewer-report (O-data)
- Participants evaluated on a parallel 40-item instrument their preferences for the ideal personality characteristics of their mates
- Results were consistent across both studies
  - Women expressed greater preference than men for a wide array of socially desirable personality traits
  - Individuals differed in which characteristics they desired, preferring mates who were similar to themselves and actually obtaining mates who embodied what they desired
  - Personality characteristics of one’s partner significantly predicted marital and sexual dissatisfaction, most notably when the partner was lower than desired on Agreeableness, Emotional Stability, and Openness/Intellect

References:

Botwin, M. D., Buss, D. M., & Shackelford, T. K. (1997). Personality and mate preferences: Five factors in mate selection and marital satisfaction. *Journal of Personality*, *65*, 107–136.  
Buss, D. M. (2004). *The evolution of desire* (rev. ed.). New York: Basic Books.

2. *Personality and Day-to-Day Physical Symptoms* (Larsen & Kasimatis, 1991). One of the



research methodologies used to study personality and not explicitly discussed in Larsen, Buss, King, and Ensley is what is often called the “daily diary design.” This design is similar to an experience sampling design, in that data are collected on an ongoing basis from the same set of participants. In daily diary studies, data are collected on a daily basis about events such as physical symptoms, emotions, and self-esteem. In addition, personality researchers often collect personality data either before or after the daily diary phase. Students will likely enjoy hearing about this sort of research design, which highlights the critical role of the participant in making personality research work. In addition, the topic of the relationships between personality and health is likely to capture the interest of a large portion of students enrolled in personality psychology courses.

- Larsen & Kasimatis (1991) explored the relationship between personality and ongoing health status in 43 undergraduates
- The students completed mood and symptom reports three times a day for eight weeks
- A daily event approach was used to model three temporal parameters of day-to-day health
  - Occurrence rate of symptoms
  - Duration of symptoms, and
  - Covariation of symptoms and moods over time
- The researchers then determined if these variables related to three personality variables
  - Neuroticism (emotional instability)
  - Anger/hostility, and
  - Type A behaviour (excessive achievement striving, competitiveness, impatience, hostility, and vigorous speech and motor mannerisms)
- Results
  - Occurrence of illness related most strongly to neuroticism
  - Duration of illness related most strongly to the trait of aggressive responding
  - Type A behaviour related to less unpleasant affect reported during episodes of respiratory infection, aches, and depressive symptoms
- The researchers conclude with a discussion of how alternative models of health/illness are made possible by the daily event perspective.

Reference:

Larsen, R. J., & Kasimatis, M. (1991). Day-to-day physical symptoms: Individual differences in the occurrence, duration, and emotional concomitants of minor daily illnesses. *Journal of Personality, 59*, 387–423.

## Classroom Activities and Demonstrations

1. Distribute Activity Handout 2–1 on page 14 of this document (“Twenty Statements Test,” or TST) to students. Have student take about five minutes to complete the test during class. Ask for volunteers to share their responses. Use this discussion as a springboard to talk about the TST, in particular, and the value of self-report data, more generally. Highlight for the students that the TST requests self-report information that cannot be obtained from any other

person except the students themselves. Finally, ask students to discuss what they think this test reveals about them.

2. Distribute Activity Handout 2–2 on page 15 of this document (“How Accurately Can You Describe Yourself?”). This is a measure of standings on the five factors of personality, or the “Big Five.” The Big Five are Surgency, Agreeableness, Conscientiousness, Emotional Stability, and Openness/Intellect. Give students about five minutes to complete the inventory. You will then need to allow students about 10 minutes to score their responses. Ask students to write down the scoring instructions because they will need them to complete a future exercise (see #3 below). This measure is scored as follows: To get a score for each of the five factors, take the mean of the indicated items. Items with an asterisk (\*) should be reverse coded BEFORE entered into the mean. Reverse code as follows: 1 = 7, 2 = 6, 3 = 5, 5 = 3, 6 = 2, and 7 = 1

Surgency: 1, \*6, \*11, 16, 21, \*26, 31, \*36

Agreeableness: 2, \*7, 12, \*17, \*22, 27, \*32, 37

Conscientiousness: 3, 8, 13, 18, \*23, \*28, 33, \*38

Emotional Stability: \*4, \*9, \*14, 19, \*24, 29, \*34, 39

Openness/Intellect: 5, 10, 15, \*20, 25, 30, \*35, \*40

This is a valuable exercise, not only because students will learn about their standings on five major personality dimensions, but also because students will participate firsthand in taking and scoring a personality test. They will better appreciate how item scores are aggregated to form scale scores, for example.

3. After students have completed Activity Handout 2–2, distribute Activity Handout 2–3 on page 16 of this document (“How Accurately Can you Describe \_\_\_\_\_”). Instruct students to have someone who knows them well complete the measure for the student. That is, this other person will rate the student on the 40 items. Instruct the students to bring the completed and scored measure with them to the next class session. Before the next class session, students should consider how their self-reported standing on each of the five factors differs from their observer-reported standing on these factors. Questions that can be raised for discussion include: How close were your self-reported standings and your observer-reported standings on each of the factors? Which factors had the greatest discrepancy between self-report and observer-report? Which had the least? If there are discrepancies, which set of ratings is “correct?” Why?

## Questions for In-Class Discussion

1. Self-report is a valuable tool for collecting personality data. Self-report may not be appropriate for collecting certain classes of information, however. What might some of these classes of information be? Why might self-report be problematic for collecting these classes of information? Students often have much to offer in a discussion of these questions. If, however, students are sluggish to get started, instructors might provide a starting example. Criminal behaviour, for example, may not be most appropriately assessed by self-report, because people may not be willing to report on how, when, and why they broke the law.

2. Larsen, Buss, King, and Ensley note that, if the same pattern of results is found with two or more data sources, then researchers can have greater confidence in the credibility of the findings. Ask students to discuss and elaborate on why this is the case. Relatedly, suggest and have students elaborate on the possibility that researchers should have greater confidence in a pattern of results if that pattern of results is documented using more than one research design.
3. Canadian research on the Balanced Inventory of Desirable Responding is highlighted in this chapter. Ask students to review this highlight box and discuss the extent to which they believe (1) others engage in self-deceptive enhancement and impression management, and (2) they themselves engage in these behaviours. Ask students to share their own thoughts on the extent to which they believe these problems persist in research and why.
4. Larsen, Buss, King, and Ensley discuss three basic research methods used by personality psychologists: Experiments, correlational studies, and case studies. The text focuses on when each method is most appropriate. Have students discuss research questions that are NOT appropriately investigated by each of the three research methods. Students find it useful to discuss when each method is *least* appropriate. This discussion will further clarify the strengths and limitations of each method, and will help students appreciate that sometimes researchers simply cannot use a particular method, depending on the research question. The effects of child abuse on adult intelligence, for example, cannot ethically and legally be studied (at least not directly) using an experimental design. A correlational study or a case study would be more appropriate, ethically and legally.

## Critical Thinking Essays

1. Larsen, Buss, King, and Ensley refer to Craik's (1987) proposal that people display "multiple social personalities." Discuss, in your own words, what it means to display multiple social personalities. Discuss how you might display multiple social personalities and briefly describe the key characteristics of each of these personalities. For example, you might present one personality when you are interacting with your mother, but a very different personality when you are interacting with your professor. Why do you think people display multiple social personalities?
2. According to Larsen, Buss, King, and Ensley, one of the issues that must be addressed by a researcher who wants to use observer-report data is the size of the observational unit. These units can be large, molar units, such as the global traits of intelligence, emotional stability, or conscientiousness. Or they can be small, molecular unit such as walking speed, number of miles per hour, or number of eye blinks. Develop a personality research question that is amenable to observational data, and describe how you might investigate this question using relatively molar units of observation. Specify the units of observation. Next discuss how you might use relatively molecular units of observation. Again, clearly specify the units of observation. Given your research question, which observational unit that you proposed might be more appropriate and why?

3. The case study method is a valuable research method in personality psychology. A key limitation of this method, however, is that the results are based on a single individual, and therefore cannot be generalized to other people. Why not? Provide an example of a research question you might investigate using a case study, and discuss why it might be problematic to attempt to generalize the results of your investigation to other people.

## Research Papers

1. Larsen, Buss, King, and Ensley discuss four sources of data collected by personality psychologists. Conduct a search of the psychological research literature and locate four research articles published within the last five years, each of which uses only one of the four sources of data. For each article, first summarize what the researchers investigated, how they investigated it, and what they found. Then suggest how the researchers might have used each of the remaining three sources of data. Finally, address whether you think the results might have turned out differently if they had used different data sources and why.
2. Larsen, Buss, King, and Ensley note that there are three key issues that personality psychologists must address for a measure they have developed to assess a particular personality characteristic. These are reliability, validity, and generalizability. First, define, in your own words, what each of these concepts means, including a discussion of the sub-types of reliability and validity. Next, conduct a search of the psychological research literature. Identify an article that presents the development of a new measure of a personality trait or characteristic. Discuss how well the researchers address the questions of the reliability, validity, and generalizability of the new measure. Did the researchers document the reliability, validity, and generalizability of the new measure? If you were a personality researcher charged with ensuring that all aspects of the new measure's reliability, validity, and generalizability were well documented, what future research would you need to do on this new measure?
3. Larsen, Buss, King, and Ensley discuss three types of research designs used by personality psychologists. Conduct a search of the psychological research literature and locate three research articles published within the last five years, each of which uses only one of the three research designs. For each article, first summarize what the researchers investigated, how they investigated it, and what they found. Then suggest how the researchers might have used each of the remaining two research designs. Finally, address whether you think the results might have turned out differently if they had used different research designs and why.

## Recent Research Articles and Other Scholarly Readings

Anastasi, A. (1986). Evolving concepts of test validation. *Annual Review of Psychology*, 37, 1–15.

Ben-Porath, Y. S., & Waller, N. G. (1992). “Normal” personality inventories in clinical assessment: General requirements and the potential for using the NEO Personality Inventory. *Psychological Assessment*, 4, 14–19.

Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitrait-multimethod matrix. *Psychological Bulletin*, *56*, 81–105.

Cervone, D., Shadel, W. G., & Jencius, S. (2001). Social-cognitive theory of personality assessment. *Personality and Social Psychology Review*, *5*, 33–51.

Cohen, J. (1994). The earth is round ( $p < .05$ ). *American Psychologist*, *49*, 997–1003.

Connelly, B. S. & Hülshager, U. R. (2012). A Narrower Scope or a Clearer Lens for Personality? Examining Sources of Observers' Advantages over Self-Reports for Predicting Performance. *Journal of Personality*, *80*, 603-631.

Costa, P. T., Jr., & McCrae, R. R. (2005). Normal personality assessment in clinical practice: The NEO Personality Inventory. *Psychological Assessment*, *4*, 5–13.

Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. *Psychological Bulletin*, *52*, 281–302.

Embretson, S. E. (1996). The new rules of measurement. *Psychological Assessment*, *8*, 341–349.

Harkness, A. R., & Lilienfeld, S. O. (1997). Individual differences science for treatment planning: Personality traits. *Psychological Assessment*, *9*, 349–360.

Hart, C. M., Ritchie, T. D., Hepper, E. G., & Gebauer, J. E. (2015). The Balanced Inventory of Desirable Responding Short Form (BIDR-16). *SAGE Open*. DOI: 10.1177/2158244015621113

Hogan, R., DeSoto, C. B., & Solano, C. (1977). Traits, tests, and personality research. *American Psychologist*, *32*, 255–264.

Jensen, A. R. (1980). Précis of Bias in mental testing. *Behavioral and Brain Sciences*, *3*, 325–371.

Jones, L. V., & Appelbaum, M. I. (1989). Psychometric methods. *Annual Review of Psychology*, *40*, 23–43.

Lubinski, D. (2000). Scientific and social significance of assessing individual differences: “Sinking shafts at a few critical points.” *Annual Review of Psychology*, *51*, 405–444.

Matthews, G., Saklofske, D. H., Costa, P. T., Jr., Deary, I. J., & Zeidner, M. (1998). Dimensional models of personality: A framework for systematic clinical assessment. *European Journal of Psychological Assessment*, *14*, 36–49.

McReynolds, P. (1989). Diagnosis and clinical assessment: Current status and major issues. *Annual Review of Psychology*, *40*, 83–108.

Messick, S. (1981). Constructs and their vicissitudes in educational and psychological measurement. *Psychological Bulletin*, *89*, 575–588.

Michell, J. (1997). Quantitative science and the definition of measurement in psychology. *British Journal of Psychology*, *88*, 355–383.

Ozer, D. J., & Reise, S. P. (1994). Personality assessment. *Annual Review of Psychology*, *45*, 357–388.

## Activity Handout 2–1: Twenty Statements Test

**Instructions.** Please complete the following 20 statements. There are no right or wrong answers. Please write the first things that come to mind, and try not to censor yourself.

1. I am \_\_\_\_\_
2. I am \_\_\_\_\_
3. I am \_\_\_\_\_
4. I am \_\_\_\_\_
5. I am \_\_\_\_\_
6. I am \_\_\_\_\_
7. I am \_\_\_\_\_
8. I am \_\_\_\_\_
9. I am \_\_\_\_\_
10. I am \_\_\_\_\_
11. I am \_\_\_\_\_
12. I am \_\_\_\_\_
13. I am \_\_\_\_\_
14. I am \_\_\_\_\_
15. I am \_\_\_\_\_
16. I am \_\_\_\_\_
17. I am \_\_\_\_\_
18. I am \_\_\_\_\_
19. I am \_\_\_\_\_
20. I am \_\_\_\_\_

## Activity Handout 2–2: How Accurately Can You Describe Yourself?

**Instructions:** Please read the following *pairs* of characteristics and circle the number that best describes *you*, in general. For example, for #1, if you see yourself as more passive than active, you should circle a number closer to “passive.” If you see yourself as more active than passive, you should circle a number closer to “active.”

1.)	passive	1	2	3	4	5	6	7	active
2.)	cold	1	2	3	4	5	6	7	warm
3.)	undependable	1	2	3	4	5	6	7	reliable
4.)	emotionally stable	1	2	3	4	5	6	7	emotionally unstable
5.)	uncultured	1	2	3	4	5	6	7	cultured
6.)	energetic	1	2	3	4	5	6	7	unenergetic
7.)	agreeable	1	2	3	4	5	6	7	disagreeable
8.)	negligent	1	2	3	4	5	6	7	conscientious
9.)	secure	1	2	3	4	5	6	7	insecure
10.)	ignorant	1	2	3	4	5	6	7	knowledgeable
11.)	dominant	1	2	3	4	5	6	7	submissive
12.)	critical	1	2	3	4	5	6	7	lenient
13.)	careless	1	2	3	4	5	6	7	careful
14.)	at ease	1	2	3	4	5	6	7	nervous
15.)	stupid	1	2	3	4	5	6	7	intelligent
16.)	timid	1	2	3	4	5	6	7	bold
17.)	flexible	1	2	3	4	5	6	7	stubborn
18.)	disorganized	1	2	3	4	5	6	7	well organized
19.)	high-strung	1	2	3	4	5	6	7	relaxed
20.)	perceptive	1	2	3	4	5	6	7	imperceptive
21.)	conforming	1	2	3	4	5	6	7	independent
22.)	trusting	1	2	3	4	5	6	7	suspicious
23.)	hardworking	1	2	3	4	5	6	7	lazy
24.)	even- tempered	1	2	3	4	5	6	7	temperamental
25.)	uncreative	1	2	3	4	5	6	7	creative
26.)	proud	1	2	3	4	5	6	7	humble
27.)	unfair	1	2	3	4	5	6	7	fair
28.)	traditional	1	2	3	4	5	6	7	untraditional
29.)	emotional	1	2	3	4	5	6	7	unemotional
30.)	simple	1	2	3	4	5	6	7	complex
31.)	quiet	1	2	3	4	5	6	7	talkative
32.)	selfless	1	2	3	4	5	6	7	selfish
33.)	liberal	1	2	3	4	5	6	7	conservative
34.)	not envious/ not jealous	1	2	3	4	5	6	7	envious/ jealous
35.)	curious	1	2	3	4	5	6	7	uncurious
36.)	sociable	1	2	3	4	5	6	7	retiring
37.)	stingy	1	2	3	4	5	6	7	generous
38.)	practical	1	2	3	4	5	6	7	impractical
39.)	subjective	1	2	3	4	5	6	7	objective
40.)	analytical	1	2	3	4	5	6	7	unanalytical



## Activity Handout 2–3: How Accurately Can You Describe \_\_\_\_\_?

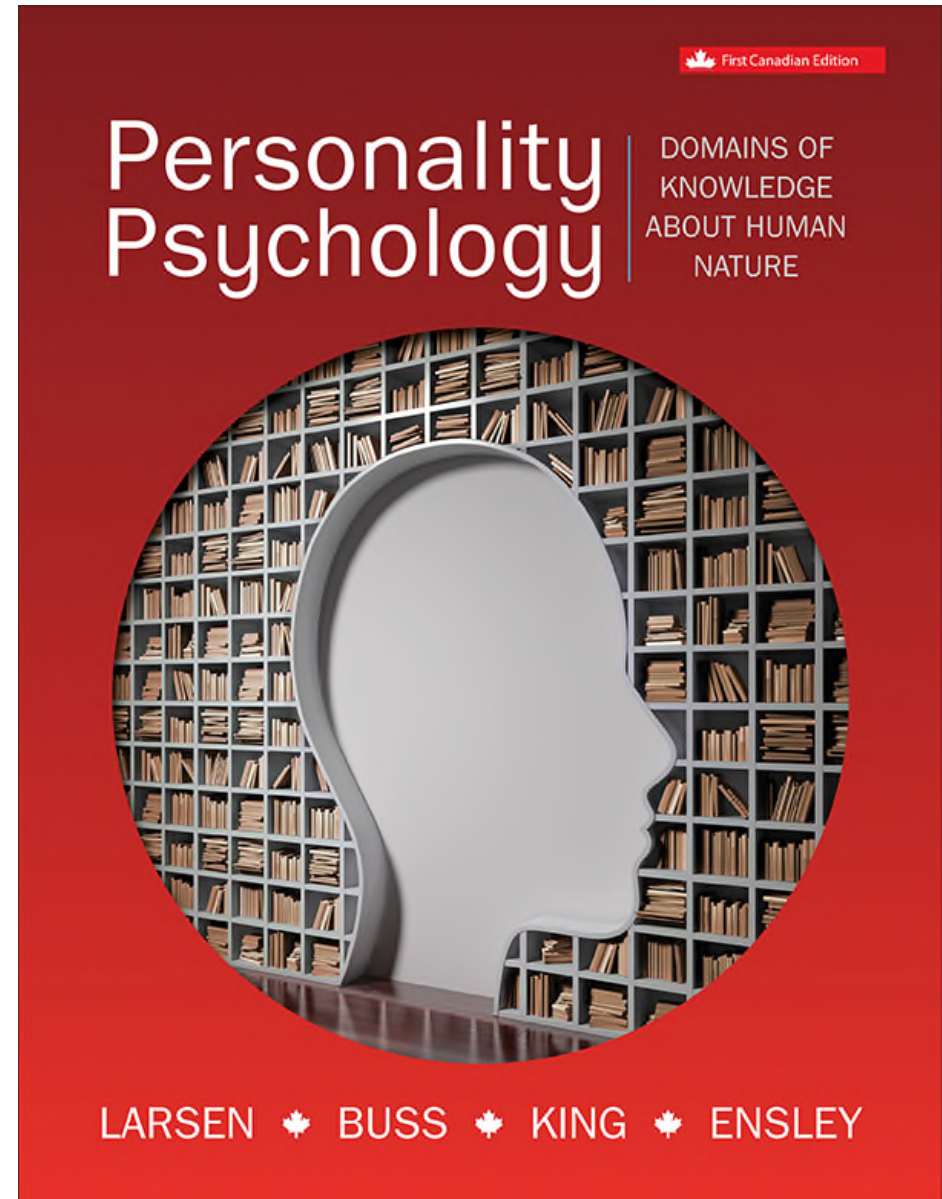
**Instructions:** Please read the following *pairs* of characteristics and circle the number that best describes \_\_\_\_\_, in general. For example, for #1, if you see \_\_\_\_\_ as more passive than active, you should circle a number closer to “passive.” If you see \_\_\_\_\_ as more active than passive, you should circle a number closer to “active.”

- |      |                             |   |   |   |   |   |   |   |                      |
|------|-----------------------------|---|---|---|---|---|---|---|----------------------|
| 1.)  | passive                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | active               |
| 2.)  | cold                        | 1 | 2 | 3 | 4 | 5 | 6 | 7 | warm                 |
| 3.)  | undependable                | 1 | 2 | 3 | 4 | 5 | 6 | 7 | reliable             |
| 4.)  | emotionally stable          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | emotionally unstable |
| 5.)  | uncultured                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | cultured             |
| 6.)  | energetic                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | unenergetic          |
| 7.)  | agreeable                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | disagreeable         |
| 8.)  | negligent                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | conscientious        |
| 9.)  | secure                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | insecure             |
| 10.) | ignorant                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | knowledgeable        |
| 11.) | dominant                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | submissive           |
| 12.) | critical                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | lenient              |
| 13.) | careless                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | careful              |
| 14.) | at ease                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | nervous              |
| 15.) | stupid                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | intelligent          |
| 16.) | timid                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | bold                 |
| 17.) | flexible                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | stubborn             |
| 18.) | disorganized                | 1 | 2 | 3 | 4 | 5 | 6 | 7 | well organized       |
| 19.) | high-strung                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | relaxed              |
| 20.) | perceptive                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | imperceptive         |
| 21.) | conforming                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | independent          |
| 22.) | trusting                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | suspicious           |
| 23.) | hardworking                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | lazy                 |
| 24.) | even-tempered               | 1 | 2 | 3 | 4 | 5 | 6 | 7 | temperamental        |
| 25.) | uncreative                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | creative             |
| 26.) | proud                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | humble               |
| 27.) | unfair                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | fair                 |
| 28.) | traditional                 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | untraditional        |
| 29.) | emotional                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | unemotional          |
| 30.) | simple                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | complex              |
| 31.) | quiet                       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | talkative            |
| 32.) | selfless                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | selfish              |
| 33.) | liberal                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | conservative         |
| 34.) | not envious/<br>not jealous | 1 | 2 | 3 | 4 | 5 | 6 | 7 | envious/<br>jealous  |
| 35.) | curious                     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | uncurious            |
| 36.) | sociable                    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | retiring             |
| 37.) | stingy                      | 1 | 2 | 3 | 4 | 5 | 6 | 7 | generous             |
| 38.) | practical                   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | impractical          |
| 39.) | subjective                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | objective            |
| 40.) | analytical                  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | unanalytical         |

# Chapter 2

Personality Assessment,  
Measurement, and Research  
Design

Barbara Bond  
Fleming College



# Outline

- Sources of Personality Data
- Evaluation of Personality Measures
- Research Designs in Personality

# Sources of Personality Data

- Self-Report Data (S-Data)
- Observer-Report Data (O-Data)
- Test-Data (T-Data)
- Life-Outcome Data (L-Data)



# Self-Report Data (S-Data)

- Information provided by a person, such as through a survey or interview
- Individuals have access to a wealth of information about themselves that is inaccessible to anyone else
- S-data personality tests
  - Unstructured items—open-ended
  - Structured items—response options provided
- Limitations of S-data
  - People may not respond honestly
  - People may lack accurate self-knowledge

# Observer-Report Data (O-Data)

- Information provided by someone else about another person
- Key features of O-data
  - Provide access to information not attainable through other sources
  - Multiple observers can be used to assess a person

# Observer-Report Data

- Selecting observers
  - Professional personality assessors
  - People who actually know the target person
    - Often in better position to observe target's natural behaviours than professional personality assessors
    - Allows for assessment of multiple social personalities
    - Because of relationship to target, however, observer may be biased

# Observer-Report Data



- Naturalistic vs. Artificial Observation
  - **Naturalistic observation:**
    - Observers witness and record events that occur in the normal course of lives of the participants
    - Has the advantage of being able to secure information in realistic context, but at the cost of not being able to control events witnessed
  - **Artificial observation:**
    - Occurs in artificial settings or situations
    - Has the advantage of controlling conditions and eliciting relevant behaviour, but at the cost of sacrificing realism



# Test-Data (T-Data)

- Information provided by standardized tests or testing situations
- Idea is to see if different people behave differently in identical situations
- Situation designed to elicit behaviours that serve as indicators of personality
- Elicited behaviour “scored” without reliance on inference

# Test-Data



## ■ Limitations

- Participants might try to guess what trait is being measured and then alter their behaviour to create certain impressions
- Difficult to know if participants define testing situation as intended by experimenter
- Researcher might influence how participants behave

# Test-Data

- Mechanical recording devices, e.g., “Actometer” used to assess children’s activity
  - Strengths
    - Not hampered by biases of human observer
    - May be used in naturalistic settings
  - Disadvantage
    - Few personality dispositions lend themselves to mechanical assessment



# Test-Data



- Physiological data
  - Includes information about a person's level of arousal, reactivity to stimuli—potential indicators of personality
  - Functional magnetic resonance imaging (fMRI)
  - Key benefit is that it is difficult to fake responses
  - Disadvantages
    - Often used in artificial laboratory setting
    - Accuracy of recording hinges on whether participant perceives situation as experimenter intended

# Test Data



- Projective Techniques
  - Person presented with ambiguous stimuli and asked to describe what she sees; assumption is that person “projects” personality onto ambiguous stimuli
  - Strengths: May provide useful means for gathering information about wishes, desires, fantasies that a person is not aware of and could not report
  - Weaknesses: Difficult to score, uncertain validity, and reliability

# Life-Outcome Data (L-Data)



- Information that can be gleaned from events, activities, and outcomes in a person's life that are available in public record—e.g., marriage, speeding tickets
- Can serve as important source of “real life” information about personality
- Recognize that life outcomes may be influenced by factors other than personality

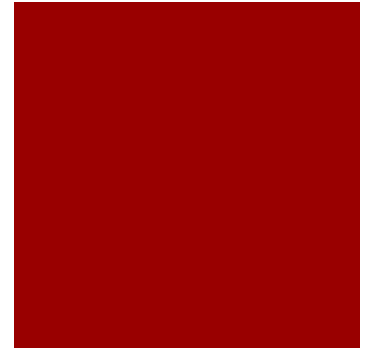
# Issues in Personality Assessment



- Links among different data sources – do all data sources correspond?
- Fallibility of personality measurement
  - All sources of data have limitations
  - Results that replicate through “triangulation” are most powerful

# Evaluation of Personality Measures

- Reliability
- Validity
- Generalizability





# Reliability

- Degree to which measure represents “true” level of trait being measured
- Types of reliability
  - Test-retest reliability
  - Inter-rater reliability
  - Internal consistency reliability



# Validity

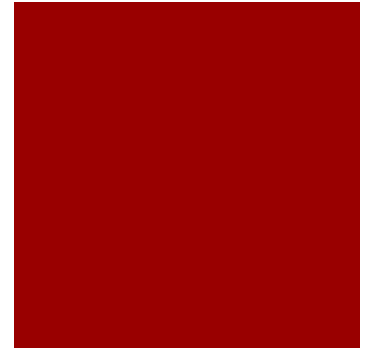
- Degree to which test measures what it claims to measure
- Types of validity
  - Face validity
  - Predictive or criterion validity
  - Convergent validity
  - Discriminant validity
  - Construct validity

# Generalizability

- Degree to which measure retains validity across different contexts, including different groups of people and different conditions
- Generalizability subsumes reliability and validity
- Greater generalizability not always better; what is important is to identify empirically contexts in which a measure is and is not applicable

# Research Designs in Personality

- Experimental Methods
- Correlational Studies
- Case Studies



# Experimental Methods

- Used to determine causality—whether one variable causes another
- Two key requirements:
  - Manipulation of variables
  - Ensuring that participants in each experimental condition are equivalent to each other

# Correlational Studies

- Correlation is a statistical procedure for determining whether there is a relationship between two variables
- Designed to identify “what goes with what” in nature, and not designed to identify causal relationships
- Major advantage is that it allows us to identify relationships among variables as they occur naturally

# Correlational Studies

- Correlation coefficient varies from  $-1.00$  (perfect negative relationships) through  $0$  (no relationship) to  $+1.00$  (perfect positive relationship)
- Correlation does not indicate causation
  - Directionality problem
  - Third variable problem

# Case Studies



- In-depth examination of the life of one person
- Advantages
  - Can find out about personality in great detail
  - Can give insights into personality that can be used to formulate a more general theory that is tested on a larger sample
  - Can provide in-depth knowledge about an outstanding figure, such as a political or religious figure
- Disadvantage
  - Results based on the study of single person cannot be generalized to others



# When to Use Experimental, Correlational, and Case Study Designs



- Each design has strengths and weakness; strength of one is weakness of another
- Which design a researcher uses depends on the research question and the goal of research
- Taken together, three designs provide complementary methods for exploring personality



# Summary and Evaluation

- Decisions about data source and research design depend on the purpose of study
- There is no perfect data source
- There is no perfect research design
- Some data sources and some methods are better suited for some purposes than for others