

People go through ups and downs of life
and constantly keep on searching happiness.

While the way to happiness is:

Keep your heart free from hate, Your mind from worry.

Expect little, give much. Fill your life with love.

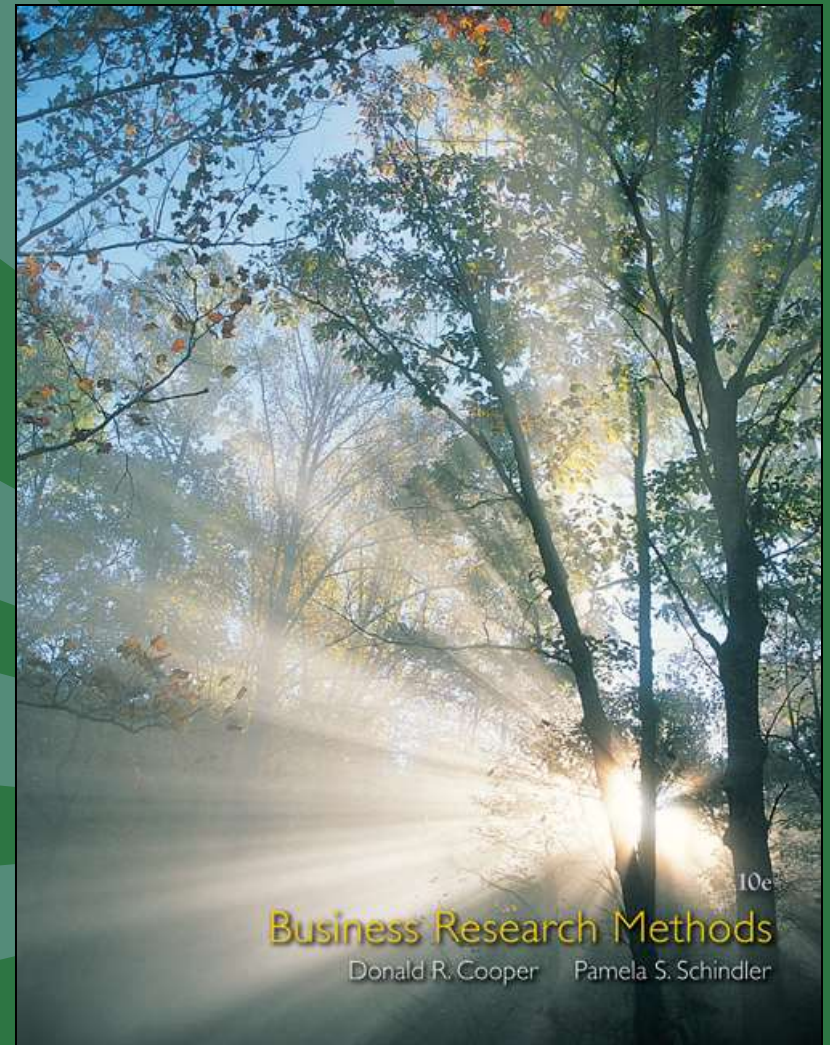
Scatter sunshine. Forget self, think of others.


Do as you would be done by.

Live a simple life.

Try this for a week and you will be surprised.

Measurement Scales



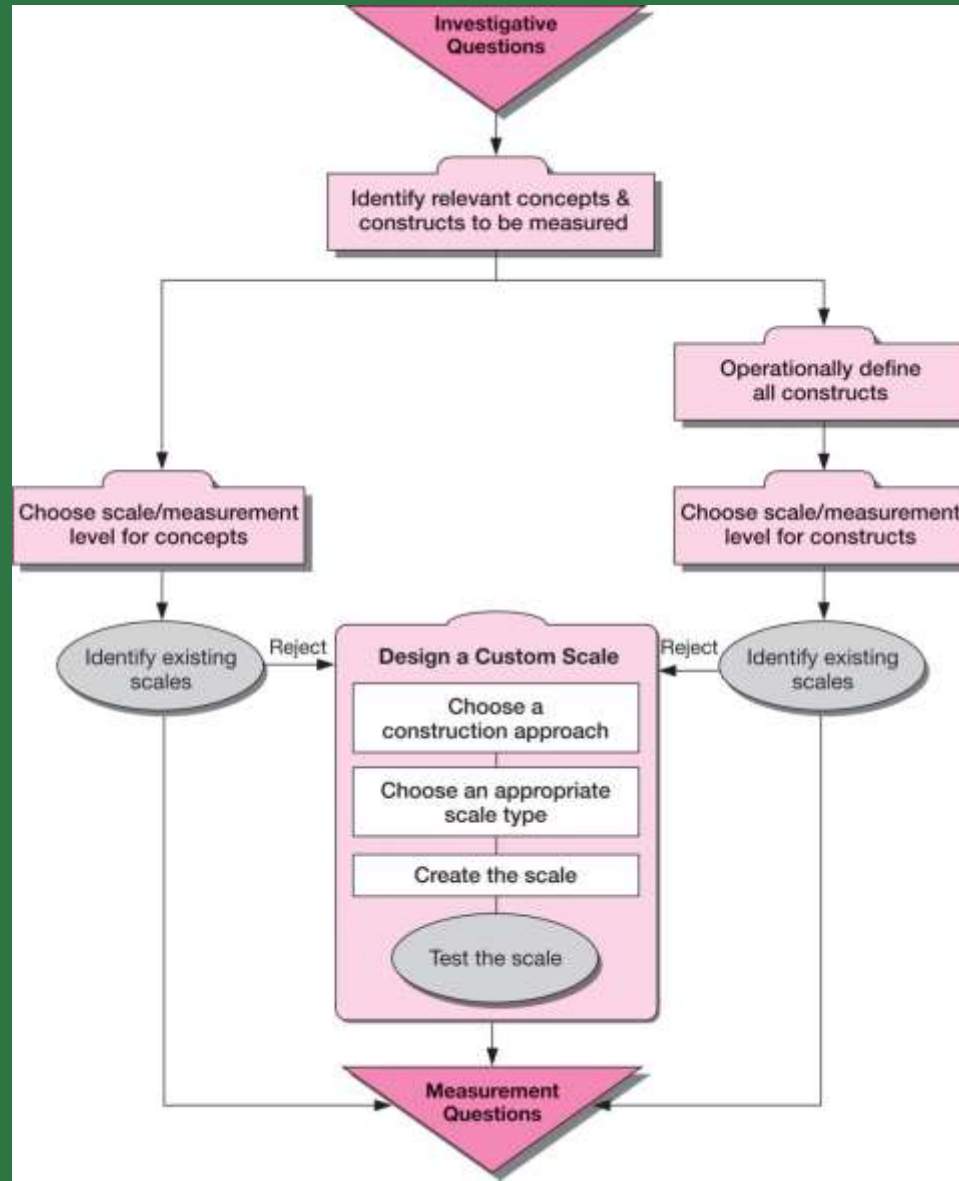


Learning Objectives

Understand...

- The nature of attitudes and their relationship to behavior.
- The critical decisions involved in selecting an appropriate measurement scale.
- The characteristics and use of rating, ranking, sorting, and other preference scales.

The Scaling Process



Nature of Attitudes

Cognitive

I think oatmeal is healthier than corn flakes for breakfast.

Affective

I hate corn flakes.

Behavioral

I intend to eat more oatmeal for breakfast.



Selecting a Measurement Scale

Research objectives

Response types

Data properties

**Number of
dimensions**

**Balanced or
unbalanced**

**Forced or unforced
choices**

**Number of
scale points**

Rater errors

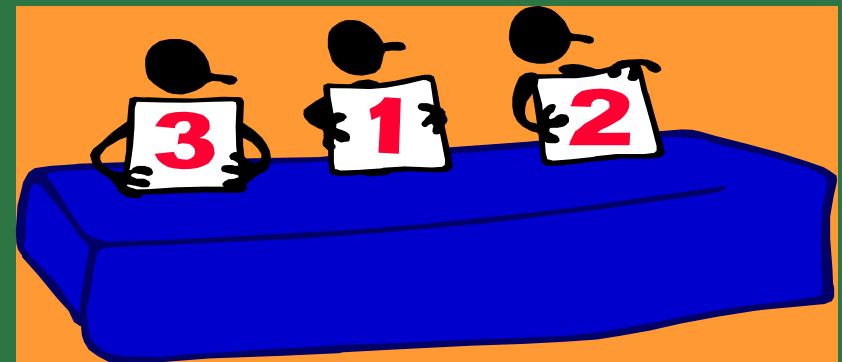
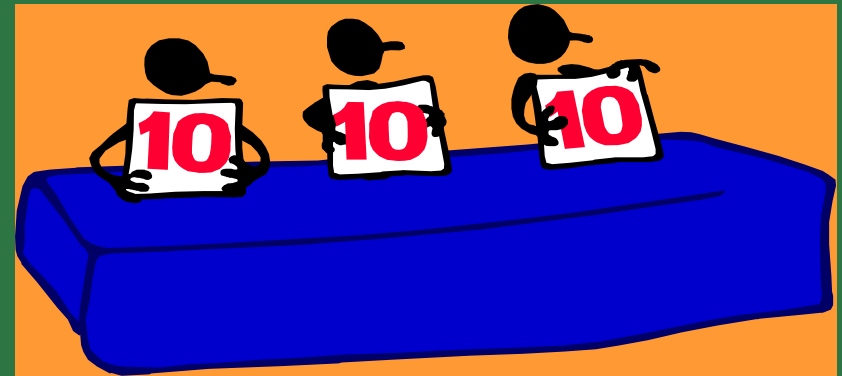
Response Types

Rating scale

Ranking scale

Categorization

Sorting



Number of Dimensions

Unidimensional

Multi-dimensional



Balanced or Unbalanced

How good an actress is Angelina Jolie?

- Very bad
- Bad
- Neither good nor bad
- Good
- Very good

- Poor
- Fair
- Good
- Very good
- Excellent

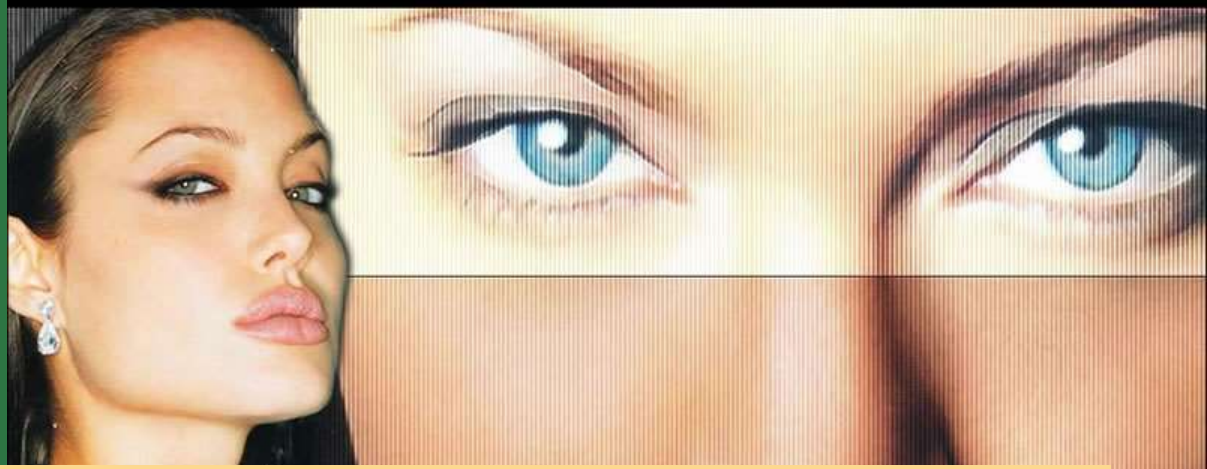
Forced or Unforced Choices

How good an actress is Angelina Jolie?

- Very bad
- Bad
- Neither good nor bad
- Good
- Very good

- Very bad
- Bad
- Neither good nor bad
- Good
- Very good
- No opinion
- Don't know

Number of Scale Points



How good an actress is Angelina Jolie?

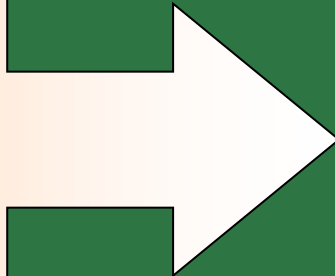
- Very bad
- Bad
- Neither good nor bad
- Good
- Very good

- Very bad
- Somewhat bad
- A little bad
- Neither good nor bad
- A little good
- Somewhat good
- Very good

Rater Errors

**Error of
central tendency**

Error of leniency



- Adjust strength of descriptive adjectives
- Space intermediate descriptive phrases farther apart
- Provide smaller differences in meaning between steps near the ends of the scale
- Use more scale points

Rater Errors

Primacy Effect
Recency Effect

The diagram features a large orange rectangle on the left containing the text 'Primacy Effect' and 'Recency Effect'. A large orange arrow points from this rectangle to a white rounded rectangle on the right. Inside the white rounded rectangle is a bullet point: '•Reverse order of alternatives periodically'.

- Reverse order of alternatives periodically

Dealing with Halo Effects



Halo Effects

- Rate one trait at a time
- Reveal one trait per page
- Reverse anchors periodically

Simple Category Scale



I plan to purchase a MindWriter laptop in the 12 months.

- Yes
- No

Multiple-Choice, Single-Response Scale



What newspaper do you read most often for financial news?

- East City Gazette
- West City Tribune
- Regional newspaper
- National newspaper
- Other (specify: _____)

Multiple-Choice, Multiple-Response Scale



What sources did you use when designing your new home? Please check all that apply.

- Online planning services
- Magazines
- Independent contractor/builder
- Designer
- Architect
- Other (specify: _____)

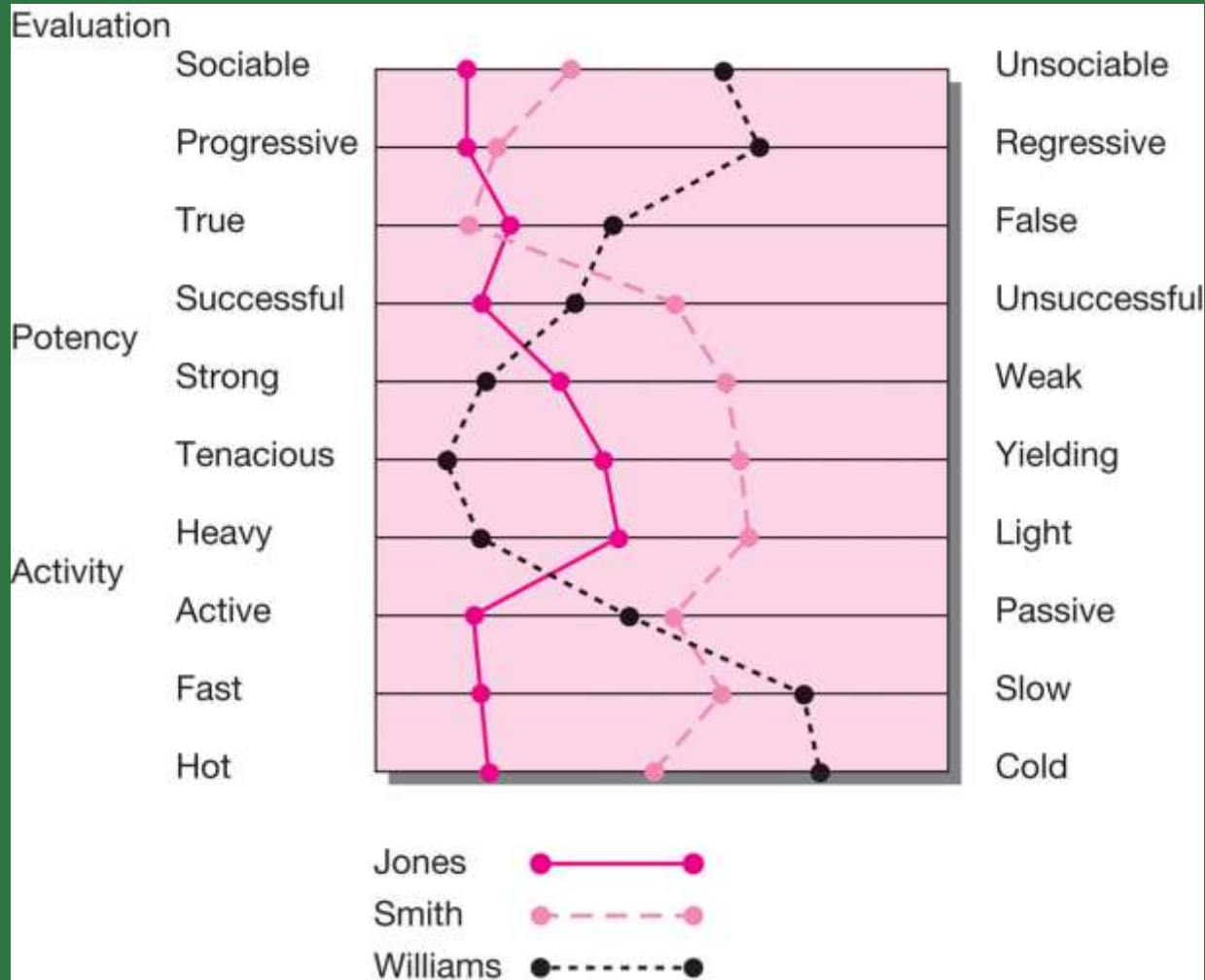
Likert Scale



The Internet is superior to traditional libraries for comprehensive searches.

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

Graphic of SD Analysis



Numerical Scale



EXTREMELY
FAVORABLE

5

4

3

2

1

EXTREMELY
UNFAVORABLE

Employee's cooperation in teams ____

Employee's knowledge of task ____

Employee's planning effectiveness ____

Multiple Rating List Scales



“Please indicate how important or unimportant each service characteristic is”:

	IMPORTANT					UNIMPORTANT		
Fast, reliable repair	7	6	5	4	3	2	1	
Service at my location	7	6	5	4	3	2	1	
Maintenance by manufacturer	7	6	5	4	3	2	1	
Knowledgeable technicians	7	6	5	4	3	2	1	
Notification of upgrades	7	6	5	4	3	2	1	
Service contract after warranty	7	6	5	4	3	2	1	

Stapel Scales

(Company Name)

	+5		+5		+5
	+4		+4		+4
	+3		+3		+3
	+2		+2		+2
	+1		+1		+1
Technology		Exciting		World-Class	
Leader		Products		Reputation	
	-1		-1		-1
	-2		-2		-2
	-3		-3		-3
	-4		-4		-4
	-5		-5		-5

Constant-Sum Scales



“Taking all the supplier characteristics we’ve just discussed and now considering cost, what is their relative importance to you (dividing 100 units between)”:

Being one of the lowest-cost suppliers

All other aspects of supplier performance

Sum

100

Graphic Rating Scales

“How likely are you to recommend CompleteCare to others?” (Place an X at the position along the line that best reflects your judgment.)

VERY LIKELY



VERY UNLIKELY



(alternative with graphic)

Ranking Scales

- Paired-comparison scale
- Forced ranking scale
- Comparative scale



Paired-Comparison Scale

“For each pair of two-seat sports cars listed, place a check beside the one you would most prefer if you had to choose between the two.”

BMW Z4 M Coupe
 Porsche Cayman S

Chevrolet Corvette Z06
 Porsche Cayman S

Chevrolet Corvette Z06
 BMW Z4 M Coupe

Porsche Cayman S
 Dodge Viper SRT10

Chevrolet Corvette Z06
 Dodge Viper SRT10

Dodge Viper SRT10
 BMW Z4 M Coupe

Forced Ranking Scale



“Rank the radar detection features in your order of preference. Place the number 1 next to the most preferred, 2 by the second choice, and so forth.”

- User programming
- Cordless capability
- Small size
- Long-range warning
- Minimal false alarms

Comparative Scale



"Compared to your previous hair dryer's performance, the new one is":

SUPERIOR

ABOUT THE SAME

INFERIOR

1

2

3

4

5

What is important in this chapter?

- Scaling and its Characteristics
- Scale Classification
- Response form
- Degree of preference
- Number of dimensions
- Developing a scale
- Types of rating and ranking scales
- Problems in scaling