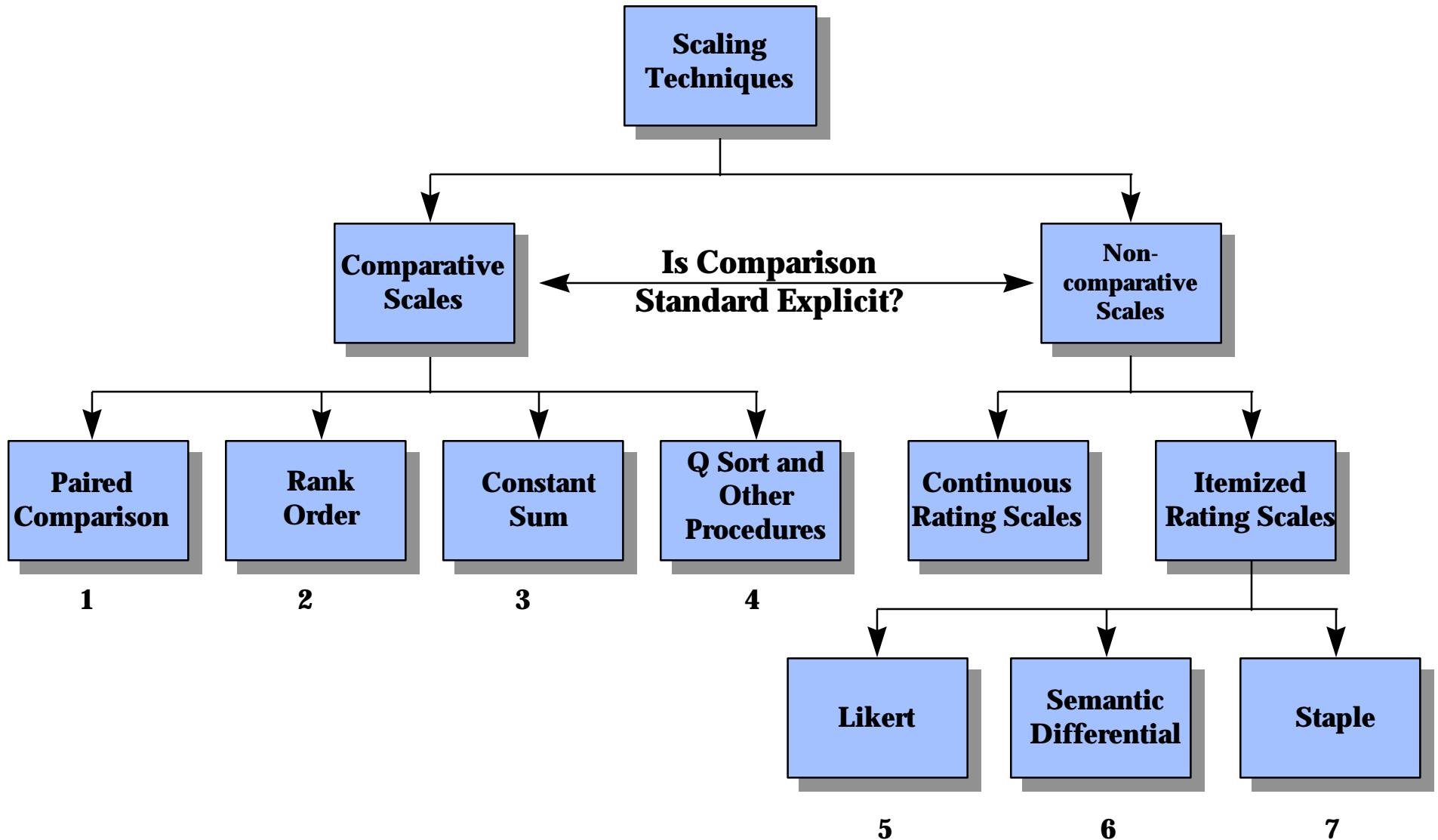


# Figure 10.1 A Classification of Scaling Techniques



NOTE: Above scales provide different types of data (i.e., nominal, ordinal, etc.)

**TABLE 11.4****A Paired Comparison Scale for Suntan Products**

---

14. Thinking about sun products in general, here are some characteristics used to describe them. Please tell me which characteristic in each pair is more important to you when selecting a sun care product.

a. Tans evenly

b. Tans without burning

a. Prevents burning

b. Protects against burning and tanning

a. Good value for the money

b. Goes on evenly

a. Not greasy

b. Does not stain clothing

a. Tans without burning

b. Prevents burning

a. Protects against burning and tanning

b. Good value for the money

a. Goes on evenly

b. Tans evenly

a. Prevents burning

b. Not greasy

---

## Figure 10.2 Obtaining Shampoo Preferences Using Paired Comparisons

### Instructions

We are going to present you with 10 pairs of shampoo brands. For each pair, please indicate which one of the two brands of shampoo in the pair you would prefer for personal use.

### Recording Form

	<b>Jhirmack</b>	<b>Finesse</b>	<b>Vidal Sassoon</b>	<b>Head &amp; Shoulders</b>	<b>Pert</b>
<b>Jhirmack</b>		0	0	1	0
<b>Finesse</b>	1 <sup>a</sup>		0	1	0
<b>Vidal Sassoon</b>	1	1		1	1
<b>Head &amp; Shoulders</b>	0	0	0		0
<b>Pert</b>	1	1	0	1	
<b>Number of Times Preferred<sup>b</sup></b>	3	2	0	4	1

<sup>a</sup> A 1 in a particular box means that the brand in that column was preferred over the brand in the corresponding row. A 0 means that the row brand was preferred over the column brand.

<sup>b</sup> The number of times a brand was preferred is obtained by summing the 1's in each column.

Limit on number of  
paired  
comparisons

Concept of "Intransitive paired comparisons"

A > B

B > C

C > A (should not be possible)

## Ordinal Interval (Assumed) Paired Comparison Scale

### PAIRED-COMPARISON DATA FOR 5 BRANDS OF CAKE MIX

#### Matrix A

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>A</b>	---	.90	.64	.14	.27
<b>B</b>	.10	---	.32	.02	.21
<b>C</b>	.36	.68	---	.15	.36
<b>D</b>	.86	.98	.85	---	.52
<b>E</b>	.73	.79	.64	.48	---

#### Matrix B

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
<b>A</b>	---	1	1	0	0
<b>B</b>	0	---	0	0	0
<b>C</b>	0	1	---	0	0
<b>D</b>	1	1	1	---	1
<b>E</b>	<u>1</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>---</u>
<b>Total</b>	2	4	3	0	1

**Entries represent proportion of respondents preferring “column” brand to “row” brand (i.e., 90 percent prefer Brand B to Brand A)**

## Figure 10.3 Preference for Toothpaste Brands Using Rank Order Selling

### Instructions

Rank the various brands of toothpaste in order of preference. Begin by picking out the one brand that you like most and assign it a number 1. Then find the second most preferred brand and assign it a number 2. Continue this procedure until you have ranked all the brands of toothpaste in order of preference. The least preferred brand should be assigned a rank of 10.

*No two brands should receive the same rank number.*

The criterion of preference is entirely up to you. There is no right or wrong answer. Just try to be consistent.

<b>Brand</b>	<b>Rank Order</b>
1. Crest	<u>3</u>
2. Colgate	<u>      </u>
3. Aim	<u>1</u>
4. Gleem	<u>      </u>
5. Macleans	<u>2</u>
6. Ultra Brite	<u>      </u>
7. Close Up	<u>4</u>
8. Pepsodent	<u>      </u>
9. Plus White	<u>      </u>
10. Stripe	<u>      </u>

**Natural  
Technique  
in  
Marketing?**

**Limit on number of brands that can be ranked**

## A Series of Rank-Order Scales Used to Evaluate Eye Shadows

Please rank the following eye shadows with 1 being the brand that best meets the characteristic being evaluated and 6 the worst brand on the characteristic being evaluated. Let's begin with the idea of having high-quality compacts or containers. Which brands would rank as having the highest quality compacts or containers? Which is second? (RECORD BELOW.)

	Having High-Quality Container	Having High-Quality Applicator	Having High-Quality Eye Shadow
<b>Avon</b>	_____	_____	_____
<b>Cover Girl</b>	_____ <b>1</b> _____	_____ <b>3</b> _____	_____ <b>1</b> _____
<b>Estee Lauder</b>	_____	_____ <b>1</b> _____	_____ <b>2</b> _____
<b>Maybelline</b>	_____ <b>2</b> _____	_____ <b>2</b> _____	_____ <b>3</b> _____
<b>Natural Wonder</b>	_____	_____	_____
<b>Revlon</b>	_____ <b>3</b> _____	_____	_____

- Possible to include a phony brand
- Create "composite" rank order

## Figure 10.4 Importance of Toilet Soap Attributes Using a Constant Sum Scale

### Instructions

Below are eight attributes of toilet soaps. Please allocate 100 points among the attributes so that your allocation reflects the relative importance you attach to each attribute. The more points an attribute receives, the more important the attribute is. If an attribute is not at all important, assign it zero points. If an attribute is twice as important as some other attribute, it should receive twice as many points.

### Form

AVERAGE RESPONSES OF THREE SEGMENTS			
Attribute	Segment I	Segment II	Segment III
1. Mildness	8	2	4
2. Lather	2	4	17
3. Shrinkage	3	9	7
4. Price	53	17	9
5. Fragrance	9	0	19
6. Packaging	7	5	9
7. Moisturizing	5	3	20
8. Cleaning Power	<u>13</u>	<u>60</u>	<u>15</u>
Sum	100	100	100

- ↙ -- **Difficult and unnatural?**
- ↘ -- **Gives the best scale properties**

**TABLE 11.5****A Constant Sum Scale Used in a Tennis Sportswear Study**

Below are seven characteristics of women's tennis sportswear. Please allocate 100 points among the characteristics in such a way that the allocation represents the importance of each characteristic to you. The more points that you assign to a characteristic, the more important it is. If the characteristic is totally unimportant, you should not allocate any points to it. When you've finished, please double check to make sure that your total adds to 100.

<b>CHARACTERISTICS OF TENNIS SPORTSWEAR</b>	<b>NUMBER OF POINTS</b>
Is comfortable to wear	_____
Is durable	_____
Is made by well-known brand or sports manufacturers	_____
Is made in the U.S.A.	_____
Has up-to-date styling	_____
Gives freedom of movement	_____
Is a good value for the money	_____
	_____
	<b>100 points</b>

## Constant Sum Use with Paired-Comparison Scale

Ratio

Now, we would like you to divide 11 points, or “chips,” between each pair of hand and body lotions listed below. You can divide the 11 chips any way you like, depending on how much more you like one product than the other. Some possible combinations are 11 & 0, 1 & 10, 9 & 2, 3 & 8, 7 & 4, or 5 & 6. *The two numbers you assign to the products in each pair must add up to eleven.* Always give the product you like more in each pair the larger of the two numbers. Now, please rate each pair of products going *across* the page. The number of chips you decide to give a product should be recorded in the box next to it.

	<b>Chips</b>		<b>Chips</b>
<b>A. Agree</b>	<input type="text" value="8"/>	<b>B. Alberto VO-5</b>	<input type="text" value="3"/>
<b>B. Alberto VO-5</b>	<input type="text" value="7"/>	<b>C. Body on Tap</b>	<input type="text" value="4"/>
<b>A. Agree</b>	<input type="text" value="9"/>	<b>C. Body on Tap</b>	<input type="text" value="2"/>



--- **Bias created by order in which brands are presented?**

--- **Difficult to do?**



**Non-Comparative Scales**

**ITEMIZED (Graphic)**

**Ordinal**

**ITEMIZED (Verbal)**

**Ordinal**

**Scale A**

**Scale B**



**Very favorable**



**Somewhat favorable**



**Indifferent**



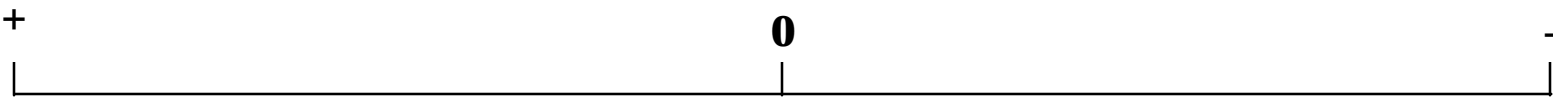
**Somewhat unfavorable**



**Very unfavorable**

**CONTINUOUS (Graphic) Ratio**

**Scale C**



**TABLE 11.1****Itemized Rating Scales Used in National Surveys****SCALE A**

Now, I'd like to ask you about just two watches specifically. The first one is the SEARS watch. I'm going to mention some characteristics of watches, and, as I mention each one, please tell me whether you think the SEARS watch is (HAND RESPONDENT RATING CARD) excellent, very good, good, fair, or poor.

... for the particular characteristic?

The first characteristic is (READ CHARACTERISTIC CIRCLED BELOW). Do you feel that the SEARS watch is excellent, very good, good, fair, or poor for (CHARACTERISTIC)?

(CONTINUE FOR ALL CHARACTERISTICS BELOW)

<b>STARTING POINT</b>		<b>EXCELLENT</b>	<b>VERY GOOD</b>	<b>GOOD</b>	<b>FAIR</b>	<b>POOR</b>
X	Value for the money	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
X	Brand name	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
X	Accuracy	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
X	Durability	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
X	Manufacturer's reputation	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
X	After-sales service	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1
X	Styling	<input type="checkbox"/> 5	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1

**SCALE B**

9. Which statement on this card (HAND RESPONDENT CARD B) best describes the present condition of your hair?

- 1 ( ) Very damaged
- 2 ( ) Somewhat damaged
- 3 ( ) Slightly damaged
- 4 ( ) Not at all damaged

**TABLE 11.1**

**Itemized Rating Scales Used in National Surveys--continued**

**SCALE C**

Now, I would like to get your opinion on Stridex Cleansing Pads on some characteristics. (HAND RATING CARD)  
 Using the phrases on the card, please tell me which one best indicates how much you agree or disagree that Stridex  
 Cleansing Pads . . . (START WITH CHECKED CHARACTERISTICS AND CONTINUE UNTIL ALL ARE ASKED)

<b>START</b>	<b>AGREE STRONGLY</b>	<b>AGREE SOMEWHAT</b>	<b>DISAGREE SOMEWHAT</b>	<b>DISAGREE STRONGLY</b>
( ) Help prevent blemishes	___ 9-4	___-3	___-2	___-1
( ) Help to clear up blemishes	___ 10-4	___-3	___-2	___-1
( ) Are convenient to use	___ 11-4	___-3	___-2	___-1
( ) Are not irritating	___ 12-4	___-3	___-2	___-1
( ) Leave face feeling fresh	___ 13-4	___-3	___-2	___-1
( ) Make you feel confident you are doing everything you can to help your skin look good	___ 14-4	___-3	___-2	___-1

**SCALE B**



**Very  
Very  
Good**



**Very  
Very  
Poor**

SOURCE: Scale D is adapted from Fred Cutler, "To Meet Criticisms of TV Ads, Researchers Find New Ways to Measure Children's Attitudes," *Marketing News* (January 27, 1978), p.16, published by the American Marketing Association.

**TABLE 11.2****Selected Itemized Rating Scales**

<b>PURCHASE INTENT</b>				
Definitely will buy	Probably will buy	Probably will not buy	Definitely will not buy	
<b>LEVEL OF AGREEMENT</b>				
Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
<b>QUALITY</b>				
Very good	Good	Neither good nor bad	Fair	Poor
<b>DEPENDABILITY</b>				
Completely dependable	Somewhat dependable	Not very dependable		Not dependable at all
<b>STYLE</b>				
Very stylish	Somewhat stylish	Not very stylish		Completely unstylish
<b>SATISFACTION</b>				
Completely satisfied	Somewhat satisfied	Neither satisfied nor dissatisfied	Somewhat dissatisfied	Completely dissatisfied
<b>COST</b>				
Extremely expensive	Expensive	Neither expensive nor inexpensive	Slightly inexpensive	Very inexpensive
<b>EASE OF USE</b>				
Very easy to use	Somewhat easy to use	Not very easy to use		Difficult to use
<b>COLOR BRIGHTNESS</b>				
Extremely bright	Very bright	Somewhat bright	Slightly bright	Not bright at all
<b>MODERNITY</b>				
Very modern	Somewhat modern	Neither modern nor old-fashioned	Somewhat old-fashioned	Very old-fashioned

**TABLE 11.6****A Likert Scale for Persons with Foot Odor Problems Who Have Not Tried Johnson's Odor-Eaters**

(SHOW CARD J) Now, I would like to find out your impressions about Johnson's Odor-Eaters, which you said you were familiar with but had not tried. As I read each characteristic, please tell me, using the statements on this card, if you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree.

	<b>STRONGLY AGREE</b>	<b>AGREE</b>	<b>NEITHER AGREE NOR DISAGREE</b>	<b>DISAGREE</b>	<b>STRONGLY DISAGREE</b>
They might make my feet feel hot	5	4	3	2	1
I am satisfied with what I am using	5	4	3	2	1
My problem is not serious enough	5	4	3	2	1
Too much trouble to cut them to fit to size	5	4	3	2	1
Price is too expensive	5	4	3	2	1
Might make my shoes too tight	5	4	3	2	1
I'm embarrassed to buy them	5	4	3	2	1
The advertising has not convinced me that the product is effective	5	4	3	2	1
Other insoles I've tried didn't work	5	4	3	2	1
Foot sprays work better	5	4	3	2	1
Foot powders work better	5	4	3	2	1
I've never used an insole	5	4	3	2	1
Wouldn't last more than a couple of weeks	5	4	3	2	1
Would look unattractive in my shoes	5	4	3	2	1
Would have to buy more than one pair	5	4	3	2	1
Would have to move them from one pair of shoes to another	5	4	3	2	1
No product for foot odor works completely	5	4	3	2	1
They might get too wet from perspiration	5	4	3	2	1
Don't know what an insole would feel like in my shoe	5	4	3	2	1

<b>Card J</b>				
<b>Strongly Agree</b>	<b>Agree</b>	<b>Neither Agree nor Disagree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>

## Likert Scale Items

ORDINAL

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
1. The commercial was soothing	5	4	3	2	1
2. The commercial was not entertaining	5	4	3	2	1
3. The commercial was insulting	5	4	3	2	1
4. The commercial was silly	5	4	3	2	1
5. The commercial was too “hard-sell”	5	4	3	2	1
6. The characters in the commercial were realistic	5	4	3	2	1
7. The commercial was not creative	5	4	3	2	1
8. The commercial clearly demonstrated the product’s advantages	5	4	3	2	1
9. I will remember this commercial	5	4	3	2	1
10. The commercial had meaning to me personally	5	4	3	2	1

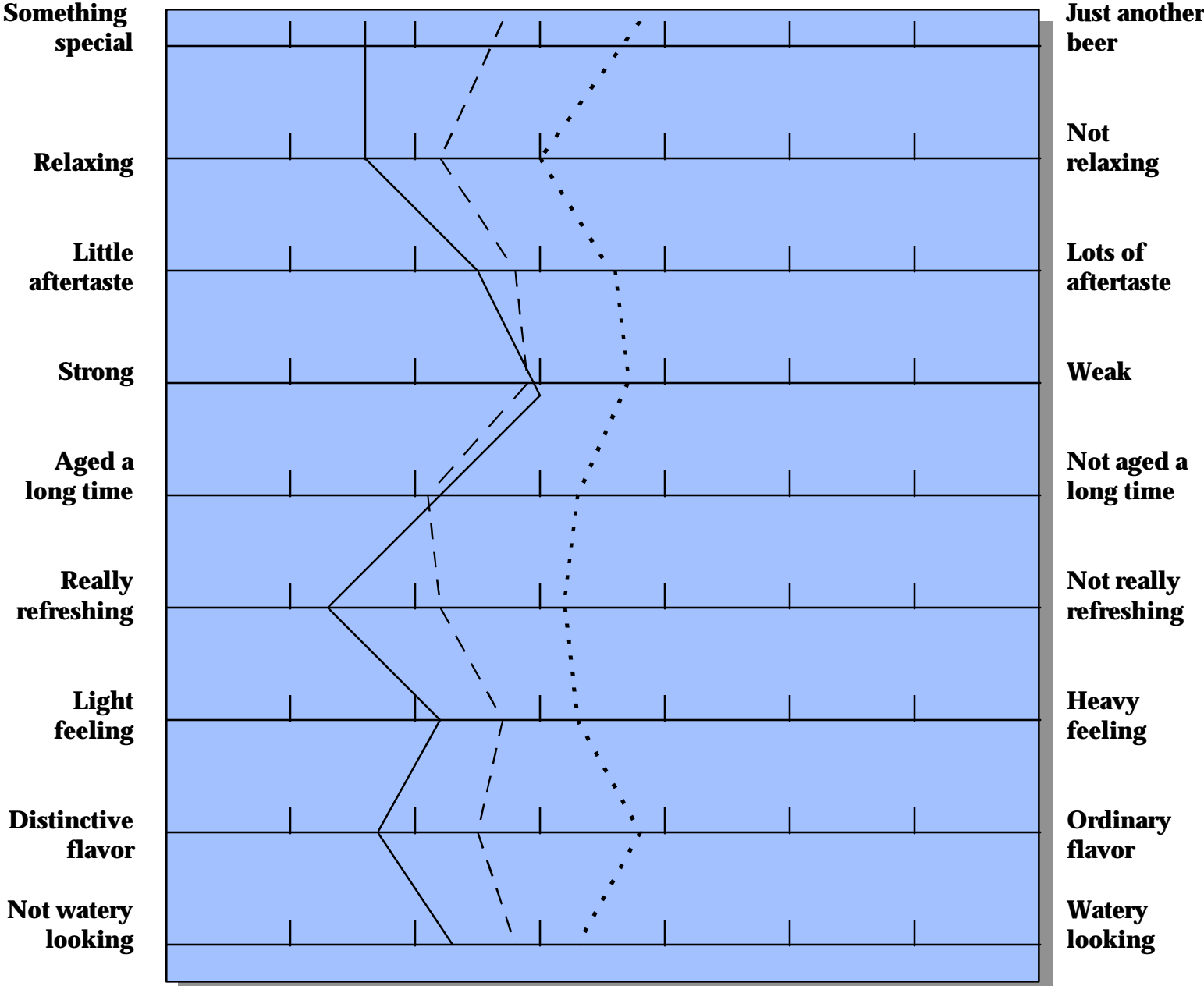
--- Statements should be “balanced” (i.e., good & bad)

--- Include “duplicate” statements



# Semantic Differential Scale

ORDINAL Interval  
(Assumed)



— Brand X      - - - - Brand Y      ······ Brand Z

## Example of a Staple Scale

---

Select a plus number for words that you think describe the bank accurately. The more accurately you think the word describes the company, the larger the plus number you should choose. Select a minus number for words you think do not describe the bank accurately. The less accurately you think the word describes the institution, the larger the minus number you should choose.

---

+5

+5

+4

+4

+3

+3

+2

+2

+1

+1

**Friendly Personnel**

**Competitive Loan Rates**

-1

-1

-2

-2

-3

-3

-4

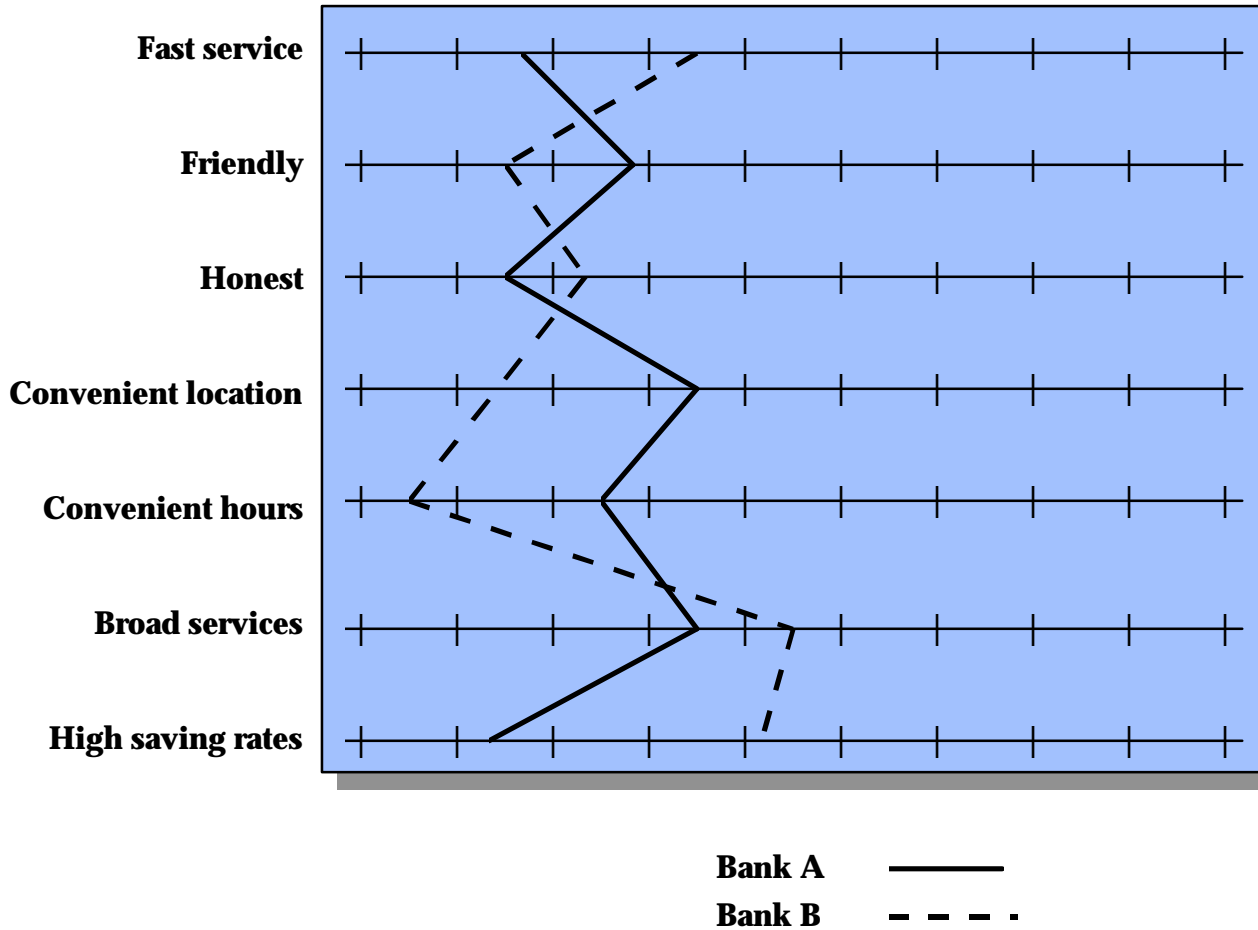
-4

-5

-5

# Staple Scale

**ORDINAL Interval  
(Assumed)**





**TABLE 11.7** **Purchase Intent Scale and Related Questions for an In-Home Product Placement of Fly Traps**

---

21. If a set of three traps sold for approximately \$1.00 and was available in the stores where you normally shop, would you:

- |                                 |      |
|---------------------------------|------|
|                                 | (51) |
| definitely by the set of traps  | 1    |
| probably buy                    | 2    |
| probably not buy--SKIP TO Q23   | 3    |
| definitely not buy--SKIP TO Q23 | 4    |

22. Would you use the traps (a) instead of or (b) in addition to existing products?

- |                |      |
|----------------|------|
|                | (52) |
| instead of     | 1    |
| in addition to | 2    |

23. Would you recommend this product to your friends?

- |                |      |
|----------------|------|
|                | (53) |
| definitely     | 1    |
| probably       | 2    |
| probably not   | 3    |
| definitely not | 4    |

## Dollar Metric Scale

With respect to fruit juice,  
which container do you  
prefer?

How much more in cents  
would you be willing to pay  
for the preferred container?

---

glass	<input checked="" type="checkbox"/>	can	<input type="checkbox"/>	\$.07
box	<input type="checkbox"/>	plastic	<input checked="" type="checkbox"/>	.06
glass	<input checked="" type="checkbox"/>	box	<input type="checkbox"/>	.07
plastic	<input type="checkbox"/>	glass	<input checked="" type="checkbox"/>	.02
can	<input checked="" type="checkbox"/>	box	<input type="checkbox"/>	.03
plastic	<input type="checkbox"/>	can	<input checked="" type="checkbox"/>	.05

---

- Used when price information is needed
- Can induce “bargaining behavior”

## Rating Scale Configurations

### Different types of rating scales

1. Indicate your overall opinion about Safeway by placing a ✓ mark at an appropriate position on the line below:

Very bad	Very good
-----	

2. Indicate your overall opinion about Safeway by placing a ✓ mark in the category that best summarizes your feelings.

Very bad	Very good
--- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	

3. Indicate your overall opinion about Safeway by checking one of the following categories:

Very bad									Very good
Bad		Bad		Neither bad nor good		Good			Good
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7	8	9	

4. Which of the following best describes your overall opinion of Safeway?

Terrible	Poor	Fair	Good	Very good	Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. What is your overall rating of Safeway in comparison with other supermarkets in your area?

Much worse	Worse	About the same	Better	Much better
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Rank the following by placing a 1 beside the store you think is best overall, a 2 beside the store you think is second best, and so on:

Kroger	_____	Tom Thumb	_____
Piggly Wiggly	_____	Winn-Dixie	_____
Safeway	_____		

7. In each of the following pairs, which store do you think is better? (Please check one store within each pair.)

____ Kroger	or	____ Safeway
____ Safeway	or	____ Piggly Wiggly
____ Tom Thumb	or	____ Safeway
____ Safeway	or	____ Winn-Dixie

8. Allocate a total of 100 points among the following stores, depending on how favorable you feel toward each; the more highly you think of each store, the more points you should allocate to it. (Please check that the allocated points add up to 100.)

Kroger	_____points
Piggly Wiggly	_____points
Safeway	_____points
Tom Thumb	_____points
Winn-Dixie	_____points

**TABLE 11.1** Summary of Itemized Rating Scale Decisions

---

1. Number of categories	While there is no single, optimal number, traditional guidelines suggest that there should be between five and nine categories.
2. Balanced vs. unbalanced	In general, the scale should be balanced to obtain objective data.
3. Odd or even number of categories	If a neutral or indifferent scale response is possible for at least some of the respondents, an odd number of categories should be used.
4. Forced versus nonforced	In situations where the respondents are expected to have no opinion, the accuracy of data may be improved by a nonforced scale.
5. Verbal description	An argument can be made for labeling all or many scale categories. The category descriptions should be located as close to the response categories as possible.
6. Physical form	A number of options should be tried and the best one selected.
7. Category numbering to accompany verbal description	
8. Reference point or comparison standard being used by the respondent	