**What is Culture?**

- the “shared elements that provide the standards for perceiving, believing, evaluating, communicating, and acting among those who share a language, a historic period, and a geographic location” (Triandis, *American Psychologist*, 1996).

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**Unpacking Culture**

- Research has focused on racial, ethnic, or cross-national differences
- With few exceptions, mechanisms responsible for these identity group differences have been unexplored

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**Some Models of Culture**

- Hofstede (2001)
- Schwartz (1992)
- Triandis (1996)
- Ingelhart (1997)
- Trompennars and Hampen-Turner (1998)

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**Geert Hofstede: Culture’s Consequences**

- Individualism-Collectivism
- Power Distance
- Uncertainty Avoidance
- Masculinity and Femininity
- Long- vs. Short-Term Orientations

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**Individualism vs. Collectivism**

- Self identity and personal goals vs. norms, obligations and duties
- In-groups vs. out-groups
- Individualists more commonly make cost-benefit decisions
- Collectivists more likely to monitor other's behaviors and feelings
Shalom Schwartz: Cultural Value Orientations

- Identifies 3 bipolar dimensions of culture; each represents an alternative resolution to problems that confront all societies:
  - Embeddedness vs. autonomy
  - Hierarchy vs. egalitarianism
  - Mastery vs. harmony

Harry Triandis: Cultural Tightness

- Reflects emphasis on heterogeneity and surveillance
Horizontal vs. Vertical Social Structures

- Vertical cultures
  - Emphasize social hierarchies
- Horizontal cultures
  - Emphasize egalitarianism

Other Dimensions of Culture

- Analytic-linear vs. holistic-dialectical cognitive styles
- Communication processes
  - Context requirements
  - Nonverbal behavior
  - Self-disclosure
- Social participation
  - Historical experience
  - Social distance

Elements of Social Measurement in Cross-Cultural Research

1. Reliability
2. Validity
3. Equivalence

Types of Equivalence

1. Calibration
2. Category
3. Complete
4. Correspondent
5. Construct
6. Construct operationalization
7. Content
8. Contextual
9. Creditable
10. Criterion
11. Cross-cultural
12. Cross-language
13. Cross-level
14. Cross-national
15. Cultural
16. Data
17. Defined
18. Direct
19. Ethnographic
20. Exact
21. Experimental
22. External
23. Factor
24. Factorial
25. False
26. Formal
27. Foreign language
28. Full
29. Full measurement
30. Functional
31. Grammatical-syntactical
32. Group
33. Idiomatic
34. Interpretive
35. Indicator
36. Instrument
37. Item
38. Language
39. Logical
40. Linguistic
41. Literal
42. Logical
43. Meaning
44. Measure
45. Measurement equivalence
46. Measurement equivalence
47. Measurement unit
48. Metaphorical
49. Metric
50. Motivational
51. Normative
52. Operational
53. Operationalization
54. Partial
55. Procedural
56. Psychological
57. Psychometric
58. Relational
59. Relative
60. Response
61. Response
62. Rough
63. Sampling
64. Scale
65. Scalar
66. Scalar (metric)
67. Situational
68. Stimulus
69. Structural
70. Substantive
71. Syntactic
72. Technical
73. Test
74. Theoretical
75. Translation
76. Translated
77. True-score
78. Verbal
79. Vignette
80. Vocabulary

Question Comprehension/Interpretation

Emic (culture specific)
Etic (pancultural)

Category Fallacy

Assuming a question or concept is universally understood when in fact understanding is culturally conditioned
The meaning of words may evolve faster than most other aspects of culture.

Triandis (2004) chapter in *Comparing Cultures, Dimensions of Culture in a Comparative Perspective*

“In this question, what does the word ‘stress’ mean to you?”

Memory Retrieval
- Episodic vs. semantic search strategies
- Memory cues

Memory cues resulting in memories for behaviors of others that Americans can only estimate

Ji, Schwarz & Nisbett (2000)
- Collectivist societies attend more closely to the behavior of others, resulting in memories for behaviors of others that Americans can only estimate

Judgment Formation/Mapping
- Accessibility
- Anchoring
- Response formatting
- Response styles
**Measurement Artifacts in Survey Research**

- Extreme response styles
- Acquiescence
- Non-differentiation

**Response Editing**

- Self presentation
- Social desirability
- Interviewer effects

**% Uncomfortable Discussing Alcohol Use with Interviewers from Same/Different Cultural Groups**

**Available Methods for Addressing Cross-Cultural Equivalence**

A. Question Development Phase
B. Questionnaire Pretesting Phase
C. Data Collection Phase
D. Data Analysis Phase

**Question Development Stage**

1. Expert consultation/collaboration
2. Ethnographic and other qualitative approaches
3. “Good” question-wording practices
4. “Good” translation practices
**Good Question Wording Practices**

- Avoid vague quantifiers
- Avoid items with ambiguous or dual meanings
- Avoid hypothetical questions
- Use simple terms that are similarly understood
- Use clear and precise time references
- Avoid questions with highly abstract concepts
- See also recommendations by Brislin (1986)

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**Translation: When things go wrong...**

- Pepsi's "Come Alive With the Pepsi Generation" translated into "Pepsi Brings Your Ancestors Back From the Grave" in Chinese.
- Frank Perdue's chicken slogan, "It takes a strong man to make a tender chicken" was translated into Spanish as "it takes an aroused man to make a chicken affectionate."

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**Back-Translation**

- a.k.a., double translation
- Described by Brislin (1970) – heavily cited
- Basic procedure calls for a bilingual person to translate a source questionnaire into a target language
- A second bilingual person translates the translated version back into the source language without knowledge of the original instrument.
- The initial and revised versions of the source language version are then compared, discrepancies are identified, and final revisions are made (second round sometimes necessary)

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**Other Strategies**

- Use multiple indicators
- Use both etic and emic items
- Use KISS method: dichotomous response options
  - Likely results in loss of precision
- Substitute numerical or other nonverbal scales, although:
  - Many numeric scales are also difficult to use
  - Numeric scales also not invariant in meaning across groups
  - Beware of lucky and unlucky numbers
  - Generally do not completely eliminate word use (e.g., semantic differentials still label end-points)
  - Alternative numbering schemes can influence reporting

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**Traditional Approach: Simple Direct Translation**

- Simple, unidirectional translation of survey instrument from a source language into one or more target languages.
- a.k.a., one-way translation
- Now considered an unacceptable approach
  - Not considered informative because it does not produce objective information about translation quality or specific problems
  - A commonly referenced alternative is the Back-Translation procedure

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**Terms that presented difficulty in translation**

(Weidner et al., 1999)

<table>
<thead>
<tr>
<th>Original English</th>
<th>Alternative wording used in final Spanish version</th>
<th>Back-Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health insurance plan</td>
<td>Plan de seguro médico</td>
<td>Medical insurance plan</td>
</tr>
<tr>
<td>Health provider</td>
<td>Profesional de salud</td>
<td>Health professional</td>
</tr>
<tr>
<td>Rating/rate</td>
<td>Calificación/califica</td>
<td>Grade/grade</td>
</tr>
<tr>
<td>Usually</td>
<td>Normalmente</td>
<td>Normally</td>
</tr>
<tr>
<td>Preventive health steps</td>
<td>Medidas de salud preventiva</td>
<td>Preventive health measures</td>
</tr>
<tr>
<td>Listen carefully</td>
<td>Escuchar atentamente</td>
<td>Listen attentively</td>
</tr>
<tr>
<td>Health care</td>
<td>Atención médica</td>
<td>Medical attention</td>
</tr>
<tr>
<td>Prescription medicine</td>
<td>Medicamentos recetados</td>
<td>Prescribed medications</td>
</tr>
<tr>
<td>Male or female</td>
<td>Niño o niña/hombre o mujer</td>
<td>Boy or girl/man or woman</td>
</tr>
<tr>
<td>Background</td>
<td>Ascendencia</td>
<td>Ascendancy</td>
</tr>
<tr>
<td>Grade</td>
<td>Año</td>
<td>Year</td>
</tr>
<tr>
<td>School</td>
<td>Estudios</td>
<td>studies</td>
</tr>
</tbody>
</table>
Alternatives to Back-Translation

- Modified direct translation
- Modified back-translation strategies
- Parallel blind technique
- De-centering strategy
- "Triandis" procedure
- Translation by committee

Current Good Practice for Translation
(Harkness, 2008)

- Range of expertise needed: survey design, substantive understanding of content, source/target language competence, knowledge of local fielding situation.
- Team approaches.
- Translation teams should include (1) those who translate, (2) those who review translations, (3) and those who take final decisions on versions (adjudicators).
- Translators should be skilled practitioners who have received training and should normally translate out of the source language into their strongest language.
- Is better to use several translators
- Where possible, each translator should make a draft translation. The alternative is to have each translator do a section.

Data Collection Phase

1. Use multiple indicators
2. Use both emic and etic questions
3. Respondent/interviewer matching

Data Analysis Phase

Common Goals of Cross-Cultural Analyses:
- Verify interpretive equivalence of measures
- Conduct substantive analyses using equivalent measures and procedures

Behavior Codes Used to Identify Comprehension Problems

Clarification (unspecified): uncertainty about question, unclear if problem is related to construct or context.
Clarification (construct): request for repeat or clarification of question, or statement indicating uncertainty about question meaning
Clarification (context): uncertainty about question meaning within the context of the question as stated
Clarification (time frame): uncertainty regarding question time frame.
Clarification (rewording): rephrases question before answering.

Questionnaire Pretesting Phase

1. Cognitive interviews/structured probes
2. Comparative response scale calibration
3. Comparative behavior coding
4. Compare alternative data collection modes
5. Use of comparative vignettes
**Classification of Analysis Strategies by Sophistication of Statistical Technique**

- Elementary and easy-to-use techniques
- Less elementary but still easy-to-use techniques
- Advanced techniques requiring some expertise and effort

**Elementary and Easy-to-Use Techniques**

- Comparison of means (or some other methods of central tendency) of different items across countries
- Comparison of correlations between the items under investigation with measures of the underlying dimension or with a benchmark items that can be assumed to represent the dimension
- Comparison of correlations between the items under investigation with external variables which are assumed to influence them (or are influenced by them)

**Less Elementary But Still Easy-to-Use Techniques**

- Traditional Item Analysis
- Exploratory Factor Analysis
- Correspondence Analysis
- Multidimensional Scaling
- Applying Statistical Controls

**Advanced Techniques Requiring Some Expertise and Effort**

- Multilevel (Hierarchical Linear) Modeling
- Multiple group confirmatory factor analysis
- Structural equation models
- Item-Response models
- Multi-Trait Multi-Method analyses

**Multiple Group Confirmatory Factor Analysis (CFA)**

- Can be used to compare factor structure of sets of survey questions across multiple population groups
- Several advantages over exploratory factor analysis:
  - CFA enables overall assessment of model fit, and assessment of the cross-group equivalence of individual items.

**Structural Equation Models**

- While confirmatory factor analysis focuses on the measurement model, structural equation modeling considers also the structural model
- Can evaluate similarities and differences in theoretical models across multiple cultural groups
**Multilevel (Hierarchical Linear) Modeling**

- Permits analyses of individuals nested within cultural groups
- Effects on dependent variables of measures assessed at multiple levels of analysis (i.e., respondent, culture, question) can be examined
- Recent book by van de Vijver et al.

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**Preliminary Conclusions**

1. Culture matters.
2. Should assume variability until proven otherwise.
3. Consider how measurement variability might influence results.
4. There are many tools now available to address this problem prospectively.
5. But, no magic solutions.

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**Thank You.**

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