

Developing a Model to Conceptualize the Results of Comparative Pretesting: 'A Presentation'

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Objective: Characterize the findings from pretesting of multicultural surveys

“Error Models” of the survey response process already exist:

(1) Tourangeau (1983): 4-Stage Cognitive Model

- **Comprehension**
- **Retrieval**
- **Decision/Judgment**
- **Response**



(2) Willis & Lessler: Question Appraisal System (QAS: 1999)

(3) Q-BANK (Miller, Maitland, et al.): Response Error Indicator Codes (similar to QAS)

Why do we need a new model for cross-cultural/multilingual surveys?

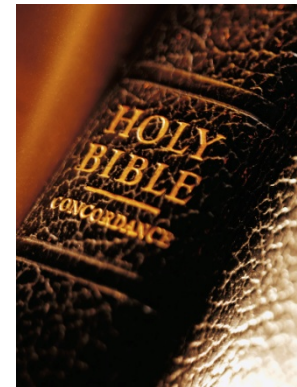
- Because cross-cultural investigations include new, or exacerbated, elements, *especially when translated*
 - Translation step adds complexity
 - Survey response is *NOT* just a cognitive enterprise, but a socio-cultural one
 - As such, there is non-ignorable variance in the ways that groups respond to survey questions
- Empirical cross-cultural investigations have led to a somewhat novel approach to conceptualizing error ->



TCG Model of Cross-Cultural Error

(Willis & Zahnd, 2007; Willis, Lawrence, Hartman, Kudela, Levin, & Forsyth, 2008)

- 1) Translation problems
- 2) Problems of Cultural Adaptation
- 3) Generic problems of question design



TCG Model of Cross-Cultural Error: Translation Problems

- 1) *T = Error or difficulty* in conversion of meaning of word, phrase, question (“Surface structure”)
 - *Error*: The term “excellent” is translated into “God-like” in Chinese
 - *Difficulty*: In general, vague quantifiers like “excellent” – “poor” present a challenge to mapping into other languages



TCG Model of Cross-Cultural Error: Problems of Cultural Adaptation

- 2) *C = Underlying conceptualization* (e.g., “Deep structure”) is not equivalent in different languages:
- Mexican (4-meal) pattern: 3-meal “Breakfast/lunch/dinner” pattern doesn’t apply
 - Questions about tar/nicotine level on cigarette brand smoked the most don’t account for the fact that Korean and Chinese brands don’t have these specified



TCG Model of Cross-Cultural Error: Generic Problems of Question Design

3) *G = Problems that affect everyone*

- These might map back to the Tourangeau, QAS, or Q-BANK models
- There are common features that influence all groups:



*“Vigorous” versus “Moderate” physical activity
-> vague terms*

*How long is it before you smoke the first
cigarette of the day -> responses in terms
other than minutes/hours*

Relative Frequencies of These Three Types May Vary

- A recent study (Berrigan et al., In prep) illustrates a common pattern: Generic problems are ubiquitous:

Physical Activity questions:

T: 2%

C: 8%

G: 52%

Acculturation questions:

T: 2%

C: 26%

G: 49%

- So, many problems appear to be grounded in a “failure to communicate,” generally

Alternative Model of Cross-Cultural Error: Fitzgerald, et al.

- (1) **Translation errors:** *Translated questions are not functionally equivalent to source questions*
- (2) **Cultural issues:** *When the concepts being measured do not exist in a similar form, across countries*
- (3) **Source question errors:** *All or part of the source question has been poorly designed leading to problems which are found across all countries*

So far, a 1:1 match with TCG system ->

Alternative Model of Cross-Cultural Error: Fitzgerald, et al.

- (4) Source question and its interaction with translation: *When the question works well in the source questionnaire, but has features in its design which make translation difficult, leading to measurement problems*

Example: Translating "all, almost, most, some, a few, no" from English produces non-equivalence

BUT: What is the difference between "Translation error" and "Source question and its interaction with translation"?

Alternative Model of Cross-Cultural Error: Fitzgerald, et al.

Translation error = Translation from Source to Target is possible, but was done erroneously:
Translator Error

Source question and its interaction with translation = Translation from Source to Target is very problematic in the first place:
Translation Difficulty / Problem

- This seems reasonable – There are lots of terms that don't translate easily

So, Fitzgerald et al. divide TGC "T" problems (Error *or* Difficulty) into two sub-components: (1) Error *and* (2) Difficulty

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Translation error = Translation from Source to Target
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Source question and its interaction with
translation = Translation from Source to Target
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Maybe these would
be better labels?

- This seems reasonable – There are lots of terms
that don't translate easily: (German "Volk")

So, Fitzgerald et al. divide TGC "T" problems (Error
or Difficulty) into two sub-components: (1) Error
and (2) Difficulty

Alternative View of Alternative Model of Cross-Cultural Error:

- 1) Translation error
 - 1a) *Translator Error*
 - 1b) *Translation Difficulty*
- 2) Cultural problems
- 3) Generic Problems

Overall: Good example of convergence of conceptualizations, with respect to a (presumably) non-trivial issue

Q: But, how are these models useful?

A: We take very different approaches to fixing problems, based on their source:

- If *Generic*: we fix up the source question
- If *Translator Error*, we have the translator fix this
- If *Translation Difficulty* OR a *Cultural* problem, we may have need to work harder, to obtain “input harmonization” such that everyone understands the concepts similarly