QUANTITATIVE EVALUATION OF QUESTIONNAIRE TRANSLATION WITH BILINGUAL SPEAKERS

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OVERVIEW

- Background
  - Translation
  - Translation equivalence
- Data and methods
  - National Latino and Asian American Study
- Results
- Implications
From source language to target language
Seek equivalence in measurement
  - More than semantic and lexical equivalence
  → Functional equivalence
Cross-Cultural Survey Guidelines ([http://ccsg.isr.umich.edu/translation.cfm](http://ccsg.isr.umich.edu/translation.cfm))

- Qualitative approaches
  - Experts’ review; translators feedback; cognitive interviews; behavioral coding
  - Dominant in the practice but limited

- Quantitative approaches
  - Experiments; statistical assessment models
  - Rare but reflect statistical considerations
National Latino and Asian American Study
Targeting Latinos and Asian Americans
Interviews in English, Spanish, Chinese, Vietnamese, and Tagalog by fully bilingual interviewers
2,554 Latino and 2,095 Asian Americans
Experiment with 332 bilingual English-Spanish speaking Latinos

- Random assignment of interview language
  - 182 in English
  - 150 in Spanish
- If functional equivalence, response distributions should not differ
DATA AND METHODS – 3

- Response scale
  - One-on-one translation
    - Excellent – poor (4 point and 5 point)
    - Strongly agree – strongly disagree (4 point)
  - One-on-two translation
    - Frequency: often – never
    - Quantity: a lot – not at all
- Standardization on demographics
- Consistency rather than significance of results
ONE-ON-ONE TRANSLATION RESULTS: EXCELLENT – POOR

- Excellent-good-fair-poor
- Excelente-bien-regular-pobre
- Language proficiency questions
ONE-ON-ONE TRANSLATION RESULTS: EXCELLENT – POOR

**Speaking**

A. How well speak Spanish?

- Interviewed in Spanish
- Interviewed in English

**Reading**

B. How well read Spanish?

**Writing**

C. How well write Spanish?

**Speaking**

D. How well speak English?

**Reading**

E. How well read English?

**Writing**

F. How well write English?
ONE-ON-ONE TRANSLATION RESULTS: STRONGLY AGREE – STRONGLY DISAGREE

- Strongly agree-somewhat agree-somewhat disagree-strongly disagree
- Mayormente de acuerdo-algo de acuerdo-algo en desacuerdo-mayormente en desacuerdo
- 10 Family cohesion questions (positively worded)
- Consistently higher % strongly agree in Spanish
ONE-ON-TWO TRANSLATION RESULTS: OFTEN – NEVER

<table>
<thead>
<tr>
<th>% Relative difference</th>
<th>Often</th>
<th>Sometime</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Muchas Veces</td>
<td>Alguna Eces</td>
<td>Casi Nunca</td>
<td>Nunca</td>
<td></td>
</tr>
<tr>
<td>Muchas Veces</td>
<td>Alguna Eces</td>
<td>Pocas Veces</td>
<td>Nunca</td>
<td></td>
</tr>
</tbody>
</table>

A. Frequency scale: Questions related to marriage

B. Frequency scale: Questions unrelated to marriage

"Casi nunca" for "rarely"  "Pocas veces" for "rarely"
ONE-ON-TWO TRANSLATION RESULTS: A LOT – NOT AT ALL

% Relative difference

<table>
<thead>
<tr>
<th></th>
<th>A lot</th>
<th>Some</th>
<th>A little</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mucho</td>
<td>A lot</td>
<td>Algo</td>
<td>Poco</td>
<td>Nada</td>
</tr>
<tr>
<td>Mucho</td>
<td></td>
<td>Regular</td>
<td>Poco</td>
<td>Nada</td>
</tr>
</tbody>
</table>

C. Quantity scale

"Algo" for "some"

"Regular" for "some"
Uncertain functional equivalence with translation

In Spanish,
- Lower tendency of positive rating of language proficiency
- Higher tendency of “strongly agree” for family cohesion questions
  - Extreme response style? Question topic?

Which translation is better?
- “Pocas veces” (rather than “casi nunca”) for “rarely”
- “Regular” (rather than “algo”) for “some”
THANK YOU!!

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