

Cognitive testing as a method of pre-testing questionnaires in high and low context cultures

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Introduction

- Increased need for quality translation
- Growing interest in pretesting translation with the intended audience
- More research needed on cognitive interviewing in non-English languages
- 2010 Census Language Program: Pretesting of Census 2010 Questionnaire in Five Languages
 - A total of 109 cognitive interviews
 - Speakers of Chinese, Korean, Russian, and Vietnamese who speak little or no English; and English speakers

High- and Low- Context Communication

(Hall 1959, 1976)

- High-context communication
 - Relies heavily on contextual elements (who, when, how it is expressed)
 - Background information
 - Interpersonal relationship
- Low-context communication
 - Relies more on factual informational aspect
 - Actual content of the message
 - Less on when, how and by whom it is expressed

Implication to cognitive interview

- A different degree of efforts to elicit enough details may be necessary when conducting cognitive interviews different cultures.
- For example, in Korean cognitive interviewing (HIGH context culture), interviewers may need to ask additional probes because demonstrative pronouns (e.g. this, that, or those) are often used in colloquial Korean conversations.

Research Question

- Can the survey problems detected through cognitive interviewing in the low context culture be found in the high context culture?
 - Compared the cognitive interview data collected in English (low-context culture) and Korean (high-context culture)
 - Selected the Korean language because of its difference from English in terms of its linguistic perspective and cultural context
- Hypothesis:

If these cognitive interviews identify similar survey question problems in Korean and English, it would suggest cognitive interviewing may be a valid method to pretest translated questionnaire in high contexts languages.

Methodology

- Cognitive interviews: 16 in English and 23 in Korean
- Sites: the Greater Washington D.C. area and Illinois
- Dates: February to April 2008
- Respondents: roughly similar breakdown in age, gender, and educational attainment
- Protocols
 - Developed a protocol guide in English and translated in Korean
 - Included Korean language specific issues in the probing questions
 - Gave respondents self-administered Census form and then administered cognitive interview and hypothetical vignettes
 - Conducted two rounds of cognitive interviews

Coding Scheme

- Adopted from Conrad and Blair, 1996
 1. Lexical problems
 2. Inclusion/exclusion problems
 3. Temporal problems
 4. Logical problems
 5. Computational problem
 6. Translation problems

Data Analysis

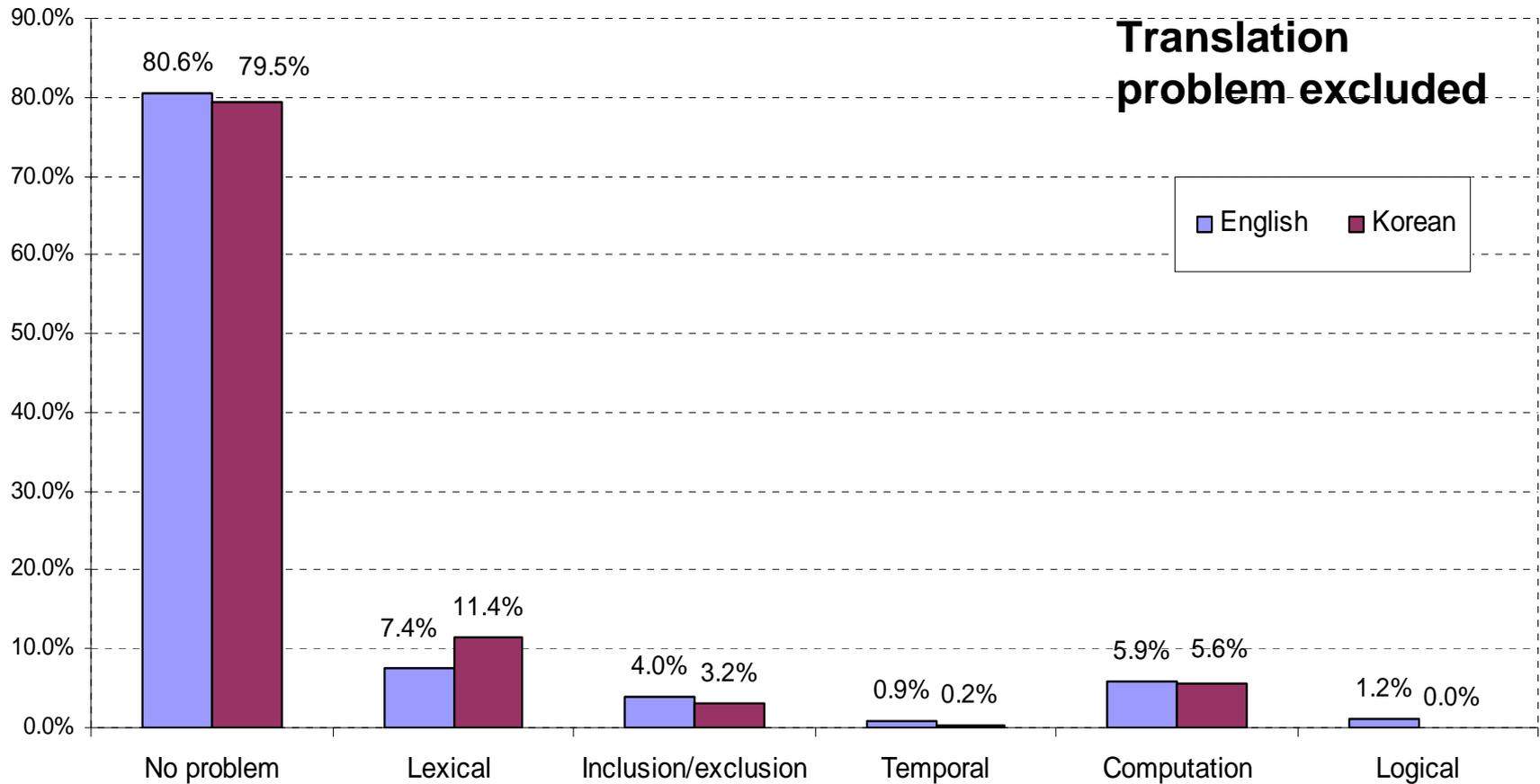
- Based on interview summary reports which detail the probing questions and the respondents' answers
- Compared the data collected from the interview probing questions that are asked in both English and Korean interviews
- 3 persons were involved in coding and they also conducted cognitive interviews.

Findings

- English and Korean data show a similar pattern in terms of their identified problems by category

Problem category	English interviews	Korean interviews
0. No Problem	261(80.6%)	396(75.9%)
1. Lexical	24(7.4%)	57(10.9%)
2. Inclusion/exclusion	13(4.0%)	16(3.1%)
3. Temporal	3(0.9%)	1(0.2%)
4. Computational	19(5.9%)	28(5.4%)
5. Logical	4(1.2%)	0(0.0%)
6. Translation	N/A	24(4.6%)
Total	324(100.0%)	522(100.0%)

Findings – Cont'd



Findings – Lexical Problems

2. How is this person related to Person1? *Mark x One box.*

- | | |
|---|--|
| <input type="checkbox"/> Husband or wife | <input type="checkbox"/> Parent-in-law |
| <input type="checkbox"/> Biological son or daughter | <input type="checkbox"/> Son-in-law or daughter-in-law |
| <input type="checkbox"/> Adopted son or daughter | <input type="checkbox"/> Other relative |
| <input type="checkbox"/> Stepson or stepdaughter | <input type="checkbox"/> Roomer or boarder |
| <input type="checkbox"/> Brother or sister | <input type="checkbox"/> Housemate or roommate |
| <input type="checkbox"/> Father or mother | <input type="checkbox"/> Unmarried partner |
| <input type="checkbox"/> Grandchild | <input type="checkbox"/> Other nonrelative |

Q: What do you think they mean by “housemate or roommate”?

A: “Housemate would be, they share the house and they probably share expenses. A roommate is just somebody that may have moved in temporarily, for 5-6 months, whatever.”

- Example 1: English interview

Findings – Inclusion/exclusion Problems

Related to Person 1?

Yes

No

Q: What do you think they mean by “related to person 1?”

A: It is not clear what “친척관계” (translation of “related to”) exactly means here. He would mark on “No”, if his youngest sister happened to be Person 7 (when he put himself as person 1), because he regarded her as his own family, not a relative.

- Example 2: Korean interview 12

Findings – Temporal Problems

1. How many people were living or staying in this house, apartment, or mobile home on February 1, 2008?

Number of people = □□

Q: How did you choose that answer? Who did you include?

A: The respondent wrote three, because this is the number of his family members, who are “living or staying at his house now”. The respondents included himself (as Person 1), his son (Person 2) and wife (Person 3). Later in the interview, it turned out that his mother-in-law was staying with his family on February 1, 2008.

- Example 3: Korean interview

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Findings – Logical Problems

7. What is Person 1's age and what is Person 1's date of birth?
Please report babies as age 0 when the child is less than 1 year old.

Print numbers in boxes.

Age on February 1, 2008

Month

Day

Year of birth

Q: If a person has a 4-month old baby girl, what age should you write here?

A: The respondent commented that this instruction was not necessary because Person 1 can't be a baby.

- Example 4: English interview

Findings – Computational Problems

3. Is this house, apartment, or mobile home –
Mark x ONE box.

- Owned by you or someone in this household with a mortgage or loan? Include home equity loans.
- Owned by you or someone in this household free and clear (without a mortgage or loan)?
- Rented?
- Occupied without payment of rent?

Q: What do you think they mean here?

A: The [respondent says that this] question asks what type of home that she currently lives (whether it is a house, or an apartment). The respondent said the question should have included “a condominium” along with house, apartment and mobile home.

- Example 5: Korean interview

Findings – Translation Problems

2. Were there any additional people staying here February 1, 2008 that you did not include in Question 1?

Mark x all that apply.

- Children, such as newborn babies or foster children
- Relatives, such as adult children, cousins, or in-laws
- Nonrelatives, such as roommates or live-in baby sitters
- People staying here temporarily
- No additional people

Q: What do you think they mean by “foster children”?

A: The respondent thought of cases that people asked their children to be taken care of during their vacation or absence.

- Example 6: Korean interview

Discussion

- Korean and English cognitive interview data showed a parallel pattern
 - Most frequently identified problems in English interviews: lexical, computational, and inclusion/exclusion.
 - Most frequently identified problems in Korean interviews: lexical, computational, and translation.
- Limitation
 - Comparisons are drawn based on the frequency of the problems by category
 - Census questions are relatively simple
 - Interview protocol geared toward translation issues
 - Analysis based on interview summary rather than transcripts

Future Research

- Use of cognitive interviewing to evaluate a translated survey instrument with more complex/difficult questions
- Research other Asian language cognitive interview data to verify these findings
- Data analysis based on transcript rather than interview summary report

For More Information

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