

**TRANSLATION AND
TRANSLATION
ASSESSMENT IN
COMPARATIVE
SURVEYS**

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Diana Zavala-Rojas
Core Scientific Team
ESS ERIC

Outline of the presentation

- Comparative survey research
- Survey translation: functional equivalence
- Statistics: functional equivalence
- Functional equivalence = measurement equivalence
- TRAPD (Harkness 2003)
- Translation as a methodological landmark
- Synergies between survey translation and language and translation sciences

Comparative survey research

- Distinction between cross-national comparative surveys by design and comparing national surveys
- Elements related to the measurement method are kept constant
- Assumption that measurement equivalence is maximized by standardization of procedures
- Deliberate design of each step in the survey process to achieve functional equivalence (Lynn, Japec, and Lyberg 2006)
- Ask-the-same-question and translate approach (vs. more adaptive approaches)

- The combination of characteristics that define the formulation and administration of the questionnaire, such as the response options, the introduction, the additional explanations to the question, the mode of data collection, use of showcards or visual aid, the translation procedure, the selection and assignment of languages, among others (Sarlis & Gallhofer, 2014).

Statistics: Functional equivalence

- Functionally equivalent indicators (Scheuch 1993 (1968), p. 113-114)
- “Social scientists should have become accustomed to looking at questions as indicators
- Indicators that have a probabilistic relationship to a property one intends to measure.
- The criterion for maintaining that questions are comparable is not whether they are identical or equivalent in their commonsense meaning
- But whether they are functionally equivalent for the purposes of analysis.”

Measurement in survey research

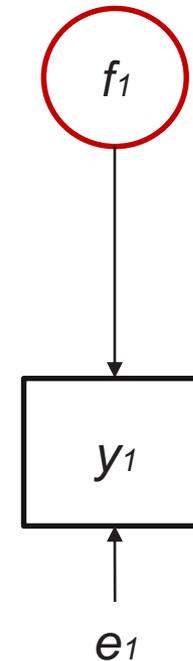
f_1 = Satisfaction with the state of the economy in Spain

y_1 = How satisfied are you with the present state of the economy in Spain?

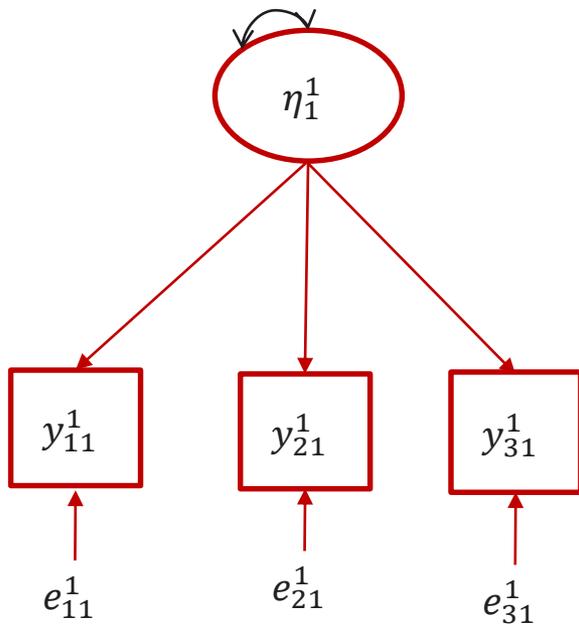
Completely
dissatisfied

Completely
satisfied

1 2 3 4 5 6 7



Measurement in survey research



η_1^1 = satisfaction with politics in Spain

y_{11}^1 = How satisfied are you with the way democracy works in the Spain?

Completely dissatisfied 1 2 3 4 5 6 7 Completely satisfied

y_{21}^1 = How satisfied are you with the present state of the economy in the Spain?

Completely dissatisfied 1 2 3 4 5 6 7 Completely satisfied

y_{31}^1 = Thinking about the Spanish government, how satisfied are you with the way it is doing its job?

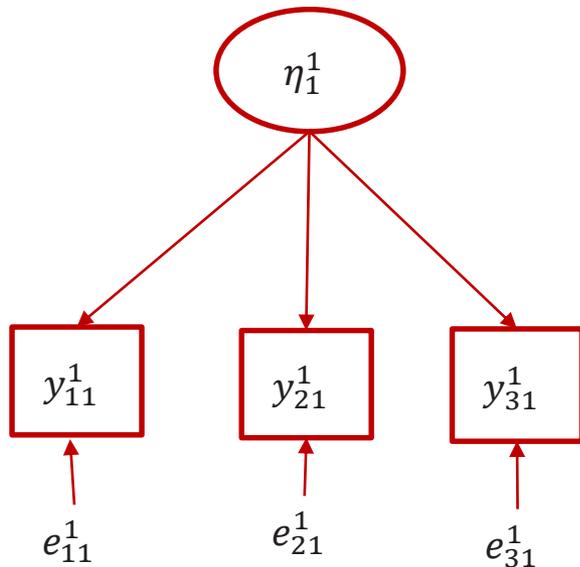
Completely dissatisfied 1 2 3 4 5 6 7 Completely satisfied

Measurement in *comparative* survey research

η_1^1 = satisfaction with politics in Spain

η_1^2 = satisfaction with politics in the United Kingdom

η_1^3 = satisfaction with politics in Belgium



y_{11}^1 = How satisfied are you with the present state of the economy in the Spain?

y_{21}^1 = How satisfied are you with the way democracy works in the Spain?

y_{31}^1 = Thinking about the Spanish government, how satisfied are you with the way it is doing its job?

Completely
dissatisfied

Completely
satisfied

1

2

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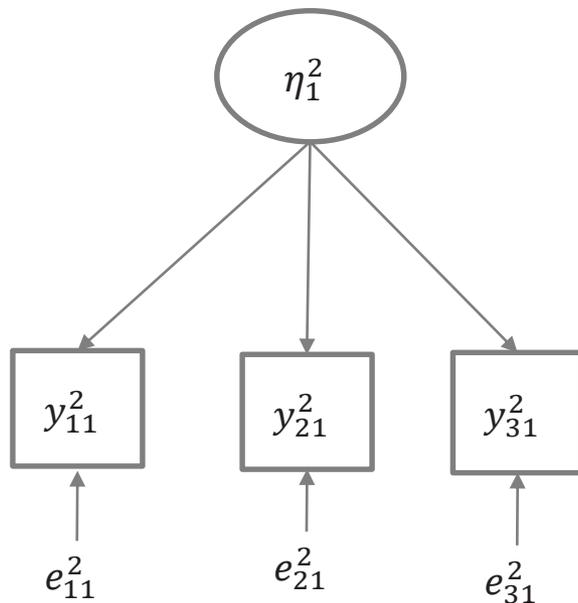
7

Measurement in *comparative* survey research

η_1^1 = satisfaction with politics in Spain

η_1^2 = **satisfaction with politics in the United Kingdom**

η_1^3 = satisfaction with politics in Belgium



y_{21}^2 = How satisfied are you with the way democracy works in the UK?

y_{11}^2 = How satisfied are you with the present state of the economy in the UK?

y_{31}^2 = Thinking about the British government, how satisfied are you with the way it is doing its job?

Completely
dissatisfied

1

2

3

4

5

Completely
satisfied

6

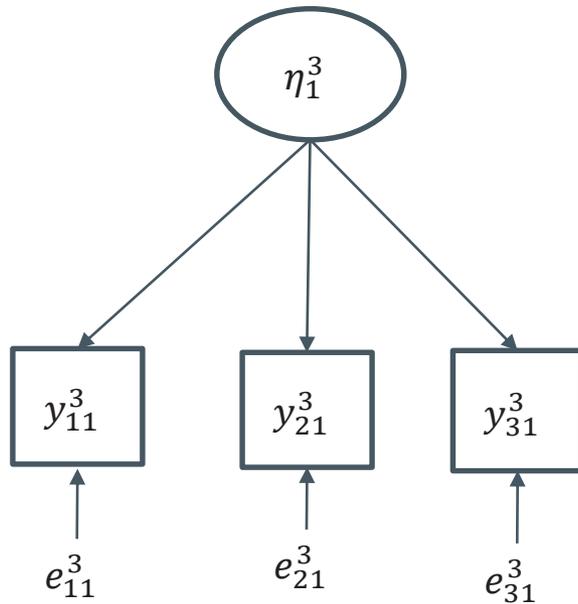
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Measurement in *comparative* survey research

η_1^1 = satisfaction with politics in Spain

η_1^2 = satisfaction with politics in the United Kingdom

η_1^3 = satisfaction with politics in Belgium



y_{11}^3 = How satisfied are you with the present state of the economy in Belgium?

y_{21}^3 = How satisfied are you with the way democracy works in Belgium?

y_{31}^3 = Thinking about the Belgian government, how satisfied are you with the way it is doing its job?

Completely dissatisfied

1

2

3

4

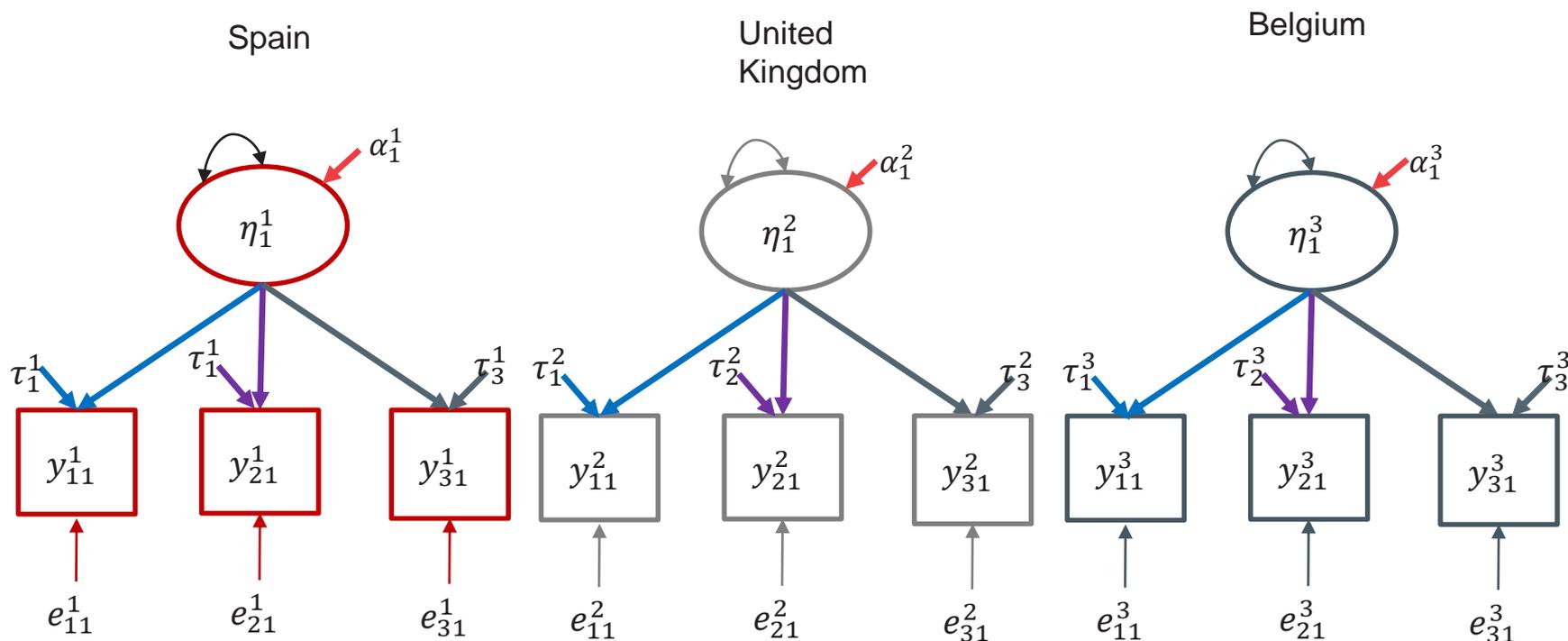
5

Completely satisfied

6

7

Measurement *equivalence* in comparative survey research



Translation studies: dynamic equivalence

- Message embedded in a text is received by the receptor in the same way as it would be received in the source language (Nida 1964)
- The message of a question in a *target* language e.g. Spanish, is received in the same way as it would be received in the question in the source language e.g. English. In survey data this is the case if indicators collected from survey data have measurement equivalence across languages.

Translation in survey research

- Academically driven social surveys
- Until recently:
- “no aspect of cross-national survey research has been less subjected to systematic, empirical investigation than translation” (Smith 2004 p. 446)
- Several studies have found out translation problems as the source for non-equivalence of measurement instruments (Davidov & De Beuckelaer, 2010, Mallinckrodt & Wang 2004, Oberski et al. 2007, Van de Vijver & Leung 1997, Villar 2009)

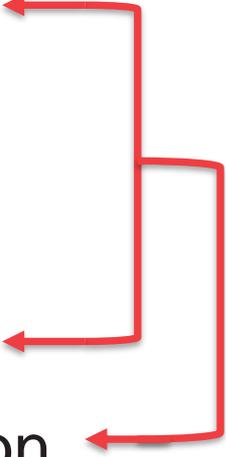
Survey translation: functional equivalence

- Functional equivalence in translation matches functional equivalence in statistics (Harkness et al. 1998, Harkness 2003, Harkness et al 2004, Harkness et al 2010)
- A “good” translation should:
- keep the content of the questions semantically similar;
- keep the question format similar;
- retain measurement properties;
- maintain the same stimulus;
- keep constant the cognitive burden;
- Within the bounds of the target language

Maximizing functional equivalence

- Academically driven social surveys
- Best practices: TRAPD method (Harkness 2003)
- Decentralised procedure (national teams)
- Ask the same question and translate approach

Maximizing functional equivalence

- Best practices: TRAPD method (Harkness 2003)
 - **T**ranslation
 - **R**eview
 - **A**djudication
 - **P**retesting
 - **D**ocumentation
- 
- Multistep
 - Multidisciplinary

Maximizing functional equivalence

- **T**ranslators: mix of trained translators, survey experts
- **R**evision session: questions are discussed and revised.
Reviewer: Survey expert with translation skills
- **A**djudicator: Survey expert with translation skills

- **P**retesting: In the target population

- **D**ocumentation: of all steps, versions

TRAPD approach in practice

- Each survey project adapts the TRAPD approach, among them:
- European Social Survey
- European Values Study
- The Survey of Health, Ageing and Retirement in Europe

TRAPD challenges

- Composition of the team
 - Balance between survey experts and professional translators
 - Analysis of the committee meetings (Behr 2009)
 - Quality assessment
- Documentation:
 - How to store it? How to analyse it?
- Pretesting:
 - A proof-read of questionnaires? Or translation validation?
Methods vary a lot among survey projects

TRAPD challenges

- CAT tools
 - Is TRAPD labor intensive?
 - Impact in the survey lifecycle of CAT tools
- Quality assessment
 - Assumed as part of the committee nature of the procedure i.e. quality is given by a team effort and a rich composition of the team
 - Can we assess quality by qualitative/quantitative means?

Maximizing functional equivalence?

- Best practices: TRAPD approach
- Practice:
- Lack of professionalization in the translation of survey questionnaires i.e. professional translators are not always part of the translation team
- Lack of resources (financial and time)
- Methods and tools common in other areas of translation are not fully investigated
- In psychological testing 'back translation' is still broadly used as a method for assessing translations

Survey translation a methodological landmark

- Survey translation as one of the 5 methodological landmarks for comparative surveys (Johnson 2010)
- Focus on assessment: semantic verification, questions' structure checking e.g. SQP coding (Zavala-Rojas et al., *in press*), pre-editing and post-editing verification, e.g. SHARE
- Emphasis on documentation
- Incorporation of computer-assisted translation tools e.g. Translation Management Tool (Martens 2017)

Survey translation a methodological landmark

- Focus on improving the translatability of the source questionnaire, e.g. advance translation (Dorer 2016)
- Experimental research e.g. adaptation vs. standardisation
- Synergies between survey translation, translation technologies and tools in computational linguistics (Zavala-Rojas 2017)

Roadmap for the synergies of language sciences and survey translation

- Studying how the utilization of CAT tools and CL methods affect the workflow
- Building parallel corpora with survey questions
- Investigating cross-lingual text retrieval e.g. translation memories
- Improving translation management software
- Investigating if machine translation (MT) can be used in translation production or in translation assessment procedures
- Creating good data for natural language processing analysis e.g. MT systems

Concluding remarks

- Survey translation has gained importance in comparative survey research
- Functional equivalence of questions as indicators hampered by translation decisions
- Methods and best practices are developed and implemented
- Work in progress...
- Important to create synergies with scientists in language and translation sciences (SERISS)
- Investigate methods, work to improve the TRAPD and its specific implementation

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diana.zavala@upf.edu

THANK YOU

Thank you
diana.zavala@upf.edu