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Cross-Cultural Web Probing and How it Can Enhance Equivalence in Cross-Cultural Studies

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Outline

- Origins of cross-cultural web probing
- Access to respondents
- Implementation of probes
- Nonresponse follow-up
- Substantive results
- Some particularities (translation, coding)
- Web probing in the toolbox of survey methodologists

**How satisfied are you with the way democracy works in [country]?
Probe: Please explain why you chose “[answer value]”.**

The leaders promise one thing
but don't always come close to
delivering the same [CA]

Democracy in the US allows the
rich to get richer and the
politicians to help only
themselves and their friends.
They do not care about the
general population [US]

Porque no existe democracia.
Los políticos hacen lo que
quieren sin contar con el
pueblo, que es donde reside el
poder en la democracia. [ES]

Origins of cross-cultural web probing

- Two research projects funded by German Research Foundation (DFG), 2010-2016
- **Overarching goal:** Supporting the assessment of equivalence in cross-cultural studies
 - ▶ Statistical methods do not provide reasons *why* items do (not) work as intended across countries
 - ▶ Cross-cultural cognitive interviewing (CCCI) provide these data
 - ▶ However, CCCI has its limitations: limited sample size, risks inherent in the flexible interviewing approach, lack of trained interviewers

Origins of cross-cultural web probing

- **Deduced goal:** Developing a method that counters some of the “limitations” of traditional cross-cultural cognitive interviewing: web probing
 - ▶ Larger sample size → Quantification of results, prevalence of patterns
 - ▶ Standardization → Comparability of results
 - ▶ No interviewers needed

How did we obtain large(r) samples?

Access to respondents: online access panels

- Non-probability recruitment (-)
- Illiterate population, people with different language spoken, etc. excluded (-)
- Respondent selection according to quota (age, sex, etc.) (+)
- Geographically and demographically diverse respondents (+)
- International panel collaboration often exists (+)
 - ▶ Our studies: CA, DE, DK, ES, GB, HU, MX, US
- Penetration rate not necessarily (equally) good in all countries (-)

Access to respondents: information

- *28 Questions to Help Buyers of Online Samples (ESOMAR)*
- *ISO 26362:2009: Access panels in market, opinion and social research*
- *Panel books (information on demographic set-up)*
- *Baker et al. (2010). AAPOR report on online panels.*

Access to respondents: others

- Mechanical Turk, TryMyUI, Facebook
(Murphy, Keating, Edgar, 2013) <-> “Crowdsourcing”,
E. Geisen presentation QDET2, 11/11/2016
- *Representative* online panels
 - ▶ DE, FR, NL, US, ... (research proposals)
 - ▶ <http://openpanelalliance.org/> (DE, NL, US)


How did we implement the probes?

Basis: Cognitive interviewing and research into open-ended questions in web surveys

Implementation of probes: types

- **Category-selection probe:**
 - Please explain why you selected “strongly agree”/“5”.
 - (Kind of “How did you arrive at that answer” probe)
- **Comprehension probe:**
 - What ideas do you associate with the phrase “civil disobedience”? Please give examples.
- **Specific probe:**
 - Which type of immigrants were you thinking of when you answered the question?
 - When you answered the last question, what type of adaptation did you have in mind?

Implementation of probes: presentation



And how important is it that people convicted of serious crimes lose their citizen rights?

not at all important								very important
1	2	3	4	5	6	7		
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>		

Please explain why you selected "3".

The question was: "And how important is it that people convicted of serious crimes lose their citizen rights?"
Your answer was "3" on a scale from 1 (not at all important) to 7 (very important).

Implementation of probes: text box size

- **Text box** is an indicator for desired answer (depth)

What particular citizen rights did you have in mind when you were answering the question?

The question was: "And how important is it that people convicted of serious crimes lose their citizen rights?"

Please explain why you selected "can't choose".

The question was: How important is it that citizens may engage in acts of civil disobedience when they oppose government actions?

Implementation of probes: sequence of probes

For entire survey:



- Respondents habituate to probe type, layout and text box design after a certain number of identical probes
- After habituation has occurred, if identical layout and design is employed for *another* probe type, this may lead to *mismatching probe answers* for the new probe type
- Thus, be careful with probe types, sequence, text box size, layout

Implementation of probes: sequence of probes

For one item:

(1) Category-selection – specific – comprehension

(2) Comprehension – specific – category-selection

- Version (1)  response rate and motivation, decreases  *mismatching probe answers*
- But: Cross-country differences

Nonresponse follow-up

Nonresponse

- Complete nonresponse: *box left blank*
- No useful answers: *'dfghb'*
- Don't knows: *'don't know', 'DK'*
- Refusals: *'no comment'*
- Other types of nonresponse: *'just what it is'*
- One word only: *'economy'*
- Too fast response: less than two seconds



insufficient

Nonresponse follow-up

- Based on real corpora (German, English, Spanish) development and validation of regular expressions:
 - ▶ `^((be)?cause)? *i? *[a-z]* *do *n.?t *[a-z]* *k* *now*`
 - ▶ for variants of **'don't know'** answers.
- Allows triggering of (tailored) nonresponse follow-ups during the survey or automatic nonresponse coding (data cleaning) after the fact
- Tool (code, regular expressions) soon available in GESIS technical report



Kaczmirek, Meitinger, & Behr (2016-forthcoming)

What are the questions that can be answered by
cross-cultural web probing?

Substantive results: inconsistencies in data

- Web probing to shed light on inconsistencies in the data (after-the-fact survey)
- **“How important is it that citizens may engage in acts of civil disobedience when they oppose government action?”** (Behr, Braun, Kaczmirek, & Bandilla, 2014)
- **“How proud are you of [country] with regard to its social security system?”** [MX, “sistema de seguridad social”] (Meitinger, forthcoming)

Substantive results: questionable items

- Web probing to shed light on items that have been questioned in general as to their equivalence
- **“How satisfied are you with the way democracy works in your [country]?”** (Behr & Braun, 2015)
- **“Immigrants increase crime rates, ... are generally good for country’s economy, ... take jobs away from people who were born in [country], ... improve society by bringing in new ideas and cultures.”**
(Braun, Behr, & Kaczmirek, 2013)

Particularities

- Cross-cultural research teams OR research teams needing to rely on **translation** of (some) answers?
 - ▶ Translation of probe answers requires special care : commenting, no improvement (Behr, 2014)
- Coding according to error classification or new-to-develop **coding scheme** (inductive development)?
 - ▶ Development of inductive question-specific coding schemes requires knowledge of (sample) answers from all countries to counter country bias

Web probing in the toolbox of survey methodologists

- So far, common baseline among those experimenting with web probing:
 - ▶ Cognitive interviewing – allowing *spontaneous* probing – to be used for in-depth exploration of (new) items
 - ▶ Web probing to assess prevalence of errors or themes (content), to prevent local bias
- Web probing at different stages:
 - ▶ pretesting
 - ▶ main – web – survey (random probes à la Schuman, 1966)
 - ▶ follow-up study (used so far in our project)

Outlook

- Research has only started
- Web probing to be extended to other countries, particularly non-Western countries, cultures, languages (our research: CA, DE, DK, ES, GB, HU, MX, US)
 - ▶ Cross-cultural differences in answering behavior/probe applicability to be further investigated
- Characteristics of respondents vs. non-respondents to be further investigated (bias)
- Hopefully: Exciting research from you!

Thank you!

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See you at ESRA 2017?

- *Submit your paper to the ESRA session on web probing*



Online probing: Cognitive interviewing techniques in online surveys and online pretesting

Convenors

Katharina Meitinger, Dorothee Behr, & Lars Kaczmirek (GESIS Leibniz Institute for the Social Sciences)

Online probing is a cognitive interviewing technique which can be used in online surveys and is especially useful in cross-cultural research (see Willis 2015 for a research synthesis on cross-cultural cognitive interviewing). The main advantages are: large sample sizes, explanation of response patterns in subpopulations, possible evaluation of prevalence of question problems and themes, higher likelihood of identifying problems during pretesting, and higher anonymity. Online probing is a fully scripted approach and the procedure is highly standardized (Braun et al. 2015; Meitinger & Behr 2016). Automatic on-the-fly analysis and coding of answers during the interview is also possible which can be used to ask automatically issued follow-up questions (for example to detect and reduce item nonresponse, Kaczmirek, Meitinger, Behr, forthcoming).

“Through qualitative and quantitative review of random probe responses the survey researcher has an opportunity to increase his own sensitivity to what his questions mean to actual respondents [...] In research in other cultures-and under some conditions in one's own culture-it forms a useful supplement to standard attitude survey methods.” (Schuman, *ASR*, 1966)

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