

Assessing the impact of different German-language translations of ESS Round 3 items on the resulting data (work in progress)

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## **Outline**

- Some remarks on equivalence
- Split-ballot experiment on translation versions
- Web probing
- Outlook



# **Equivalence**

- Equivalence between source (master) instrument and translation needed
- Equivalence between all instruments in a cross-national study needed
  - Most visible in efforts to shared-languages collaboration, e.g. French in BE & FR
  - ▶ Visible also in efforts to harmonize across different language versions in a country, e.g. 3 languages in CH
  - Visible also in efforts to harmonize across all different language versions in a study, e.g. through FAQ lists or joint workshops.



# **Equivalence across translated versions**

- Issue becoming most obvious when comparing sharedlanguage versions produced without cooperation
- E.g., earlier Rounds of the European Social Survey (ESS) show many shared-language differences, but reality in many other surveys, too:
  - central cooperation requirement?
  - political considerations ('decision-power')?
  - management considerations (same schedules)?
  - personal considerations ('getting along' with colleagues)?
  - different notions of comparability in a translation?



# Research question

- How comparable are different versions in the same language?
- Different wording different results?
- Different wording and nevertheless the same results?
- Can results be linked to translation approach or source text, respectively?



## Methods and data I

- ESS Round 3: translated items into German (AT, DE, CH) from the module on personal and social wellbeing
- Requirement: different translations at face value
- Focus here:
  - ESS depression scale
  - Additional attitude items



## Methods and data II

- Implementation in web survey, incl. randomized splits and open-ended probes (web probing), in the GESIS Online Panel Pilot
- German-speaking population in Germany, 18 years and older; telephone sampling (provision of email address) followed by online surveys
- Data collection 2013, n=466 for this study

CARD 34 I will now read out a list of the ways you might have felt or behaved during the past week. Using this card, please tell me how much of the time during the past week...READ OUT...

|     |  | None or<br>almost none<br>of the time | Some of the time | Most of the time | All or almost<br>all of the<br>time | (Don't<br>know) |
|-----|--|---------------------------------------|------------------|------------------|-------------------------------------|-----------------|
| E8  | you felt depressed?  | 1                                     | 2                | 3                | 4                                   | 8               |
| E9  | you felt that everything you did was an effort?              | 1                                     | 2                | 3                | 4                                   | 8               |
| E10 | your sleep was restless?                                     | 1                                     | 2                | 3                | 4                                   | 8               |
| E11 | you were happy?  | 1                                     | 2                | 3                | 4                                   | 8               |
| E12 | you felt lonely?   | 1                                     | 2                | 3                | 4                                   | 8               |
| E13 | you enjoyed life?  | 1                                     | 2                | 3                | 4                                   | 8               |
| E14 | you felt sad?  | 1                                     | 2                | 3                | 4                                   | 8               |
| E15 | you could not get going <sup>48</sup> ?                      | 1                                     | 2                | 3                | 4                                   | 8               |
|     | And please tell me how much of the time during the past week |                                       |                  |                  |                                     |                 |
| E16 | you had a lot of energy?                                     | 1                                     | 2                | 3                | 4                                   | 8               |
| E17 | you felt anxious?  | 1                                     | 2                | 3                | 4                                   | 8               |
| E18 | you felt tired <sup>49</sup> ?                               | 1                                     | 2                | 3                | 4                                   | 8               |
| E19 | you were absorbed⁵⁰ in what you were doing?                  | 1                                     | 2                | 3                | 4                                   | 8               |
| E20 | you felt calm and peaceful?                                  | 1                                     | 2                | 3                | 4                                   | 8               |
| E21 | you felt bored?  | 1                                     | 2                | 3                | 4                                   | 8               |
| E22 | you felt really rested when you woke up in the morning?      | 1                                     | 2                | 3                | 4                                   | 8               |



| Source   | 1                        | 2  | 3         | Issue  |
|--|--------------------------|--|-----------|--|
| felt<br>depressed  | deprimiert<br>gefühlt    | deprimiert<br>oder<br>niedergeschlag<br>en gefühlt | -         | #2: two terms, thus broader coverage   |
| enjoyed life   | das Leben<br>genossen    | -  | -         | [positive 'buffer' item]   |
| felt sad   | waren Sie<br>traurig     | haben sich<br>traurig gefühlt                      | -         | #1 'were you sad' vs. #2 literal translation 'have felt'   |
| could not<br>get going [felt<br>lethargic and<br>lacked<br>motivation] | völlig lustlos           | zu nichts<br>aufraffen                             | -         | Completely different perspectives, main message seems the same though (#1 'without any drive' vs. #2 'could not get going) |
| had a lot of energy  | hatten Sie viel Energie? | waren Sie voll Energie?                            | -         | #1 'had a lot of energy' vs. 'were full of energy'   |
| felt anxious   | große Sorgen             | Sorgen   | ängstlich | #1 'major worries', vs. 'worries' vs. #3 'anxious in the sense of timid, nervous'  |



| Source   | 1   | 2                                     | 3                                   | Issue  |
|--|---|---------------------------------------|-------------------------------------|--|
| felt tired<br>[fatigued]   | sehr<br>erschöpft und<br>ausgelaugt         | müde<br>gefühlt                       | -                                   | #1 'quite exhausted and without any power' vs. #2 literal translation 'felt tired'   |
| were<br>absorbed in<br>what you were<br>doing [deeply<br>involved] | völlig in<br>Ihrer Tätigkeit<br>aufgegangen | vertieft in das, was Sie taten?       | -                                   | #1 'fully dedicate to, identify with and enjoy (professional) activity' vs. #2 'immersed in what you were doing'                                   |
| felt calm and peaceful   | sich ruhig<br>und entspannt<br>gefühlt      | sich ruhig<br>und gelassen<br>gefühlt | waren Sie<br>ruhig und<br>gelassen? | #1 literal translation incl. word for "relaxed" vs. #2 literal translation, incl. word for calm/cool vs. #3 'were you', incl. word for "calm/cool' |



# Results





| Source            | 1                     | 2  | 3 | Issue                                |
|-------------------|-----------------------|--|---|--------------------------------------|
| felt<br>depressed | deprimiert<br>gefühlt | deprimiert<br>oder<br>niedergeschlag<br>en gefühlt | - | #2: two terms, thus broader coverage |
|                   | n=214<br>1.5          | n=246<br>1.7                                       |   | **                                   |

| None or<br>almost none<br>of the time | Some of the time | Most of<br>the time | All or almost<br>all of the<br>time |
|---------------------------------------|------------------|---------------------|-------------------------------------|
| 1                                     | 2                | 3                   | 4                                   |

"niedergeschlagen" potentially better understandable and/or broadens the concept? Measurement in the right direction in both cases though.

Note: Duden.de: both terms not among 10,000 most frequent words in Duden corpus, but among 100,000 words.



| Source   | 1                    | 2                             | 3 | Issue  |
|----------|----------------------|-------------------------------|---|--|
| felt sad | waren Sie<br>traurig | haben sich<br>traurig gefühlt | - | #1 'were you sad' vs. #2 literal translation 'have felt' |
|          | n=230<br>1.6         | n=230<br>1.6                  |   | n.s.   |
|          |                      |                               |   |  |

| None or<br>almost none<br>of the time | Some of the time | Most of<br>the time | All or almost<br>all of the<br>time |
|---------------------------------------|------------------|---------------------|-------------------------------------|
| 1                                     | 2                | 3                   | 4                                   |

"feel" translation not trivial though, s. Perneger, Leplège, & Etter (1999): statistically significant differences for English/French versions (sentir heureux vs. être heureux).

Note: Translation is about disentangling meaning and idiomatic/collocational components, use of corpora may help in decision-taking.



| Source   | 1              | 2                      | 3 | Issue  |
|--|----------------|------------------------|---|--|
| could not<br>get going [felt<br>lethargic and<br>lacked<br>motivation] | völlig lustlos | zu nichts<br>aufraffen | - | Completely different perspectives, main message seems the same though (#1 'without any drive' vs. #2 'could not get going) |
|  | n=240<br>1.6   | n=223<br>1.6           |   | n.s.   |
|  |                |                        |   |  |

| None or<br>almost none<br>of the time | Some of the time | Most of<br>the time | All or almost<br>all of the<br>time |
|---------------------------------------|------------------|---------------------|-------------------------------------|
| 1                                     | 2                | 3                   | 4                                   |

Quite different versions (even perspectives) seem to measure the same concept.



| Source              | 1                        | 2                       | 3 | Issue  |
|---------------------|--------------------------|-------------------------|---|--|
| had a lot of energy | hatten Sie viel Energie? | waren Sie voll Energie? | - | #1 'had a lot of energy' vs. 'were full of energy' |
|                     | n=229<br>2.6             | n=234<br>2.5            |   | n.s.   |
|                     |                          |                         |   |  |

| None or<br>almost none<br>of the time | Some of the time | Most of<br>the time | All or almost<br>all of the<br>time |
|---------------------------------------|------------------|---------------------|-------------------------------------|
| 1                                     | 2                | 3                   | 4                                   |

(Slightly) different versions intensities seem to measure the same concept.

Both wordings (verb + addition) are idiomatic in themselves, and cannot be combined one with the other.



| Source       | 1            | 2            | 3            | Issue   |
|--------------|--------------|--------------|--------------|---|
| felt anxious | große Sorgen | Sorgen       | ängstlich    | #1 'major worries', vs. 'worries' vs. #3 'anxious in the sense of timid, nervous' |
|              | n=162<br>1.7 | n=137<br>2.0 | n=164<br>1.3 | ** (1,2)/*** (1,3; 2,3)   |
|              |              |              |              |   |

| None or<br>almost none<br>of the time | Some of the time | Most of<br>the time | All or almost<br>all of the<br>time |  |
|---------------------------------------|------------------|---------------------|-------------------------------------|--|
| 1                                     | 2                | 3                   | 4                                   |  |

https://www.psychologytoday.com/blog/the-squeaky-wheel/201603/10-crucial-differences-between-worry-and-anxiety: Nice article about (theoretical) differences. *Note:* If problems such as this crop up in parallel translation, ask! However, languages may cut up reality differently.



| Source                   | 1                                   | 2               | 3 | Issue   |
|--------------------------|-------------------------------------|-----------------|---|---|
| felt tired<br>[fatigued] | sehr<br>erschöpft und<br>ausgelaugt | müde<br>gefühlt | - | #1 'rather exhausted and without any power' vs. #2 literal translation 'felt tired' |
|                          | n=220<br>1.8                        | n=245<br>2.2    |   | ***   |
|                          |                                     |                 |   |   |

| None or<br>almost none<br>of the time | Some of the time | Most of<br>the time | All or almost<br>all of the<br>time |  |
|---------------------------------------|------------------|---------------------|-------------------------------------|--|
| 1                                     | 2                | 3                   | 4                                   |  |

Is the annotation potentially misleading?



| Source   | 1   | 2                                    | 3 | Issue  |
|--|---|--------------------------------------|---|--|
| were absorbed in what you were doing [deeply involved] | völlig in<br>Ihrer Tätigkeit<br>aufgegangen | vertieft in<br>das, was Sie<br>taten | - | #1 'fully identified with and found fulfillment and joy in (professional) activity' vs. #2 'immersed in what you were doing' |
|  | n=235<br>2.6                                | n=213<br>2.7                         |   | n.s.   |

| None or<br>almost none<br>of the time | Some of the time | Most of<br>the time | All or almost<br>all of the<br>time |  |
|---------------------------------------|------------------|---------------------|-------------------------------------|--|
| 1                                     | 2                | 3                   | 4                                   |  |

Quite different versions (even perspectives) seem to measure the same concept. Semantically, I would still say that there *is* a difference: fulfillment/joy vs. focus of attention.



| Source                    | 1                                      | 2                                     | 3                                   | Issue  |
|---------------------------|--|---------------------------------------|-------------------------------------|--|
| felt calm and<br>peaceful | sich ruhig<br>und entspannt<br>gefühlt | sich ruhig<br>und gelassen<br>gefühlt | waren Sie<br>ruhig und<br>gelassen? | #1 literal translation incl. word for "relaxed" vs. #2 literal translation, incl. word for calm/cool vs. #3 'were you', incl. word for "calm/cool' |
|                           | n=160<br>2.3                           | n=147<br>2.6                          | n=152<br>2.8                        | * (2,3), **(1,2), ***(1,3)   |

| None or<br>almost none<br>of the time | Some of the time | Most of<br>the time | All or almost<br>all of the<br>time |  |
|---------------------------------------|------------------|---------------------|-------------------------------------|--|
| 1                                     | 2                | 3                   | 4                                   |  |

<sup>&</sup>quot;feel" translation together with emotional adjective do seem to have effects here.



## **Conclusions**

- Not every face-value-difference is critical in terms of measurement.
- There are challenges with emotional or affective words and a clear-cut delineation.
- Information on concept (indicators) should to be provided to country teams.



#### Limitations

- Preliminary analysis, more to come.
- Different wording & same statistical results, assumption that the same is indeed measured. May not be true.
- Are "purely neutral" linguistic differences transferable from one country to another, or are they likely to be understood differently across countries? (AT, DE, CH → implementation in DE)
- Split ballots in the translation do not necessarily solve comparability to source text.
- Web probing in source and target versions would help to provide further insights.



CARD 35 Using this card, please tell me to what extent you agree or disagree with each of the following statements. READ OUT EACH STATEMENT AND CODE IN GRID

|             |   | Agree<br>strongly | Agree | Neither<br>agree nor<br>disagree | Disagree | Disagree<br>strongly | (Don't<br>know) |
|-------------|---|-------------------|-------|----------------------------------|----------|----------------------|-----------------|
| E23         | I feel I am free to decide for myself how to live my life.                                | 1                 | 2     | 3                                | 4        | 5                    | 8               |
| E24         | In my daily life, I seldom have time to do the things I really enjoy.                     | 1                 | 2     | 3                                | 4        | 5                    | 8               |
| <b>E2</b> 5 | In my daily life I get very little chance to show how capable I am.                       | 1                 | 2     | 3                                | 4        | 5                    | 8               |
| E26         | I love learning new things.   | 1                 | 2     | 3                                | 4        | 5                    | 8               |
| E27         | Most days I feel a sense of accomplishment from what I do.                                | 1                 | 2     | 3                                | 4        | 5                    | 8               |
| E28         | I like planning and preparing for the future.   | 1                 | 2     | 3                                | 4        | 5                    | 8               |
| <b>E</b> 29 | When things go wrong in my life, it generally takes me a long time to get back to normal. | 1                 | 2     | 3                                | 4        | 5                    | 8               |
| E30         | My life involves a lot of physical activity.  | 1                 | 2     | 3                                | 4        | 5                    | 8               |



# **Example web probing**

- Most days I feel a sense of accomplishment from what I do. Agree strongly (1) – Disagree strongly (5).
- T1: Meistens habe ich das Gefühl, etwas geleistet zu haben. n=54 (achievement)
- T2: Meistens finde ich Erfüllung in dem, was ich tue.
   n=61 (fulfillment)
- Please explain why you have chosen [answer value].
- 2.3 vs. 2.1\*



# Example web probing - cont'd

- Most days I feel a sense of accomplishment from what I do.
- Achievement n=54 vs. Fulfillment n=61
- Code Job positive: Completing tasks, overcoming difficulties, (contributing to) success, being good in my job, all is running smoothly, influence in job. 26% vs. 13%
- Code Job negative: No feedback never ending tasks, problems in job (e.g., difficult work structures), dull job, dislike job, no challenges. 4% vs. 25%
- Job other: There is no measure in my job for achievement, am retired, unemployed. 13% vs. 2%



# Example web probing - cont'd

- Most days I feel a sense of accomplishment from what I do.
- Achievement n=54 vs. Fulfillment n=61
- Reaching one's goal only if there is no explicit work context.
  - Succeed in doing what I want to do, give my best; it's moving, a lot of things need to be done, own decision what to do. 19% vs. 10%
  - ▶ Enjoyment, fun, satisfaction (with the achievements), sense on what I do, interest, feel good with what I do. 2% vs. 25%
- Nonresponse. 6% vs. 8%.



## Outlook

- Further analyses with depression scale in line with Perneger, Leplège & Etter (1999) & comparison of results, plus: taking into account background variables; plus: effect sizes.
- Additional literature research on scale in comparative perspective – scale does seem to work in a comparative context
- Question: What are the best (design, quantitative, & qualitative) procedures for comparing different translation versions, either for individual items or for entire instruments?





## References

Perneger, T. V., Leplège, A. & Etter, J.-F. (1999). Cross-Cultural Adaptation of a Psychometric Instrument: Two Methods Compared. *Journal of Clinical Epidemiology*, 52(11), 1037-1046.



## GESIS Leibniz Institute for the Social Sciences

We tend to experience worry in our heads and anxiety in our bodies.

Worry tends to be specific while anxiety is more diffuse.

Worry is verbally focused while anxiety includes verbal thoughts and mental imagery.

Worry often triggers problem solving but anxiety does not.

Worry creates mild emotional distress, anxiety can create severe emotional distress.

Worry is caused by more realistic concerns than anxiety.

Worry tends to be controllable, anxiety much less so.

Worry tends to be a temporary state but anxiety can linger.

Worry doesn't impact our professional and personal functioning; anxiety does.

Worry is considered a normative psychological state while anxiety is not.

