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# Examining Translation and Respondents' Use of Response Scales in 3MC Surveys



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Westat

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# Acknowledgment

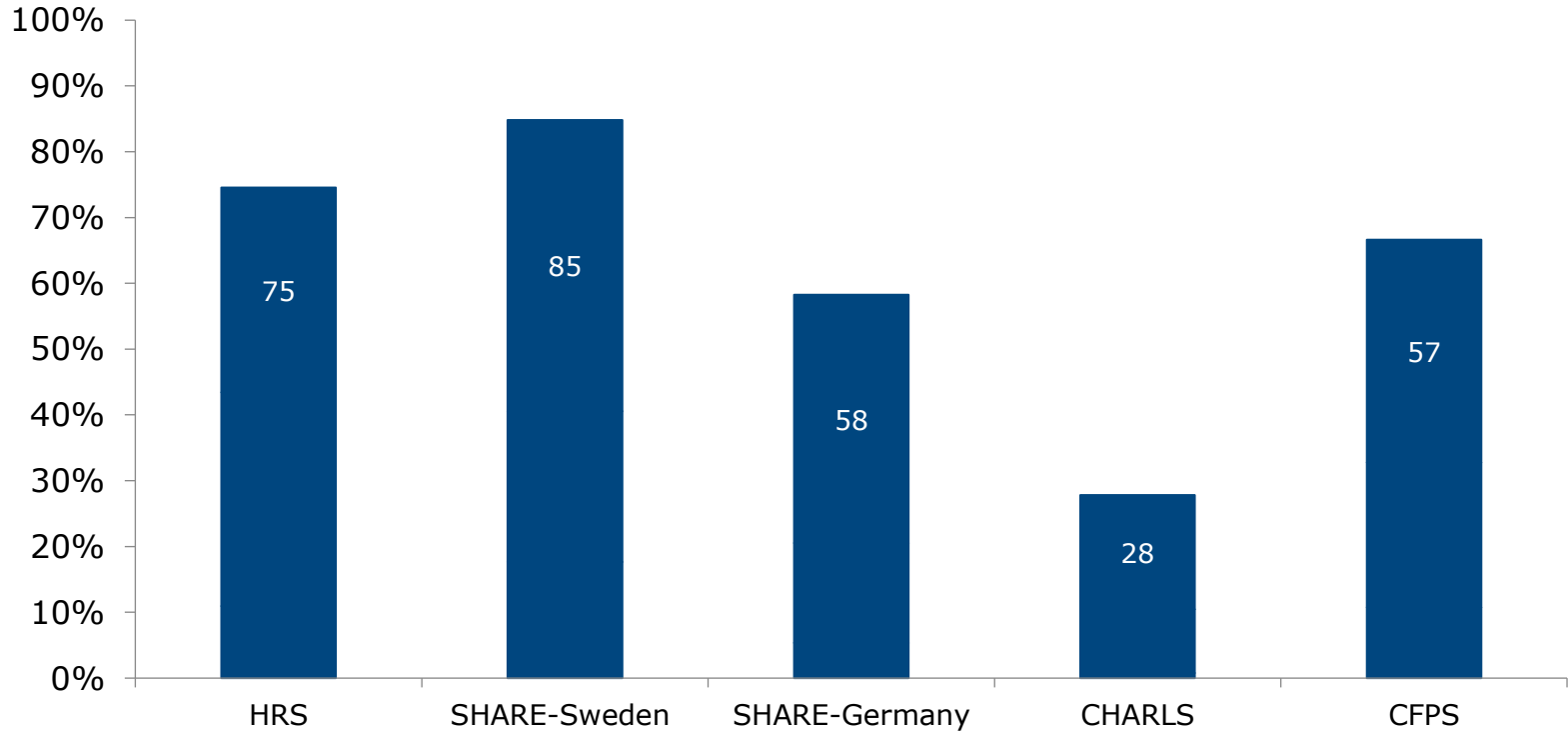
- › Yan, T and Hu, M. (2019). "Examining Translation and Respondents' Use of Response Scales in 3MC Surveys." In *Advances in Comparative Survey Methods: Multinational, Multiregional, and Multicultural Contexts (3MC)*, edited by T.P. Johnson, B. Pennell, I. Stoop and B. Dorer, Chapter 23. Wiley and Sons, pp. 501-518.
- › Mengyao Hu, University of Michigan

# Positive Health by Countries

Country	Survey	Language of Survey
USA	Health and Retirement Study (HRS, 2012)	English
Sweden	Survey of Health, Ageing, and Retirement in Europe (SHARE, 2004)	Swedish
Germany	SHARE (2004)	German
China	China Health and Retirement Longitudinal Study (CHARLS, 2011)	Chinese
China	China Family Panel Study (CFPS, 2012)	Chinese

- › In general, how would you rate your health?
  - excellent, very good, good, fair, poor
- › Positive health=excellent, very good, good

# (Weighted) Percent Reporting Positive Health by Countries



# Positive Health By Countries

- › Sweden: 85% vs. China: 28%
- › Difference of 57%
  - True difference in health
  - Difference induced by measurement
    - Difference in survey response process due to culture/language
      - Comprehension
      - Retrieval
      - Judgment
      - Mapping
        - Use of response scales
    - Translation

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# Translation of the 5-point Response Scale of SRH

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HRS	SHARE-Sweden	SHARE-Germany	CHARLS	CFPS
Excellent				
Very good				
Good				
Fair				
Poor				

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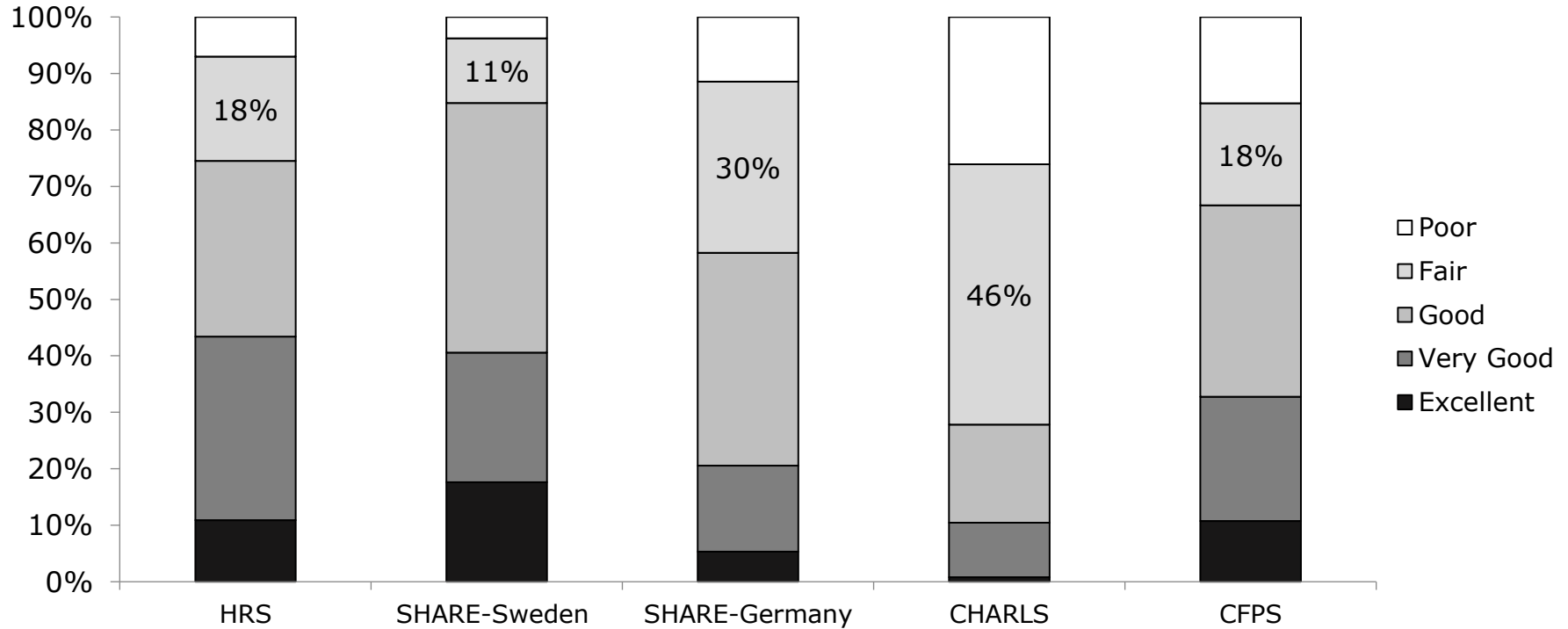
## Translation of the 5-point Response Scale of SRH

HRS	SHARE-Sweden	SHARE-Germany	CHARLS	CFPS
Excellent	Utmärkt	Ausgezeichnet	极好	非常健康
Very good	Mycket god	Sehr gut	很好	很健康
Good	God	Gut	好	比较健康
Fair	Ganska dålig	Mittelmäßig	一般	一般*
Poor	Dålig	Schlecht	不好	不健康

# Translation of the 5-point Response Scale of SRH

HRS	SHARE-Sweden	SHARE-Germany	CHARLS	CFPS
Excellent	Excellent	Excellent	Extremely Good	Extremely healthy
Very good	Very good	Very good	Very Good	Very healthy
Good	Good	Good	Good	Somewhat healthy
Fair	Somewhat poor	Middle/Average/Mediocre	Average	Average*
Poor	Poor	Bad	Bad	Not Healthy

# (Weighted) Distributions of SRH Responses



# Weighted Mean Health Scores by SRH Responses

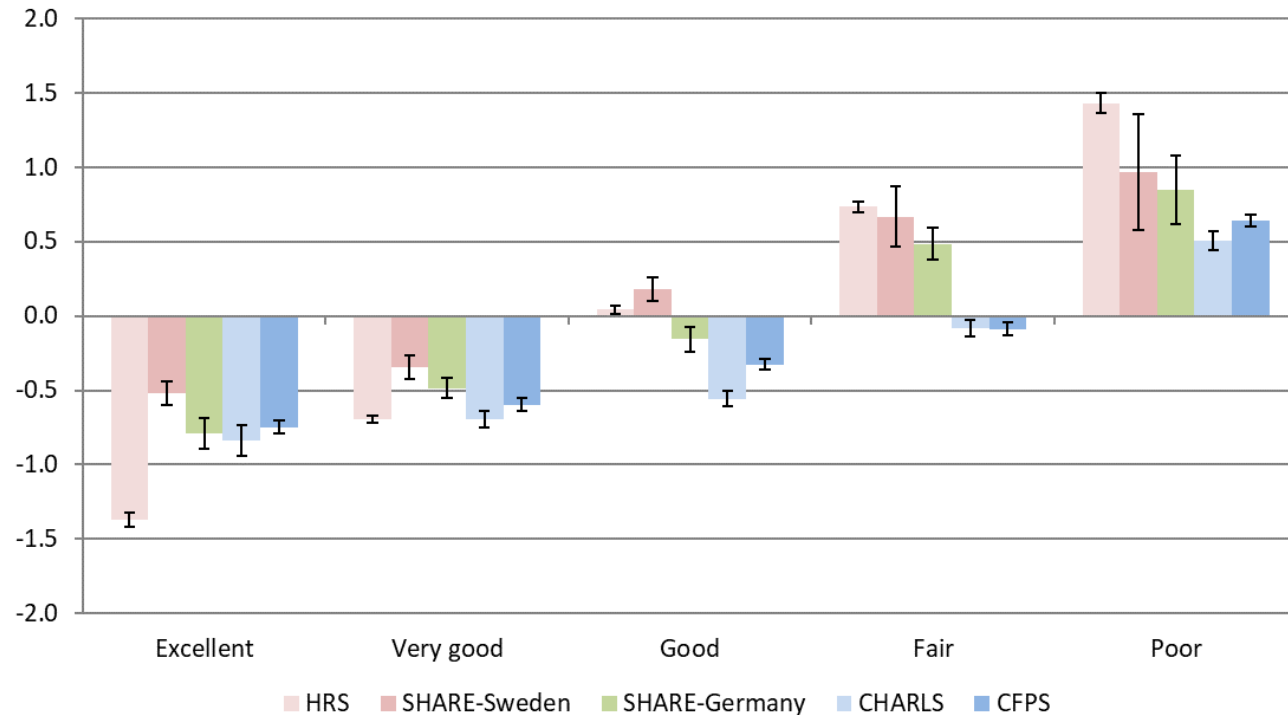
## › Health scores:

- Standardized number of health conditions reported
  - =0: country average
  - <0: better health than country average
  - >0: worse health than country average

# Weighted Mean Health Scores by SRH Responses

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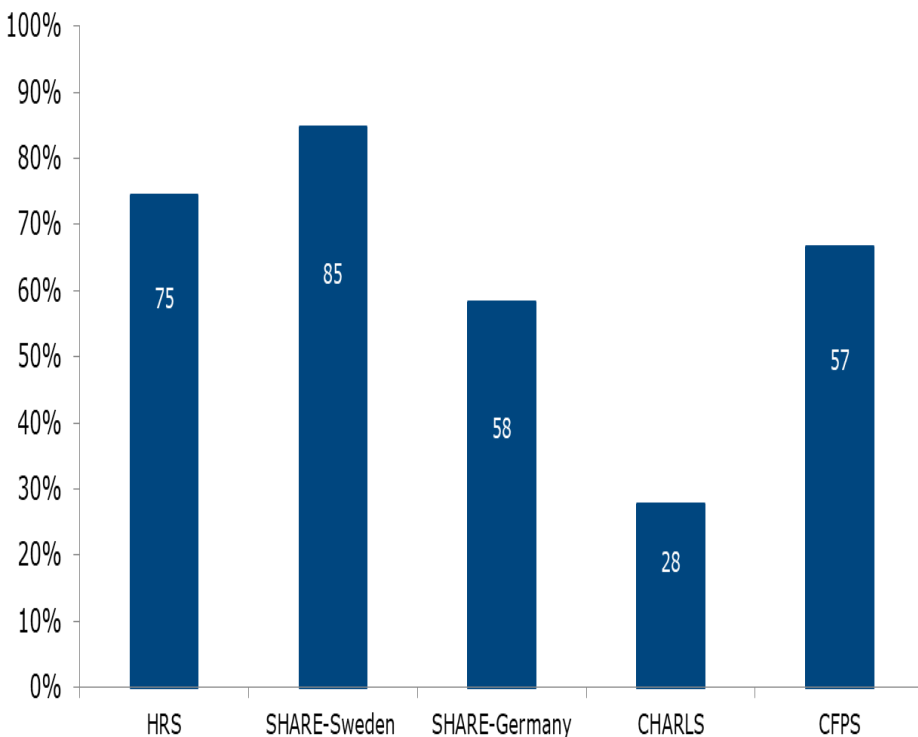


## So What Happened?

› Translation places conceptual mid-point differently on the scale

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# (weighted) Percent of Reporting Positive Health



› Positive health=excellent, very good, good

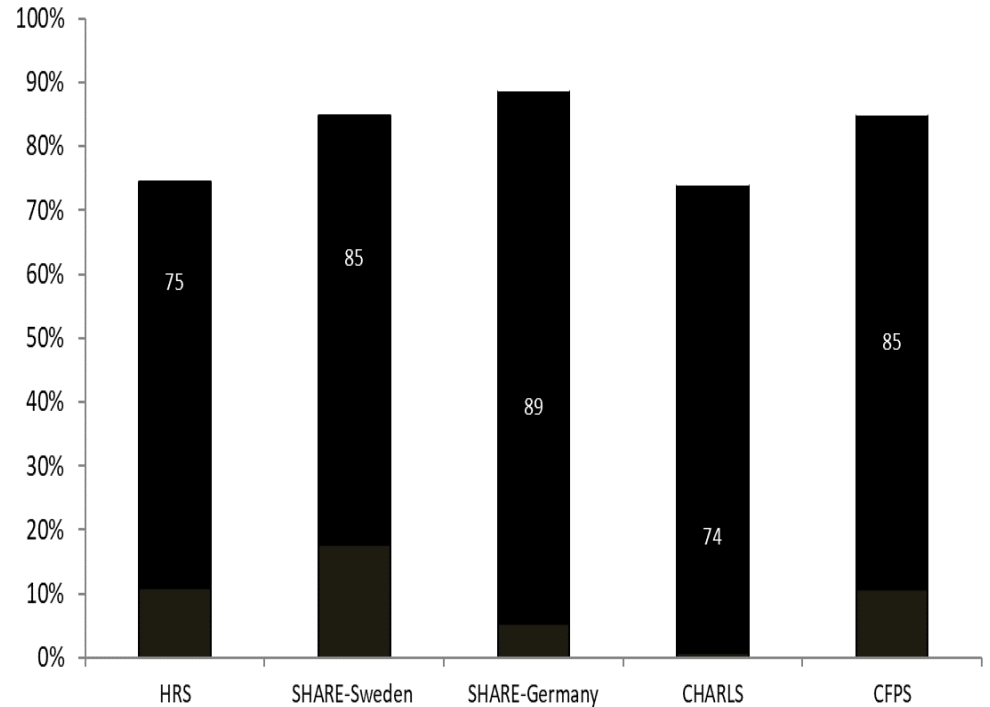
› What if positive health=

- excellent, very good, good for US and Sweden?
- excellent, very good, good, fair for Germany and Chinese?

# (weighted) Percent of Reporting Positive Health

> positive health=

- excellent, very good, good for US and Sweden
- excellent, very good, good, fair for Germany and Chinese

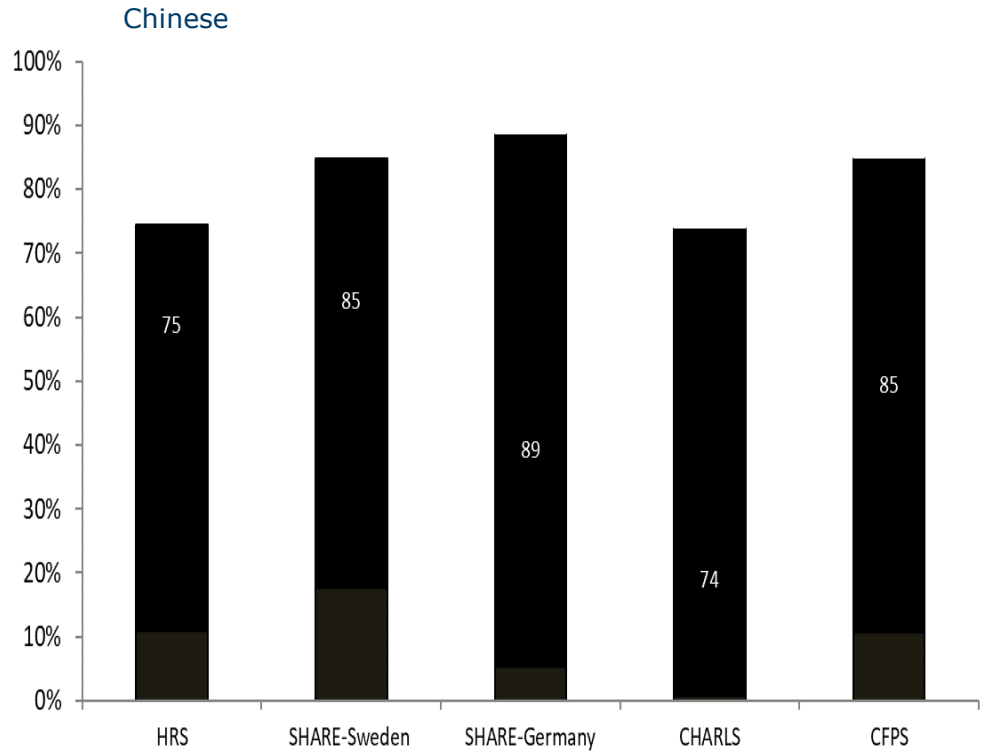
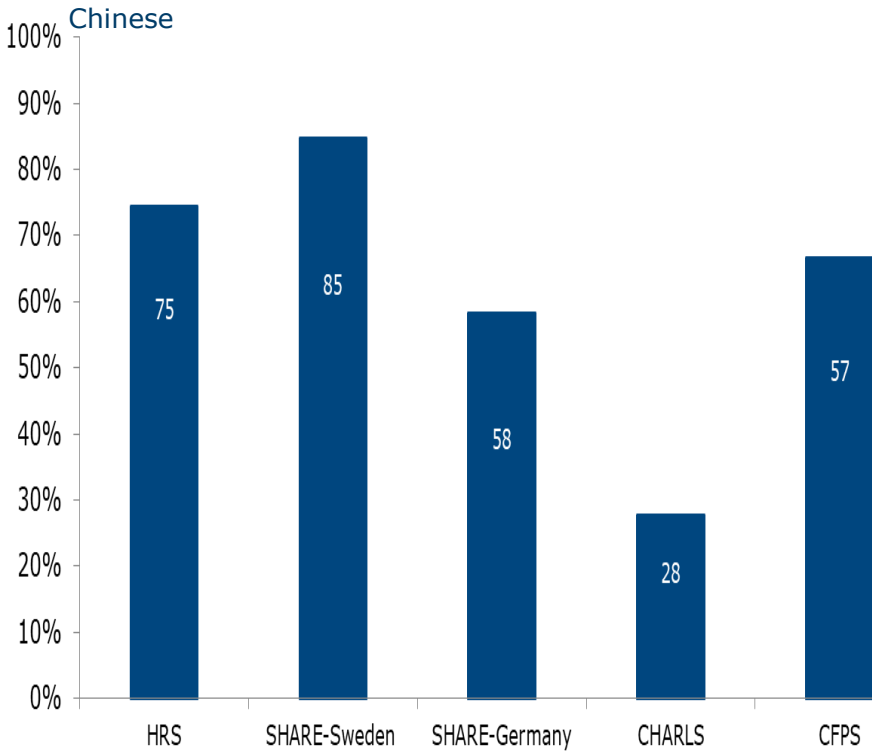




# (Weighted) Percent of Reporting Positive Health

> Positive health=excellent, very good, good for Germans and

> Positive health=excellent, very good, good, fair for Germans and



# So What We Have Learnt?

## › Differences observed in 3MC Surveys

- True difference
- Difference induced by measurement
  - Difference in survey response process due to culture/language
    - Comprehension (Lee et al., 2014)
    - Retrieval & Judgment (Johnson et al., 1996)
    - Mapping
      - Use of response scales (Response style literature)
  - Translation
    - Additional source of measurement error (Harkness, 2003)
      - Inflate observed differences

## Implications for 3MC Surveys

- › Translation is important and critical to achieve comparability
  - Testing, testing, testing!
- › Qualitative interviewing to understand incomparability and to inform changes

# Thank You

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