

Interaction between Question Context Effects and Respondent Cultural Backgrounds

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Outline

- Background
- Observational Study
 - Relevant theories
- Experimental Study
- Summary



BACKGROUND

Self-rated health (SRH)

“In general, how would you rate your health?”

- Methodologically, so-so.
 - Large room for measurement error
 - First used a interview conversation starter

- Empirically, great!
 - Asked in numerous surveys around the world
 - Strong predictor of mortality and morbidity
 - Population health and health disparities monitoring tool

SRH question contexts

- Rule of thumb: General before specific
 - McColl, et al. (2001); Bowling (2005); Keller and Ware (1996); SF instruments
 - Health survey practice and survey methodology alike
- No clear evidence
 - Believed to be immune to context effects (e.g., Bowling and Windsor, 2008; Crossley and Kennedy, 2002)
 - Caveat: Research mainly on English-speaking populations and some Scandinavian populations



OBSERVATIONAL STUDY

Positive* SRH rates – Ages 18+

| | SRH asked without health context | | | SRH asked within health context | |
|--|----------------------------------|-----------|-------------|---------------------------------|----------|
| | BRFSS 2010 | CHIS 2009 | NYCCHS 2010 | NHIS 2010 | CPS 2011 |
| Non-Hispanic Whites (NHW) | | | | | |
| Hispanics (HIS) | | | | | |
| <i>HIS – NHW (Health Disparity)</i> | | | | | |

* Combined “excellent,” “very good,” and “good” categories; Weighted.

Positive* SRH rates – Ages 50+

| | SRH asked without health context | | | | SRH asked within health context | |
|--|----------------------------------|---------------------|---------------------|---------------------|---------------------------------|--------------------|
| | BRFSS 2010 | CHIS 2009 | NYCCHS 2010 | HRS 2010 | NHIS 2010 | CPS 2011 |
| Non-Hispanic Whites (NHW) | 80.4 | 84.5 | 72.7 | 78.8 | 82.6 | 77.6 |
| Hispanics (HIS) | 58.2 | 56.8 | 49.1 | 55.5 | 73.0 | 71.3 |
| <i>HIS – NHW (Hlth Disparity)</i> | <i>-22.3</i> | <i>-27.7</i> | <i>-23.6</i> | <i>-23.3</i> | <i>-9.6</i> | <i>-6.4</i> |
| HIS Interviewed in English (HIS_EN) | 71.3 | 70.3 | 64.9 | 68.6 | 73.6 | 71.5 |
| HIS interviewed in Spanish (HIS_SP) | 43.6 | 43.7 | 37.6 | 39.6 | 68.3 | 68.3 |
| <i>HIS_SP – HIS_EN</i> | <i>-27.7</i> | <i>-26.7</i> | <i>-27.3</i> | <i>-29.0</i> | <i>-5.2</i> | <i>-3.2</i> |

* Combined “excellent,” “very good,” and “good” categories; Weighted.



Relevant theories

- Conceptualization of health
 - The belief-sampling model
- Social cognition and communication theories
- Usage of contexts in communication

Conceptualization of health

- Different models with different emphasis
 - E.g., medical model; WHO model
- The belief-sampling model
- Cultural differences
 - Hispanics' health conceptualization
 - Consider medical conditions similarly as non-Hispanic Whites, but also incorporate domains such as spirituality, folk medicine and other aspects of well-being
 - Fatalistic view about their health



Social cognition and communication theories – 1

- Conversation as a cooperative activity
 - Surveys as a form of communication with respondents' and researchers' cognitive engagement
- Question contexts becomes relevant as respondents attempt to understand intended meaning of a given question rather than its mere wording

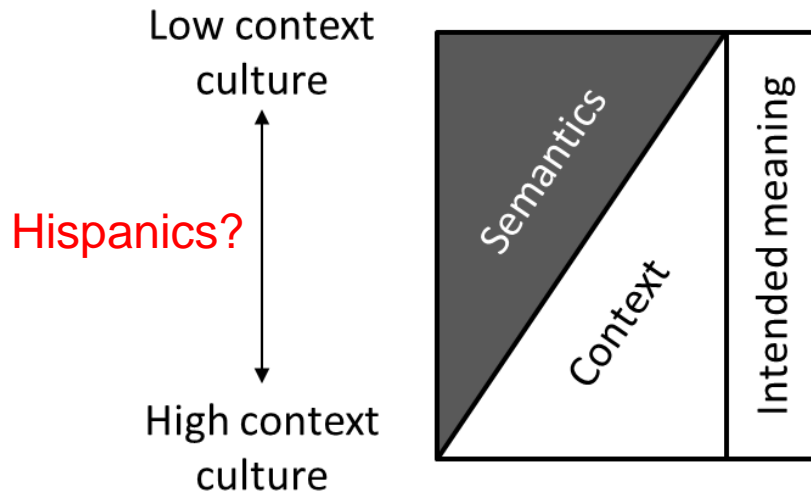


Social cognition and communication theories – 2

- Influence of culture (language) on cognition
 - The Sapir-Whorf hypothesis
 - Vygotsky
 - Language accentuates cultural differences

Usage of contexts in communication by low and high context cultures

SRH?



Source: Hall (1976)



EXPERIMENTAL STUDY

Hypotheses

- 1) For SRH, interactions among
 - textual (e.g., question wording),
 - cultural (e.g., race, language), and
 - external (e.g., socio-demographics) contexts
- 2) Larger context effects for Spanish speakers (mostly Hispanics) than English speakers (mostly non-Hispanics)

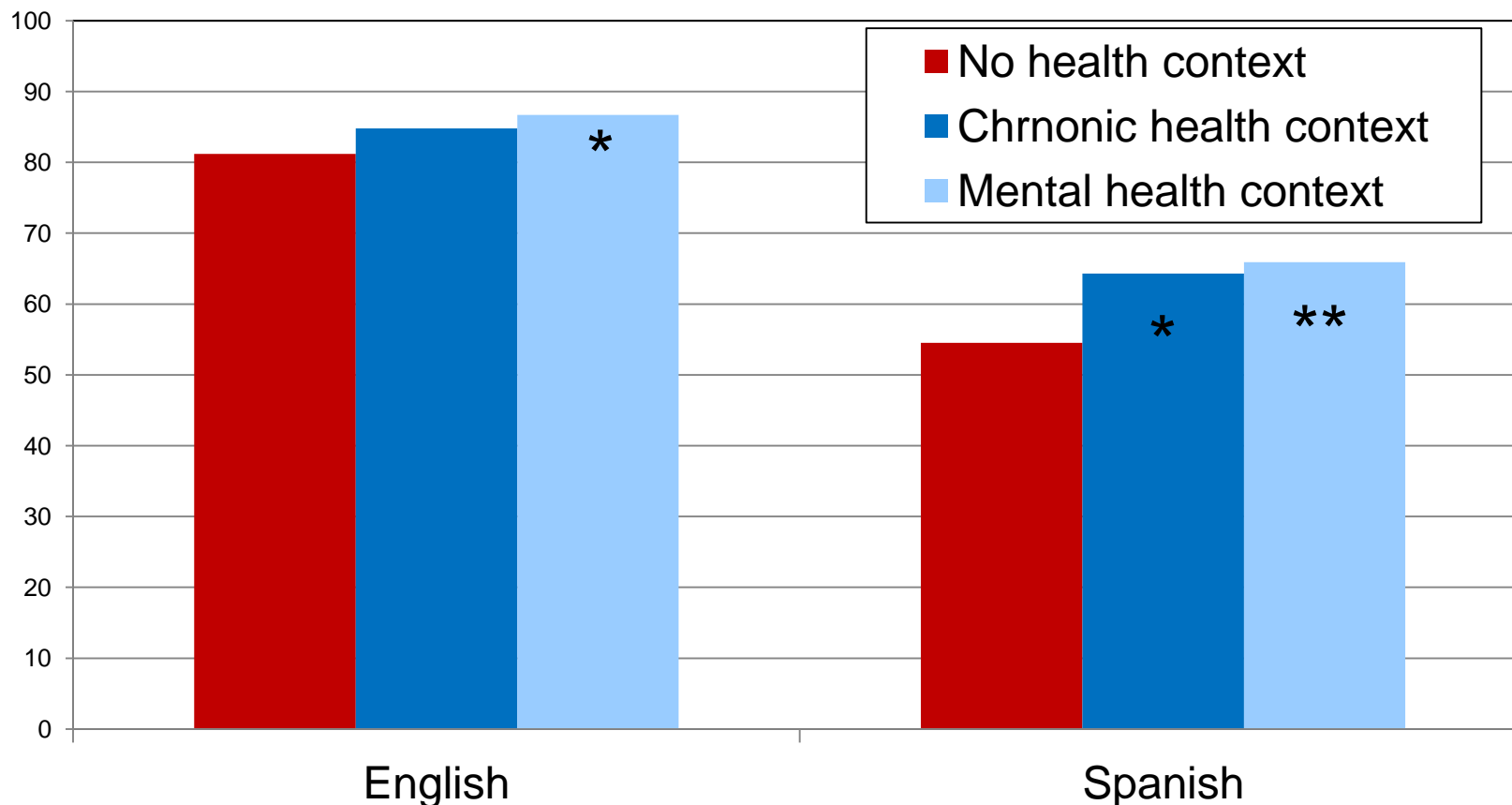
Data and methods

- 2007/2009 California Health Interview Survey
 - Random digit dial telephone survey
 - Conducted in English, Spanish, Chinese (Mandarin, Cantonese), Korean, Vietnamese
- Experiments 2007/2009

| SRH Location | | English (n) | Spanish (n) |
|--------------|-----------------------------|-------------|-------------|
| Loc 1 | No Context (First health q) | 1,100/420 | 859/314 |
| Loc 2 | After Chronic Health | 576/418 | 457/315 |
| Loc 3 | After Mental Health | 406 | 317 |

Results – 1

% Positive (excellent, very good, good) health[^], #

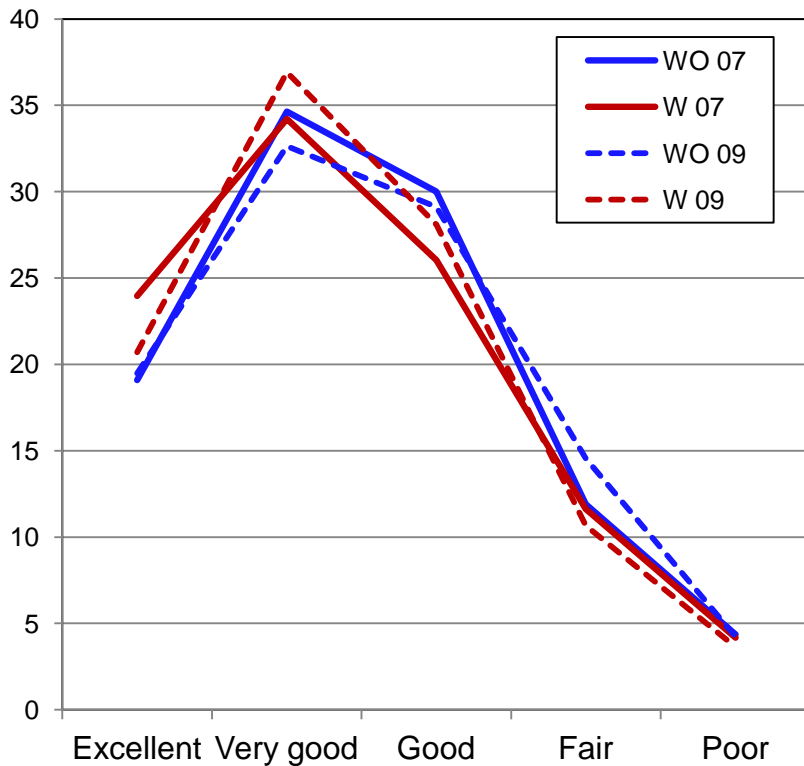


[^] Significantly different from no health context at $p < 0.05$ (*), $p < 0.01$ (**);

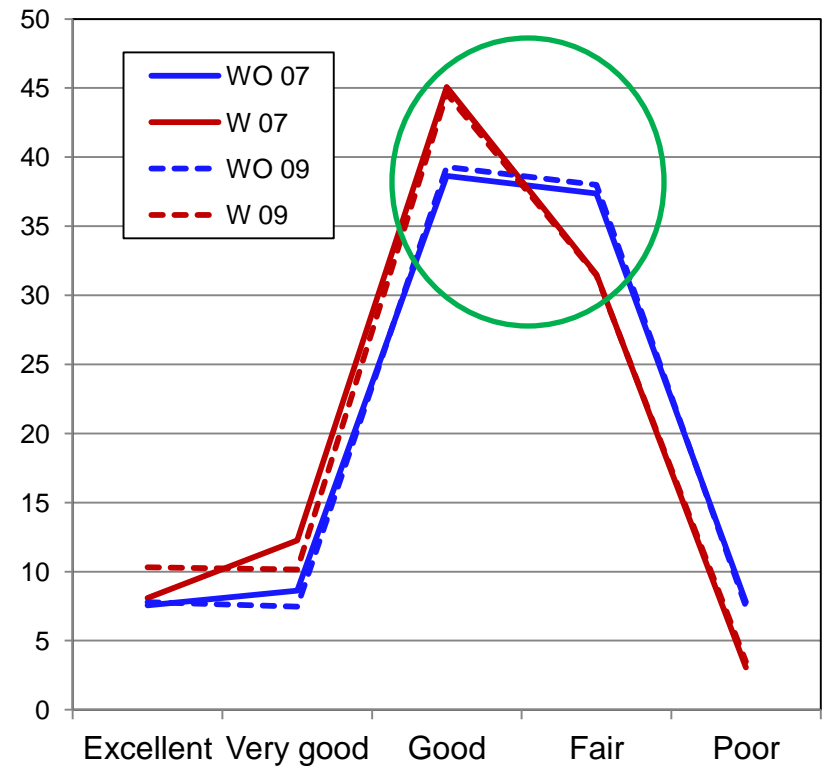
Significant after controlling for age, gender, education and chronic health condition

Results – 2

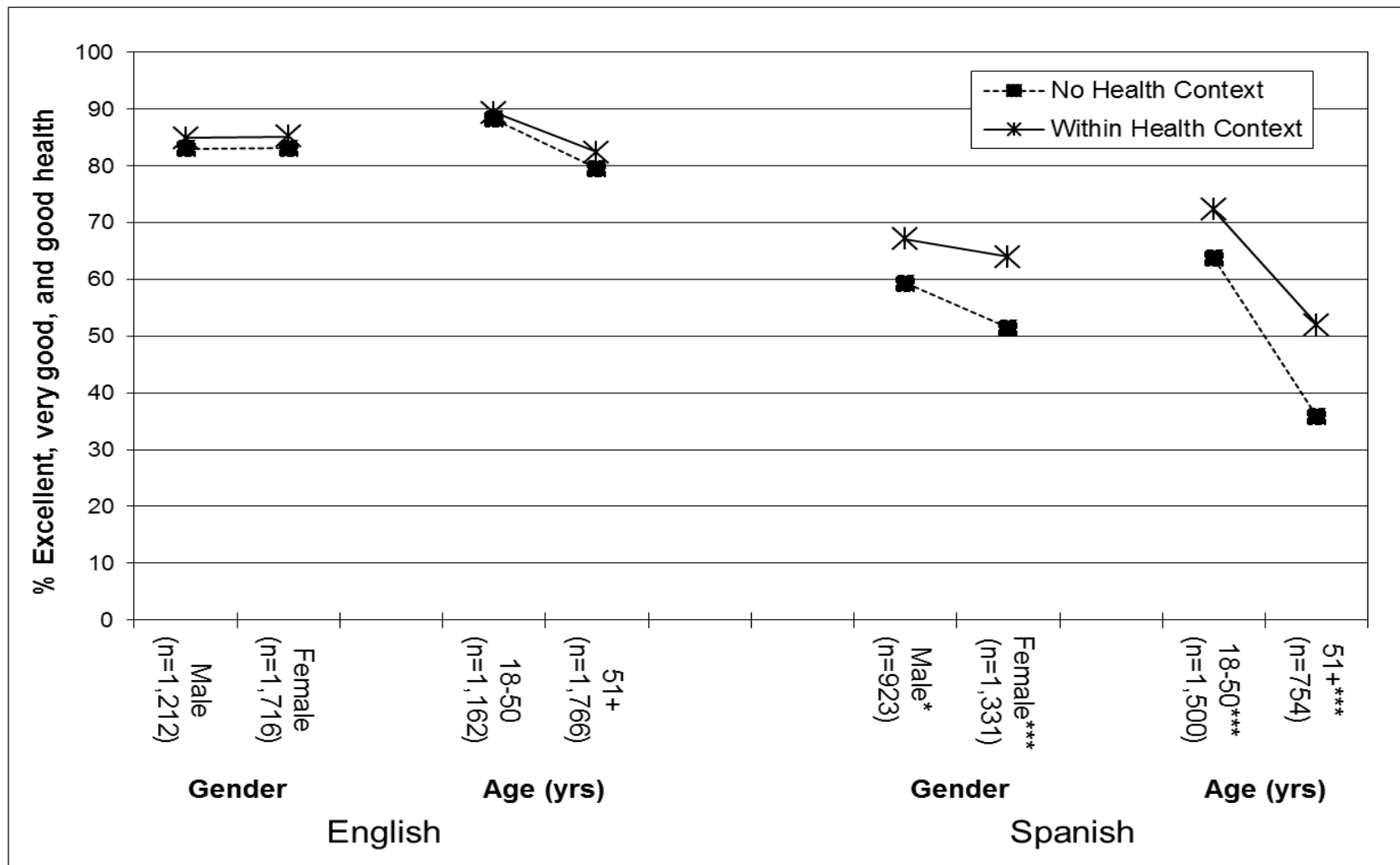
English – 5 pt response



Spanish – 5 pt response

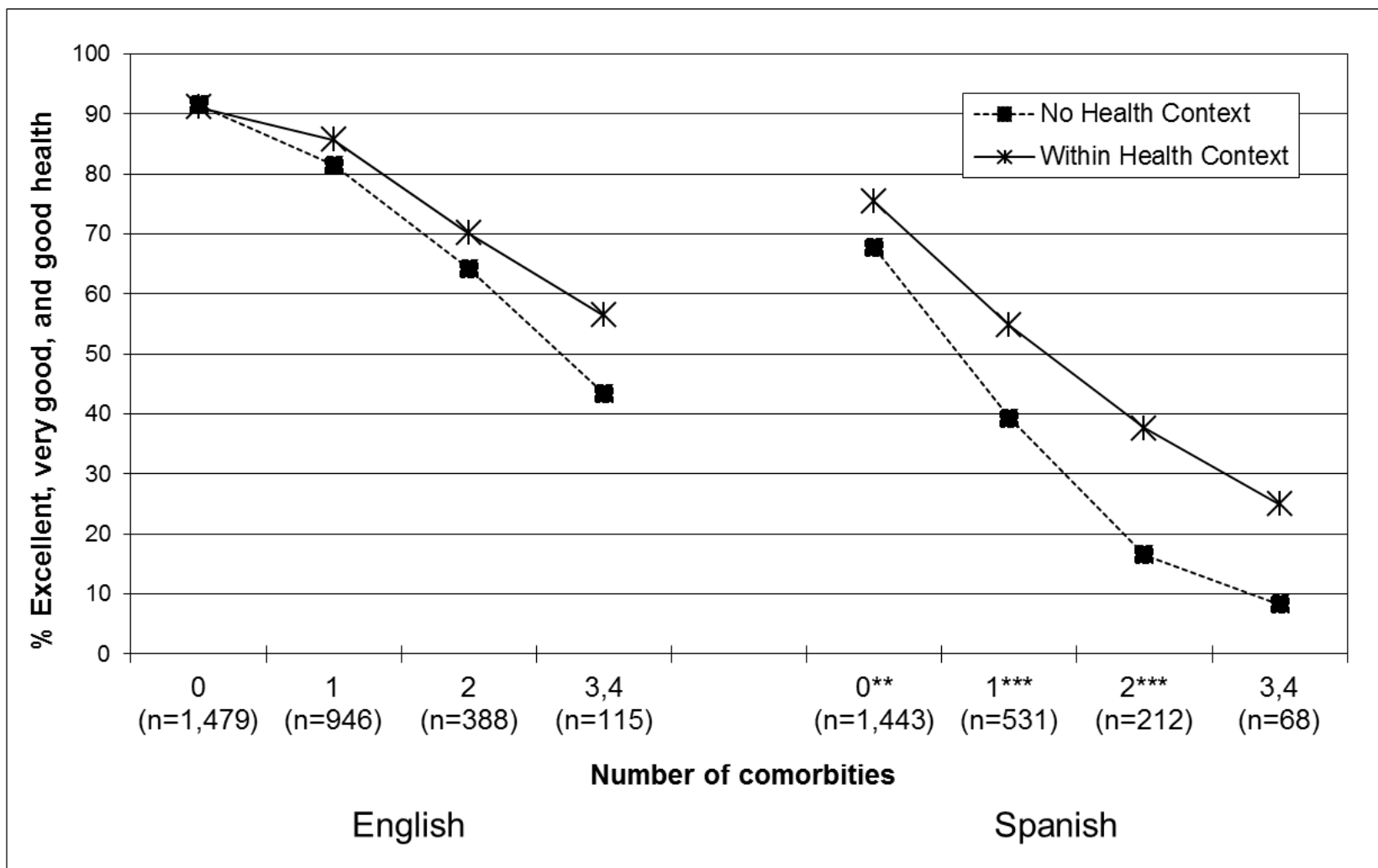


Results – 3



* Significant at $p < 0.05$, ** Significant at $p < 0.01$, *** Significant at $p < 0.001$

Results – 4



* Significant at $p < 0.05$, ** Significant at $p < 0.01$, *** Significant at $p < 0.001$



SUMMARY

Summary – 1

- Two-way interaction between SRH question context effects and culture (i.e., textual and cultural contexts) emerged observationally and experimentally
 - Spanish sensitive to context; English not
 - Sampled considerations for health differ by q contexts for Spanish; English not
 - Directional, not correlational context effects

Summary – 2

- Three-way interaction between textual, cultural and external contexts
 - Gender, age, comorbidity
 - Partially conditional context effects
 - Present only for Spanish interviews



Summary – 3

SRH asked in specific health contexts makes

- Hispanic (especially, Spanish speaking) health status better
- Hispanic health disparity smaller



Thank you!

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