Universität Bielefeld

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SOEP The German Socio-Economic Panel Study

The Factorial Survey Approach in Face-to-Face Surveys

Measurement of Income Justice Perceptions

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1. Motivation

What are factorial surveys?

- Respondents rate hypothetical descriptions – so called *vignettes* – of persons, situations or objects.
- Within these vignettes, attributes (dimensions) vary independently on their levels.
- Hence it is possible to assign the exact effect of one single dimension on the ratings.

Why factorial surveys?

- Vignettes describe a situation more realistic than the common survey questions. In everyday life, people judge, decide, or evaluate based on a bundle of information.
- An experimental design for surveys to measure non-reflexive (justice) attitudes directly.

Research questions

- Is it possible to use factorial surveys in randomized large scale face-to-face surveys?
- What is a person just earning and which attributes of the earner and/or the situation legitimize a different reward?
- Is it realistic to implement this methodology into SOEP in future?

2. Methods

Vignette Attributes and Levels

#	Dimension	Levels (No. of categories)
1	Age	25/35/45/55 (4)
2	Sex	male/female (2)
3	Vocational Training	without vocational training/with vocational training/university degree (3)
4	Occupation	levels from manufacturing labourer to medical doctor (10)
5	Performance on-the-job	below/ average/ above average (3)
6	Children	no/1/2/3/4 children (5)
7	Marital Status	single/married and single earner/married and double earner (3)
8	Economic Situation of the Firm	high profit/economical solid/ threatened of bankruptcy (3)
9	Company's Size	small/medium/large (3)
10	Income	levels from 500 to 15.000 € (10)

Sample

- SOEP Pretest 2008
- Random sample of 1,066 respondents (representative for the adult population living in Germany)
- Mode of data collection: CAPI
- Fractional Sample of 240 different vignettes, distributed to 10 decks à 24 vignettes
- Each respondent rated one *deck* containing 24 vignettes
- 25,584 vignette ratings collected.

Analysis

- Multinomial logistic regression
- 3 outcomes: described person is
  - unfairly underpaid
  - fairly paid or
  - unfairly overpaid
- 30 coefficients to estimate (2x15, including dummies).

Vignette (Example)

Vignette Description

A 35-year-old man with vocational training works as a programmer in a small enterprise which achieves substantial gains. His performance at his workplace is outstanding. His gross income amounts €2000 per month.

The Rating Task (3 Steps)

1. Is the income for this person fair or unfair?
2. If it is unfair: is it too high or too low? (+/-)
3. Which number between 1 and 100 most adequately describes the degree of unfairness?

Resulting Metric Variable

-100	. . .	0	. . .	100
(unfairly underpaid)		(fairly paid)		(unfairly overpaid)

3. First Results

Methodological Results

Consistency of Responses and Number of Significant Coefficients by Educational Level and Age Groups

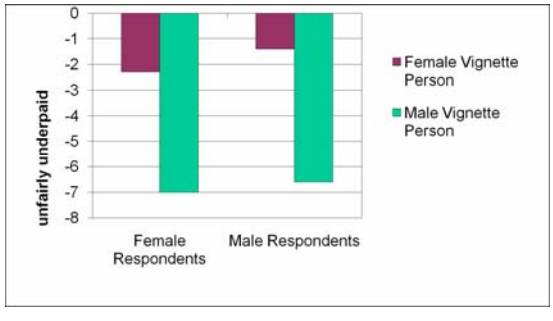
Respondent group	Pseudo- R^2	Number of Significant Coefficients*	Observations
Educational Level			
Hauptschule	.35	17.9	245
Realschule	.37	17.6	245
Abitur	.38	16.0	245
Age Groups			
16 – 39 years	.36	22.0	303
40 – 65 years	.37	18.4	303
66 years and older	.35	14.7	303

*Significant at the .05 Level

- Only few differences by educational level
- Differences between age groups (number of sign. coefficients)

Results Concerning the Justice of Earnings

The Just Gender Pay Gap (Average Rating)



- Empirical evidence for a just gender pay gap:
  Male and female respondents judge the incomes of male vignette characters to be more unfairly underpaid than the same incomes of female vignette characters

Related publication: Sauer, Carsten/Auspurg, Katrin/Hinz, Thomas/ Liebig, Stefan & Schupp, Jürgen (2009). Die Bewertung von Erwerbseinkommen. Methodische und inhaltliche Ergebnisse einer Vignettenstudie im Rahmen des SOEP-Pretest 2008. DIW Research Note. Berlin.