

I II SFB 882

From Heterogeneities to Inequalities

Technical Report Factorial Survey (Vignettes) Wave 1

Project B3 “Interactions Between Capabilities in Work and Private Life”

Mareike Reimann
Björn Andernach
Reinhard Schunck
Martin Diewald
Anja-Kristin Abendroth
Silvia Maja Melzer
Stephanie Pausch

***Mareike Reimann, Björn Andernach, Reinhard Schunck, Martin Diewald,
Anja-Kristin Abendroth, Silvia Maja Melzer and Stephanie Pausch***

***Technical Report Factorial Survey (Vignettes) Wave 1:
Project B3 “Interactions Between Capabilities in Work and Private Life”***

SFB 882 Technical Report, No. 20
DFG Research Center (SFB) 882 From Heterogeneities to Inequalities
Project “Interactions Between Capabilities in Work and Private Life: A Study of Employees in
Different Work Organizations“ (B3)
Bielefeld, May 2015

SFB 882 Technical Report Series
General Editors: Stefan Liebig and Johanna Vompras
ISSN 2196-985X

This publication has been funded by the German Research Foundation (DFG).

SFB 882 Technical Reports are refereed scholarly papers. Submissions are reviewed by peers in a two-stage SFB 882 internal and external refereeing process before a final decision on publication is made.

The Technical Report Series is a forum for presenting technical works (e.g. data documentation, field reports etc.) in progress. Readers should communicate comments on the manuscript directly to the author(s).

The papers can be downloaded from the SFB 882 website <http://www.sfb882.uni-bielefeld.de/>

SFB 882 “From Heterogeneities to Inequalities”
University of Bielefeld
Faculty of Sociology
PO Box 100131
D-33501 Bielefeld
Germany
Phone: +49-(0)521-106-4942 or +49-(0)521-106-4613
Email: office.sfb882@uni-bielefeld.de
Web: <http://www.sfb882.uni-bielefeld.de/>

Table of Contents

List of Tables	3
1. Project Description.....	4
2. Survey Instrument.....	5
2.1 Factorial Survey	5
2.2 Measuring Heterogeneous Preferences with Factorial Surveys	5
2.3 Construction of the Vignettes module for the Employee Survey.....	6
3. Survey Implementation	8
3.1 Implementation of the Vignettes Module within the Employee Survey	8
3.2 Non-Response	8
3.3 Response Selectivity	10
3.4 Duration of the Vignette Module	12
3.5 Response Consistency.....	14
4. Measuring Heterogeneous Preferences Using Vignettes	17
References	18
Appendix	20

List of Tables

Table 1. Dimensions of vignettes and levels per dimension 7

Table 2. Frequency of vignettes with invalid answers (“vignettes non-response”)..... 9

Table 3. Sequence patterns for vignettes non-response (abbreviated version)..... 9

Table 4. Rare-events logistic regression of non-response probability 11

Table 5. Time required to complete the vignettes module (in minutes) 12

Table 6. Multivariate regression analysis of time required to complete the vignettes module..... 13

Table 7. Multivariate regression analysis of response consistency 16

Table 8. Distribution of vignette decks 20

Table 9. Sequence patterns for vignettes non-response (detailed version) 21

1. Project Description

Project B3, “Interactions Between Capabilities in Work and Private Life: A Study of Employees in Different Work Organizations,” is part of the Collaborative Research Center 882 (SFB 882) “From Heterogeneities to Inequalities”. The project was designed to analyze the role of workplace contexts in the production of social inequalities, taking into account the interdependencies between work and private life. It focuses on the situation of employees both at work and in their private lives, as well as on the effects the two spheres have on each other. The authors are particularly interested in the effects that opportunities and risks in one life sphere have on the other sphere.

Project B3 involves an employee survey but also asks employers about measures they have taken to promote employees’ capabilities both at work and in their private lives. The study is designed to link the employer surveys and the employee surveys, thus providing a rich dataset that includes extensive information relevant to specific research questions. The project was developed in cooperation with the Institute for Employment Research (IAB) in Nuremberg. For the first wave of the employer survey, 100 large companies in Germany were surveyed. These companies were chosen based on administrative data provided by IAB in cooperation with the Research Data Center (FDZ) of the Federal Employment Agency at IAB (for more information about this process, see Pausch et al., 2014). The employee sample consisted of employees from these companies who were subject to statutory social insurance. We commissioned the Institute for Social Research and Communication (SOKO) in Bielefeld to carry out the employee and the partner survey using computer-assisted telephone interviews (CATI) and a standardized questionnaire. We were ultimately able to conduct 6,454 employee interviews and 2,185 partner interviews. The first wave of interviews took place from April through August 2012 (companies) and from August 2012 to early March 2013 (employees and partners). The study design is set up as a panel survey; the second wave of interviews was conducted between March 2014 and the beginning of 2015, and the third wave will take place in 2016/2017.

To measure the relative importance of different aspects of work and private life, we chose to use a factorial survey (i.e., vignettes) that was adapted to the survey’s specific areas of interest and was integrated into the employee survey. The method report presented here deals with the documentation of this factorial survey as imple-

mented within the first wave of the employee survey. Both the employee survey and the partner survey are described in a comprehensive method report (see Abendroth et al., 2014). The documentation of the employer survey was published by Pausch et al. (2014). A detailed presentation of the linkage of IAB data with the collected employee data can be found in Jacobebbinghaus et al. (2015). In the context of this project, the implementation of factorial surveys in CATI interviews is discussed by Andernach and Schunck (2014).

2. Survey Instrument

2.1 Factorial Survey

The aim of factorial surveys is to integrate an experimental design into the classical survey research and to adapt it for studies of heterogeneous samples as a means of capturing complex social evaluations for a large number of respondents (see Rossi & Nock, 1982). In our case, the factorial survey method is suitable for measuring evaluations provided by a sample group of people concerning complex situations according to certain criteria. The basic function of such factorial survey is to describe a set of hypothetical situations (“vignettes”) to those surveyed and to elicit their responses. Respondents evaluate these fictitious situations based on selected characteristics (“dimensions”) that are assigned values or levels (Beck & Opp, 2001; Jasso & Opp, 1997; Rossi & Nock, 1982). Each respondent will usually answer a specific subset of vignettes (the “vignette deck”) from the “vignette universe” (Hox et al., 1991) that is, the sum of all possible combinations of the dimensions’ levels.

2.2 Measuring Heterogeneous Preferences with Factorial Surveys

In the context of the project, we used the factorial survey to measure heterogeneous preferences of employees. The vignettes method described above specifically serves to capture the relative importance of different aspects of an individual’s work and private life. The respondents thus evaluate the desirability of hypothetical descriptions of situations within the vignettes according to their personal preferences (see Phillips et al., 2002). Variations among the respondents’ evaluations will then be associated with the varying importance of different aspects of their lives. Ultimately, our intention

is to build a preference order of the aspects included in the vignette module of the employee survey (see Section 2.3).

The factorial survey provides crucial advantages over classical survey methods, such as direct investigations of the importance of different areas of life (Auspurg et al., 2009; Auspurg & Hinz, 2014), the most important advantage being its multifactorial, quasi-experimental design (Rossi & Nock, 1982). In addition, it offers internal validity, which can be achieved through its randomized, multidimensional design. Implementing such a representative survey across a large number of respondents can also provide external validity. By simultaneously evaluating various aspects of an individual's life, the factorial survey also enables us to capture the relative importance of individual characteristics that may be closely interconnected in reality (Auspurg et al., 2014; Auspurg & Hinz, 2014) and therefore cannot be captured selectively by evaluating their importance unidimensionally.

Nevertheless, applying factorial surveys to employee surveys might also entail disadvantages and difficulties. For example, the complexity of the multidimensional design may require greater cognitive efforts on the part of the respondents than would be required by a simpler survey consisting of direct questions about the importance of different areas of life (Sauer et al., 2011). The advantages and disadvantages of using a factorial survey to measure heterogeneous preferences are discussed in detail in Schunck et al. (2013) and in Andernach and Schunck (2014).

2.3 Construction of the Vignettes module for the Employee Survey

The factorial survey as an instrument for measuring preferences was integrated into the questionnaire for the employee survey as a distinct section, or module. Therefore, it will hereafter be referred to as the “vignettes module,” and its structure and construction will now be illustrated.

Dimensions of the vignettes included income and occupational prestige as work-related aspects, while aspects related to employees' private lives included marital status, children, and close friends. In addition, an individual's health status was integrated as a general dimension. The respondents were asked to rate how satisfied they would be with their life in a hypothetical situation generated as combinations of different levels of the dimensions.

The description of a hypothetical situation within the vignette is composed of six dimensions (see Table 1). Initially, the crucial work-linked dimension of the gross

monthly income in euros was chosen by distinguishing five income groups (€1,000, €2,000, €2,500, €4,000, €5,500, and €7000). Occupational prestige was dichotomized as either “less respectable” or “very respectable.” For private life, marital status was described as either “no permanent partner” or “permanent partner,” and parental status as either “no children” or “children.” The dimension “close friends” was operationalized by assigning one of five levels, from 0 to 8, in increments of 2 (0, 2, 4, 6, or 8). Finally, the dimension of health was displayed in the form of five levels (“bad,” “poor,” “satisfactory,” “good,” or “very good”).

Table 1. Dimensions of vignettes and levels per dimension

Dimensions	Levels
Gross monthly income (€)	1,000, 2,000, 2,500, 4,000, 5,500, 7,000
Occupation/job prestige	Less respectable/very respectable
Marital status	No permanent partner/permanent partner
Children	No children/children
Health	Bad, poor, satisfactory, good, very good
Close friends	0, 2, 4, 6, 8

Resulting from the six dimensions, a universe of 1,000 possible vignettes was calculated as the product of the number of levels per dimension ($5 \times 2 \times 2 \times 2 \times 5 \times 5 = 1,000$).

Out of this universe of 1,000 possible vignettes, 50 vignette decks, with six vignettes per deck, were randomly drawn by means of stratified random sampling (see Jasso, 2006; Sauer et al., 2011). When drawing the vignettes, we took into account that each deck should include all possible income levels at least once. The levels of the other dimensions were selected randomly, as were the order of the dimensions within the vignettes and the order of the vignettes within the vignette deck. This allowed us to control for and analyze possible order effects.

3. Survey Implementation

3.1 Implementation of the Vignettes Module within the Employee Survey

The vignettes module was a part of the CATI-based employee survey in which 6,454 employees from 100 large companies participated. The vignettes were positioned after questions about work and private life, leisure time, and work–life balance (for a description of the questionnaire, see Abendroth et al., 2014). Prior to the vignettes, the employees were surveyed with a classical instrument on the importance of specific life spheres - partnership, children, close friends, high income, prestigious profession, and good health. Respondents were asked to indicate the importance of each area of life on a scale ranging from 0 to 10 (from “not important at all” to “very important”).

The vignette module of the survey was introduced as follows: “In the following I will describe some life situations. Those fictitious situations are about having a respectable occupation, how much you earn, living in a serious/permanent relationship, having children, and how many friends you have. Please imagine how you would feel in these different life situations and answer according to a scale from 0 to 10, where 0 means ‘unsatisfied’ and 10 means ‘satisfied.’”

Each respondent was randomly assigned to one of the 50 vignette decks with six vignettes per deck (see Chapter 2.3). Thus, the proportion of vignette decks answered by the respondents tended to be similar. Each deck was answered by 1.6 to 2.4 percent of the respondents, with the majority fluctuating between 1.9 and 2.1 percent, thus ensuring a relatively even distribution across all vignette decks. In addition, randomly varying the order of the particular vignettes within the decks allowed us to control for and consider possible order effects.

3.2 Non-Response

Each of the 6,454 employee interviews included the vignettes module, and this group provides the basis for the analyses presented in this report. Of all the respondents, 6,389 employees (99%) completed the factorial survey in its entirety. This low rate of missing values (only 1%) allows us to classify the employees’ willingness to participate in the vignettes module, as included within the main survey, as high. 65 of the employees provided invalid answers to at least one of the six vignettes assigned to them in their vignette deck, resulting in different vignettes non-response patterns. Of

these 65 respondents, only 15 completely refused to participate in the vignettes module. The remaining 50 respondents with missing values completed different numbers of vignettes (see Table 2; for a more detailed presentation of these results, see Table 9 in the Appendix): 22 respondents answered only one vignette invalidly, and 28 respondents had missing values on two to five vignettes.

Table 2. Frequency of vignettes with invalid answers (“vignettes non-response”)

Number	Absolute	%
0	6,389	99.00
1	22	0.30
2	8	0.10
3	5	0.10
4	10	0.20
5	5	0.10
6	15	0.20
Total	6,454	100.00

Of those respondents who started the vignettes module, four quit after the first vignette, and three quit after providing a valid answer on vignette two. The distribution of the remaining invalidly answered vignettes does not follow a visible pattern and can therefore be classified as rather random (Table 3). For a more detailed presentation of these results, see Table 8 in the Appendix.

Table 3. Sequence patterns for vignettes non-response (abbreviated version)

Pattern	Absolute	%
000000	6,389	98.99
111111	15	0.23
001111	9	0.14
011111	4	0.06
Others	37	0.57
Total	6,454	100.00

Note: 1 = vignette answered invalidly, 0 = vignette answered validly

3.3 Response Selectivity

Multivariate selectivity analyses were conducted to assess whether a partial or complete non-response to the vignettes module was associated with a respondent's specific characteristics. However, it should be noted that those vignettes modules that were not entirely completed can be rated as a very small proportion of missing values. In order to consider the possibility of response selectivity, the probability of a complete response on the factorial survey was compared with the probability of a complete or partial non-response. A logistic-regression model was used to reveal the groups who were more likely to participate in the entire vignette module. If at least one of the six vignettes within the vignette deck assigned to the respondent was not answered validly, the result was considered to be a complete or partial non-response, which was the case for 65 employees. The individual characteristics gender, age, education, vocational education, gross monthly income and origin (birthplace) were considered to be explanatory variables (Table 4).

The results of the selectivity analysis of the probability of validly responding to the entire vignettes module (see Table 4) showed only minor selectivity effects. A statistically significant effect was found with regard to the age of the respondents, that is, the older a respondent, the higher the probability that he or she would answer the vignettes module only in part or not at all. In addition, we squared the respondent's age (age^2) to determine the non-linearity of this effect, meaning that the older the respondent, the stronger the increase in the probability of a non-response.

For the gross monthly income it can be obtained that there are no missing values for the lowest income group (< €500) and the highest income group (> €10,000) within the vignettes module. Respondents in the next-to-lowest income group (€500 to €999) answered the vignettes module significantly less often compared to those in a somewhat higher income group of €3,000 to €4,000.

The analysis of the characteristic education showed no significant differences. It should be noted that there were no missing values for the respondents with the lowest levels of education (i.e., low-track secondary school [*Hauptschule*], special-needs school [*Sonderschule*], and no school-leaving qualifications). There were also no statistically significant differences with respect to gender, vocational education, or origin.

Table 4. Rare-events logistic regression of non-response probability

	Logits	Standard error
Gender: Male	0.479	(0.426)
Age	0.838 ***	(0.309)
Age²	−0.009 **	(0.004)
Education		
<i>Ref. Low-track secondary school (Hauptschule)/special-needs school (Sonderschule)/no school-leaving qualifications</i>		
Intermediate-track secondary school (<i>Realschule</i>)	−0.037	(0.502)
University entrance diploma/advanced university of applied sciences entrance qualification	−0.104	(0.509)
Vocational education		
<i>Ref. University degree</i>		
No vocational education	0.644	(1.125)
Vocational training	0.496	(0.572)
University of applied sciences/university of corporate education/professional school	0.705	(0.553)
Gross monthly income		
<i>Ref. €3,000–4,000</i>		
< €500	n/a	
€500–999	1.668 **	(0.688)
€1,000–1,499	0.485	(0.679)
€1,500–1,999	0.241	(0.734)
€2,000–2,499	−0.874	(1.054)
€2,500–2,999	0.170	(0.573)
€4,000–4,999	0.212	(0.538)
€5,000–7,499	0.152	(0.559)
€7,500–9,999	−0.028	(1.109)
> €10,000	n/a	
Origin		
<i>Ref. Born in West Germany</i>		
Born in East Germany	−0.159	(0.528)
Not born in Germany	−0.376	(0.680)
Constant	−23.253 ***	6.612
N (Employees)	5,941	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$; standard error in parentheses

3.4 Duration of the Vignette Module

The time needed to complete the vignettes module averaged 2.5 minutes. Most of the employees needed between 2 minutes (50.4%) and 3 minutes (34.8%) to complete the entire module. Only 0.28% of the participants took 6 minutes or more to provide their answers (see Table 5). For our analysis of these response times, we considered only those respondents who validly answered all six vignettes. The remaining 65 individuals with at least one missing vignette were omitted to ensure comparability.

Table 5. Time required to complete the vignettes module (in minutes)

Minutes	Absolute	%
0	104	1.16
1	234	3.63
2	3,237	50.15
3	2,240	34.71
4	480	7.44
5	108	1.67
6	32	0.50
7	7	0.11
8	6	0.09
9	3	0.05
10	1	0.02
11	1	0.02
22	1	0.02
Total	6,454	100.00

The rather imprecise time recordings provided by SOKO made exact analysis of response duration difficult. Because the time was recorded on the basis of minutes (e.g., 13:05), it was not possible to obtain an accurate calculation of the duration of the interviews; therefore, a certain degree of inaccuracy must be taken into account.

Table 6. Multivariate regression analysis of time required to complete the vignettes module

	β -coefficient	Standard error
Gender: Male	-0.078 **	(0.027)
Age	0.030 *	(0.014)
Age²	-0.000	(0.000)
Education		
<i>Ref. low-track secondary school (Hauptschule)/special-needs school (Sonderschule)/no school-leaving qualifications</i>	0.070	(0.039)
Intermediate-track secondary school (<i>Realschule</i>)	0.070	(0.039)
University entrance diploma/advanced university of applied sciences entrance qualification	0.047	(0.042)
Vocational education		
<i>Ref. University degree</i>		
No vocational education	-0.047	(0.078)
Vocational training	-0.162 ***	(0.036)
University of applied sciences/university of corporate education/professional school	-0.083 *	(0.037)
Gross monthly income		
<i>Ref. €3,000–4,000</i>		
< €500	0.036	(0.160)
€500–999	-0.051	(0.088)
€1,000–1,499	0.047	(0.056)
€1,500–1,999	-0.019	(0.049)
€2,000–2,499	0.036	(0.043)
€2,500–2,999	0.020	(0.039)
€4,000–4,999	-0.050	(0.042)
€5,000–7,499	-0.093 *	(0.043)
€7,500–9,999	-0.166	(0.071)
> €10,000	-0.264 **	(0.087)
Origin		
<i>Ref. Born in West Germany</i>		
Born in East Germany	-0.040	(0.032)
Not born in Germany	0.132 **	(0.042)
Constant	1.883 ***	(0.261)
N (Employees)	6,063	

p < 0.05, ** *p* < 0.01, *** *p* < 0.001; standard error in parentheses

To check whether the differences in the response duration for the vignettes module correlated with different employee characteristics, a multivariate regression analysis was performed that included the individual characteristics of gender, age, education, vocational education, gross monthly income, and origin.

The results of the regression model (see Table 6) showed a statistically significant effect of gender on the time needed to complete the vignettes module. It took a little less time for men than for women to complete the vignettes module. In addition, the analysis showed an age effect: the older a respondent, the longer it took, on average, to answer the vignettes. The average time needed to complete the factorial survey was significantly lower for employees with vocational training, as well as for employees with degrees from a university of applied science, an advanced university of corporate education, or a professional school, as compared with those with a university degree. In addition, two income groups showed a statistically significant relationship to survey duration: employees with a gross monthly income of €5,000 to €7,499 and employees with an income of over €10,000 needed less time to complete the vignettes, as compared with the group with incomes of €3,000 to €4,000. On average, respondents who were born in a foreign country required more time to answer the vignettes than did employees born in West Germany. Otherwise, no statistically significant differences could be found between respondents born in West and East Germany.

3.5 Response Consistency

Response consistency indicates the extent to which a respondent maintains a certain tendency of providing responses throughout the factorial survey (see Sauer et al., 2011; Andernach & Schunck, 2014). In order to apply the results of the factorial survey, it is crucial to determine whether selectivity in the consistency of the response behavior needs to be considered, that is, whether individuals with certain characteristics answer the vignettes more consistently than individuals without such characteristics. A high value on the consistency scale is equivalent to a low consistency of response behavior within the vignettes module. To provide statements about a possible selectivity of the response consistency, a multivariate regression analysis was performed. It predicts satisfaction with the described hypothetical situation on the basis of the six vignette dimensions (under control of 49 deck dummies). In the next step,

the individual prediction error has to be identified and squared ($\hat{\epsilon}_{ij}^2$). The higher the prediction error, the higher the variance that cannot be explained by the situation described in the vignette. The square error is used to weight large deviations particularly high (see Sauer et al., 2011).

The analysis of the consistency of the vignettes (see Table 7) clearly showed differences in the response consistency for employees who differed in specific characteristics. First, it revealed a relationship between an employee's educational level and the response consistency. On average, employees with a degree from an intermediate-track secondary school, as well as those with a university entrance diploma or an advanced university of applied sciences entrance qualification, responded significantly more consistently than did employees with no school-leaving qualifications or those who attended a low-track secondary school (*Hauptschule*) or a special-needs school (*Sonderschule*). With regard to vocational education, employees with vocational training and persons with no vocational training gave answers more inconsistently than did those with a university degree. However, there were no significant differences between university graduates and graduates of a university of applied sciences, a university of corporate education, or a professional school. The distribution of the response consistency results partially varied among the income groups. Respondents from each of the income groups "< €500," "€1,000 to 1,499," and "€1,500 to 1,999" answered less consistently than did the employees from the income group "€3,000 to 4,000." In addition, being born in a country other than Germany was associated with lower response consistency, as compared with being born in East or West Germany.

Table 7. Multivariate regression analysis of response consistency

	β -coefficient		Standard error
Time for answering the vignettes (min)	0.031		(0.034)
Gender: Male	0.009		(0.073)
Age	0.032		(0.036)
Age²	-0.000		(0.000)
Education			
<i>Ref. low-track secondary school (Hauptschule)/special-needs school (Sonderschule)/no school-leaving qualifications</i>			
Intermediate-track secondary school (<i>Realschule</i>)	-0.622	***	(0.105)
University entrance diploma/advanced university of applied sciences entrance qualification	-0.962	***	(0.112)
Vocational education			
<i>Ref. University degree</i>			
No vocational education	1.261	***	(.209)
Vocational training	0.273	**	(0.097)
University of applied sciences/university of corporate education/professional school	0.101		(0.101)
Gross monthly income			
<i>Ref. €3,000–4,000</i>			
< €500	1.152	**	(0.429)
€500–999	-0.129		(0.235)
€1,000–1,499	0.420	**	(0.149)
€1,500–1,999	0.417	**	(0.131)
€2,000–2,499	0.210		(0.114)
€2,500–2,999	0.137		(0.105)
€4,000–4,999	-0.012		(0.113)
€5,000–7,499	-0.003		(0.115)
€7,500–9,999	-0.123		(0.190)
> €10,000	-0.262		(0.233)
Origin			
<i>Ref. Born in West Germany</i>			
Born in East Germany	0.062		(0.085)
Not born in Germany	0.851	***	(0.113)
N (Employees)	6,063		

^{*} $p < 0.05$, ^{**} $p < 0.01$, ^{***} $p < 0.001$; standard error in parentheses

4. Measuring Heterogeneous Preferences Using Vignettes

In order to capture the relative importance of different aspects of work and private life, one must estimate the relative weight of all the vignettes' individual dimensions (income, occupation/job, marital status, children, close friends, and health). To generate the preference variables, the respondents' varying satisfaction evaluations are assigned to the varying vignette dimensions by applying a multilevel linear regression model.

The collected data have a multilevel structure, meaning that the vignettes are clustered within the respondents; employees are, in turn, grouped in decks. To generate the preference variables, a multilevel model was specified that defined vignettes as level 1, respondents as level 2, and decks as level 3. We used the respective rating of satisfaction with the hypothetical situation of a specific vignette on a scale from 0 to 10 (see Chapter 2.3). The estimated regression weights then produced the respective relative preferences. Within the regression model, random slopes for the vignettes were estimated to take into account intra-individual heterogeneity. Thus, the following multilevel model with three levels and random intercept (or, rather, random slopes) can be specified as follows:

$$\begin{aligned} \text{Satisfaction}_{jik} = & \beta_0 + (\beta_1 + u_{1i})\text{gross income} + (\beta_2 + u_{2i})\text{occupation} + (\beta_3 + u_{3i})\text{marital sta-} \\ & \text{tus} + \\ & (\beta_4 + u_{4i})\text{children} + (\beta_5 + u_{5i})\text{health} + \beta_6\text{friends} + \dots + \delta_j + u_{0i} + \varepsilon_{jik} \quad (1) \end{aligned}$$

The subscript j indicates the deck, i the respondent, and k the vignette. To control for possible deck effects, fixed effects on the deck level were estimated (see Schunck et al., 2013).

The estimation of the preferences was based on 38,334 vignettes (level 1), which were grouped into 6,389 respondents (level 2), who in turn were distributed over 50 vignette decks (level 3). Stata 13.1 was the software we used for all estimations. An example of using vignettes to measure heterogeneous preferences is the analysis of the preferences of men and women using the pretest data of the project (see Schunck et al., 2013).

References

- Abendroth, A., Melzer, S.M., Jacobebbinghaus, P., & Schlechter, F. (2014). *Methodological Report Employee and Partner Surveys of the Linked Employer–Employee Panel (LEEP-B3) in Project B3: “Interactions Between Capabilities in Work and Private Life: A Study of Employees in Different Work Organizations”*. (SFB 882 Technical Report Series 12). DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld <https://pub.uni-bielefeld.de/download/2700866/2700870>.
- Andernach, B. & Schunck, R. (2014). *Investigating the Feasibility of a Factorial Survey in a CATI*. (SFB 882 Working Paper Series. 28). DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld <https://pub.uni-bielefeld.de/download/2680318/2680322>.
- Auspurg, K., Hinz, T., & Liebig, S. (2009). *Komplexität von Vignetten, Lerneffekte und Plausibilität im Faktoriellen Survey*. *mda – Methoden, Daten, Analysen*, 3(1): 59–96.
- Auspurg, K., & Hinz, T. (2014). *Factorial Survey Experiments* (Vol. 175). SAGE Publications.
- Auspurg, K., Hinz, T., Sauer, C., & Liebig, S. (2014). *The Factorial Survey as a Method for Measuring Sensitive Issues. Improving Survey Methods: Lessons From Recent Research*. New York: Routledge, 137–149.
- Beck, M. & Opp, K.-D. (2001). *Der faktorielle Survey und die Messung von Normen*. *KZfSS – Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 53(2): 283–306.
- Hox, J.J, Kreft, I.G.G, & Hermkens, P.L.J. (1991). *The Analysis of Factorial Surveys*. *Sociological Methods & Research*, 19(4): 493–510.
- Jacobebbinghaus, P., Seth, S., Diewald, M., Schunck, R., Abendroth, A., Melzer, S. M., Pausch, S., Reimann, M., & Andernach, B. (2015). *Linking LEEP-B3 Survey Data with Administrative IAB Data*. (SFB 882 Technical Report Series 21). DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld <http://pub.uni-bielefeld.de/download/2709805/2709806>
- Jasso, G. (2006). *Factorial Survey Methods for Studying Beliefs and Judgments*. *Sociological Methods & Research*, 34(3): 334–423.
- Jasso G. & Opp, K.-D. (1997). *Probing the Character of Norms: A Factorial Survey Analysis of the Norms of Political Action*. *American Sociological Review*, 62(6): 947–964.

Pausch, S., Harand, J., Schunck, R., & Jacobebbinghaus, P. (2014). *Technical Report Employer Survey: Project B3: "Interactions Between Capabilities in Work and Private Life."* (SFB 882 Technical Report Series 04). DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld <https://pub.uni-bielefeld.de/download/2646118/2646119>.

Phillips, K.A., Johnson, F.R., & Maddala, T. (2002). *Measuring What People Value: A Comparison of "Attitude" and "Preference" Surveys*. *Health Services Research*, 37(6): 1659–1679.

Rossi, P.H. & Nock, S.L. (1982). *Measuring Social Judgments: The Factorial Survey Approach*. Beverly Hills, CA: Sage.

Sauer, C., Auspurg, K., Hinz, T., & Liebig, S. (2011). *The Application of Factorial Surveys in General Population Samples: The Effects of Respondent Age and Education on Response Times and Response Consistency*. *Survey Research Methods*, 5(3): 89–102.

Schunck, R., Abendroth, A.-K., Diewald, M., Melzer S.M., & Pausch, S. (2013). *What do Women and Men Want? Investigating and Measuring Preference Heterogeneity for Life Outcomes using a Factorial Survey* (SFB 882 Working Paper Series 20), Bielefeld: DFG Research Center (SFB) 882 "From Heterogeneities to Inequalities." <https://pub.uni-bielefeld.de/download/2581319/2581352>.

Appendix

Table 8. Distribution of vignette decks

Deck	Absolute	%
1	128	2.0
2	124	1.9
3	140	2.2
4	124	1.9
5	133	2.1
6	123	1.9
7	134	2.1
8	121	1.9
9	140	2.2
10	134	2.1
11	133	2.1
12	138	2.1
13	130	2.0
14	112	1.7
15	129	2.0
16	119	1.8
17	129	2.0
18	132	2.0
19	133	2.1
20	135	2.1
21	138	2.1
22	138	2.1
23	132	2.0
24	126	2.0
25	124	1.9
26	128	2.0
27	121	1.9
28	122	1.9
29	129	2.0
30	123	1.9
31	135	2.1
32	134	2.1
33	152	2.4
34	125	1.9
35	118	1.8
36	138	2.1
37	124	1.9
38	137	2.1
39	120	1.9
40	128	2.0
41	126	2.0
42	127	2.0
43	122	1.9
44	127	2.0
45	119	1.8
46	129	2.0
47	129	2.0
48	131	2.0
49	135	2.1
50	126	2.0
Total	6454	100.0

Table 9. Sequence patterns for vignettes non-response (detailed version)

Pattern	Absolute	%
000000	6,389	98.99
111111	15	0.23
001111	9	0.14
001000	6	0.09
010000	5	0.08
000001	4	0.06
011111	4	0.06
100000	4	0.06
000010	2	0.03
000111	2	0.03
000011	2	0.03
001001	2	0.03
001100	2	0.03
000100	1	0.02
000101	1	0.02
001110	1	0.02
010011	1	0.02
010100	1	0.02
011011	1	0.02
011100	1	0.02
110111	1	0.02
Total	6,454	100.00

Note: 1 = vignette answered invalidly, 0 = vignette answered validly

Additional Information on Data

DOI: [10.4119/unibi/sfb882.2014.12](https://doi.org/10.4119/unibi/sfb882.2014.12)

Creators:

Diewald, Martin
Schunck, Reinhard
Abendroth, Anja-Kristin
Melzer, Silvia Maja
Reimann, Mareike
Pausch, Stephanie

Title:

LEEP-B3

Publisher:

SFB 882

Year of publication:

2014

Subjects:

Sociology
DOAJ: Social Sciences
DDC: 301

Contributors:

ContactPerson: Abendroth, Anja-Kristin
ContactPerson: Melzer, Silvia Maja
ProjectLeader: Diewald, Martin
ProjectLeader: Schunck, Reinhard
ProjectMember: Abendroth, Anja-Kristin
ProjectMember: Melzer, Silvia Maja
ProjectMember: Reimann, Mareike
ProjectMember: Pausch, Stephanie
HostingInstitution: Universität Bielefeld
RegistrationAgency: Universitätsbibliothek Bielefeld
Producer: Teilprojekt B3
Funder: DFG

Dates:

Accepted: 2014-02-13

Primary language of this resource (ISO 639):

de

Resource type:

Dataset (Stata dataset)

Size:

10000 kb

Formats:

application/x-stata-dta

Version:

1.0

Rights (license):

Confidential data.

Abstract:

Der LEEP-B3 Datensatz wurde im Rahmen des Teilprojektes "Wechselwirkungen zwischen Verwirklichungschancen im Berufs- und Privatleben" erstellt. Mit Hilfe des Datensatzes kann die Rolle betrieblicher Kontexte bei der Genese sozialer Ungleichheiten unter Berücksichtigung wechselseitiger Beeinflussung von Berufs- und Privatleben untersucht werden. Neben der Befragung von Beschäftigten und deren Einschätzungen zu Verwirklichungschancen in beiden Lebensbereichen werden Arbeitgeber nach Maßnahmen befragt, die Arbeitnehmern eine Verwirklichung nicht nur im Berufs-, sondern auch im Privatleben ermöglichen. Dabei wird die Rolle von Betrieben als Verhandlungspartner und Gelegenheitsstrukturen gleichermaßen untersucht. Durch die Verknüpfung der Befragung von Arbeitgebern wie auch Arbeitnehmern entsteht ein Datensatz im Linked-Employer-Employee-Design.

Previously published SFB 882 Technical Reports:

Meinert, Julia & Sünkel, Zara (2013): *Die Entstehung und Entwicklung devianten und delinquenten Verhaltens im Lebensverlauf und ihre Bedeutung für soziale Ungleichheitsprozesse: Methodendokumentation der Schülerbefragungen in Dortmund und Nürnberg. Erste Erhebung 2012*, SFB 882 Technical Report Series, No. 01, DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld.

Pausch, Stephanie, Harald, Julia, Schunk Reinhard & Jacobebbinghaus, Peter (2013): *Methodenbericht Betriebsbefragung Projekt B3: Wechselwirkungen zwischen Verwirklichungschancen im Berufs- und Privatleben*, SFB 882 Technical Report Series, No. 02, DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld.

Golsch, Katrin, Bröckel, Miriam & Pruiskens, Henrik (2013): *Measuring social support within partnerships: proposal for a short survey instrument*, SFB 882 Technical Report Series, No. 03, DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld.

Pausch, Stephanie, Harand, Julia, Schunk, Reinhard & Jacobebbinghaus, Peter (2014): *Technical Report Employer Survey Project B3: Interactions Between Capabilities in Work and Private Life*, SFB 882 Technical Report Series, No. 04, DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld.

Schepers, Debbie & Uysal, Burcu (2014): *Die Entstehung und Entwicklung devianten und delinquenten Verhaltens im Lebensverlauf und ihre Bedeutung für soziale Ungleichheitsprozesse: Methodendokumentation der Schülerbefragungen in Dortmund und Nürnberg. Zweite Erhebung 2013*. SFB 882 Technical Report Series, No. 05, DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld.

Abendroth, Anja-Kristin, Melzer, Silvia Maja, Jacobebbinghaus, Peter & Schlechter, Fabienne (2014): *Methodenbericht Beschäftigten- und Partnerbefragung des Linked-Employer-Employee Panels (LEEP-B3) im Projekt B3: Wechselwirkungen zwischen Verwirklichungschancen im Berufs- und Privatleben*. SFB 882 Technical Report Series, No. 06, DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld.

Meinert, Julia, Kaiser, Florian & Guzy, Jacob (2014): *Die Entstehung und Entwicklung devianten und delinquenten Verhaltens im Lebensverlauf und ihre Bedeutung für soziale Ungleichheitsprozesse: Fragebogendokumentation der Schülerbefragung in Dortmund und Nürnberg. Band 1: Itemdokumentation. Erste Erhebungswelle, 2012*. SFB 882 Technical Report Series, No. 07, Bielefeld: DFG Research Center (SFB) 882 From Heterogeneities to Inequalities.

Meyer, Maike & Schepers, Debbie (2014): Die Entstehung und Entwicklung devianten und delinquenten Verhaltens im Lebensverlauf und ihre Bedeutung für soziale Ungleichheitsprozesse: Methodendokumentation der Schülerbefragungen in Dortmund und Nürnberg. Zwei-Wellen-Panel. SFB 882 Technical Report Series, No. 08, Bielefeld: DFG Research Center (SFB) 882 From Heterogeneities to Inequalities.

Reimann, Mareike, Andernach, Björn, Schunck, Reinhard, Diewald, Martin, Abendroth, Anja-Kristin, Melzer, Silvia Maja & Pausch, Stephanie (2014): *Methodenbericht Faktorieller Survey (Vignetten) Projekt B3: Wechselwirkungen zwischen Verwirklichungschancen im Berufs- und Privatleben*. SFB 882 Technical Report Series, No. 09, Bielefeld: DFG Research Center (SFB) 882 From Heterogeneities to Inequalities.

Sauer, Carsten & Valet, Peter (2014): *Erwartungen an Wirtschaft und Gesellschaft Feldbericht und Codebuch zur Erwerbstätigenbefragung. Erste Welle*. SFB 882 Technical Report Series, No. 10, Bielefeld: DFG Research Center (SFB) 882 From Heterogeneities to Inequalities.

Sauer, Carsten, Valet, Peter & Meyer, Lena (2014): *Expectations Towards Economy and Society. Codebook of the Employee Survey*. SFB 882 Technical Report Series, No. 11, Bielefeld: DFG Research Center (SFB) 882 From Heterogeneities to Inequalities.

Abendroth, Anja, Melzer, Silvia Maja, Jacobebbinghaus, Peter, & Schlechter, Fabienne (2014): *Methodological Report Employee and Partner Surveys of the Linked Employer-Employee Panel (LEEP-B3) in Project B3 "Interactions Between Capabilities in Work and Private Life: A Study of Employees in Different Work Organizations"*. SFB 882 Technical Report Series, No. 12, Bielefeld: DFG Research Center (SFB) 882 From Heterogeneities to Inequalities.

Valet, P., Sauer, C., May, M. & Liebig, S. (2014). *LINOS-1: Legitimation of Inequality Over the Life-Span*. SFB 882 Technical Report Series, No. 13, Bielefeld: DFG Research Center (SFB) 882 From Heterogeneities to Inequalities.

Jacobebbinghaus, Peter, Seth, Stefan, Diewald, Martin, Schunck, Reinhard, Abendroth, Anja, Melzer, Silvia Maja, Pausch, Stephanie, Reimann, Mareike, & Andernach, Björn (2014): *Verknüpfung der LEEP-B3 Befragungsdaten mit administrativen IAB-Daten*. SFB 882 Technical Report Series, No. 14. DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld.

Cardona, Andrés, Diewald, Martin, Kaiser, Till, & Osmanowski, Magdalena (2015): *Measuring cultural capital: Sense of entitlement, concerted cultivation, leisure activities, gatekeeper bias and skills*. SFB 882 Technical Report Series No. 15. DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld.

Tuncer, Hidayet, Breckenkamp, Jürgen, Razum, Oliver & Faist, Thomas (2015): *Technical Report: "Pilot Project for the Panel Study" Project C1: "Transnationality and Inequality"*. SFB 882 Technical Report Series No. 16. DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld.

Breckenkamp, Jürgen, Tuncer, Hidayet, Akbulut, Nurcan, & Faist, Thomas (2015): *Transnationality and inequality: codebook of the pilot project for the panel study*. SFB 882 Technical Report Series No. 17. DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld.

Arnis, M. (2015). *Die Entstehung und Entwicklung devianten und delinquenten Verhaltens im Lebensverlauf und ihre Bedeutung für soziale Ungleichheitsprozesse: Fragebogendokumentation der Schülerbefragung in Dortmund und Nürnberg. Band 2: Skalendokumentation. Erste Erhebungswelle, 2012*. SFB 882 Technical Report Series No. 18. Bielefeld: DFG Research Center (SFB) 882 From Heterogeneities to Inequalities.

Reimann, Mareike, Pausch, Stephanie, Diewald, Martin, Schunck, Reinhard, Abendroth, Anja, Melzer, Silvia Maja, Andernach, Björn, & Jacobebbinghaus, Peter (2015): *Technical report employer survey wave 2: Project B3 "Interactions Between Capabilities in Work and Private Life"*. SFB 882 Technical Report Series No. 19. DFG Research Center (SFB) 882 From Heterogeneities to Inequalities, Bielefeld.