

Children of Immigrants Longitudinal Survey in Four European Countries

**Germany
(CILS4EU-DE)**

Technical Report on the Factorial Survey Experiment “Partnership Preferences among Young Adults in Germany”

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1. Introduction

In the 9th wave of the CILS4EU-DE survey, a factorial survey experiment on preferences regarding partnerships was implemented. The aim of this experiment was to measure partnership preferences among the participants based on different characteristics of a potential partner. In the experiment, respondents received different descriptions of a hypothetical partner (so-called *vignettes*) and were asked to evaluate their willingness to engage in a partnership with this person. The information on the hypothetical partner in the vignettes and the kind of partnership the respondents were asked to rate thereby varied experimentally on several characteristics (*dimensions*) on multiple levels. Compared to single item questions, the factorial survey experiment makes it possible to measure the influence of those characteristics more precisely. Furthermore, the factorial survey experiment allows disentangling the effects of different dimensions of the potential partner's characteristics, which might be highly correlated and therefore difficult to differentiate in more conventional survey items.

The experiment is set in the broader context of the PARFORM study¹, a three-wave panel of young male refugees from Syrian and Afghanistan, which aims at getting a closer look at refugees' partnership formation patterns in Germany. In this study, an almost identical factorial survey experiment was implemented, which allows to compare partnership preferences between refugees in Germany and the established population of a similar age. The aim of these experiments was to gain a better understanding of the characteristics of potential partners that are important for refugees as well as for young adults with and without migration background in Germany. Given the high influx of young and unmarried refugees from Middle Eastern and Muslim majority countries to Germany mainly in 2015/16, the factorial survey experiment implemented in the CILS4EU-DE survey placed a special focus on the openness of young adults in Germany towards partnerships with Syrian and Afghan refugees and included several characteristics that are known to be especially important for the formation of interethnic partnerships (e.g., Kalmijn, 1998).

2. Description of the factorial survey experiment

The survey experiment was implemented in the online (CAWI) and paper questionnaire (PAPI), but not in the telephone interviews. In the PAPI and CAWI modes of the CILS4EU-DE survey, all respondents received four different vignettes containing a description of a hypothetical partner and were asked to express their willingness to enter a partnership with the described person. The hypothetical partner

¹ For more information on this study, see <https://www.parform-project.eu/>

(*the vignette person*), described in the vignettes varied on four different characteristics (*vignette dimensions*): Origin, religious denomination, religiosity, educational degree. Furthermore, the type of partnership that respondents were asked to evaluate varied between the vignettes. After the description of the vignette person, respondents were asked to report their willingness to either marry the described person, to enter a committed partnership with them or to enter a casual partnership with them (see figure 1 for an example of a vignette and table 1 for all dimensions and levels). Respondents were asked to evaluate their willingness to enter the partnership on an eleven-point (CAWI) respective a ten-point (PAPI) scale ranging from *not at all* to *completely*. Gender-neutral language was used to allow respondents to evaluate the vignettes independent of their own sexual orientation (see table A1 and figure A1 for the original German wording).

Figure 1: Example of a vignette (English translation)

You have met someone who has come to Germany as a refugee from Syria a few years ago. This person is a Christian and religion plays an important role in their life. The person has a tertiary educational degree.

In principle, can you imagine entering a committed romantic partnership with the person described?

Note: Underlined parts indicate the dimensions that were varied. In the real questionnaires, the dimensions in the first paragraph were not underlined, the dimension in the question, however, was underlined.

Table 1: Dimension and levels (English translation)

Dimensions	Levels
Type of partnership	<ol style="list-style-type: none"> 1. Marriage 2. Committed romantic partnership 3. Casual romantic partnership
<i>Characteristics of the described partner</i>	
Origin	<ol style="list-style-type: none"> 1. Born in Germany, without migration background 2. Born in Germany, with migration background 3. Syrian refugee 4. Afghan refugee
Religious denomination	<ol style="list-style-type: none"> 1. Christian 2. Muslim
Religiosity	<ol style="list-style-type: none"> 1. Religion does not play a big role in the person's life 2. Religion plays an important role in the person's life
Educational attainment	<ol style="list-style-type: none"> 1. Never has been enrolled in tertiary education 2. Has a tertiary educational degree

The vignette module began with a short, standardized introduction, that informed respondents about the topic of the following module and gave them instructions on answering the questions (see figure 2 for the translation of the introduction and figure A3 for the original German wording).

Figure 2: Introduction to vignette module (English translation)

In the following we are interested in partnerships and relationships. First, we would like to know which characteristics are important to you in a woman/a man with whom you would like to have a partnership.

For this purpose, we present you with 4 people with different characteristics. Please indicate in each case whether you can in principle imagine entering a partnership with this person. A distinction is made between marriage, committed partnership, and casual partnership. A casual partnership is less committed and often not as long-term as a committed partnership. If you are currently in a partnership, please imagine how you would react if you were not in a partnership.

3. Experimental design to generate vignettes

Given the number of dimensions and levels of the vignettes, the full set of combinations of characteristics (*vignette universe*) contains $3 \times 4 \times 2 \times 2 \times 2 = 96$ different vignettes. We used a D-efficient sampling technique that minimizes correlations between dimensions while maximizing the variance of each of the dimensions to select a fraction of all possible vignettes (Auspurg & Hinz, 2015). Thereby, 48 vignettes from the vignette universe were assigned to 12 experimental groups (*decks*) with four different vignettes each, using an algorithm provided by Warren Kuhfeld (2010) for the statistical software SAS (D-efficiency of 98.9). To avoid confounding through interactions between the dimensions of the vignettes, we accounted for all two-level interactions in the selection of the vignettes. Respondents were randomly allocated to one of the decks. To make sure that the decks were evenly distributed between respondents with and without migration background, we allocated the decks separately for the two groups. People in the sample were categorized as having a migration background if at least one of their grandparents on the maternal and paternal side each is foreign-born, i.e., up to the 3.5th generation. For more information on how generational status is measured in the CILS4EU(-DE) survey, see Dollmann et al. (2014). The design ensured that there was no correlation between the vignette dimensions as well as between the migration background of the respondents and the vignette decks. Table A2 shows that the randomization worked well given no significant correlations between the vignette dimensions in the realized sample for all respondents and for the two groups separately. To minimize carryover effects through the order in which the vignettes are presented, the order of the vignettes within each deck was randomized for each respondent. Both, the allocation to the experimental group (deck) as well as the randomization of the order in which the vignettes were presented to the respondents, took place immediately before reaching the question-

page with the first vignette in the online questionnaire of the CAWI mode. In the PAPI mode the allocation to the experimental group and randomization of the order of vignettes took place already in the process of the creation of the paper questionnaires. Accordingly, respondents who participated in the CAWI mode were only assigned to an experimental group and the corresponding vignettes if they reached this module, respondents who participated in the PAPI mode were all assigned to an experimental group, even in case they have not answered the vignette module.

4. Realized sample and data quality

In total, 3,812 respondents participated in the CAWI (n = 3,190) and the PAPI (n = 622) mode in wave 9 of the CILS4EU-DE data study. Among respondents that took part in the CAWI mode, nine respondents dropped out before the vignette module. Among the 3,181 respondents who got to the module, 3,172 respondents answered at least one vignette. Among the 622 respondents that took part in the PAPI mode, 613 answered at least one vignette. Four respondents in the CAWI mode and three respondents in the PAPI mode answered at least one, but not all four vignettes (see table 2), leaving us with a total of 15,130 vignette evaluations by 3,785 respondents and a non-response rate of 0.5 percent (0.3 percent in the CAWI mode; 1.6 percent in the PAPI mode).

Table 2: Number of answered vignettes by respondents

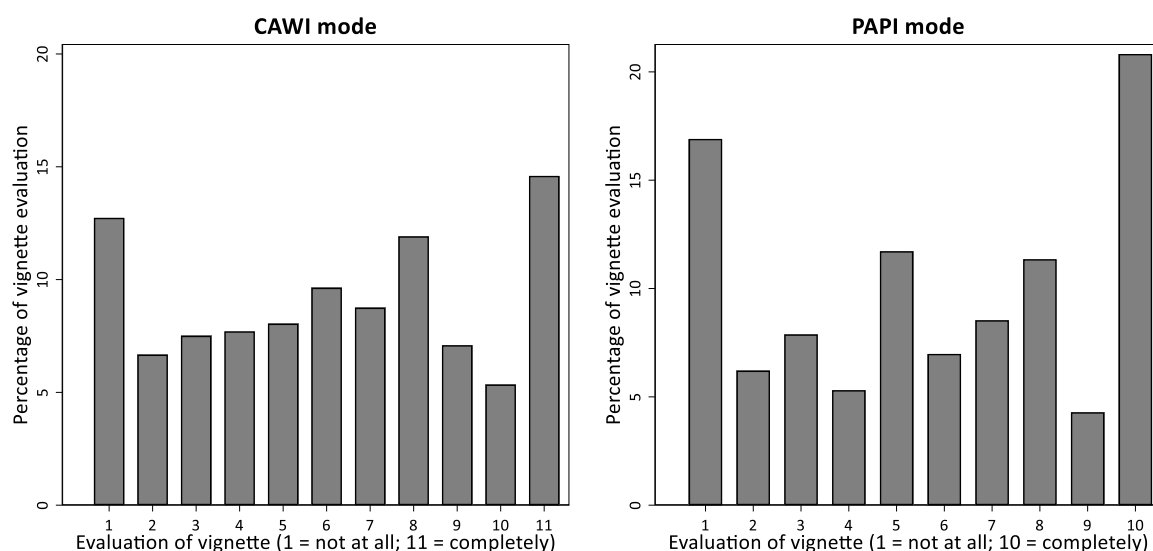
Number of answered vignettes by respondents	Survey Mode	
	CAWI	PAPI
0	9	9
1	1	0
2	1	0
3	2	3
4	3,168	610
Total	3,181	622

Table 3 shows that the realized number of respondents is very similar across experimental groups (i.e., decks) in the CAWI and the PAPI mode, although to a slightly lower degree in PAPI mode.

Table 3: Number of respondents per experimental group

Experimental Group	CAWI		PAPI	
	N	Share (%)	N	Share (%)
1	265	8.35	42	6.85
2	264	8.32	61	9.95
3	260	8.20	47	7.67
4	265	8.35	66	10.77
5	266	8.39	49	7.99
6	265	8.35	51	8.32
7	265	8.35	48	7.83
8	262	8.26	47	7.67
9	266	8.39	46	7.50
10	263	8.29	59	9.62
11	265	8.35	46	7.50
12	266	8.39	51	8.32

Figure 3 shows the distribution of the vignette evaluations separately for the PAPI and CAWI mode. In both modes, respondents used all possible evaluations. The lowest and highest possible scale point are the most frequent answers, followed by the middle category. Table 4 displays descriptive statistics for the PAPI and CAWI mode. The mean evaluation is 6.1 in the CAWI and 5.7 in the PAPI mode, with a similar standard deviation in both modes (note that the answer scale differed between the two modes: CAWI mode: scale 1-11, PAPI mode: scale 1-10). The table also includes a combined measure of respondents' evaluations of the vignettes (last row), which combines data from the CAWI and PAPI mode. We used linear stretching to stretch the answer scale of the PAPI mode from 1-10 to 1-11 (for more information, see chapter 5). The combined measure had a similar distribution to the original CAWI scale (mean = 6.14; SD = 3.36).

Figure 3: Distribution of vignette evaluations in the PAPI and CAWI mode**Table 4: Descriptive statistics - vignette evaluations by mode and combined scale**

Survey Mode	N	Mean	SD	Min	Max
PAPI	2,449	5.72	3.23	1	10
CAWI	12,681	6.12	3.32	1	11
Combined scale	15,130	6.14	3.36	1	11

Note: The combined scale contains vignette evaluation of both, CAWI and PAPI respondents using linear stretching for PAPI respondents (see for details section 5)

5. Description of the vignette dataset

The vignette dataset contains the data from the factorial survey experiment in a long data format. This means that each row represents one vignette evaluation, resulting in four rows per respondent. The dataset contains the respondent ID (*youthid*), which uniquely identifies the respondent. This ID-variable allows users to merge the vignette evaluations with other datasets of the CILS4EU survey (see table 5 for an overview of all variables included in the vignette dataset).

Four variables provide information generated through the experimental design of the data. The variable *y9_vgroup* contains information on the split between respondents with and without a migration background used for the separate allocation of decks. The variable *y9_vdeck* identifies the experimental group the respondent was assigned to. This variable is the same across all observations of the same respondent. The variable *y9_vrun* identifies the exact vignette within each experimental group, which means that the combination of *deck* and *run* uniquely identifies each of the 48 selected

vignettes (4 runs per 12 experimental decks). Lastly, the variable *y9_vpos* contains information on the position the vignette was presented at in the questionnaire, which was randomized.

The variables *y9_vp_orig*, *y9_vp_denom*, *y9_vp_relig*, *y9_vp_educ*, and *y9_vp_type* identify the level of the five different dimensions in this vignette, i.e., the country of origin, denomination, religiosity, and education of the described vignette person as well as the type of partnership used in the vignette.

Since the answer scales differed by survey mode, the dataset includes two different variables for the vignette evaluation - one for each survey mode. The variable for the CAWI mode (*y9_vr_web*) contains the answers of the respondents who answered in CAWI mode on a scale from 1 (*not at all*) to 11 (*completely*). The variable for the PAPI mode (*y9_vr_post*) contains the answers of respondents who participated in PAPI mode on a scale from 1 (*not at all*) to 10 (*completely*). To make it easier for users to jointly analyze vignette evaluations from both modes, we include a variable with a harmonized measure of the answers to the vignettes that combines the data from both survey modes. To this end, the evaluations of respondents who participated in the PAPI mode were linearly stretched, so that the 10-point scale was fitted to the CAWI mode's 11-point scale. As a result, the original 10-point scale of the PAPI mode was extended to a scale from 1 to 10.99. Table 5 shows the values used for harmonization.

Table 5: Values on the original PAPI and the harmonized scale

PAPI scale	1	2	3	4	5	6	7	8	9	10
Harmonized scale	1	2.11	3.22	4.33	5.44	6.55	7.66	8.77	9.88	10.99

Table 6: Overview of variables in the vignette dataset

Variable name	Description	Values
Sample information		
youthid	Unique international Youthid ID; can be used to merge the vignette dataset with other CILS4EU datasets	F 8.0
youthid_ge	National Youthid ID (Germany); can be used to merge the vignette dataset with other CILS4EU datasets	F 10.0
country	Country of survey	2 "Germany"
y9_status	Mode of youth vignette interview	3 "Post" 4 "Online"
y9_intdat_yv	Date of youth vignette interview	DD/MM/YYYY
y9_intdat_yvRV	Date of youth vignette interview (Reduced version)	MM/YYYY
y9_vers_yv	Data release version of vignette main interview	7.0.0

Information on experimental design		
y9_vgroup	Vignette group: migrant vs non-migrant respondents	1 "Native" 2 "Migration background"
y9_vdeck	Vignette deck, experimental group	1 "Group 1" to 12 "Group 12"
y9_vrun	Vignette run, vignette number within the experimental group (four per experimental group). Each run refers to a specific vignette in each experimental group	1 "Vignette 1" to 4 "Vignette 4"
y9_vpos	Vignette position in which the respective vignette was presented to the respondent	1 "Position 1" to 4 "Position 4"
Vignette dimensions		
y9_vp_orig	Origin of the vignette person	1 "Born in Germany, without migration background" 2 "Born in Germany, with migration background" 3 "Syrian refugee" 4 "Afghan refugee"
y9_vp_denom	Religious denomination of the vignette person	1 "Christian" 2 "Muslim"
y9_vp_relig	Religiosity of the vignette person	1 "Religion does not play a big role" 2 "Religion plays an important role"
y9_vp_educ	Educational attainment of the vignette person	1 "Never enrolled in tertiary education" 2 "Tertiary educational degree"
y9_vp_type	Type of partnership	1 "Marriage" 2 "Committed romantic partnership" 3 "Casual romantic partnership"
Evaluation of vignettes		
y9_ve_web	Evaluation of the vignette (online questionnaire): Rating of the willingness to engage in a partnership with the described person	1 "Not at all" – 11 "Completely"
y9_ve_post	Evaluation of the vignette (postal questionnaire): Rating of the willingness to engage in a partnership with the described person	1 "Not at all" – 10 "Completely"
y9_ve_lin	Evaluation of the vignette (combined measure for online and postal questionnaire modes): Rating of the willingness to engage in a partnership with the described person	1 "Not at all" – 11 "Completely"

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7. Appendix

Figure A1: Example of a vignette (actual wording)

Vignette: Sie haben jemanden kennengelernt, der vor einigen Jahren als Flüchtling aus Syrien nach Deutschland kam. Diese Person gehört dem Christentum an und Religion spielt eine wichtige Rolle im Leben dieser Person. Die Person hat einen Hochschulabschluss.

Frage: Können Sie sich grundsätzlich vorstellen, mit der beschriebenen Person eine feste Beziehung einzugehen?

Figure A2: Introduction to vignette modele (actual wording)

Im Folgenden interessieren wir uns für Partnerschaften und Beziehungen. Zunächst möchten wir wissen, welche Merkmale Ihnen bei einer Frau/einem Mann wichtig sind, mit der/dem Sie eine Beziehung führen möchten.

Dazu stellen wir Ihnen 4 Personen mit verschiedenen Merkmalen vor. Bitte geben Sie jeweils an, ob Sie sich grundsätzlich vorstellen können, mit dieser Person eine Beziehung einzugehen. Dabei wird zwischen Ehe, fester Beziehung und lockerer Beziehung unterschieden. Eine lockere Beziehung ist weniger verbindlich und oftmals nicht so langfristig wie eine feste Beziehung. Falls Sie zurzeit in einer Beziehung sind, stellen Sie sich bitte vor, wie Sie reagieren würden, wenn Sie keine Beziehung hätten.

Table A1: Dimension and levels (actual wording)

Dimensionen	Level
Art der Partnerschaft	1. Ehe 2. Feste Beziehung 3. Lockere Beziehung (Dating)
<i>Charakteristika des Partners/der Partnerin</i>	
Herkunft	1. In Deutschland geboren ist und keinen Migrationshintergrund hat 2. einen Migrationshintergrund hat, aber in Deutschland geboren ist 3. Syrischer Flüchtling 4. Afghanischer Flüchtling
Denomination	1. Christentum 2. Islam
Religiosität	1. Religion spielt jedoch keine große Rolle im Leben dieser Person 2. Und Religion spielt eine wichtige Rolle im Leben dieser Person
Bildung	1. hat nie eine Hochschule besucht 2. Hochschulabschluss

Table A2: Spearman correlations of vignette dimensions (realized sample)

All respondents	Partnership type	Origin	Denomination	Religiosity	Education
Partnership type	1.0000				
Origin	-0.0070	1.0000			
Denomination	0.0032	0.0018	1.0000		
Religiosity	0.0043	-0.0005	-0.0005	1.0000	
Education	-0.0006	-0.0034	0.0045	-0.0016	1.000
Native	Partnership type	Origin	Denomination	Religiosity	Education
Partnership type	1.0000				
Origin	-0.0028	1.0000			
Denomination	-0.0004	0.0019	1.0000		
Religiosity	-0.0007	0.0014	-0.0017	1.0000	
Education	-0.0038	-0.0023	0.0078	-0.0030	1.0000
Migrant	Partnership type	Origin	Denomination	Religiosity	Education
Partnership type	1.0000				
Origin	-0.0136	1.0000			
Denomination	0.0089	0.0015	1.0000		
Religiosity	0.0101	-0.0033	0.0040	1.0000	
Education	-0.0043	-0.0051	0.0007	0.0007	1.0000