Online-Appendix

Designing Multi-Factorial Survey Experiments:
Effects of Presentation Style (Text or Table), Answering Scales,
and Vignette Order

Appendix A

Screenshots of Vignettes used in the Experimental Splits

Fallbeispiel 1:

Eine 55-jährige Frau mit Hochschulabschluss hat keine Kinder, arbeitet als Programmiererin und verfügt über viel Berufserfahrung. Sie ist erst seit kurzem in dem Unternehmen beschäftigt.

Ihr Einkommen beträgt monatlich 500,- Euro (vor Abzug von Steuern und Abgaben).

Ist das monatliche Brutto-Einkommen dieser Person gerecht oder ist es Ihrer Meinung nach ungerechterweise zu hoch bzw. ungerechterweise zu niedrig?

○-5 ○-4 ○-3 ○-2 ○-1 ○0 ○1 ○2 ○3 ○4 ○5

Ungerechterweise   Gerecht   Ungerechterweise
zu niedrig   zu hoch

<< Zurück   Weiter >>   14% abgeschlossen

Figure A1   Example of a vignette with running text and rating scale.

Fallbeispiel 1:

Geschlecht:	Männlich			Berufliche Tätigkeit:	Lokführer
Alter:	40 Jahre			Berufserfahrung:	Viel
Ausbildung:	Abgeschlossene Berufsausbildung			Betriebszugehörigkeit:	Lang
Kinder:	Zwei Kinder			Einkommen:	500,- Euro (vor Abzug von Steuern und Abgaben)

Ist das monatliche Brutto-Einkommen für diese Person Ihrer Meinung nach gerecht oder ungerecht?

⦾ Einkommen ist gerecht
⦾ Einkommen ist ungerecht

<< Zurück   Weiter >>   14% abgeschlossen

Notes. The open scale was measured by three steps: (1) the respondents were asked to assess whether or not the earnings were just or unjust. The two further response tasks are presented in Figure A2_2.

Figure A2_1 Example of a vignette with tabular presentation of dimensions and an open scale (part 1).

Fallbeispiel 1:

Geschlecht:	Männlich			Berufliche Tätigkeit:	Lokführer
Alter:	40 Jahre			Berufserfahrung:	Viel
Ausbildung:	Abgeschlossene Berufsausbildung			Betriebszugehörigkeit:	Lang
Kinder:	Zwei Kinder			Einkommen:	500,- Euro (vor Abzug von Steuern und Abgaben)

Ist das Brutto-Einkommen ungerechterweise zu hoch oder zu niedrig?

⦾ Ungerechterweise zu hoch
⦾ Ungerechterweise zu niedrig

Welche Zahl drückt das Ausmaß an Ungerechtigkeit, das Sie persönlich empfinden, am besten aus?
(Bei einer großen Ungerechtigkeit drücken Sie dies mit einer großen Zahl aus, bei einer geringeren Ungerechtigkeit verwenden Sie eine kleine Zahl. Welche Zahlen Sie verwenden, bleibt Ihnen überlassen.)

Ausmaß: [   ]

**<< Zurück   Weiter >>**   15% abgeschlossen

Notes. The last two response steps were presented on an additional page, that also showed the vignettes. Here the respondents assessed (2) whether the earnings were too high or too low. (3) respondents provided a number that depicted the extent of perceived injustice.

Figure A2_2 Example of a vignette with tabular presentation of dimensions and an open scale (part 2).

Appendix B

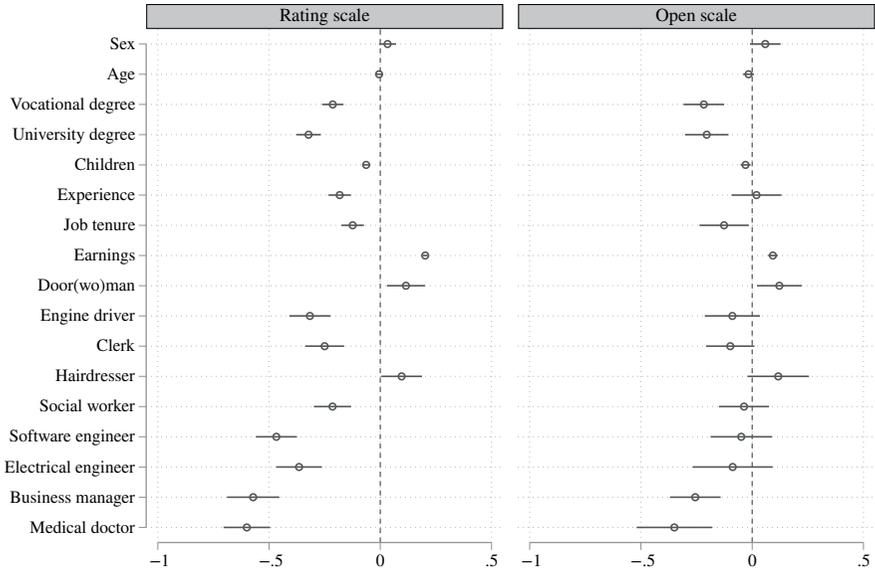## Regression Coefficients and Standard Errors for Regressions Underlying Table 3.

Figure B1 shows the regression coefficients of linear multi-level regression models separately estimated for the two variants in presentation style (text or table). Negative values indicate the substantive result that participants perceived vignette persons with these characteristics as being under-rewarded, ceteris paribus. E.g., vignette persons with a university degree were more often rated as under-rewarded compared to the reference group of those without vocational training. In other words, education should lead to higher fair earnings in the eyes of the participants. The same is true for the occupations (reference group is the unskilled worker). Vignette persons with more prestigious occupations should earn more than those with less prestigious occupations. The results are in line with findings of other studies on the justice of earnings (cf. Liebig et al., 2015).
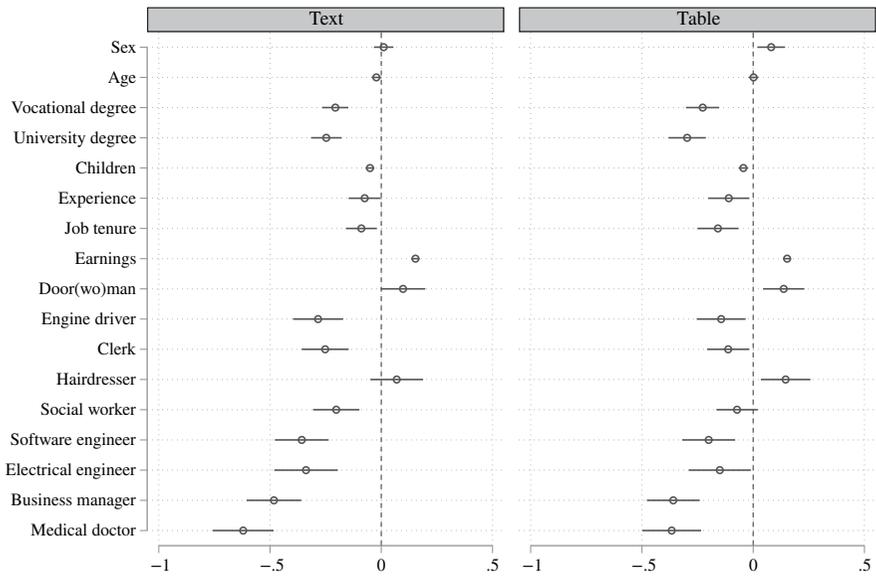
Notes. Controlled for further experimental manipulations (vignette order and answering scale) and respondents' sex and place of survey (26 dummies for the universities). Age in years/10 and earnings in Euros/1000. Reference group for degree: without vocational training; reference group for occupation: unskilled worker. $N_{vignettes}$ = 7895; $N_{respondents}$ = 408.

Figure B1   β-coefficients and standard errors of linear multi-level regressions (generalized least square estimator) of justice evaluations on vignette dimensions for running text and table vignettes.

Figure B2 shows the coefficients for the two response scales separately. Even though the pattern is similar overall, many coefficients seem to be remarkably different as effect sizes are smaller and standard errors are larger with the open scale.

Notes. Controlled for further experimental manipulations (vignette dimension presentation and vignette order) and respondents' sex and place of survey (26 dummies for the universities). Age in years/10 and earnings in Euros/1000. Reference group for degree: without vocational training; reference group for occupation: unskilled worker. $N_{vignettes}$ = 7895; $N_{respondents}$ = 408.

Figure B2   β-coefficients and standard errors of linear multi-level regressions (generalized least square estimator) of justice evaluations on vignette dimensions for vignettes evaluated via rating scales and open scales.

Figure B3 shows the regression coefficients for the two order splits (random order vs. extreme cases first). The pattern is similar to the pattern described for Figure B1. There are hardly any differences between the two design variants.
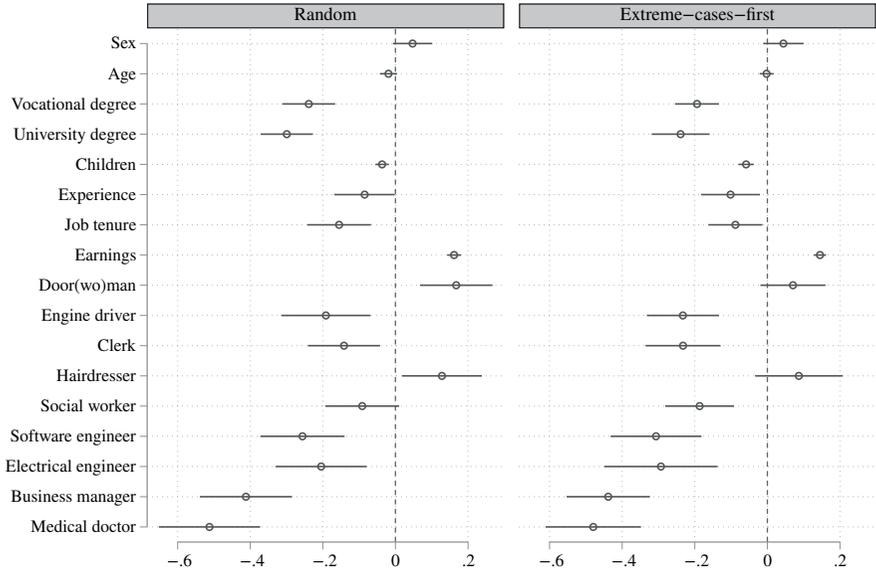
Notes. Controlled for further experimental manipulations (vignette dimension presentation and answering scale) and respondents' sex and place of survey (26 dummies for the universities). Age in years/10 and earnings in Euros/1000. Reference group for degree: without vocational training; reference group for occupation: unskilled worker. $N_{vignettes}$ = 7895; $N_{respondents}$ = 408.

Figure B3   β-coefficients and standard errors of linear multi-level regressions (generalized least square estimator) of justice evaluations on vignette dimensions for randomly ordered vignettes and extreme-vignettes-first sorting.

Appendix C

Robustness Checks for the Effects of Open Scales vs. Rating Scales: Using an Alternative Standardization of Response Scales

To check whether the found differences between the scales on the effects of vignette dimensions resulted from the standardization procedure of the two scales, we used an alternative coding in Table C1. We trichotomized the answering scales (under-rewarded, fair, over-rewarded) and run random-effects ordered logistic regressions. The results indicate that even with this less nuanced categorization (that reduces the graduation in judgements remarkably), we still find statistically significant differences between the scales.

Table C1   Tests for answering scale effects on vignette evaluations

	df	Chi²	*p*-value
Open scale x sex	1	0.613	0.434
Open scale x age	1	1.678	0.195
Open scale x degree	2	0.100	0.951
Open scale x children	1	7.797	0.005
Open scale x experience	1	0.035	0.852
Open scale x tenure	1	0.034	0.854
Open scale x earnings	1	47.974	0.000
Open scale x occupation	9	22.877	0.006
Overall	17	69.487	0.000

Notes. Tests after multi-level estimation with interaction terms; df: degrees of freedom; reference category: rating scale; Sidak-adjusted *p*-values; $N_{vignettes}$ = 7971; $N_{respondents}$ = 408.