

# A comment on

## “They Never had a Chance: Unequal Opportunities and Fair Redistributions”\*

Valentin Klotzbücher

Tim Krieger

Marco Wallner

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### Abstract

We reassess Dong et al. (2025), henceforth DHL, on redistribution under unequal opportunities. Using the authors’ replication package, we re-run every do-file on the raw Qualtrics exports and reproduce all reported figures and tables to the printed digits. The re-analysis confirms DHL’s four descriptive claims: spectators redistribute more when outcomes derive from unequal opportunity, and the ordering Luck > Random-Education > Random-Employment > Merit holds throughout.

We also inspect the preregistered matching protocol versus the realized deterministic pairing, and probe two missing-data conventions (demographics and belief items). None of these perturbations affects the magnitude or statistical significance of the main descriptive pattern.

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\* Authors: Klotzbücher: University of Freiburg, University of Basel, and University Hospital Basel. E-mail: [valentin.klotzbuecher@usb.ch](mailto:valentin.klotzbuecher@usb.ch); Krieger: University of Freiburg and CESifo. E-mail: [tim.krieger@econ.uni-freiburg.de](mailto:tim.krieger@econ.uni-freiburg.de); Wallner: Independent researcher. We received no external funding for this project and report no financial or personal conflicts of interest with the authors of DHL.

## 1 Introduction

DHL investigate spectators' fairness preferences when observed performance differences can stem from unequal opportunity. Spectators choose redistributions between a relatively advantaged and a relatively disadvantaged worker across conditions where differences originate from random disparities in education or employment (unequal-opportunity conditions) versus benchmark cases. The main descriptive claim is that spectators shift resources toward the disadvantaged when disparities reflect unequal opportunity.

This descriptive pattern intersects with a long debate about merit and desert: when outcomes reflect advantage rather than ability or effort, redistribution can be perceived as restoring fairness rather than dulling incentives. As already captured in Young (1958)'s classic *The Rise of the Meritocracy*, relabeling advantage as virtue can naturalize unequal starting points. DHL's design lets spectators condition transfers precisely on that boundary between opportunity and effort.

The study relies on a Qualtrics-hosted online experiment fielded between January and April 2022. DHL recruited 842 workers to perform the real-effort tasks that generate redistribution scenarios and, in parallel, English-language spectator cohorts (1,708 respondents for the main redistribution task plus 992 for the Vary modules) who observe the outcomes and choose transfers.

In this report for the Institute for Replication (I4R; Brodeur *et al.* 2024), we (i) carefully evaluate computational reproducibility from raw data using the authors' Stata code, (ii) re-do the data cleaning and analysis in Python as a cross-software check, and (iii) run a robustness exercise where we exclude missing responses that had been coded as zeros and further re-define the cut-off levels for key binary variables. Overall, the main results reproduce cleanly and the robustness analyses do not alter the qualitative claims.

## 2 Computational Reproducibility

For this report, we use the updated replication package available at <https://doi.org/10.5281/zenodo.16317200>, Version 3. The archive contains (i) raw worker and spectator data, (ii) processed Stata datasets, (iii) a master script (`OPathSetup.do`)

that sequentially calls the cleaning and analysis routines, and (iv) the graph/table outputs embedded in the published PDF. The README clearly documents the workflow and required Stata version.

We execute the master do-file from the project root after fixing `version 16.0` and the recommended random seed; every script runs without modification. The cleaning scripts recreate `spectator-main.dta` and `spectator-vary.dta` from the raw Qualtrics downloads, and the analysis scripts reproduce DHL’s Figures 1–3 and all numbered tables to the printed digits. Table 1 in the Appendix summarizes our inventory of the replication package and confirms that each component required for a raw-data reproduction is present, while the Appendix compiles every replicated table (Tables 2–11) generated by the Stata pipeline. Our annotated coded, along with the modified figures and tables, accompany this report in the public archive at <https://doi.org/10.5281/zenodo.1772780>.

**Cross-software reproduction in Python.** To assess recreate reproducibility, we import the raw data into Python, rebuild the cleaning steps (re-weighting of redistributive choices, trimming of low-quality responses, and treatment-specific aggregation), and recreate Figures 1–3. Point estimates match their Stata counterparts up to rounding, and the ordering of treatments and confidence intervals is identical.

### 3 Discrepancies Between Pre-analysis Plan and Article

The preregistration (<https://doi.org/10.1257/rct.8474-2.0>) described “random ex-post” pairing of workers in the unequal-opportunity conditions. In the realized implementation, pairs were matched deterministically so that the higher-opportunity worker also scored higher and earned \$6 in Random-Education and Random-Employment. Consequently, a disadvantaged worker never “won.” Spectators observed the realized scores and opportunity labels, but they were not told that an underdog win was impossible. The published article (Sec. 1.2.2, footnote 9) reports this deviation. While deterministic pairing could, in principle, make observers more confident that low scores stem from luck rather than effort, we classify this choice as a minor deviation from the pre-analysis plan.

## 4 Robustness reproduction

**Variable abbreviations in Stata.** With Stata’s default settings, all code executes from the master file `0PathSetup.do` once the replication package is set as current working directory. To ensure compatibility we fix Stata `version 16.0` and, as a first check, rerun the master script after changing the default to `set varabbrev off`. We find three abbreviated calls (`scoreemployment`, `finish`, `female1`). Because the abbreviations are unique, results remain identical, yet we strongly recommend turning the option off permanently to avoid silent mis-specification.

**Missing demographics.** When constructing binary indicators (`female1`, `highEdu`, `highIncome`, `conservative`), the original scripts implicitly coded all missing responses as zero. This affects the political ideology split (499 spectators left the party question unanswered), as well as the indicators for high income and high educational attainment. We re-code these variables to keep true missings, treating “Other/prefer not to say” as missing for gender, and recompute the splits. The right-hand panel of Figure 1 shows that dropping the implicit zeros collapses the small conservative/liberal difference in the Random-Education treatment; all other treatments remain unchanged. Appendix Table 12 lists the subgroup means and confidence intervals that underlie Figure 1 for ease of reference.

**Missing beliefs.** For the belief outcomes (perceived role of education or employment in explaining outcomes), missing responses were filled with zeros before computing means. We replicate the graphs while excluding missing responses entirely. As shown in Figures 2 and 3, the means shift only marginally – most notably a slight attenuation in the Vary-Education panel – while the ordering of treatments and confidence intervals remains intact. Appendix Tables 13 and 14 tabulate the scenario-level means and 95% confidence intervals that correspond to Figures 2 and 3.

**Further stress-tests.** We further investigate whether the exclusion criteria and specific cut-off choices affect the results. In particular, we re-define what qualifies as high education, high income, as well as too-fast responses. High income is set at above \$70,000 (instead of \$50,000) and high education at “some college education or a two-year degree” (instead of DHL’s four-year threshold). To guard against

low-effort responses, we tighten the duration filters to 200 and 300 seconds when constructing `spectator-main.dta` and `spectator-vary.dta`, reducing the sample size slightly. Tables 2–11 report key regression results that correspond to these alternative coding choices and show that the treatment contrasts remain qualitatively unchanged.

Across these checks, DHL’s main descriptive claim—that spectators channel more redistribution toward the disadvantaged in unequal-opportunity conditions—remains intact. The treatment means move by less than 0.02 on the 0–1 redistribution scale in every exercise, and the Luck > Merit and Random-Education > Random-Employment contrasts remain significant at  $p < 0.01$ .

## 5 Conclusion

Our replication reproduces DHL’s main figures and balance table from raw data using the provided Stata code and an independent Python re-implementation. Following I4R’s taxonomy, we complete: (i) *computational reproducibility* (rerun authors’ code on raw inputs); (ii) *recreate reproducibility* (independent cross-software implementation); and a basic (iii) *robustness reproducibility* (Section 4). Across the four descriptive claims emphasized by DHL – Luck > Merit; Random-Education between Luck and Merit; Random-Employment between Luck and Merit; Random-Education > Random-Employment – we reproduce 4/4 (100%). All coefficients, standard errors, and p-values match the published tables within rounding tolerance. The preregistered claims remain valid after re-coding missing demographic items and stress-testing alternative cutoffs. We therefore conclude that DHL’s central descriptive message is robust.

## References

- Brodeur *et al.*: 2024, Mass Reproducibility and Replicability: A New Hope, *I4R Discussion Paper Series* .
- Dong, L., Huang, L. and Lien, J. W.: 2025, ‘They Never had a Chance’: Unequal opportunities and fair redistributions, *The Economic Journal* **135**(667), 914–942.

Young, M.: 1958, *The Rise of the Meritocracy, 1870–2033: An Essay on Education and Equality*, Thames and Hudson, London.

## Figures

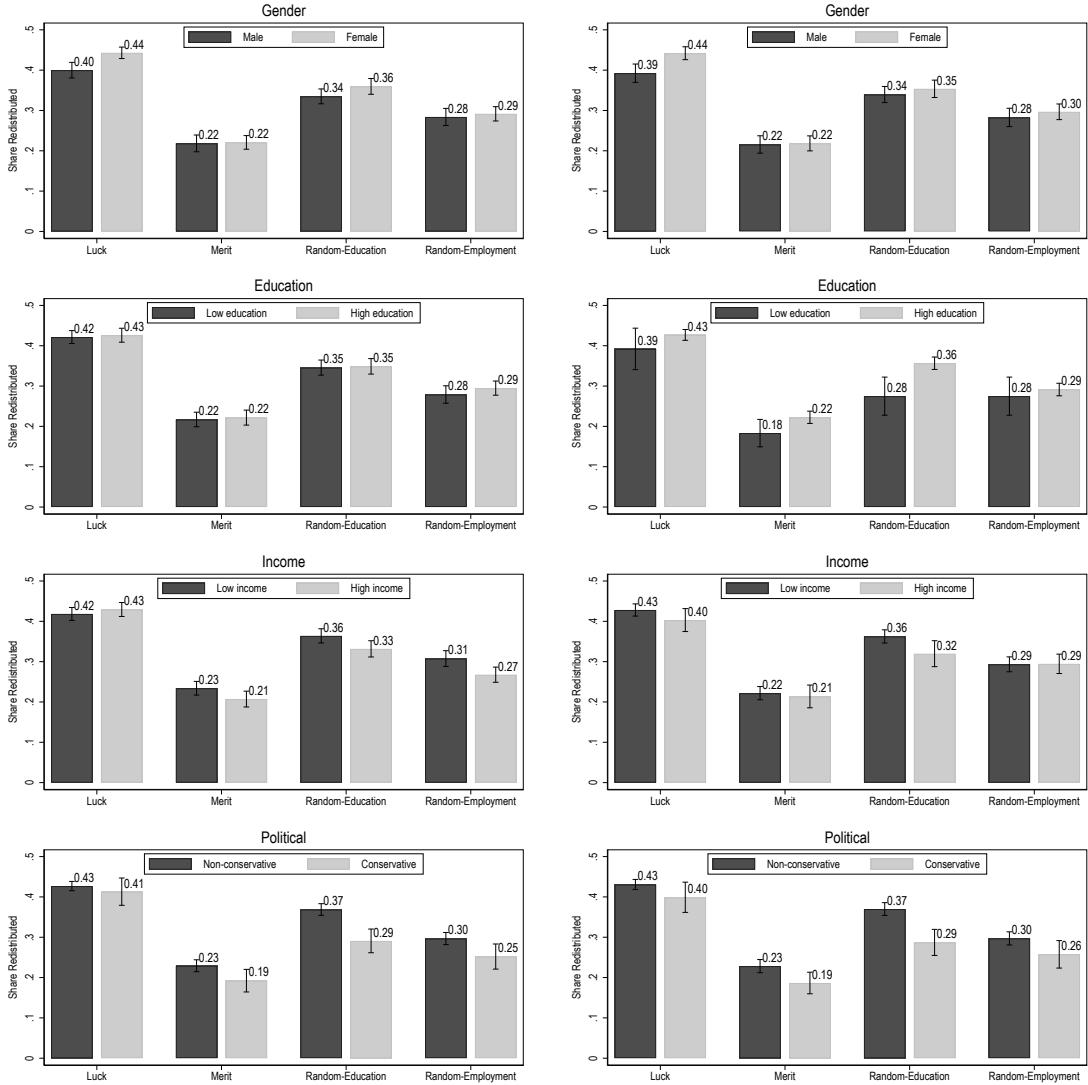


Figure 1: Share redistributed to the disadvantaged worker by treatment (Luck, Merit, Random-Education, Random-Employment) and spectator characteristics: gender, education, income, and political affiliation. Bars depict subgroup means with 95% confidence intervals. The left column reproduces DHL Figure A2; the right column re-creates it with our adjusted spectator sample.

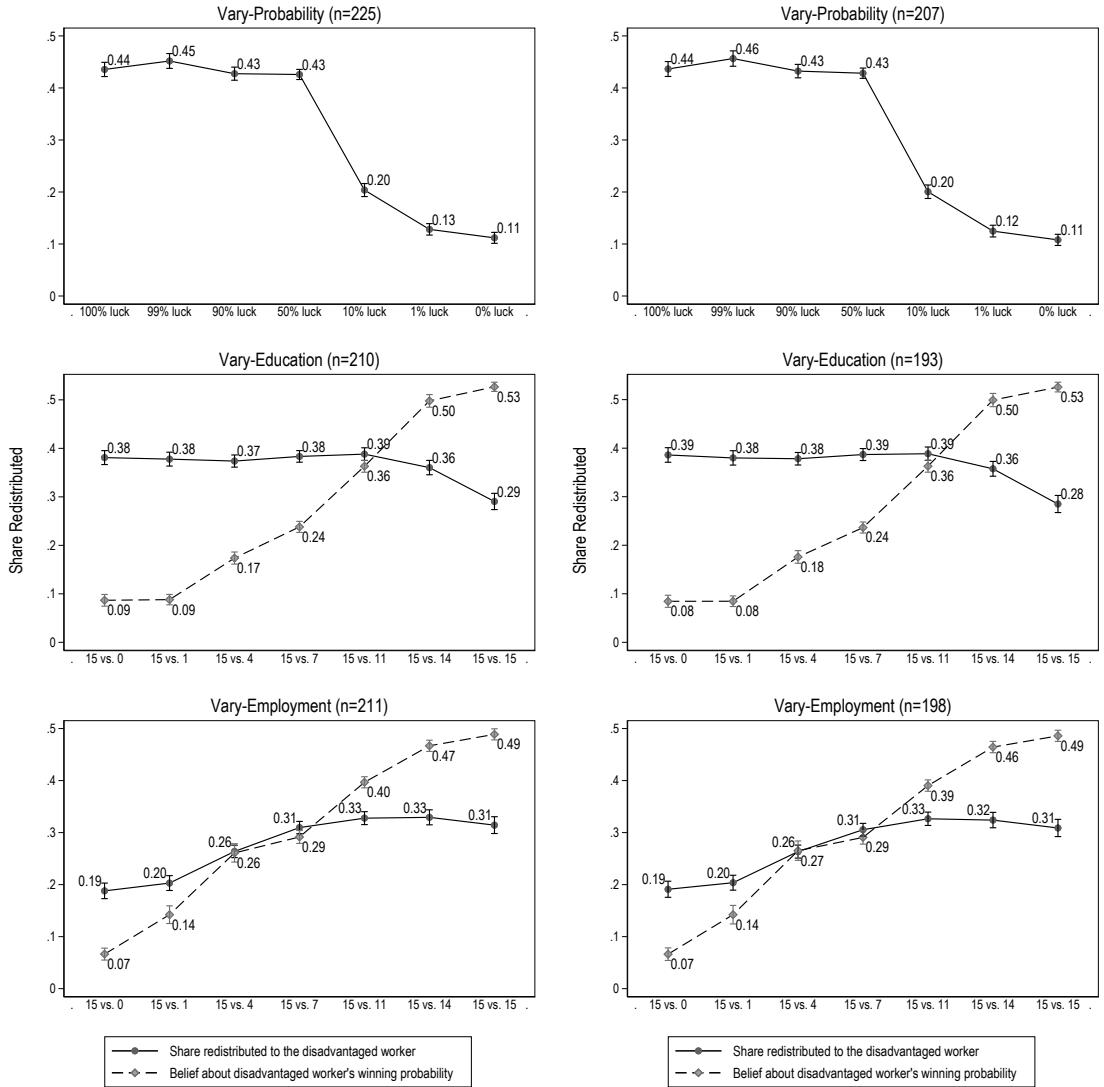


Figure 2: Average share redistributed to the disadvantaged worker (dark line) and spectators' beliefs about the disadvantaged worker's winning probability (light line) across the Vary-Probability, Vary-Education, and Vary-Employment tasks. The left panels reproduce DHL Figure 2; the right panels re-create the same statistic after our missing-data adjustment.

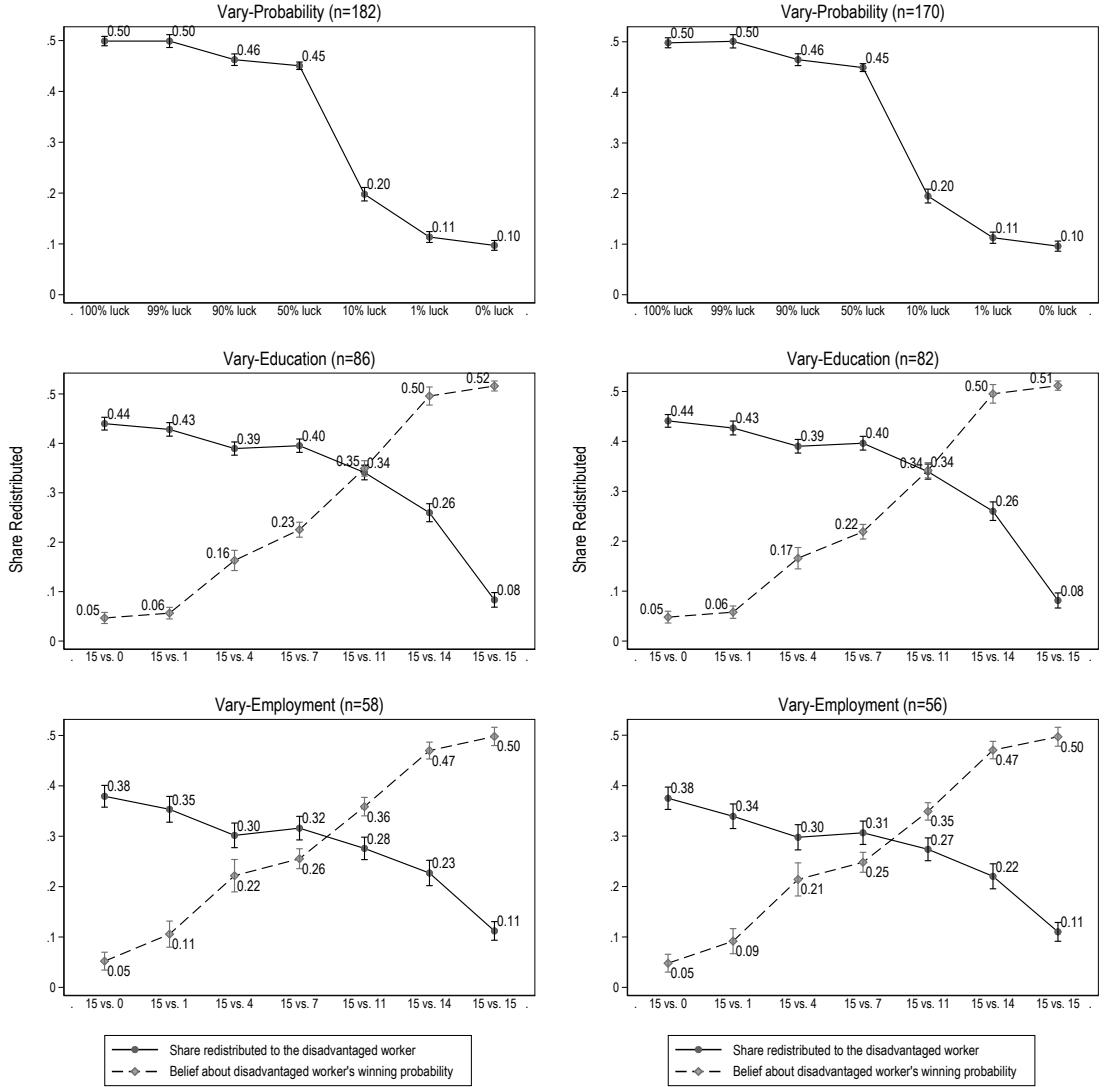


Figure 3: Subsample of “meritocratic” spectators (those who reallocate little when the advantaged worker fully deserves the outcome) in the Vary-Probability, Vary-Education, and Vary-Employment tasks. Each panel plots the mean share redistributed to the disadvantaged worker with 95% confidence intervals. Left panels replicate DHL Figure 3, while the right panels show the same calculation after excluding missing beliefs.

## 6 Appendix

Table 1: Replication Package Contents and Reproducibility

Replication Package Item	Fully	Partial	No
Raw data provided	✓		
Analysis data provided	✓		
Cleaning code provided	✓		
Analysis code provided	✓		
Reproducible from raw data	✓		
Reproducible from analysis data	✓		

*Notes:* This table summarizes the replication package contents available at <https://doi.org/10.5281/zenodo.1631720>.

	Luck	Merit	Random-Education	Random-Employment
Female (share)	.5974026	.5952381	.5294118	.5352941
Average age (years)	46.97436	47.14201	45.74118	45.59064
High education (share)	.8910256	.8816568	.8823529	.8830409
Average income (USD)	57648.03	58185.98	57730.06	58597.56
Republican (share)	.2435897	.2485207	.2764706	.1929825
Observations	156	169	170	171

Table 2: Spectator demographics and balances by treatment (Luck, Merit, Random-Education, and Random-Employment). This replicates DHL Table 2 using the cleaned replication sample.

	Luck (Vary-Probability)	Random-Education (Vary module)	Random-Employment (Vary module)
	Share redistributed	Share redistributed	Share redistributed
alpha	2.52*** (0.060)	3.534*** (0.143)	2.095*** (0.078)
/Residual Insignia	-2.019*** (0.020)	-2.051*** (0.030)	-1.791*** (0.036)
N	1190	574	392

Standard errors in parentheses  
\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 3: Gamma regression of average redistributions on treatment-specific intercepts, following DHL Table 3. Columns (1)–(3) correspond to the baseline, main, and subsample specifications.

	Random-Education (share)			Random-Employment (share)		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N
Similar effort	.4243986	.1382359	97	.2956989	.1861385	31
Doubt effort in either task	.3315972	.2030395	96	.257485	.1732694	167
Doubt effort in reading task	.3240741	.2128297	72	.2395833	.1670884	112
Doubt effort in answering task	.3351852	.2052593	90	.2592593	.1742578	162

Table 4: Perceived effort differences (mean, standard deviation, and observations) across Vary-Education and Vary-Employment prompts.  
 Each row corresponds to DHL Table 4 belief descriptors.

	(1) Share redistributed	(2) Share redistributed
Merit	-0.205*** (0.019)	-0.201*** (0.019)
Random-Education	-0.076*** (0.020)	-0.066*** (0.020)
Random-Employment	-0.134*** (0.020)	-0.127*** (0.020)
Female		0.018 (0.015)
Age (years)		0.001 (0.000)
High education		0.040* (0.024)
High income		-0.022 (0.016)
Republican		-0.049*** (0.018)
Constant	0.423*** (0.013)	0.355*** (0.035)
N	666	641

Standard errors in parentheses  
\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 5: DHL table A1: OLS regression results on share redistributed by spectators. The Luck treatment serves as the reference category. “High income” is an indicator variable for having yearly income higher than \$70,000 (instead of DHL’s \$50,000 categorization). “High education” is an indicator variable for having at least some college education (instead of DHL’s definition as a 4-year college education or higher). “Conservative” is an indicator variable for having selected Republican as their political party/stance most typically supported (cf. DHL table A1).

	(1)	(2)	(3)	(4)
Merit	-0.177*** (0.031)	-0.209*** (0.060)	-0.206*** (0.022)	-0.202*** (0.021)
Random-Education	-0.053* (0.030)	-0.117* (0.068)	-0.066*** (0.022)	-0.061*** (0.020)
Random-Employment	-0.110*** (0.032)	-0.117* (0.068)	-0.135*** (0.024)	-0.134*** (0.021)
Merit times Female	-0.047 (0.040)			
Random-Education times Female	-0.035 (0.040)			
Random-Employment times Female	-0.036 (0.041)			
Female	0.050* (0.028)			
Merit times High education		0.005 (0.064)		
Random-Education times High education		0.047 (0.071)		
Random-Employment times High education		-0.018 (0.071)		
High education		0.035 (0.052)		
Merit times High income			0.017 (0.046)	
Random-Education times High income			-0.018 (0.048)	
Random-Employment times High income			0.026 (0.044)	
High income			-0.025 (0.032)	
Merit times Republican				-0.010 (0.050)
Random-Education times Republican				-0.051 (0.053)
Random-Employment times Republican				-0.008 (0.054)
Republican				-0.032 (0.039)
Constant	0.392*** (0.023)	0.392*** (0.050)	0.428*** (0.015)	0.431*** (0.013)
<i>N</i>	662	666	643	666

Standard errors in parentheses  
 \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 6: OLS estimates of redistribution shares on treatment indicators and their interactions with spectator demographics using the cleaned replication sample. Columns (1)–(4) mirror DHL Table A4 by interacting treatments with gender, education, income, and political affiliation, respectively, with Luck as the reference category.

	Vary-Probability	Vary-Education	Vary-Employment
Female (share)	.4417476	.4315789	.4093264
Average age (years)	38.343	40.5285	39.35354
High education (share)	.8792271	.9119171	.8686869
Average income (USD)	63453.82	62464.76	63055.77
Republican (share)	.2459016	.2263158	.2081633
Observations	244	190	196

Table 7: Spectator demographics (gender, age, education, income, and ideology) for the Vary-Probability, Vary-Education, and Vary-Employment belief modules, replicating DHL Table A6 on the adjusted sample.

	(1)	(2)	(3)
99% luck / 15 vs. 1	0.020 (0.013)	-0.006 (0.008)	0.013 (0.008)
90% luck / 15 vs. 4	-0.004 (0.013)	-0.008 (0.011)	0.072*** (0.015)
50% luck / 15 vs. 7	-0.008 (0.013)	0.001 (0.010)	0.114*** (0.016)
10% luck / 15 vs. 11	-0.236*** (0.018)	0.003 (0.016)	0.136*** (0.019)
1% luck / 15 vs. 14	-0.312*** (0.017)	-0.028 (0.019)	0.133*** (0.021)
0% luck / 15 vs. 15	-0.329*** (0.017)	-0.101*** (0.022)	0.118*** (0.024)
Constant	0.436*** (0.014)	0.386*** (0.015)	0.191*** (0.016)
<i>N</i>	1449	1351	1386
Standard errors in parentheses			
* $p < 0.10$ , ** $p < 0.05$ , *** $p < 0.01$			

Table 8: Ordered logit estimates of redistribution shares across Luck, Random-Education, and Random-Employment for the main spectator sample, matching DHL Table A7. Each column reports treatment-by-scenario coefficients with robust standard errors.

	(1)	(2)	(3)
99% luck / 15 vs. 1	0.022* (0.013)	-0.010 (0.006)	0.002 (0.010)
90% luck / 15 vs. 4	-0.002 (0.014)	-0.035*** (0.013)	0.032 (0.021)
50% luck / 15 vs. 7	-0.007 (0.014)	-0.030** (0.012)	0.044** (0.022)
10% luck / 15 vs. 11	-0.248*** (0.018)	-0.057*** (0.022)	0.037 (0.025)
1% luck / 15 vs. 14	-0.327*** (0.017)	-0.133*** (0.022)	-0.015 (0.028)
0% luck / 15 vs. 15	-0.346*** (0.017)	-0.295*** (0.023)	-0.087*** (0.028)
Constant	0.432*** (0.015)	0.365*** (0.020)	0.204*** (0.022)
<i>N</i>	1372	693	721

Standard errors in parentheses  
\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 9: Ordered logit estimates for the Vary modules (Luck, Random-Education, Random-Employment) restricted to the subsamples shown in DHL Table A8. Coefficients report scenario-specific shifts relative to the Luck benchmark.

	(1)	(2)	(3)	(4)
Education information treatment	0.037 (0.023)	0.034 (0.024)		
Uninformed spectators	-0.033 (0.025)	-0.040 (0.025)	-0.007 (0.026)	-0.010 (0.027)
Female		0.006 (0.020)		0.002 (0.020)
Age (years)		-0.000 (0.001)		0.000 (0.001)
High education		0.051 (0.033)		0.031 (0.032)
High income		-0.027 (0.023)		-0.008 (0.021)
Republican		-0.066*** (0.023)		-0.028 (0.026)
Employment information treatment			0.032 (0.024)	0.028 (0.025)
Constant	0.347*** (0.015)	0.330*** (0.042)	0.289*** (0.015)	0.272*** (0.046)
<i>N</i>	364	354	372	356

Standard errors in parentheses  
\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 10: Information-treatment regressions for the Random-Education and Random-Employment games. Columns (1) and (2) compare informed versus uninformed spectators in the education condition; Columns (3) and (4) repeat the analysis for the employment condition. The dependent variable is the share redistributed to the disadvantaged worker (0–1 scale), and the specifications match DHL Table B1 with and without demographic controls.

	Merit-Training	Random-Training	Merit-Department	Random-Department	Info-Training	Info-Department
Female	.528169	.5285714	.5555556	.5833333	.4964029	.5915493
Age	40.71831	40.09286	40.9037	38.90972	41.43165	40.95775
High education	.528169	.5357143	.5111111	.4861111	.618705	.5704225
Income	57659.57	50000	58825.76	61482.14	55638.69	49708.03
conservative	.2464789	.2428571	.2666667	.2083333	.2230216	.2605634
N	142	140	135	144	139	142

Table 11: Demographics for the Merit/Random training and department subsamples, along with the information treatments, as in DHL, Table C1. Columns list mean gender, age, education, income, ideology, and the corresponding sample size.

Table 12: Subgroup means corresponding to Figure 1

Panel	Treatment	Group	Mean share	95% CI	N
Gender	Luck	Male	0.392	[0.348, 0.437]	62
Gender	Luck	Female	0.442	[0.411, 0.473]	92
Gender	Merit	Male	0.216	[0.173, 0.258]	68
Gender	Merit	Female	0.218	[0.182, 0.255]	100
Gender	Random-Education	Male	0.340	[0.300, 0.379]	80
Gender	Random-Education	Female	0.354	[0.312, 0.396]	90
Gender	Random-Employment	Male	0.283	[0.238, 0.327]	79
Gender	Random-Employment	Female	0.297	[0.259, 0.335]	91
Education	Luck	Low education	0.392	[0.291, 0.493]	17
Education	Luck	High education	0.427	[0.401, 0.453]	139
Education	Merit	Low education	0.183	[0.117, 0.250]	20
Education	Merit	High education	0.223	[0.193, 0.252]	149
Education	Random-Education	Low education	0.275	[0.182, 0.368]	20
Education	Random-Education	High education	0.357	[0.327, 0.387]	150
Education	Random-Employment	Low education	0.275	[0.182, 0.368]	20
Education	Random-Employment	High education	0.291	[0.261, 0.322]	151
Income	Luck	Low income	0.428	[0.399, 0.458]	109
Income	Luck	High income	0.403	[0.347, 0.459]	43
Income	Merit	Low income	0.222	[0.190, 0.254]	118
Income	Merit	High income	0.214	[0.158, 0.269]	46
Income	Random-Education	Low income	0.363	[0.330, 0.395]	114
Income	Random-Education	High income	0.320	[0.257, 0.383]	49
Income	Random-Employment	Low income	0.293	[0.257, 0.330]	121
Income	Random-Employment	High income	0.295	[0.247, 0.342]	43
Political affiliation	Luck	Non-conservative	0.431	[0.406, 0.455]	118
Political affiliation	Luck	Conservative	0.399	[0.326, 0.473]	38
Political affiliation	Merit	Non-conservative	0.228	[0.196, 0.260]	127
Political affiliation	Merit	Conservative	0.187	[0.134, 0.239]	42
Political affiliation	Random-Education	Non-conservative	0.370	[0.339, 0.401]	123
Political affiliation	Random-Education	Conservative	0.287	[0.224, 0.351]	47
Political affiliation	Random-Employment	Non-conservative	0.297	[0.265, 0.329]	138
Political affiliation	Random-Employment	Conservative	0.258	[0.191, 0.324]	33

*Notes:* Average share redistributed to the disadvantaged worker (0–1 scale) for each treatment and subgroup; confidence intervals mirror the bars in Figure 1.

Table 13: Scenario-level statistics for Figure 2

Panel	Scenario	Mean share	95% CI (share)	N (share)	Mean belief	95% CI (belief)	N (belief)
Vary-Probability	100% luck	0.436	[0.408, 0.464]	207	—	—	—
Vary-Probability	99% luck	0.457	[0.428, 0.486]	207	—	—	—
Vary-Probability	90% luck	0.432	[0.407, 0.458]	207	—	—	—
Vary-Probability	50% luck	0.428	[0.409, 0.448]	207	—	—	—
Vary-Probability	10% luck	0.200	[0.175, 0.226]	207	—	—	—
Vary-Probability	1% luck	0.125	[0.103, 0.147]	207	—	—	—
Vary-Probability	0% luck	0.108	[0.087, 0.129]	207	—	—	—
Vary-Education	15 vs. 0	0.386	[0.357, 0.415]	193	0.085	[0.060, 0.109]	190
Vary-Education	15 vs. 1	0.380	[0.351, 0.409]	193	0.085	[0.063, 0.106]	191
Vary-Education	15 vs. 4	0.378	[0.353, 0.404]	193	0.176	[0.150, 0.201]	191
Vary-Education	15 vs. 7	0.387	[0.363, 0.411]	193	0.236	[0.214, 0.259]	191
Vary-Education	15 vs. 11	0.389	[0.362, 0.416]	193	0.363	[0.339, 0.387]	190
Vary-Education	15 vs. 14	0.358	[0.328, 0.387]	193	0.499	[0.472, 0.526]	193
Vary-Education	15 vs. 15	0.285	[0.250, 0.319]	193	0.526	[0.506, 0.545]	193
Vary-Employment	15 vs. 0	0.191	[0.161, 0.221]	198	0.066	[0.043, 0.090]	193
Vary-Employment	15 vs. 1	0.204	[0.176, 0.232]	198	0.142	[0.107, 0.177]	197
Vary-Employment	15 vs. 4	0.263	[0.239, 0.288]	198	0.265	[0.229, 0.302]	196
Vary-Employment	15 vs. 7	0.306	[0.282, 0.329]	198	0.291	[0.265, 0.316]	196
Vary-Employment	15 vs. 11	0.327	[0.301, 0.352]	198	0.390	[0.369, 0.412]	198
Vary-Employment	15 vs. 14	0.324	[0.295, 0.353]	198	0.464	[0.443, 0.486]	197
Vary-Employment	15 vs. 15	0.309	[0.276, 0.341]	198	0.486	[0.465, 0.507]	197

*Notes:* Panel sample sizes: Vary-Probability: n=207; Vary-Education: n=193; Vary-Employment: n=198. Beliefs report the perceived probability that the disadvantaged worker wins.

Table 14: Scenario-level statistics for Figure 3

Panel	Scenario	Mean share	95% CI (share)	N (share)	Mean belief	95% CI (belief)	N (belief)
Vary-Probability	100% luck	0.498	[0.479, 0.517]	170	—	—	—
Vary-Probability	99% luck	0.501	[0.475, 0.527]	170	—	—	—
Vary-Probability	90% luck	0.465	[0.442, 0.488]	170	—	—	—
Vary-Probability	50% luck	0.449	[0.434, 0.464]	170	—	—	—
Vary-Probability	10% luck	0.195	[0.168, 0.222]	170	—	—	—
Vary-Probability	1% luck	0.113	[0.091, 0.134]	170	—	—	—
Vary-Probability	0% luck	0.096	[0.076, 0.116]	170	—	—	—
Vary-Education	15 vs. 0	0.441	[0.416, 0.466]	82	0.048	[0.025, 0.071]	82
Vary-Education	15 vs. 1	0.427	[0.400, 0.454]	82	0.058	[0.034, 0.082]	81
Vary-Education	15 vs. 4	0.390	[0.364, 0.417]	82	0.166	[0.124, 0.208]	82
Vary-Education	15 vs. 7	0.396	[0.369, 0.423]	82	0.219	[0.190, 0.248]	82
Vary-Education	15 vs. 11	0.339	[0.310, 0.369]	82	0.342	[0.312, 0.372]	82
Vary-Education	15 vs. 14	0.260	[0.224, 0.297]	82	0.495	[0.459, 0.532]	82
Vary-Education	15 vs. 15	0.081	[0.052, 0.111]	82	0.512	[0.493, 0.530]	82
Vary-Employment	15 vs. 0	0.375	[0.332, 0.418]	56	0.048	[0.013, 0.083]	55
Vary-Employment	15 vs. 1	0.339	[0.291, 0.387]	56	0.092	[0.043, 0.140]	56
Vary-Employment	15 vs. 4	0.298	[0.249, 0.347]	56	0.214	[0.150, 0.278]	56
Vary-Employment	15 vs. 7	0.307	[0.261, 0.352]	56	0.248	[0.209, 0.287]	56
Vary-Employment	15 vs. 11	0.274	[0.229, 0.318]	56	0.349	[0.315, 0.383]	56
Vary-Employment	15 vs. 14	0.220	[0.172, 0.269]	56	0.471	[0.437, 0.504]	56
Vary-Employment	15 vs. 15	0.110	[0.074, 0.147]	56	0.497	[0.460, 0.534]	56

*Notes:* Sample sizes for the meritocratic subsample: Vary-Probability: n=170; Vary-Education: n=82; Vary-Employment: n=56.