



## *Conscious Coupling: Impact of a Skills Intervention to Address Intrahousehold Constraints for Women Entrepreneurs in Ethiopia*

First Submission: RR\_ETH\_2025\_382

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2025-06-23

This review verifies the reproducibility of the exhibits included in the paper " *Conscious Coupling: Impact of a Skills Intervention to Address Intrahousehold Constraints for Women Entrepreneurs in Ethiopia*".

### Contents in this review:

1. Main findings
2. List of exhibits and reproducibility status
3. Reproduction Environment

### *Main findings*

- **Every exhibit has been reproduced accurately**
- The code was successfully executed on a new computer after:
  1. Change the path in the main do file and run the code.
- The output demonstrates consistent stability across multiple runs. Specifically, executing the code two times consecutively yielded identical results.
- The code takes approximately 7 minutes to run.
- We conducted our reproducibility analysis based on the paper shared by the authors in their reproducibility package.
- Every exhibit has been reproduced accurately.
- **Reproducibility Summary:**
  - **Data:** All data is temporarily embargoed by the authors (expected to be made public in the future).
  - **Code:** All code files (from cleaning to analysis) are included in the reproducibility package.
  - **Outputs:** All outputs are generated by code included in the reproducibility package.
  - **Reproducibility verification:** Reviewers used data provided directly by the authors to conduct the reproducibility verification, and this is not included in the public reproducibility package. The data is not yet publicly available.
  - **Dependencies environment:** The reviewers reproduced an existing environment for dependencies using dependency files or an environment metadata file provided by the authors.

## List of exhibits and reproducibility status

### Results in the Main Section of the Paper

- **Table 1** Reproduced through virtual verification. Most values match closely, with differences generally below the 0.01 threshold for reproducibility. The only exceptions are:
  - Hours respondent spends on work
  - Household monthly income
  - F-test for joint significance (Normalized Difference 1–3)

The authors shared their results, which match Table 1 in the paper, and we confirmed this on a virtual verification on June 23, 2025. The only discrepancy between the replicators' results and the authors' (and paper) is a one-observation difference in Model 3. Given the near-identical results and the minimal documented differences, we consider this reproducible.

Variable	Code					
	(1)	(2)	(3)	(1)-(2)	(1)-(3)	(2)-(3)
Control	T1 - Scale	T2 - Scale	Pairwise t	Pairwise t	Pairwise t	Pairwise t
Mean/SE	Mean/SE	Mean/SE	Mean/SE	Normalized	Normalized	Normalized difference
Age of respondent	38.240 (0.428)	37.620 (0.437)	38.344 (0.453)	0.081	-0.013	-0.092
Household size	5.827 (0.115)	5.799 (0.106)	5.826 (0.111)	0.015	0.000	-0.014
Number of children	2.629 (0.079)	2.716 (0.081)	2.751 (0.085)	-0.061	-0.083	-0.024
Any children below 5 years	0.495 (0.028)	0.502 (0.028)	0.457 (0.028)	0.013	0.076	0.088
Completed tertiary education	0.466 (0.028)	0.470 (0.028)	0.470 (0.028)	-0.006	0.007	0.001
Has taken a mindset-oriented training	0.236 (0.024)	0.288 (0.026)	0.278 (0.025)	-0.116	-0.094	0.022
Household monthly income (Winsorized 95%)	16.542 (1.151)	15.025 (1.043)	14.709 (1.037)	0.078	0.094	0.017
Business started out of opportunity	0.591 (0.028)	0.578 (0.028)	0.568 (0.028)	0.026	0.047	0.021
Business jointly owned with husband	0.077 (0.015)	0.051 (0.012)	0.088 (0.016)	0.104	-0.042	-0.146*
Business in wholesale and retail trade sector	0.422 (0.028)	0.374 (0.027)	0.451 (0.028)	0.098	-0.059	-0.157*
Monthly revenues (in thousand Birr)	17.614 (1.390)	14.298 (1.145)	15.459 (1.232)	0.147*	0.075	-0.074
Monthly profits (in thousand Birr)	4.160 (0.298)	3.770 (0.288)	3.791 (0.284)	0.075	0.071	-0.004
Household monthly income (in thousand Birr)	56.756 (5.898)	58.607 (6.249)	54.075 (6.300)	-0.017	-0.068	-0.049
Self efficacy (Z-score)	-0.005 (0.058)	0.023 (0.057)	-0.017 (0.055)	-0.028	0.012	0.040
Proactivity (Z-score)	-0.023 (0.055)	0.024 (0.057)	0.001 (0.057)	-0.047	-0.026	0.021
Personal growth (Z-score)	-0.023 (0.061)	-0.016 (0.056)	0.029 (0.053)	-0.006	-0.051	0.047
Entrepreneurial identity (Z-score)	-0.009 (0.059)	-0.020 (0.060)	0.031 (0.051)	0.010	-0.041	-0.052
Marriage quality (index)	0.089 (0.047)	0.072 (0.044)	0.113 (0.047)	0.021	-0.029	-0.051
Husband is a business owner or self-employed	0.521 (0.028)	0.518 (0.028)	0.521 (0.028)	0.006	0.001	-0.006
Hours respondent spends on work	9.224 (0.167)	9.256 (0.165)	9.309 (0.145)	-0.011	-0.031	-0.019
Hours respondent spends on chores	3.319 (0.105)	3.396 (0.112)	3.394 (0.100)	-0.040	-0.041	0.001
Hours spouse spends on work	8.282 (0.204)	8.358 (0.202)	8.158 (0.207)	-0.021	0.034	0.055
Hours spouse spends on chores	1.054 (0.088)	1.109 (0.083)	1.145 (0.093)	-0.036	-0.056	-0.023
Consented to having husband in home sessions	0.700 (0.026)	0.712 (0.026)	0.776 (0.023)	-0.028	-0.174***	-0.146*
F-test of joint significance (P-value)				0.79	0.768	0.520
Number of observations	313	313	317	626	630	630

- **Table 2** Reproduced.
- **Table 3** Reproduced.
- **Table 4** Reproduced.
- **Table 5** Reproduced.

### Paper

Table 1: Randomization Balance of Baseline Characteristics

Variable	(1)	(2)	(3)	Normalized difference		
	Control Mean/SE	T1 - Scale Up! + individual training Mean/SE	T2 - Scale Up! + complex training Mean/SE	(1)-(2)	(1)-(3)	(2)-(3)
<b>Household and demographic characteristics</b>						
Age of respondent	38.240 (0.428)	37.620 (0.437)	38.344 (0.454)	0.081	-0.014	-0.093
Household size	5.827 (0.115)	5.799 (0.106)	5.828 (0.111)	0.015	-0.011	-0.016
Number of children	2.629 (0.079)	2.716 (0.081)	2.751 (0.085)	-0.061	-0.085	-0.024
Any children below 5 years	0.495 (0.028)	0.502 (0.028)	0.457 (0.028)	-0.013	0.073	0.085
Completed tertiary education	0.466 (0.028)	0.470 (0.028)	0.470 (0.028)	-0.006	0.007	0.001
Has taken a mindset-oriented training	0.236 (0.024)	0.288 (0.026)	0.278 (0.025)	-0.116	-0.094	0.022
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Business started out of opportunity	0.591 (0.028)	0.578 (0.028)	0.568 (0.028)	0.026	0.047	0.021
<b>Business characteristics</b>						
Business started out of opportunity	0.591 (0.028)	0.578 (0.028)	0.568 (0.028)	0.026	0.047	0.021
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Monthly revenues (in thousand Birr)	17.614 (1.390)	14.298 (1.145)	15.459 (1.232)	0.147*	0.075	-0.072
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Household monthly income (in thousand Birr)	56.756 (5.898)	58.607 (6.249)	54.075 (6.300)	-0.017	-0.068	-0.051
Number of employees	2.114 (0.166)	2.208 (0.171)	2.231 (0.179)	-0.045	-0.032	0.012
<b>Socio-emotional skills</b>						
Self efficacy (Z-score)	-0.005 (0.058)	0.023 (0.057)	-0.017 (0.055)	-0.028	0.012	0.040
Proactivity (Z-score)	-0.023 (0.055)	0.024 (0.057)	0.001 (0.057)	-0.047	-0.026	0.021
Personal growth (Z-score)	-0.023 (0.061)	-0.016 (0.056)	0.029 (0.053)	-0.006	-0.051	0.047
Entrepreneurial identity (Z-score)	-0.009 (0.059)	-0.020 (0.060)	0.031 (0.051)	0.010	-0.041	-0.052
<b>Married couple characteristics</b>						
Marriage quality (index)	0.089 (0.047)	0.072 (0.044)	0.113 (0.047)	0.021	-0.029	-0.051
Husband is a business owner or self-employed	0.521 (0.028)	0.518 (0.028)	0.521 (0.028)	0.006	0.001	-0.006
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Consented to having husband in home sessions	0.700 (0.026)	0.712 (0.026)	0.776 (0.023)	-0.028	-0.174***	-0.146*
F-test of joint significance (p-value)				0.799	0.695	0.520
Number of observations	313	313	316	626	629	629

Note: All monetary outcomes are winsorized at the 95% level. Estimation responses include city fixed effects. Robust standard errors in parentheses.

\*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1.

- **Table 6** Reproduced.
- **Table 7** Reproduced.
- **Table 8** Reproduced.
- **Table 9** Reproduced.
- **Table 10** Reproduced.

**Results in the Annex**

- **Table A1** Reproduced.
- **Table A2** Reproduced. This exhibit is exported in both .tex and .xlsx formats. The .xlsx version is missing the F statistic, but the .tex version includes it. Reproducibility was confirmed using the .tex version.
- **Table A3** Reproduced. Rows are in different order.
- **Table A4** Reproduced.
- **Table A5** Reproduced.
- **Table A6** Reproduced.
- **Table A7** Reproduced.
- **Table A8** Reproduced.
- **Table A9** Reproduced.

*Reproduction Environment*

- Paper exhibits were reproduced in a computer with the following specifications:
  - OS: Windows 11 Enterprise
  - Processor: Intel(R) Core(TM) i5-1145G7 CPU @ 2.60GHz
  - Memory available: 15.7 GB
  - Software version: Stata version 18.5 MP