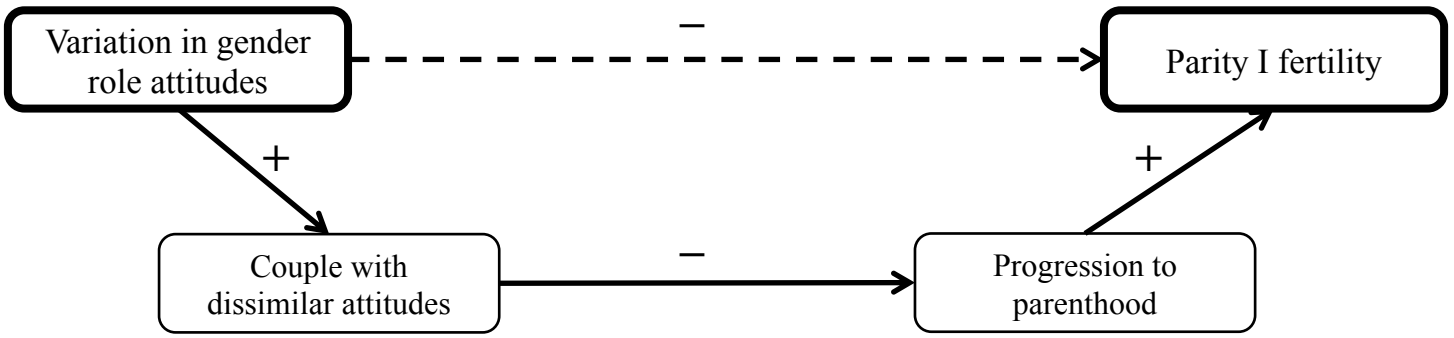
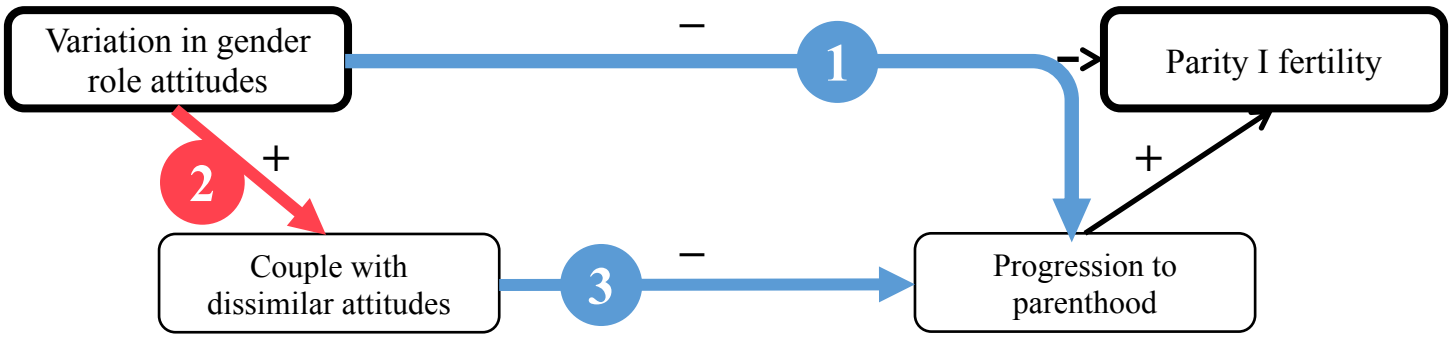
Intra-Couple (Dis)Similarity on Gender Role Attitudes and the Transition to Parenthood

Ansgar Hudde & Henriette Engelhardt-Wölfler
University of Bamberg / BAGSS Bamberg

Dissertation



Dissertation



1. Hudde, A. Societal Agreement on Gender Role Attitudes and Childlessness in 38 Countries. *European Journal of Population*, 1-23.
2. Hudde, A., & Engelhardt, H. Heterogamy in Gender Role Attitudes Among Young Couples - Evidence from Germany [in progress]
3. Hudde, A. & Engelhardt, H. Intra-Couple (Dis)Similarity in Gender Role Attitudes and the Transition to Parenthood [R&R]

Research Question

1. How similar are partners in their gender role attitudes?

2. How does this similarity come about?
   [Under which behavioural assumptions would we find the observed patterns?]

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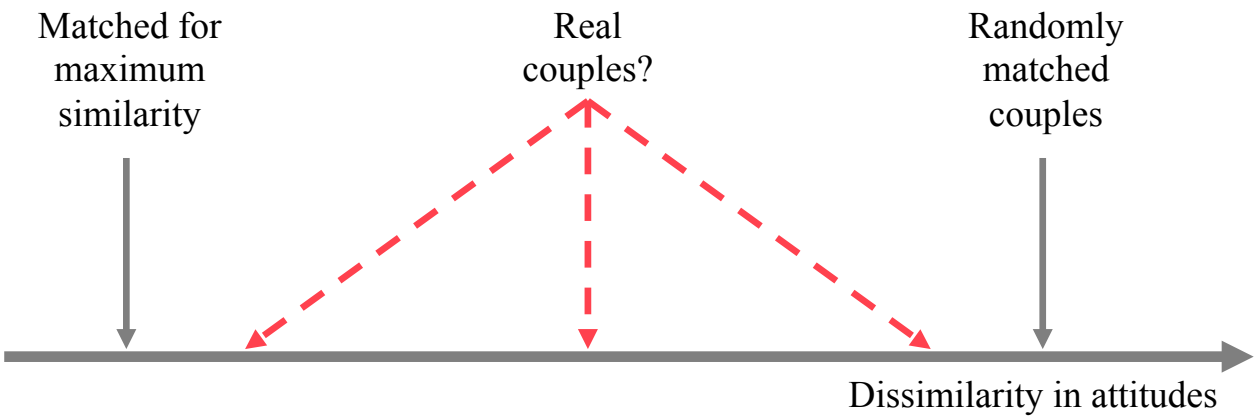

III

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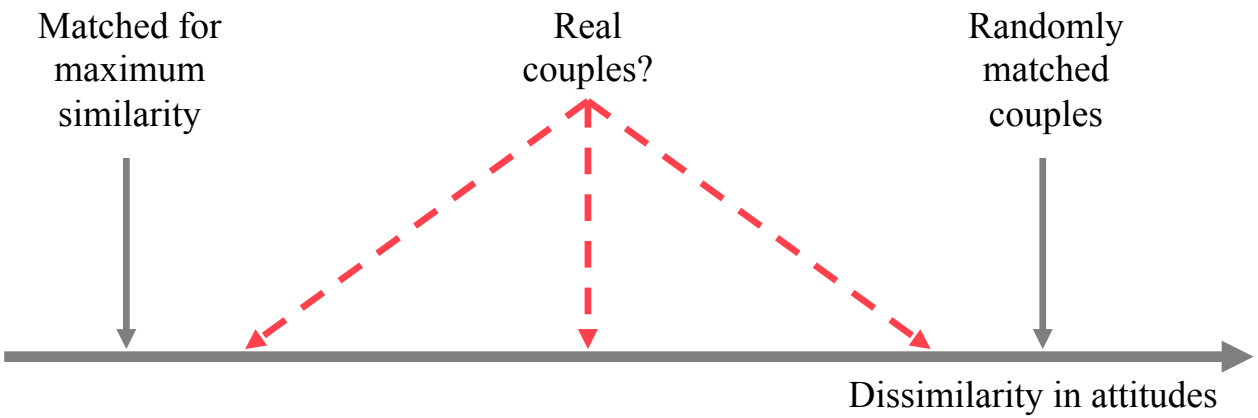


Framework

Observed degree of similarity = **Direct assortative mating** + Indirect assortative mating + Alignment over time + Differential Separation

- ✓ Relevance for relationship
- ✖ Lack of information
  (e.g. Fallesen & Breen, 2016; Brüderl & Kalter, 2001)
- ✖ False consensus bias → overestimation of similarity
  (e.g. Ross, Greene, & House, 1977; Kenny & Acitelli, 2001)
- ✖ Low importance in stage of partnership formation

Framework

Observed degree of similarity = Direct assortative mating + **Indirect assortative mating** + Alignment over time + Differential Separation

- ✓ Assortative mating on e.g. education, religiosity, or political ideology is happening (e.g. Blossfeld 2009; Schwartz 2013)
- ? Are these variables good proxies for gender role attitudes?
- ? Do they proxy attitudes of women and men in the same way?

Framework

Observed degree of similarity = Direct assortative mating + Indirect assortative mating + **Alignment over time** + Differential Separation

- ✓ Theoretically: mutual influence & common experiences
- ? Only limited alignment in attitudes
  (Feng & Baker, 1994; Kalmijn, 2005; Luo & Klohnen, 2005; Schober & Scott, 2012; Watson et al., 2004)

Framework

Observed degree of similarity = Direct assortative mating + Indirect assortative mating + Alignment over time + **Differential Separation**

✓ To some degree
(Hohmann-Marriott, 2006; Arranz Becker, 2013)

Data: German Family Panel

- Dyadic information: info from both partners

Case selection:

- [n=4,029] Anchor is in opposite-sex relationship & partner participates in survey
- [n= 2,313] Anchors born 1981-1983 [Ø age at wave 1: women = 25; men = 27] Duration of relationship max. 7 years [= trade-off; different values as sensitivity analysis]
- [n= 666] Both partners are childless [transition parenthood → change in attitudes] Non-missing on all attitudinal items for both partners
- [n=641] Non-missing education and religiosity for both partners
- [n=635] "strange cases" dropped: one partner is <18 or >45 [1% of couples]
  West: 422 | East: 193

Gender Role Attitudes: Items

Gender roles: women

1. Frauen sollten sich stärker um die Familie kümmern als um ihre Karriere.
2. Ein Kind unter 6 Jahren wird darunter leiden, wenn seine Mutter arbeitet.

Gender roles: men

3. Männer sollten sich genau so an der Hausarbeit beteiligen wie Frauen.
4. Kinder leiden oft darunter, dass sich ihre Väter zu sehr auf die Arbeit konzentrieren.

→ Four items do not seem to represent 1 underlying dimension [Cronbach's Alpha <.6]
(compare Nitsche & Grunow, forthcoming; Knight & Brinton, 2017)

Gender Role Attitudes: Measuring dissimilarity

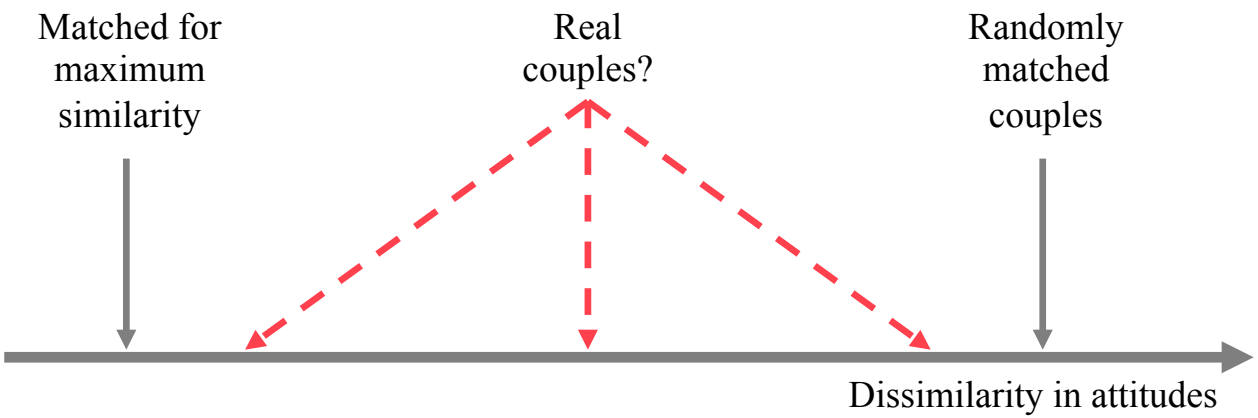
To how many of the 4 items did the partners give dissimilar answers?

Dissimilar answer on an item = at least 2 points on the Likert-Scale apart

- [In the paper, but not in this presentation]: three levels of measurement:
  - Number of dissimilar items out of all items
  - Number of dissimilar items on male or female roles (items 1&2 or 3&4)

(Different measures in sensitivity analyses: linear & square absolute difference scores)

Method


Matched for maximum similarity
Real couples?
Randomly matched couples
Dissimilarity in attitudes

Matched for Maximum Similarity

Challenge: matching to maximize similarity on multiple dimensions

Problem: [To us,] It seems impossible to test all possible matches: factorial of 422 has 926 digits.

422! =
09611383012576635876856401893914866426066372166774021105107419272349194310311448669690479132859659861580094
98378528323719005913935610445448094380926895142373719761992180209970203527248902087130080442641917669197626
102070018292229286384587392447136395448157234848108780995486399469163485667585407702085013793615884172082809
35243119770504600344079531656318416842816431857837438189657323697706428164664883595800546483387661817010631
97634292367388207766950528251266364543225310541510262976734702679227328918475344869750719471920357407318068
63275675967417219114630180488196282572049231036133755860946542870554851863699343512277445015096316996046062
37889558290765106772598640145083285151220811060746817836612987177407390236711283138099810105240401010605773
79239766732854476043146927364431565727474287394463905632529277846808428544000000000000000000000000000000000
0000000000000000000000000000000000000000000000000000000000000000000

Matching for Maximum Similarity: Simulating Speed-Dating. The 'Rules':

- Start with high expectations and reduce expectations over time
- Matched couples leave the table
- Continue dating until everyone has found a match → potentially meet same person numerous times

Matching for Maximum Similarity: Simulating Speed-Dating. The 'Rules':

1st round: expectation = partner with similar answers to all 4 items

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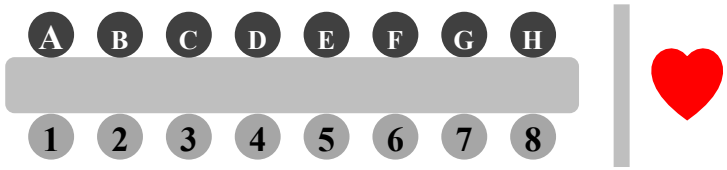
Initial ‚seating‘: random



Matching for Maximum Similarity: Simulating Speed-Dating. The 'Rules':

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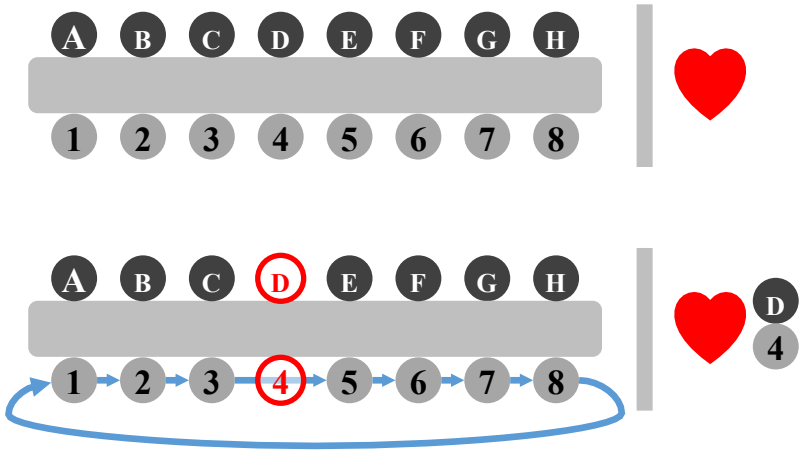
D&4 = match → leave table;
rest: rotate.



Matching for Maximum Similarity: Simulating Speed-Dating. The 'Rules':

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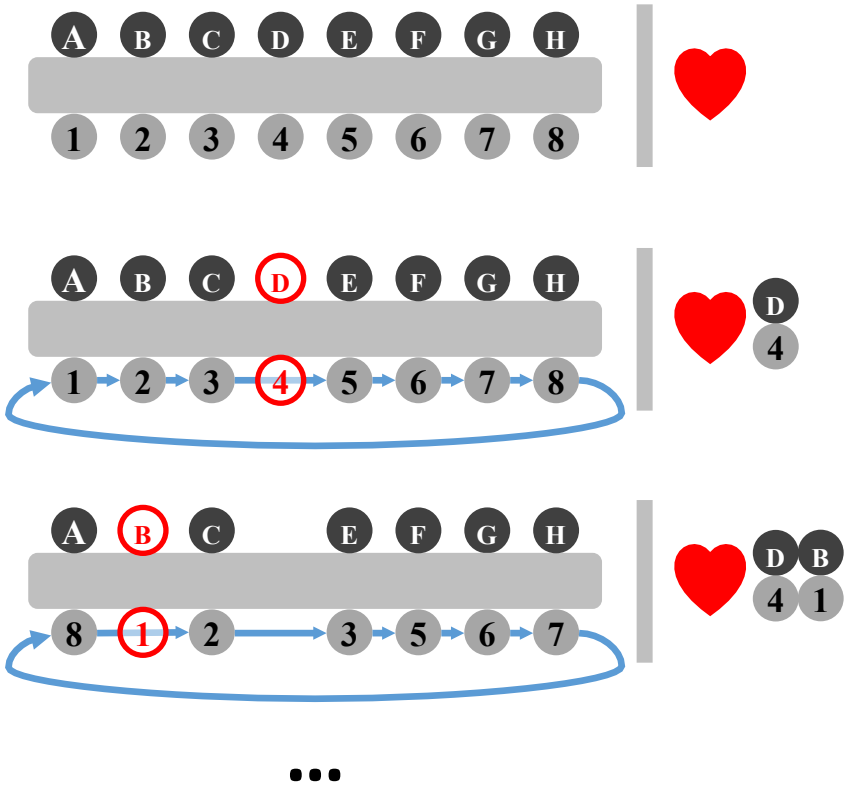
B&1 = match → leave table;
rest: rotate.



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Matching for Maximum Similarity: Simulating Speed-Dating. The 'Rules':

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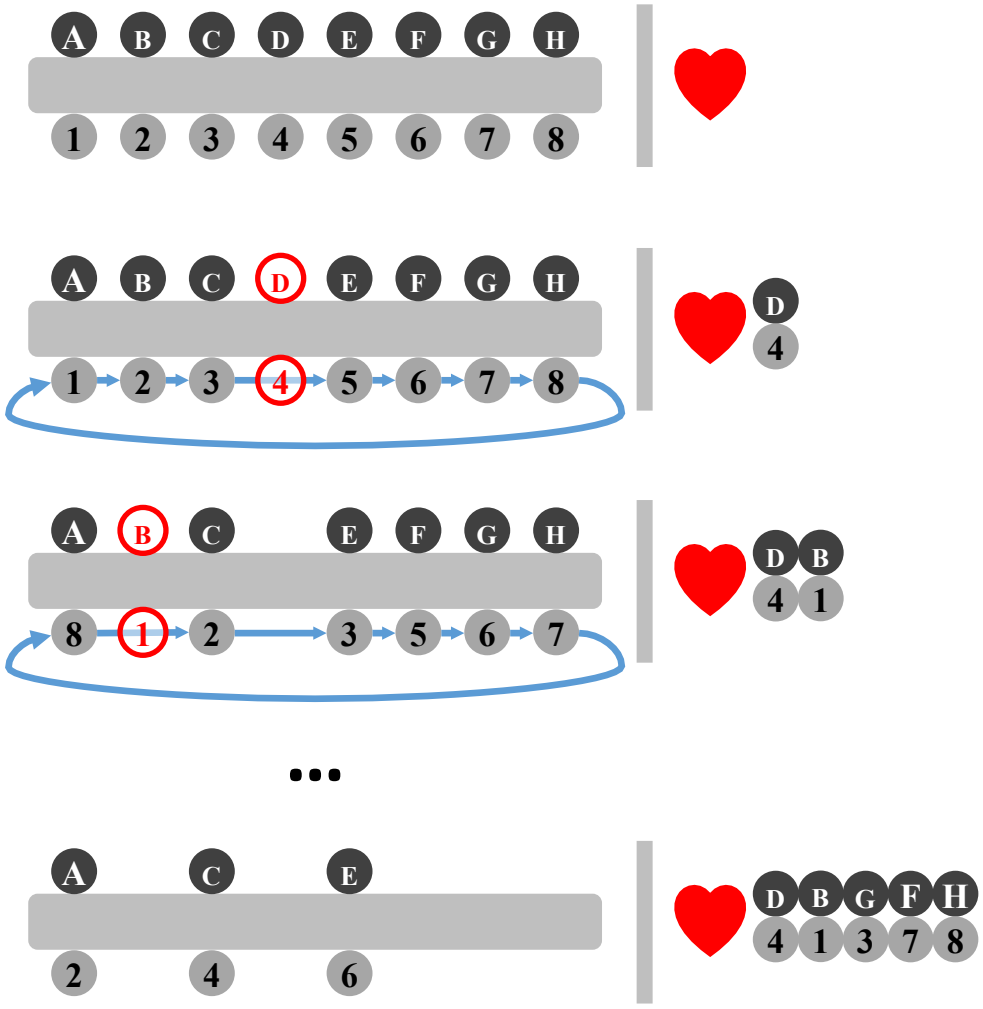
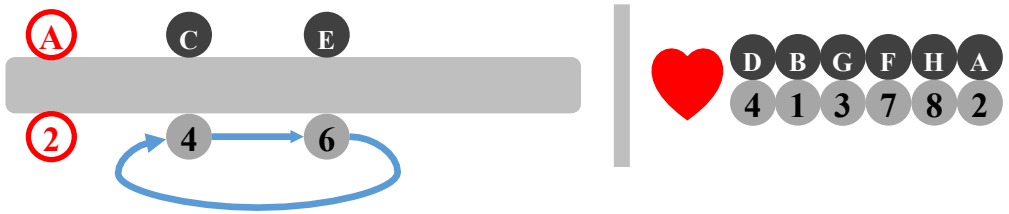


6 people unmatched → no partner with 0 diss. points available → **ROUND 2**

Matching for Maximum Similarity: Simulating Speed-Dating. The 'Rules':

2nd round: expectation = partner with similar answers to 3 out of four items

A&1 were no match in round 1, but are in round 2.



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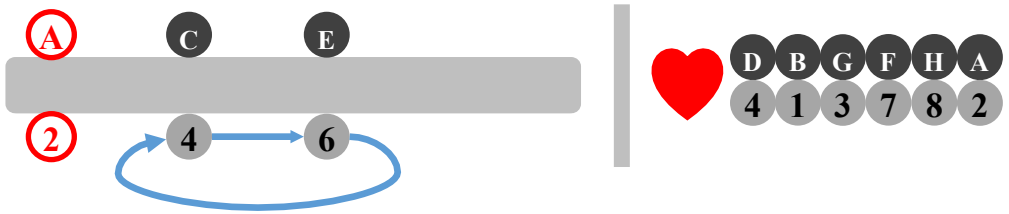
2nd round: expectation = partner with similar answers to all 4 items



→ ROUND 3 → ROUND 4 …

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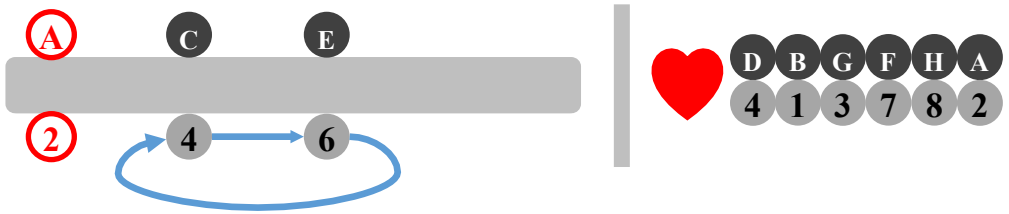


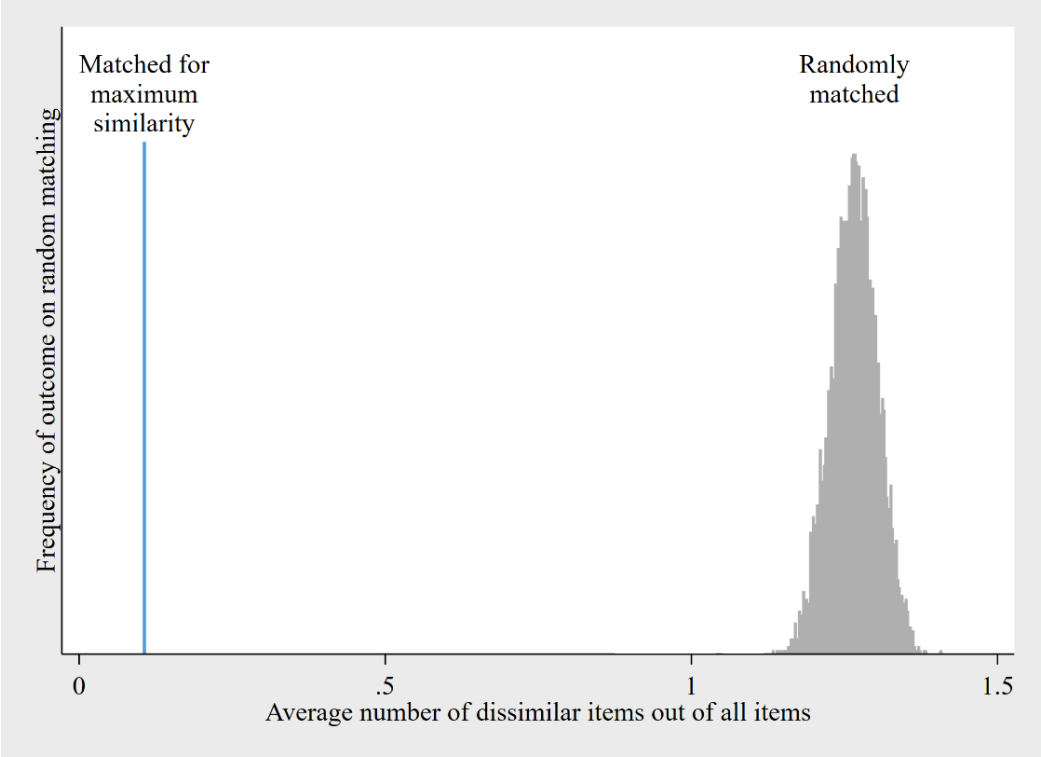
...

EVERYONE IS MATCHED.

Matching is likely not *the perfect one*, but it is Pareto-optimal: we could not give anyone a ‚better' match without at the same time giving someone else a worse match.

Results

Observed degree of similarity = Direct assortative mating + Indirect assortative mating + Alignment over time + Differential Separation



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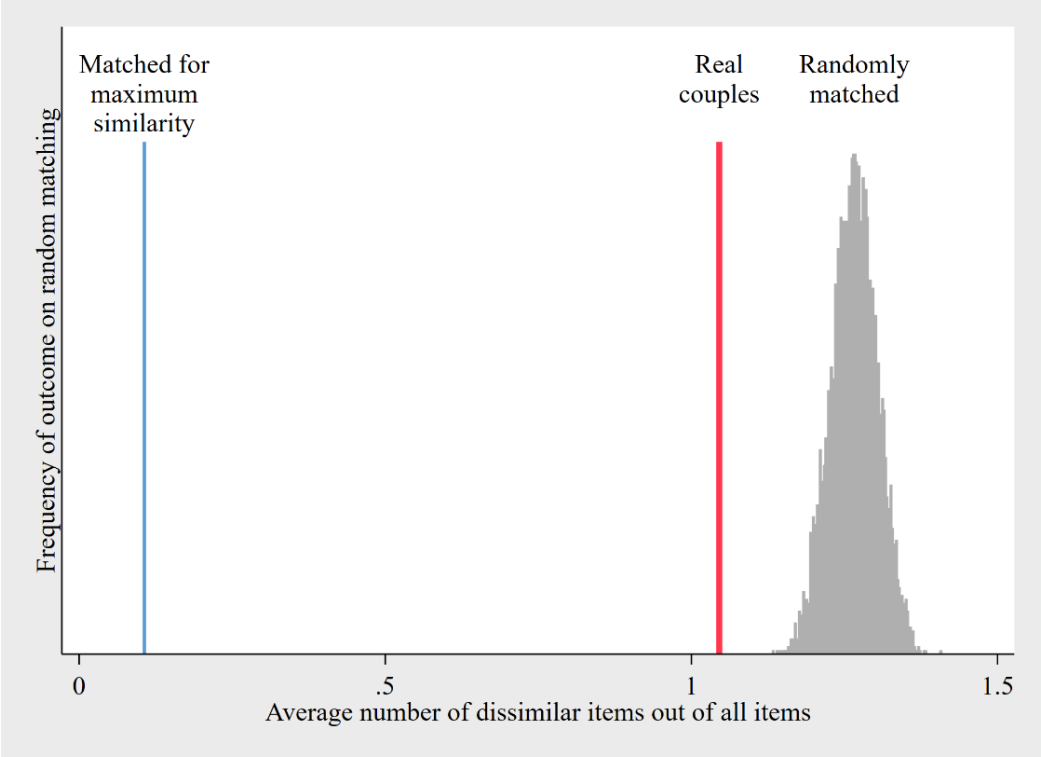

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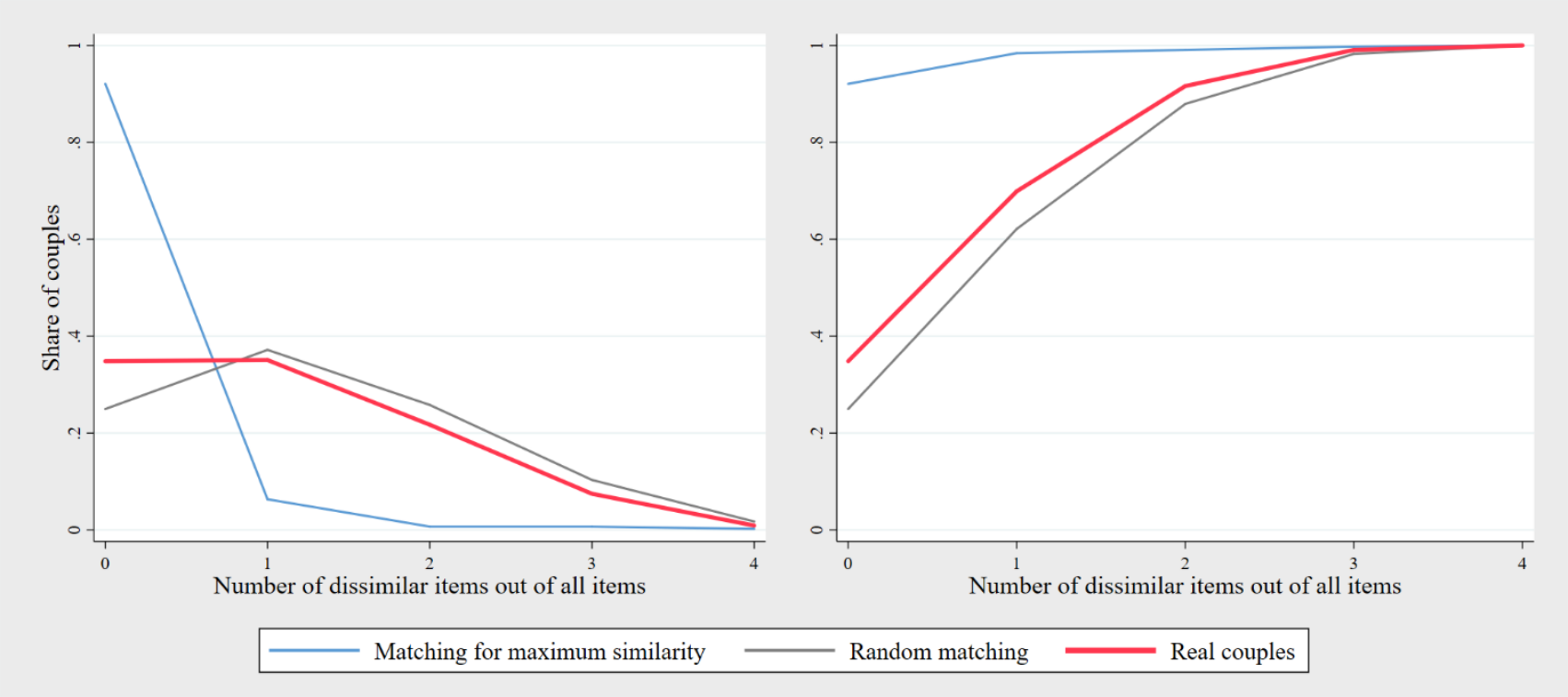

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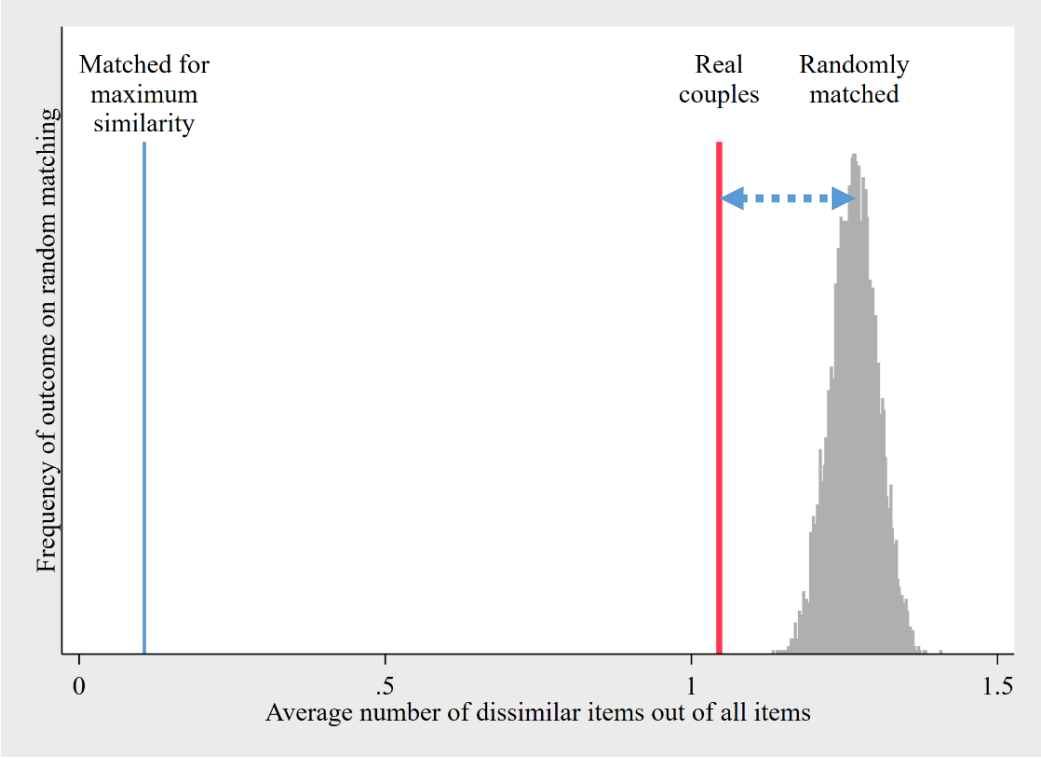

Observed degree of similarity	=	Direct assortative mating	+	**Indirect assortative mating**	+	Alignment over time	+	Differential Separation

Similarity in attitudes a by-product of matching on education and religiosity?

→ We match partners to maximize similarity in education and religiosity
[method: same as matching for similarity in gender role attitudes]

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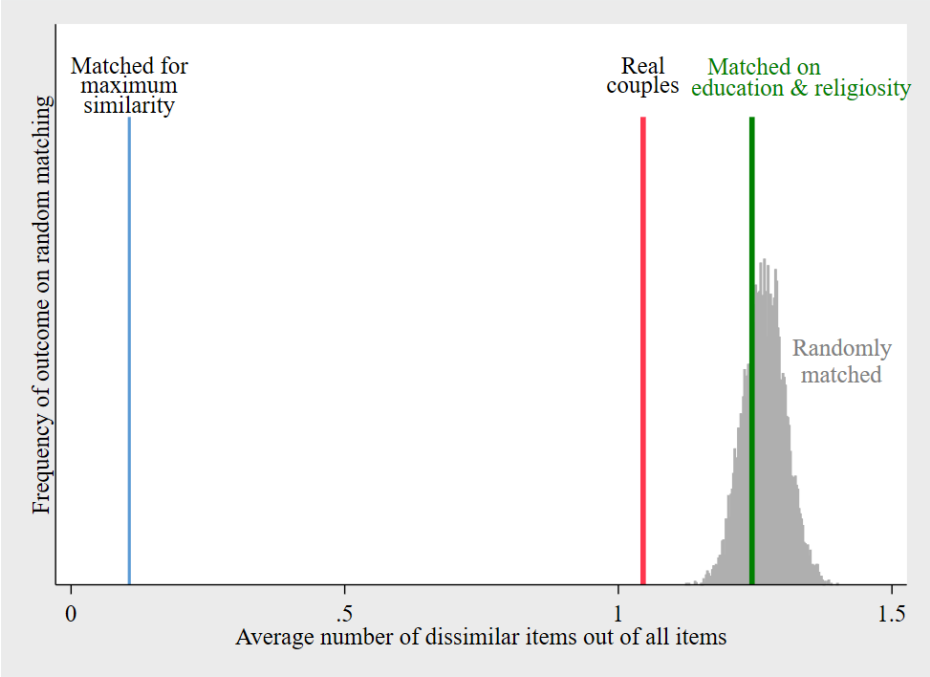

Observed degree of similarity = Direct assortative mating + Indirect assortative mating + **Alignment over time** + Differential Separation

Do partners become more similar over time?

Fixed-effects panel regression models: duration of relationship (logged).

Gender Role Attitudes in waves 1, 3,5, & 7.

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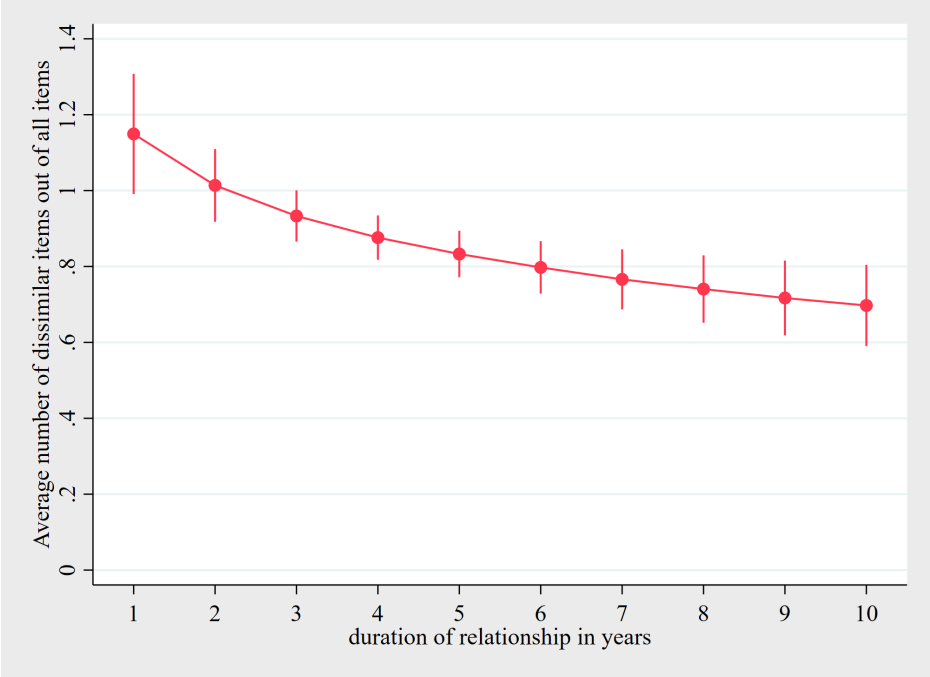

Observed degree of similarity = Direct assortative mating + Indirect assortative mating + Alignment over time + **Differential Separation**

Are dissimilar partners more likely to separate?

Logistic regression models:

$$separation_{wave\_max} = \beta_0 + \beta_1 * dissimilarity\ in\ attitudes_{wave\_1} + \varepsilon$$

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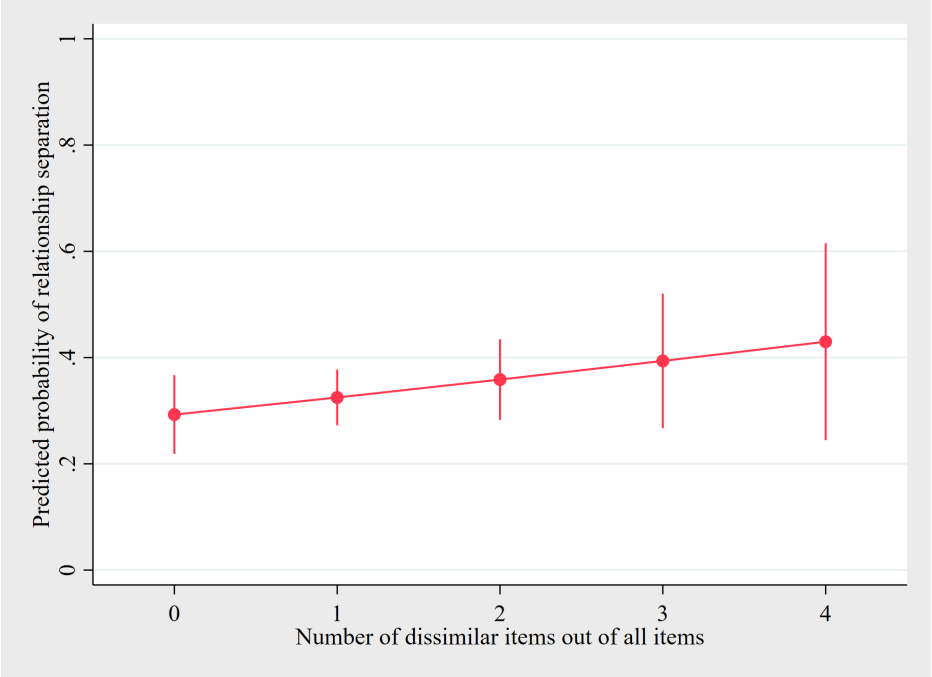

Robustness checks & sensitivity analyses for matching and regression analyses

- ✓ Different measures for dissimilarity: linear and square absolute difference scores
- ✓ Different sample restrictions for maximum duration of relationship: ± 3 years
- ✓ Different sample: cohort 3 (mid- to late thirties at wave 1)
- ✓ Indirect assortative mating: different measure for dissimilarity & weightings of education and religiosity
- ✓ Matched for maximum similarity: is the sample size big enough?

Conclusion

- Summary:
  - Real couples are not very far from random
  - Mechanism?
    - Direct assortative mating: little room left
    - Indirect assortative mating: only marginally
    - Alignment over time: rather strong
    - Differential separation: probably
- Drawbacks:
  - Gender role items probably not ideal
  - Average duration of relationship at wave 1: ~ 3 years
- Contribution:
  - Show: homogamy is *not* strong on a variable that is important for the functioning of a relationship & for macro-level demographic outcomes
  - Methodology: suitable & intuitive method to put (dis)similarity into perspective in a multi-dimensional setting

Thank for your attention!

ansgar.hudde@uni-bamberg.de

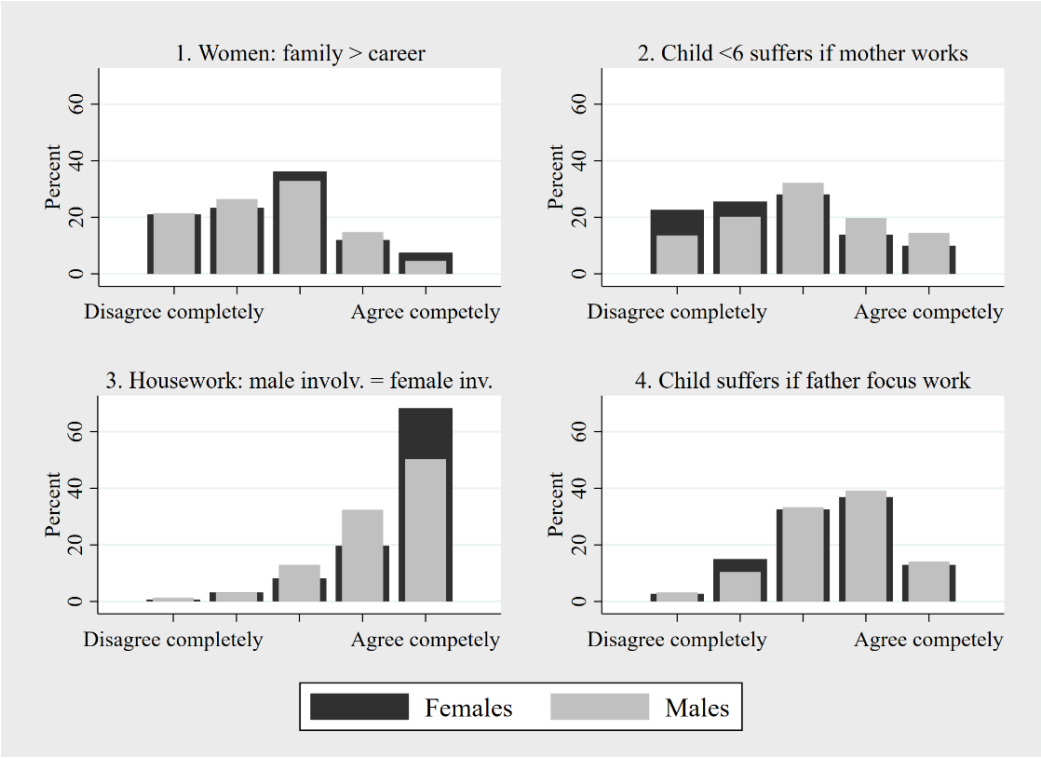

Figure 1. Responses to gender role items of female (n=442) and male (n=442) respondents. Western Germany.

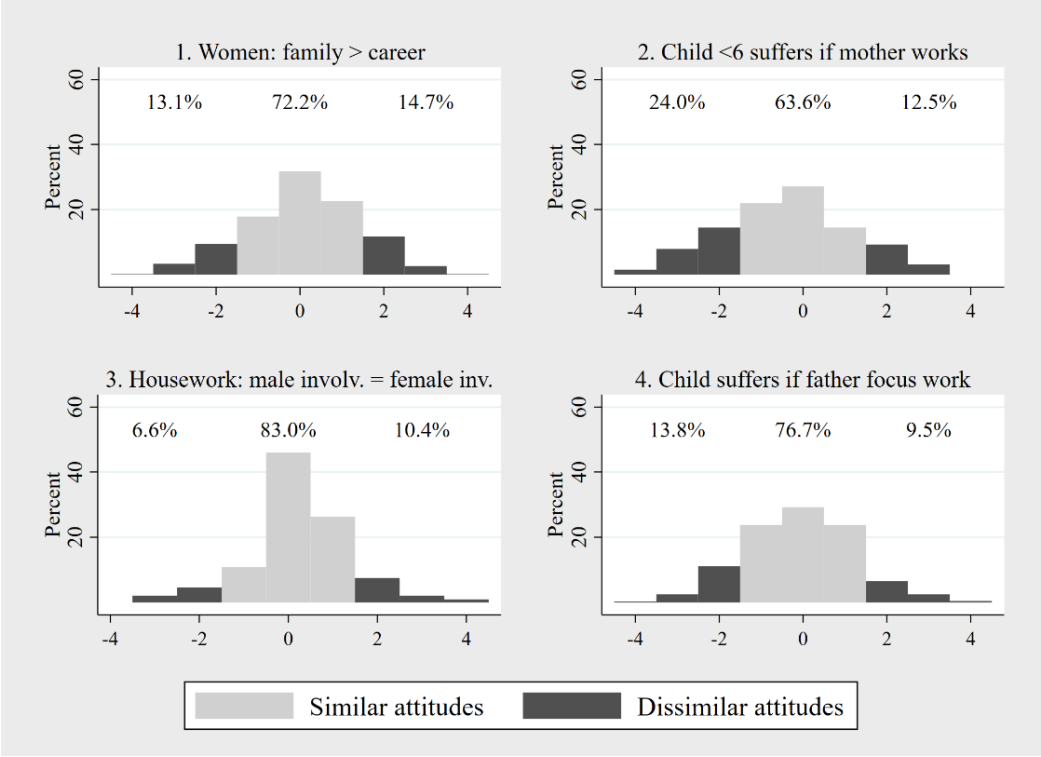

Figure 2. Difference scores (value of female partner minus value of male partner) for responses to gender role items. Positive values indicate that the female partner agrees with statement more than the male partner does, and vice versa. Western Germany (n=442).

Table 1. Descriptive summary table. Western Germany (n=422).

	Female partner		Male partner		Couple-level	
	Mean	SD	Mean	SD	Mean	SD
Gender Role Attitudes						
1. Women: family > career	2.62	1.16	2.54	1.12		
2. Child <6 suffers if mother works	2.63	1.25	3.01	1.23		
3. Housework: female involv. = male involv.	4.52	0.83	4.27	0.90		
4. Child suffers if father focus work	3.42	0.98	3.50	0.96		
Age	24.79	2.38	27.11	3.20		
Education. Share in group						
Lower secondary education (*Volks- und Hauptschule*)	.03		.02			
Lower secondary education (*Realschule, Mittlere Reife*)	.05		.02			
Upper secondary education vocational	.18		.32			
Upper secondary education general	.15		.05			
Post-secondary non tertiary education general	.17		.14			
First stage of tertiary education	.32		.43			

Table X. Associations between gender role attitudes, education, and religiosity for female and male partners. Spearman rank correlation coefficients (n=422). Western Germany. Education and religiosity are coded so that higher values represent higher education and higher religiosity.

	Education		Religiosity	
	Females	Males	Females	Males
1. Women: family > career	-0.28***	-0.13*	0.04	0.23**
2. Child < 6 suffers if mother works	-0.22***	-0.04	0.19***	0.22***
3. Housework: female involv. = male involv.	0.03	-0.02	-0.10*	-0.21***
4. Child suffers if father focus work	-0.04	-0.05	0.07	0.03

$^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$

Table 2. Average dissimilarity in gender role attitudes between both partners in real and counterfactual matchings. Western Germany (n=422).

	Matched for maximum similarity	Real couples	Randomly matched couples	Matched by education and religiosity	range
Number of dissimilar items out of all items	0.14	1.05	1.27	1.23	0-4
Number of dissimilar items on female roles (items 1&2)	0.09	0.64	0.79	0.76	0-2
Number of dissimilar items on male roles (items 3&4)	0.05	0.40	0.47	0.47	0-2
Dissimilarity on item…					
1. Women: family > career	.02	.28	.37	.35	0-1
2. Child < 6 suffers if mother works	.07	.36	.43	.41	0-1
3. Housework: female involv. = male involv.	.04	.17	.20	.20	0-1
4. Child suffers if father focus work	.01	.23	.27	.27	0-1

Table 3. Alignment over time: Effect of duration of relationship on similarity in gender role attitudes. Linear fixed-effects regression models. Western Germany.

	Number of dissimilar items out of all items	Number of dissimilar items on female roles (items 1&2)	Number of dissimilar items on male roles (items 3&4)	1. Women: family > career	2. Child < 6 suffers if mother works	3. Housework: female involv. = male involv.	4. Child suffers if father focus work
Duration of relationship, logged	-0.20***	-0.13***	-0.06+	-0.03	-0.17**	-0.06	-0.06
	(0.05)	(0.04)	(0.03)	(0.05)	(0.05)	(0.05)	(0.05)
Constant	1.14***	0.71***	0.43***	0.98***	1.34***	0.99***	0.80***
	(0.08)	(0.06)	(0.05)	(0.08)	(0.08)	(0.08)	(0.07)
n: couples	275	275	275	275	275	275	275
n: couples X waves	692	692	692	692	692	692	692

Table 4. Differential separation: Effect of dissimilarity in gender role attitudes on separation by last wave of observation (1=separation; 0=relationship continues). Logistic regression models. Western Germany.

	All items (1-4)	Female items (1&2)	Male items (3&4)	Item 1	Item 2	Item 3	Item 4
Number of dissimilar items out of all items	1.17						
	(0.15)						
Number of dissimilar items on female roles (items 1&2)		1.38^{+}					
		(0.25)					
Number of dissimilar items on male roles (items 3&4)			0.97				
			(0.22)				
Dissimilarity on item…							
1. Women: family > career				1.66^{+}			
				(0.46)			
2. Child < 6 suffers if mother works					1.24		
					(0.32)		
3. Housework: female involv. = male involv.						0.85	
						(0.26)	
4. Child suffers if father focus work							1.13
							(0.38)
Constant	0.52**	0.50***	0.62**	0.53***	0.57**	0.64**	0.60***
	(0.10)	(0.09)	(0.10)	(0.09)	(0.10)	(0.10)	(0.09)
AIC	370.0	368.3	371.4	368.1	370.7	371.1	371.3
Share of couples that separate by last observation	30.11%	30.11%	30.11%	30.11%	30.11%	30.11%	30.11%
n	297	297	297	297	297	297	297

Odds ratios displayed. Standard errors in parentheses. All models control for duration of observation with dummy-variables for last available wave.
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

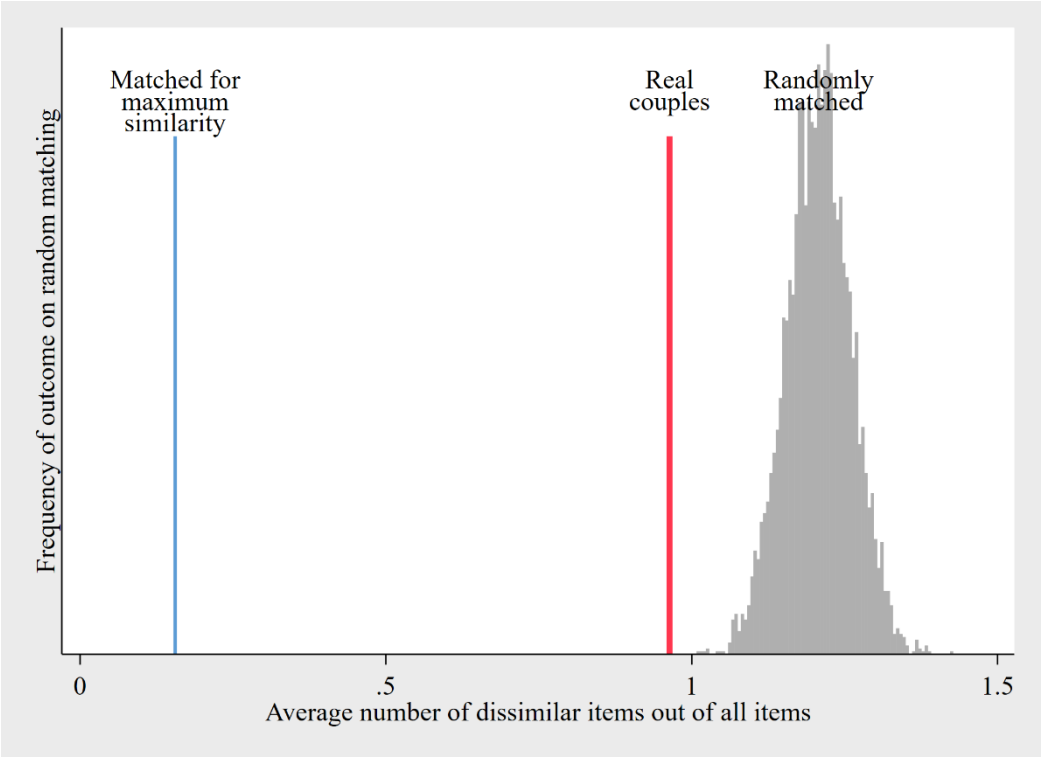

Figure E3. Average number of items with dissimilar answers, by type of matching. Random matching is performed 10,000 times. Western Germany (n=193).