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Why Should Women Get Less? Exploring Gender Pay Gaps by Experimental Methods

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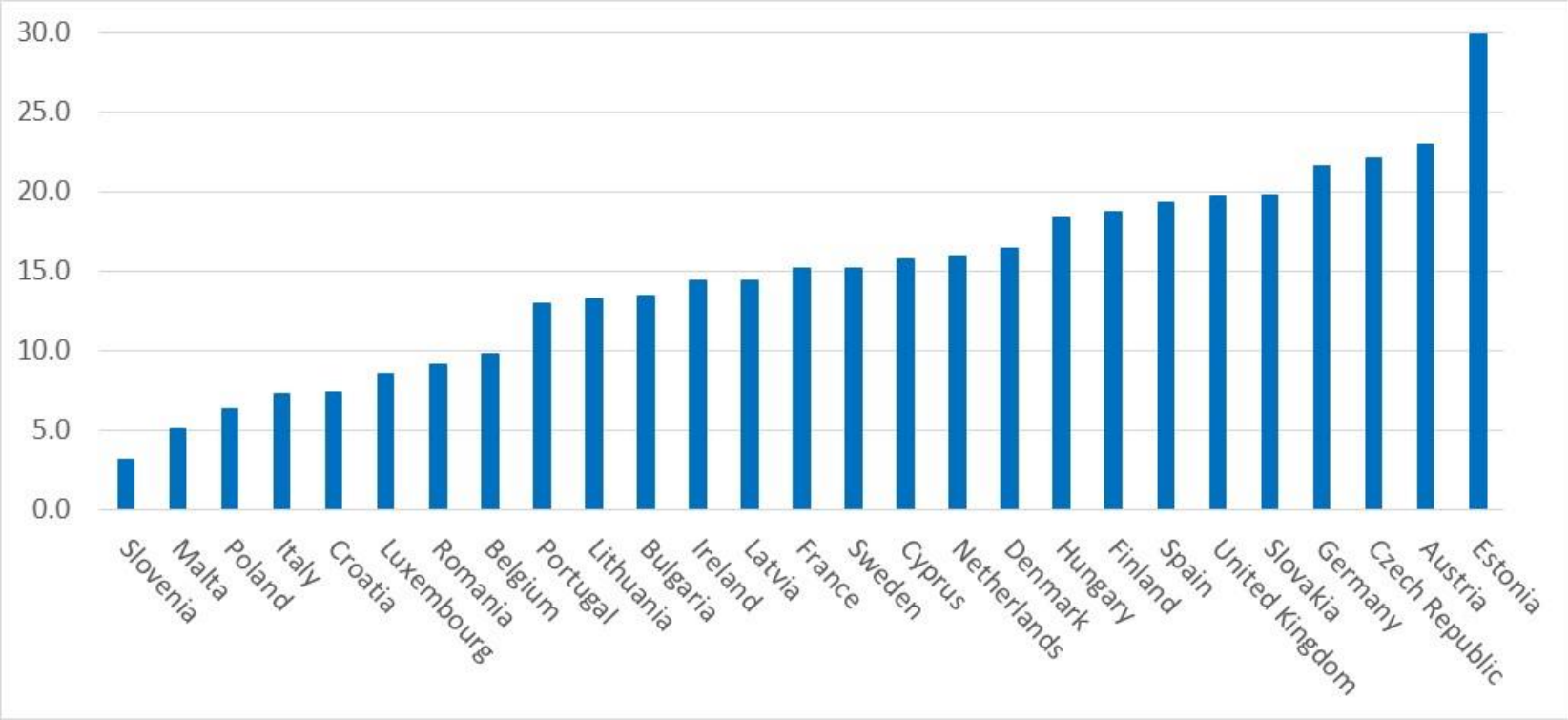
State of Research

- Gender Pay Gap in European Countries 2013
  (hourly wages, pay gap in percent)



Source: European Commission (Eurostat)

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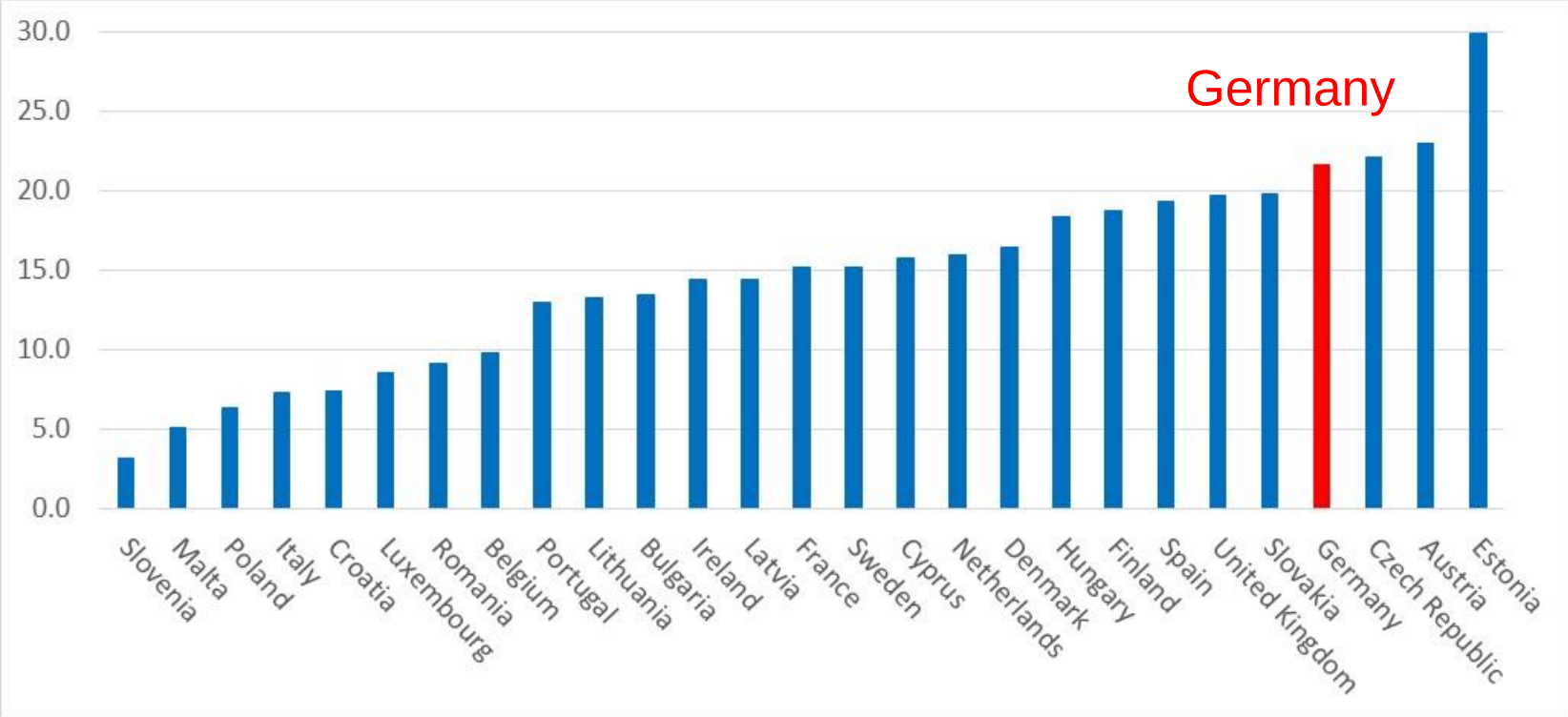

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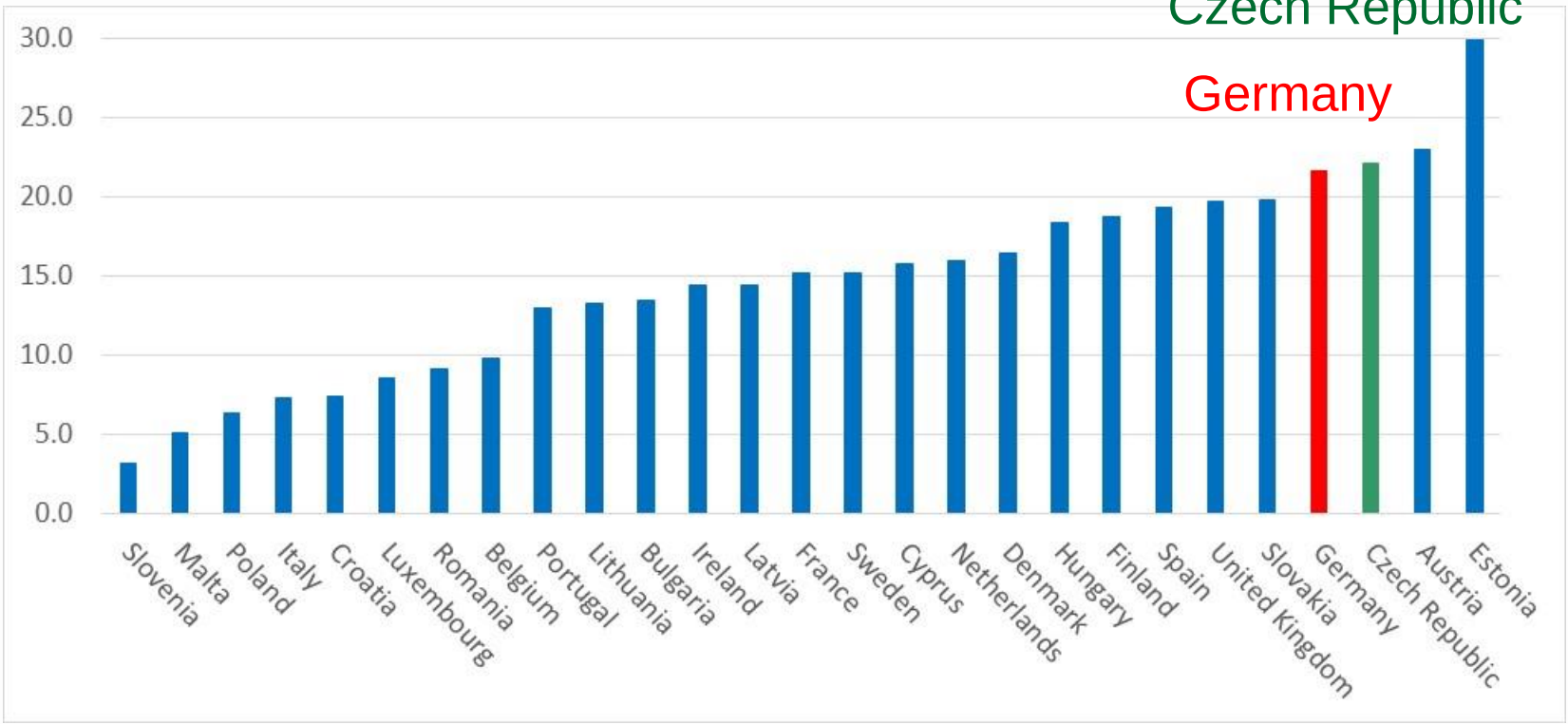

Source: European Commission (Eurostat)

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Reasons for Pay Gaps

- There are two different strands of explanations:
  (1) Differences in productivity / human capital endowments.
  (2) Pay differences besides similar productivity: "discrimination".

- Even after controlling for several characteristics related to labor market productivity (education, labor market experience, employers, occupations) there is still a gap left: in Germany the gap is ~ 12 percent lower earnings for females (Gartner/Hinz 2009).
- With non-experimental data, it is difficult to interpret the remaining gap: Evidence for discrimination or unmeasured differences in productivity?

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Discrimination?

- Following economic theories employers with “tastes for discrimination” should be driven out of competitive markets (Becker 1971).
- Following social exchange theories, paying schemes that are experienced as being unfair should cause employees to lower their work effort (e.g., „shirking“) or cause union strikes or even revolutions (e.g. Jasso/Webster 1997; Liebig 1997).
- To be able to survive in democratic societies with a high market pressure, pay inequalities have to be supported not only by the privileged, but also disadvantaged groups (women).
- Indeed there is some evidence that existing pay gaps have a normative counterpart in form of Just Gender Pay Gaps (JGPGs) (e.g. for the US: Jasso/Webster 1997; for Switzerland: Jann 2005).

Why do individuals consider lower payments for women as being fair?

And why is this true not only for males, but also females?

Possible mechanisms

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Theories: Economics

- Statistical discrimination (e.g. Phelps 1972, Arrow 1971)
  - True productivity is often not observable when hiring new employees.
  - Rational employers use easily observable characteristics (such as gender) as proxies for productivity.
  - Women more likely show work interruptions, meaning they cause higher turnover/training costs.
  - Rational employers attach these costs to women in form of comparatively lower pay (or not hire women at all).

➢ The more information on individual productivity exists, and the lower group differences in labor market performance, the lower the discrimination of female employees should be.

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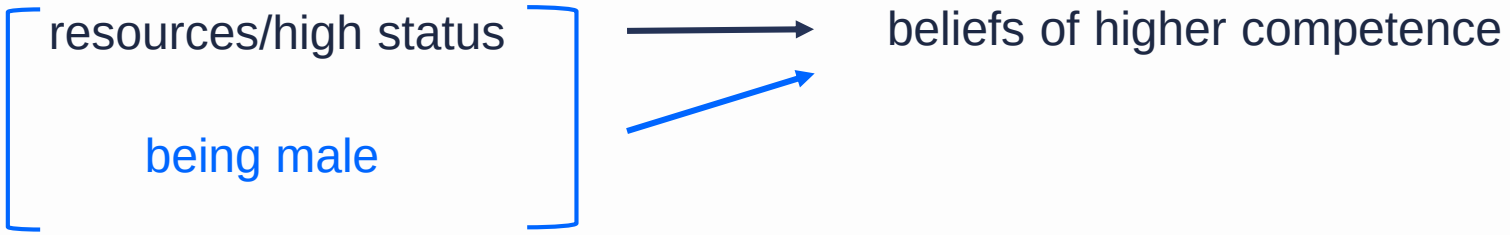
Theories: Sociology & Social Psychology

- Reward expectations & status beliefs (e.g. Ridgeway 1997, 2006)
- Better resource endowments allow persons with higher social status to be perceived as being more competent / to show a higher performance.
- Repeated interactions prime group-specific performance expectations. Socio-demographic characteristics get connected with performance expectations ("status beliefs").



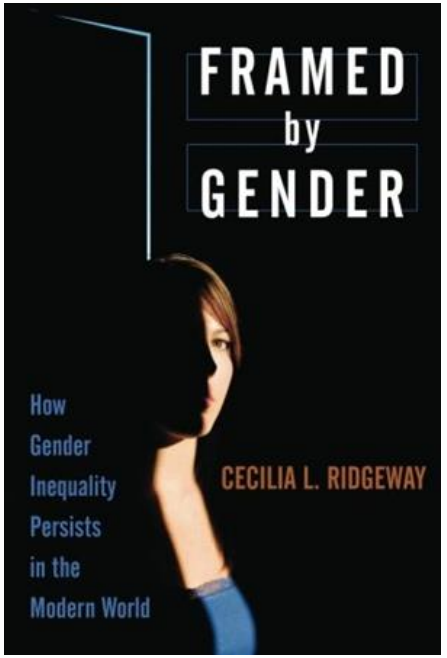
Even if these beliefs are not justified by true performance differences!

Theories: Sociology & Social Psychology

- Double standards for performance evaluations
  (e.g. Foschi 1996, 2000)
  - Status beliefs "color" performance evaluations in stereotype-confirming ways:

High performance - - - - High status groups (men)
Low status groups (women)

Low performance - - - - High status groups (men)
Low status groups (women)



- Status & earning gaps are experienced as being fairly deserved even in case they do not match true performance differences.
- Status beliefs are very resistant against contradicting information (which is probably interpreted in a gender-specific way).

How to test theses assumptions?

Evidence from survey experiments in Germany

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Factorial Survey Experiments

- Combination of surveys and experiments.
  Respondents are asked to evaluate descriptions of hypothetical employees („vignettes“).
- As in all experiments, characteristics related to theories are manipulated to test their impact on evaluations, while at the same time other (disturbing) factors are controlled (hold constant).
- Due to the implementation in a survey one can easily approach broad (population) samples; the indirect evaluation task is less prone to social desirability bias (Mutz 2012; Auspurg/Hinz 2015).

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Sample Vignette (5 Characteristics)

A 50-year-old **man** with vocational training is working as a programmer.
His monthly gross earnings total 1,200 euros.

Are the earnings of this person fair or are they, from your point of view, unfairly high or low?

Unfairly low					Fair					Unfairly high
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

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Sample Vignette (5 Characteristics)

A 50-year-old **woman** with vocational training is working as a programmer. Her monthly gross earnings total 1,200 euros.

Are the earnings of this person fair or are they, from your point of view, unfairly high or low?

Unfairly low					Fair					Unfairly high
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

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Sample Vignette (5 Characteristics)

A **50**-year-old **woman** with **vocational training** is working as a **programmer**. Her monthly gross earnings total **1,200** euros.

Are the earnings of this person fair or are they, from your point of view, unfairly high or low?

Unfairly low					Fair					Unfairly high
-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

- Male and female vignette persons on average share exactly the same characteristics.

➢ Different evaluations of male and female employees are not due to different skills or resources, but rather caused by gender-specific evaluations (“discrimination”).

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Data

- General population survey in 2009 in Germany with about 1.600 respondents.

  (Project funded by the German Research foundation: “The factorial survey as a method for measuring attitudes in general population surveys“; PIs: Thomas Hinz & Stefan Liebig)
- Respondents were asked to evaluate 10, 20 or 30 vignettes; all in all more than 26,200 valid vignette evaluations.
- Variation of amount of information on vignette persons: Experimental splits with 5, 8 or 12 characteristics informing about the vignette persons.

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Experimental Splits with 5, 8 or 12 Characteristics

	5 Characteristics
Age	X
Gender	X
Vocational degree	X
Occupation	X
Gross earnings/month	X

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Experimental Splits with 5, 8 or 12 Characteristics

	5 Characteristics	8 Characteristics
Age	X	X
Gender	X	X
Vocational degree	X	X
Occupation	X	X
Gross earnings/month	X	X
Experience		X
Job tenure		X
Children		X

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Experimental Splits with 5, 8 or 12 Characteristics

	5 Characteristics	8 Characteristics	12 Characteristics
Age	X	X	X
Gender	X	X	X
Vocational degree	X	X	X
Occupation	X	X	X
Gross earnings/month	X	X	X
Experience		X	X
Job tenure		X	X
Children		X	X
Health status			X
Job performance			X
Economic situation of the organization			X
Organization size			X

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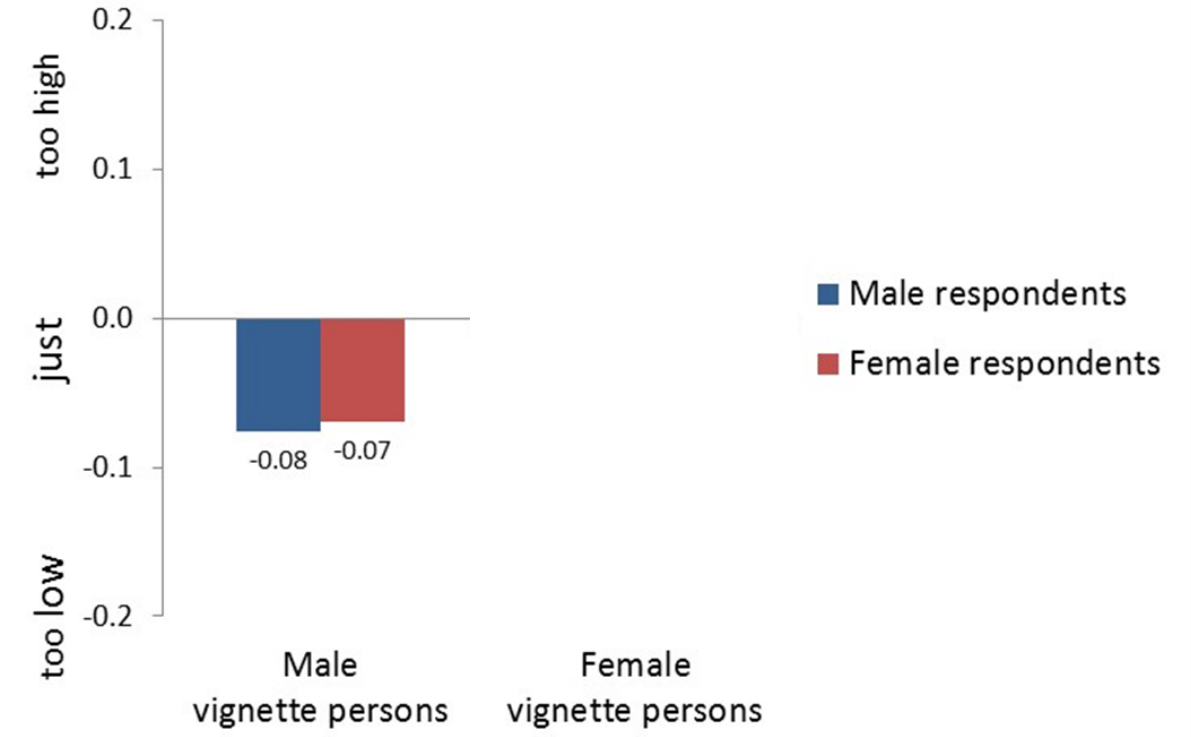
Results: Mean Evaluations

The earnings are…



Source: Project „Factorial Survey Design“, general population sample (GSOEP); coefficients from multivariate GLS regressions; *n* > 12,300 vignette judgements, and *n* > 750 respondents.

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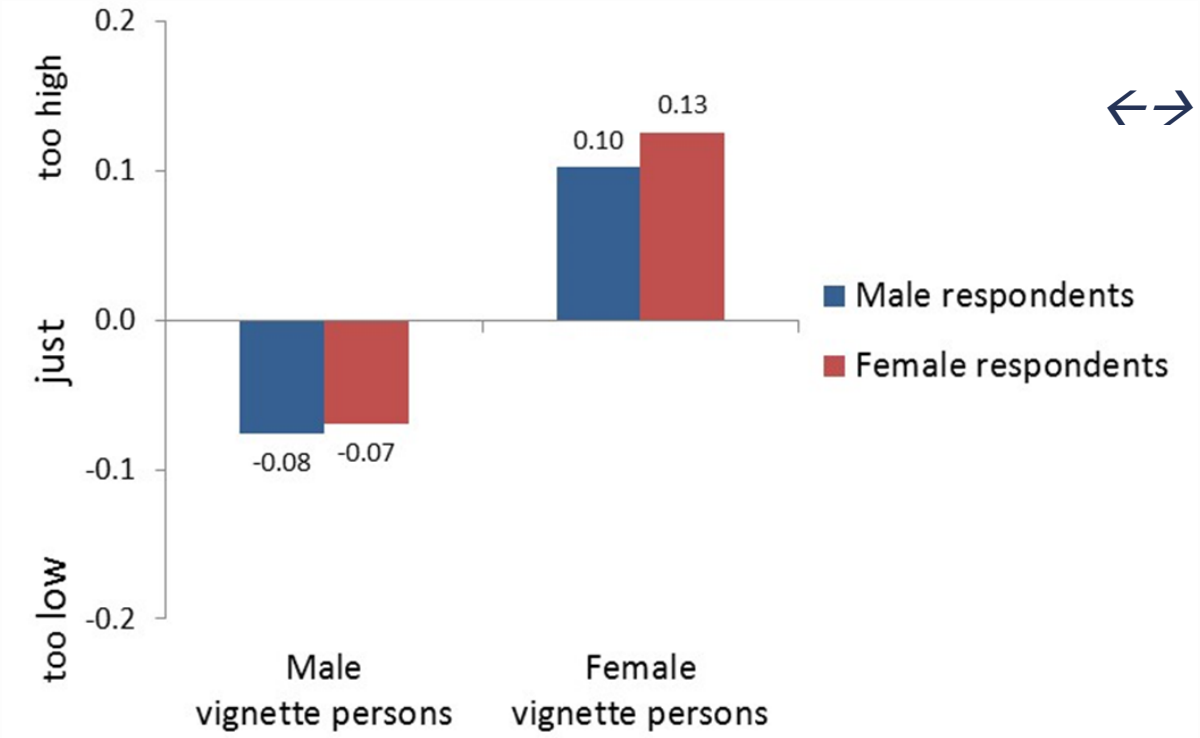
Results: Mean Evaluations

The earnings are…

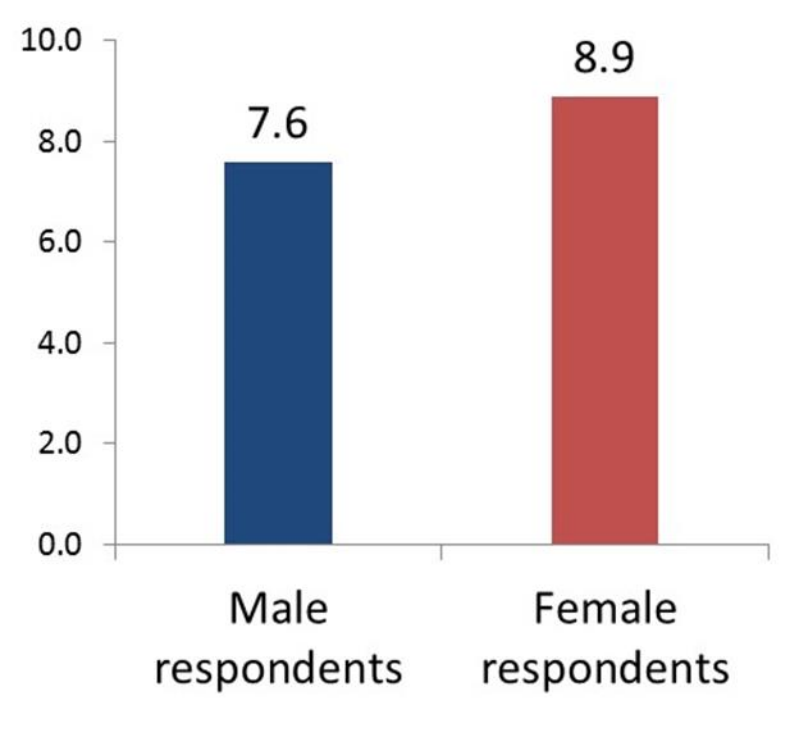


←→ *p*= 0,000***

Source: Project „Factorial Survey Design“, general population sample (GSOEP); coefficients from multivariate GLS regressions; *n* > 12,300 vignette judgements, and *n* > 750 respondents.

Just Gender Pay Gaps

Just Gender Pay Gaps:
Mean percent of earnings that women should get less



Source: Project „Factorial Survey Design“, general population sample (GSOEP); coefficients from multivariate GLS regressions; *n* > 12,300 vignette judgements, and *n* > 750 respondents.

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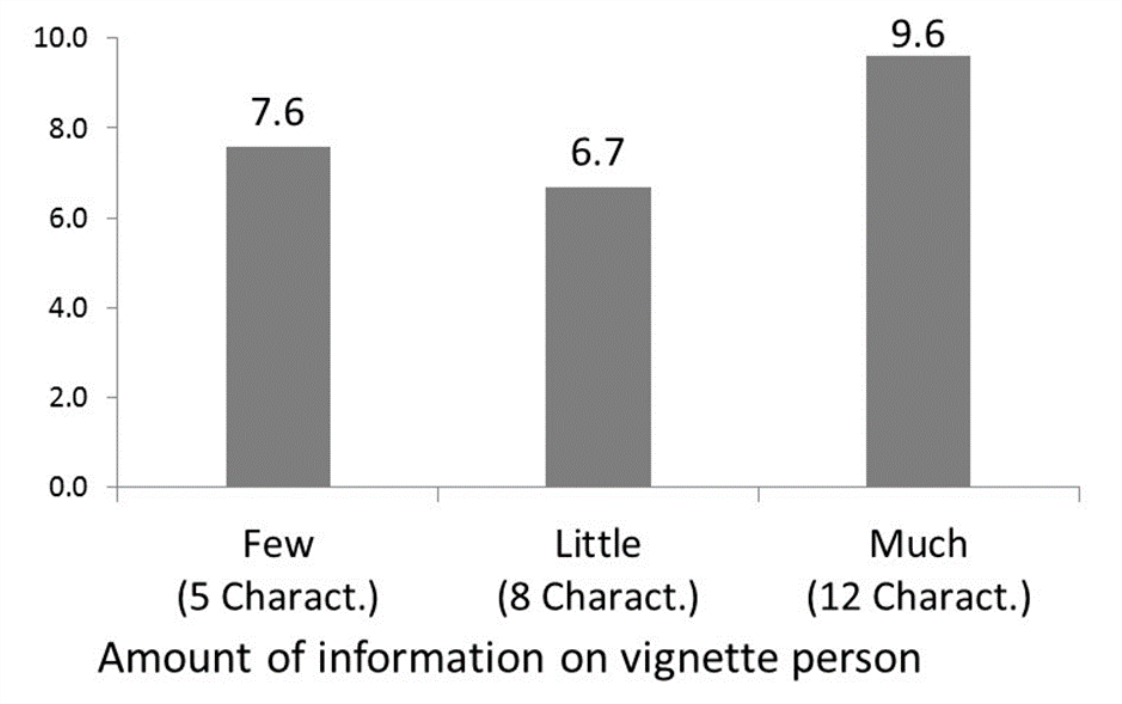
Impact of Information: Statistical Discrimination?

Just Gender Pay Gaps:
Mean percent of earnings that women should get less



Source: Project „Factorial Survey Design“, general population sample (GSOEP); coefficients from multivariate GLS regressions; *n* > 8.690 vignette judgements, and *n* > 520 respondents.

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Status Beliefs and Double Standards?

- Just Gender Pay Gaps (JGPGs) co-vary with real Gender Pay Gaps (GPGs) respondents experience in their own occupations *(p = 0,002**)*.
- In addition, there was a tendency that JGPGs co-vary with real GPGs in vignette persons' occupations (*p* = 0,045*).

➢ Experience made on the labor market seem to prime justice beliefs, which fits to the theory of status beliefs.

- There was also some evidence for double standards:
  Higher performance was more strongly acknowledged for male vignette persons (which fits to the theory).
  But the same was true for lower performance (and here one would in the contrary expect that this is more likely ignored).

Summing Up

- Respondents in Germany supported Just Gender Pay Gaps (JGPGs) of about 8 % higher wages for male employees.
  This JGPG is a little bit lower than the actual pay gap (GPG) observed in Germany.
- This results does not depend on respondents' gender or the amount of information on employees.
  Statistical discrimination is not the whole story.
- Actual inequalities and status differences in occupations (GPGs) seem to prime normative attitudes (JGPGs).
  In that way existing inequalities get legitimized (and reproduced).
- With respect to policy interventions, the results suggest that more information or closing gaps in labor market experience is insufficient to stop discrimination.
  One would better need permanent role models of women in high-status positions, getting high earnings.

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Thank you for your attention!

Questions? Remarks? Suggestions?

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http://www.ls4.soziologie.uni-muenchen.de/personen/professoren/professorinneu/index.html

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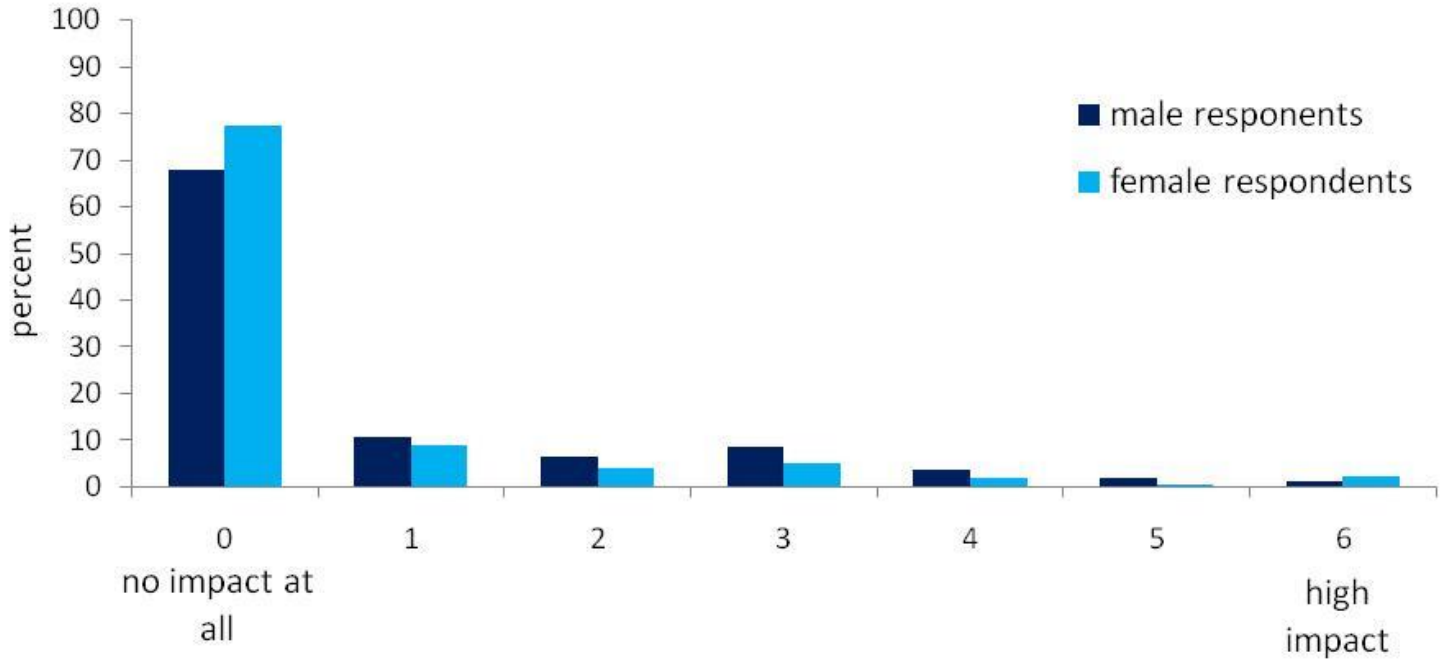
Appendix: Direct Questionning

"According to your opinion, which impact should have the following aspects for the amount of fair earning? – sex of employees“



Source: Project „Factorial Survey Design“, general population sample (GSOEP)

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Appendix: Impact of Occupations