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Introduction

In Germany, life sciences are known for their high share of doctoral graduates.

People have various reasons to decide for or against a PhD. We investigate our respondents' the reasons for a PhD and in how far they are linked to their socio-demographic origin.

Different reasons might entail different PhD paths, influence the outcome of the PhD and, thus, impact career prospects.

Our focus is on the connection between these reasons and the path and outcome of the PhD phase.

Aim

Aim of our research is to illustrate:

- What are the reasons to pursue a PhD?
 - Rational Choice or Habitus
- How are those reasons linked to socio-demographic characteristics?
- How do they influence the structure of PhD-phase?
- What is their impact on the outcome of PhD?

Theory

- Model of Frame Selection: Selection of action
 - Automatic-spontaneously (AS)
 - Reflective-calculating (RC)
 - Theoretical frame to integrate Habitus and Rational Choice
- Habitus:
 - Patterns of thinking, perceiving, evaluating and acting
 - Generates (social) practices
 - Navigates familiar situations without considerations
 - Allows spontaneous improvisation
 - 'unthought known', the unconscious
 - Structures rationality
- Rational Choice:
 - Reflective-calculating choice between alternatives
 - Value rational (WR)
 - Instrumental rational (IR)
 - Pre-structured by habitus

Methods

- Standardized questionnaire
- Doctoral graduates from biological departments in Bavaria, North Rhine-Westphalia and Saxony (N=734)

Independent variables:

- Age, Gender
- Socio-economic status (SES)
- Migration background
 - Graduates with both parents born abroad often in Germany for studies/ PhD

Reasons to pursue PhD

- 15 Variables that cover rational and habitual decision mechanisms
- 12 factor model in CFA

Results

Five most important reasons to pursue a PhD (Figure 1):

- Improve job prospects (Reflective-calculating – instrumental rational)
- Learn more about subject (Reflective-calculating – value rational)
- To do research during PhD (Reflective-calculating – value/instrumental rational)
- To work in research (Reflective-calculating – instrumental rational)
- It is common to do a PhD in subject (Automatic-spontaneous – Habitus)

Conclusion

- Reasons to pursue a PhD differ between German PhDs and PhDs from abroad (both parents not born in Germany)
 - Encourage academic interest during master studies among Germany students
- With increasing SES the importance of extrinsic rewards decrease, research specific motives increase
 - better support for lower SES needed

Table 1: Demographic characteristics and reasons to pursue a PhD

	PhD common in subject	Work in corporate research	Work in research	Subject/ research interest	Lifestyle of scientist	Extrinsic rewards	Not commit to one career yet	No better alternative	To be flexible concerning work and leisure	Combine work and family	Did not think about it	Encourages by other people
Age	-0.132** (0.046)	-0.123** (0.035)	-0.082* (0.042)		-0.101** (0.048)		-0.165** (0.048)		-0.135** (0.050)			
Man		0.119** (0.043)									-0.133** (0.047)	
SES				0.099* (0.049)	0.100* (0.040)	-0.089* (0.048)	0.093* (0.046)					
SES ²												
One parent not born in Germany				0.077* (0.036)								
Both parents not born in Germany	-0.132** (0.043)		0.186*** (0.045)	0.124** (0.046)	0.350*** (0.036)		-0.118** (0.045)	-0.103* (0.045)		0.229*** (0.047)	-0.155** (0.049)	-0.166*** (0.041)
R ²	0.046*	0.028*	0.047*	0.030*	0.144***	0.015	0.053*	0.035*	0.025	0.060**	0.051*	0.032*

Notes: standardized coefficients, standard error in parenthesis; *** p < 0.001; ** p < 0.01; * p < 0.05; N = 734

Figure 1: Reasons to pursue a PhD

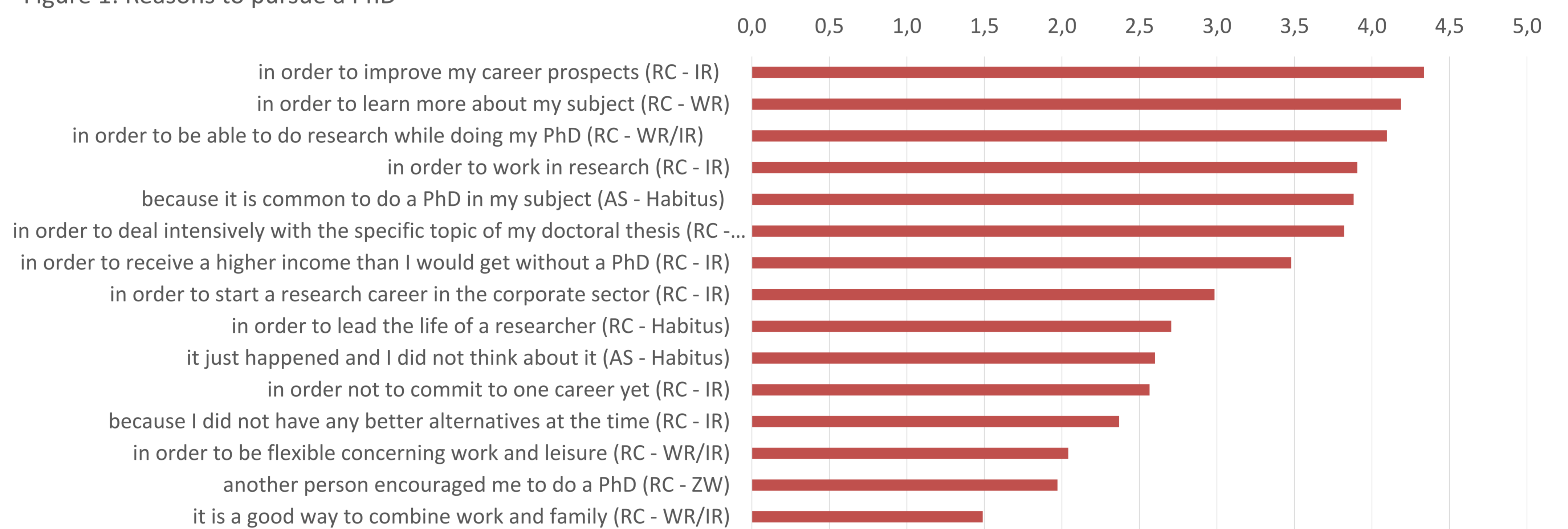
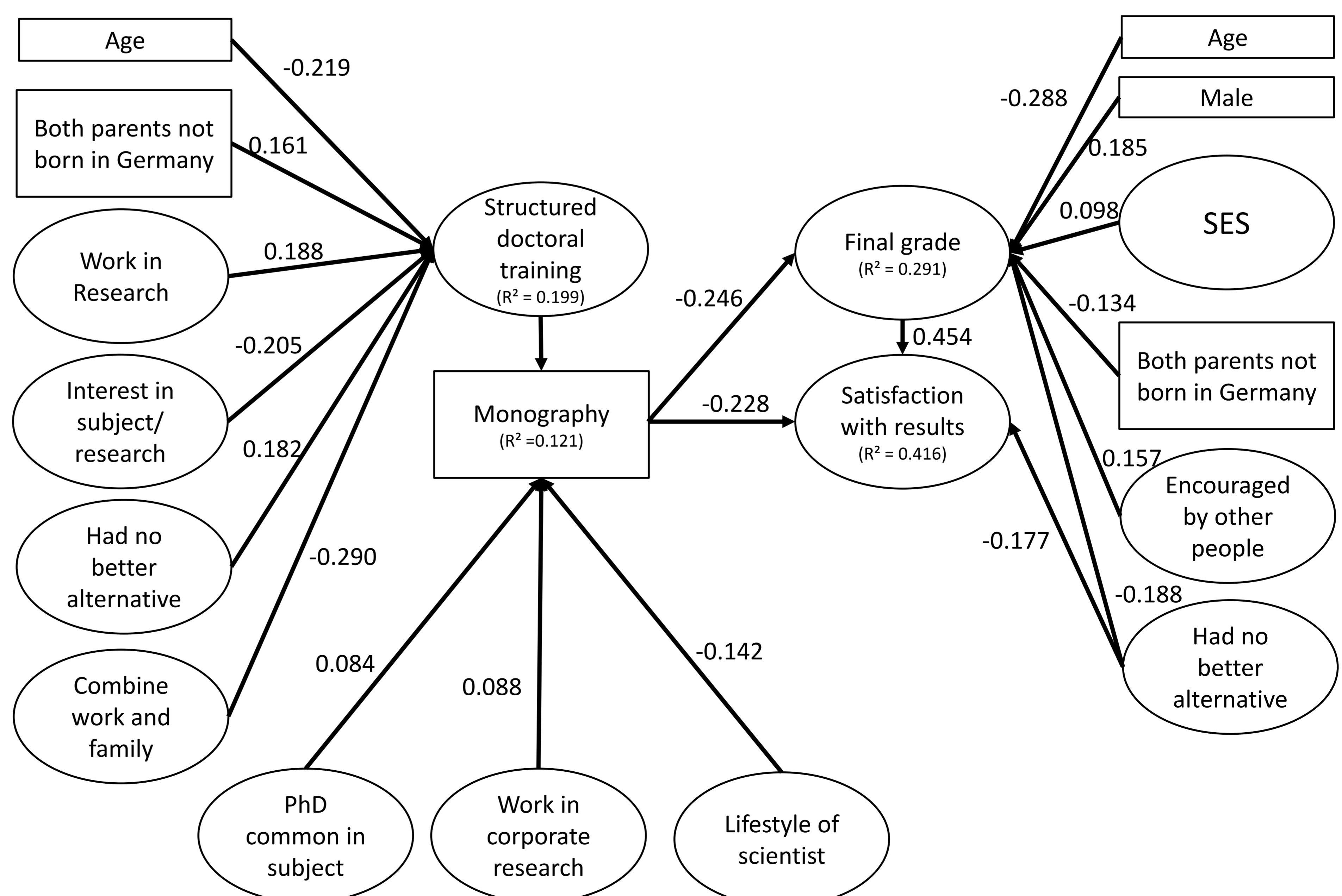


Figure 2: Path analysis: Outcome of PhD phase



Note: Only significant determinants shown, standardized coefficients

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