



Leibniz
Universität
Hannover

Science and Academic Careers

Introduction to the Topic

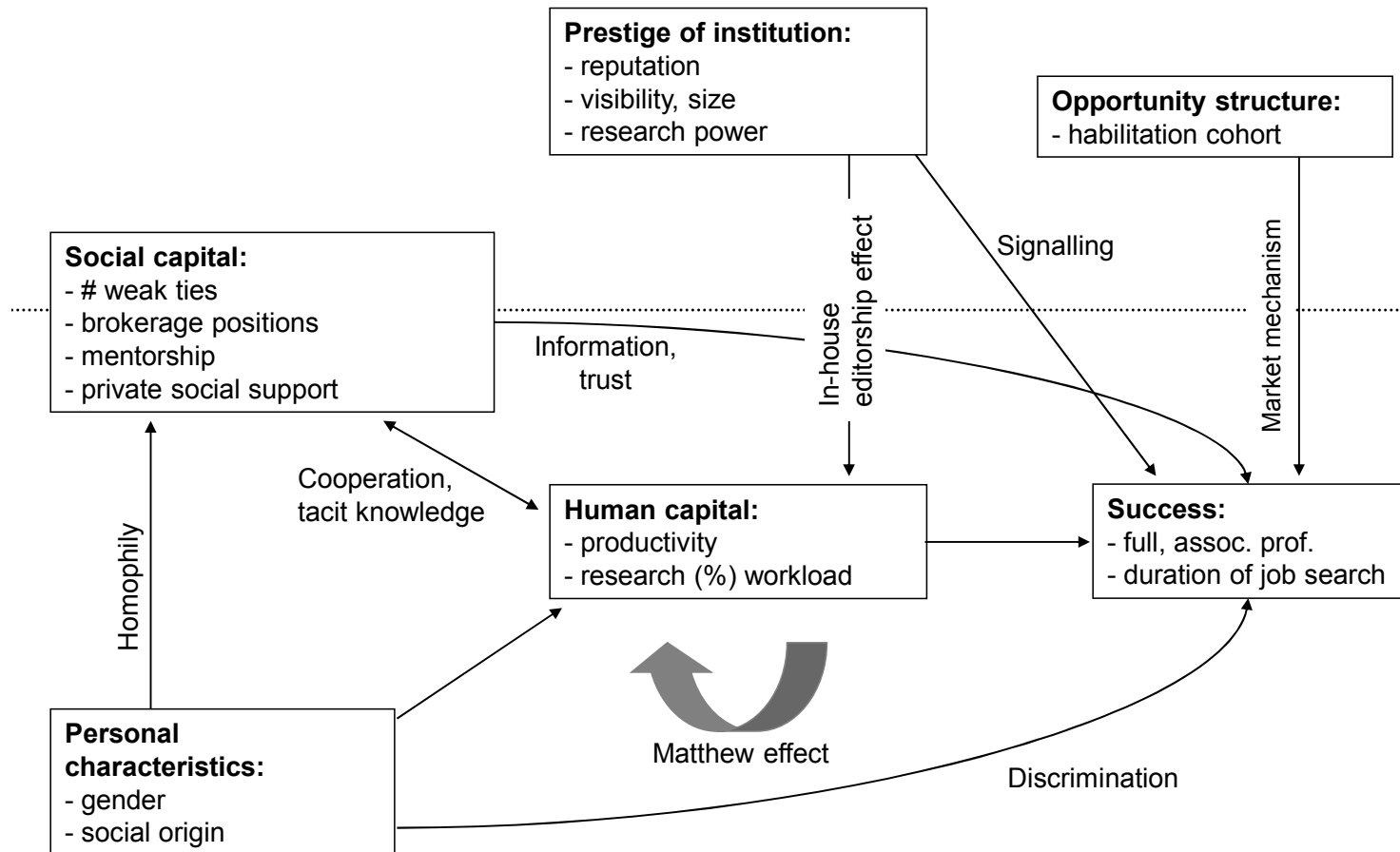
Christiane Gross



Summer School „Science and Academic Careers“ – Hanover, September 5, 2016

Explaining academic success

Meso-Level:
institutions



Source: Jungbauer-Gans & Gross (2013)

Micro-Level:
individuals

What we know about the role of... ... productivity and meritocracy

In Theory:

- Meritocratic ethos of science (Mertons 1973)
- Human capital theory (Becker 1964)
- Mathew effect (Merton 1968 or better Zuckerman 1965?)
- Matilda effect (Rossiter 1993)

Empirical Evidence:

- Focus on research output and ignoring the input (Benschop & Brouns 2003):
 - Working hours/full-time versus part-time
 - Maternal leaves
- Women publish less, but in higher ranked journals (for a summary Jungbauer-Gans and Gross 2013)

What we know about the role of... ... scholar's attributes

In Theory:

- „Taste-based discrimination“ (Becker 1957)
- Statistical discrimination (Phelps 1972a, 1972b)
- Approaches that focus on group size
 - Token Thesis (Kanter 1977)
 - Competition Thesis (Blalock 1967, Tolbert et al. 1995)
- Doing gender (West and Zimmerman 1987)

Empirical Evidence:

- For some disciplines even better chances for women (Gross et al. 2008, Jungbauer-Gans and Gross 2013)
- Application behavior differs by gender (for Germany Auspurg and Hinz 2008)

What we know about the role of... ... social capital

In Theory:

- Strength of weak ties (Granovetter 1973, 1983)
- Structural holes and broker position (Burt 1995, 2006)
- Role of mentors (Zuckerman 1977)
 - Mentor as signal
 - Rank prestige (Newman 2004, Lin et al. 1981)
- Tacit knowledge (Gross und Jungbauer-Gans 2007)
- Private social support

Empirical Evidence:

- Cooperation with mentor has strong effect on mentee's productivity (Long and McGinnis 1985, Long 1990)
- Preference to cite scholar of the same gender (Ferber 1986, 1988)

What we know about the role of... ... institutions

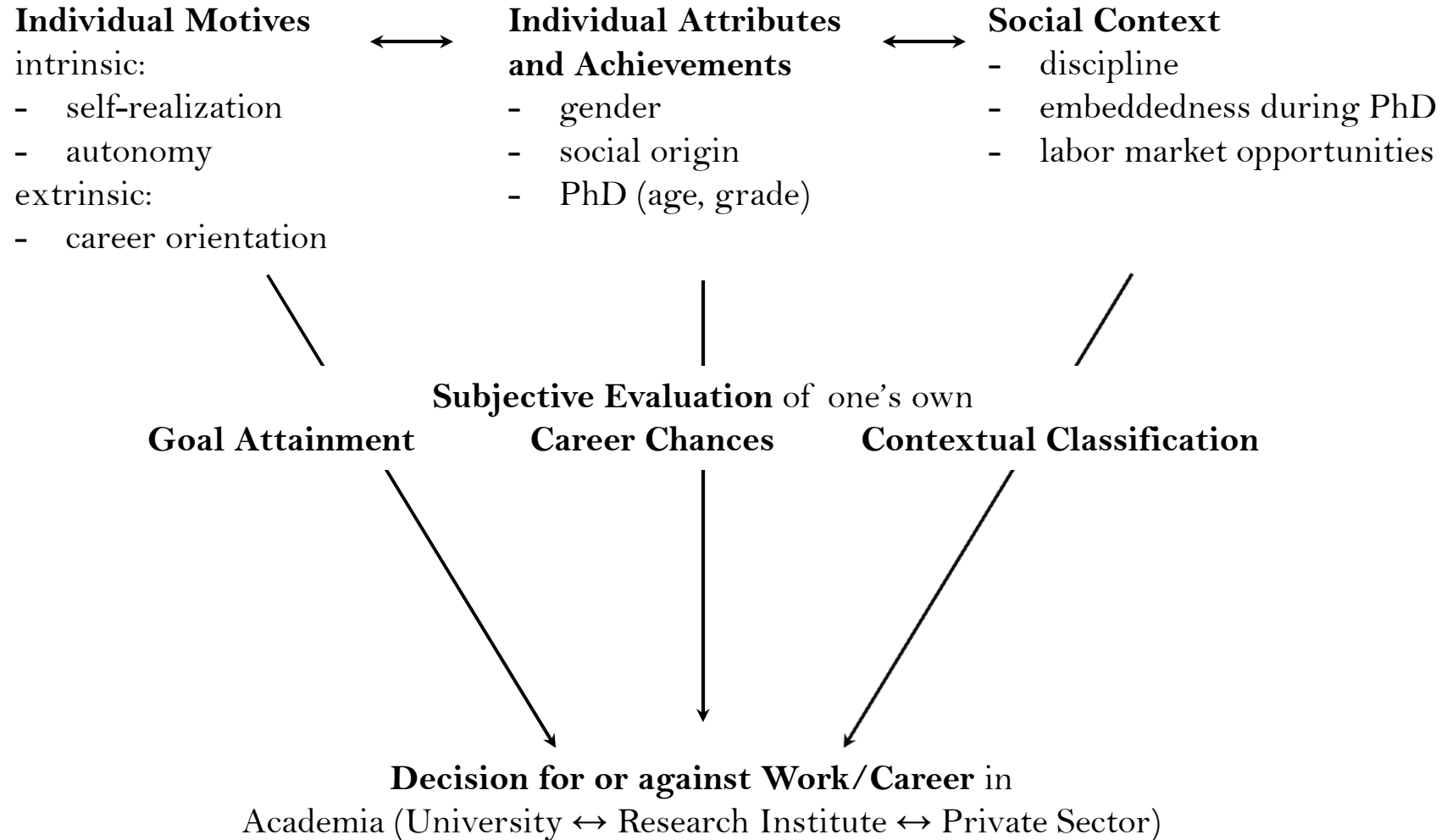
In Theory:

- Signaling effect (Spence 1973, 1974, Cohen 1993)
- Interaction of institutional and social capital
 - Support of double career couples
 - Family-friendly policies
- Research conditions
 - Inhouse-Editorship-Effect (Stahl et al. 1988)
 - Cooperation options, libraries, etc.

Empirical Evidence:

- PhD exchange networks of the ivy league institutions (Burris 2004)
- Number of post-doc scholars in the institution is beneficial for becoming a professorship (for psychology departments in Germany Lang and Neyer 2004)
- Institutional affiliation influences likelihood of research funding (Rose 1986, Auspurg et al. 2008)

Explaining Career Decisions



Methodological Challenges

- Careers should be regarded in a **life-course perspective**
 - need for **longitudinal data** (panel data, event history data, etc.)
 - But:** panel data has other **shortcomings** (**representativity** of the sample)
- Need to show **causal evidence**, but experiments are often no option
- To show **differences by country, discipline, career level**
 - cross-national data (homogeneous samples)
 - with several disciplines (standardized AND appropriate items among disciplines)
 - several career levels (integration of samples)

- Integration of **middle-range theories** and hypotheses gives a **big picture** of how to explain academic careers in general
- But: Theoretical knowledge for explaining **differences** by country, discipline and career level is poor
- **Empirical evidence is a puzzle** with several missing pieces
- Providing **causal evidence** is difficult
- For Germany, strong efforts to...
 - ... **integrate surveys of different career levels to panel data** (e.g. student and academic life cycle by the DZHW)
 - ... show **cross-cultural evidence** (e.g. EUROSTUDENT)
 - ... provide **data access** (Research Data Centre for higher education research and science studies is being set up within the DZHW)

Summer School's Program – New Pieces for the Puzzle

Today

Time	Item	Speaker
02:00 – 03:30	Surveys and Data from the German Centre for Higher Education Research and Science Studies (DZHW)	Monika Jungbauer-Gans
04:00 – 05:30	Oral Presentations on Careers Paths and Decisions	Participants
06:00 – 07:00	Keynote: Changing Career Outcomes for PhDs in Science and Engineering	Paula Stephan

Summer School's Program – New Pieces for the Puzzle

Tuesday

Time	Item	Speaker
09:00 – 12:00	Workshop: Event History Techniques	Johannes Giesecke
02:00 – 03:30	Oral Presentations on Education and Social Origin	Participants
04:00 – 05:30	Afternoon lesson: International Academic Mobility	Nicolai Netz & Steffen Jaksztat

Summer School's Program – New Pieces for the Puzzle

Wednesday

Time	Item	Speaker
09:00 – 12:00	Workshop: Gender and Academic Careers	Sandra Beaufays & Andrea Löther
02:00 – 03:30	Oral Presentations on Gender	Participants
04:00 – 05:30	Meet the Experts	Nadia Asheulova Eva Barlösius Monika Jungbauer-Gans Sabine Maasen Dagmar Simon
06:00 – 07:00	Keynote: Is Interdisciplinary Collaboration Worth the Trouble?	Erin Leahey

Summer School's Program – New Pieces for the Puzzle

Thursday

Time	Item	Speaker
09:00 – 12:00	Workshop: Cooperation in science and cooperation in science ²	Hergen Köhler, Mathis Nolte & Sabrina Petersohn (INSIST)
02:00 – 03:30	Oral Presentations on Social Origin & Mobility	Participants
04:00 – 05:30	Poster Session	Participants

Summer School's Program – New Pieces for the Puzzle

Friday

Time	Item	Speaker
09:00 – 12:00	Workshop: Educational Decisions	Volker Stocké
02:00 – 03:30	Final Discussion: Outlook / Future research	Christiane Gross & Monika Jungbauer-Gans

Thanks for your Attention!

Enjoy the Summer School!