

# Developing Indicators for a Comparative Framework of Doctoral Education in the US and Germany

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# Preface:

- This presentation is an effort to start a broader discussion about doctoral education
- Such a discussion involves the entire higher education system, so what is presented here is an extract of issues
- I am using the US doctoral “system” or forms of organization as my base: Its expansion and development in the 20<sup>th</sup> century set an international standard many countries are now trying to emulate. This establishes a baseline
- Germany is one of those countries which expressly references US elite research universities. German researchers also seem to have thought more systematically about doctoral education

# Introduction: Need for this effort:

- Doctoral education tends to be studied in isolation, yet
- It is the pinnacle of educational system, and provides entrance to it
- Then shapes that system through faculty research and teaching roles
- Is embedded not just in a discipline specific department-one form of organization, but
- Also a university, a highly complex and differentiated organization
- And in a national idiosyncratic higher education system with its own priorities, legal framework, history and aspirations
- These in turn are part of a competitive international environment

# Comparison possible?

- Is doctoral education actually similar in different countries?
- Need similar if not identical objects to be compared
- To evaluate diversity among national training systems create benchmarks based on 1. structures in which doctoral ed occurs 2. the processes these engender for educating and socializing the student 3. the hidden curriculum shaping these processes and supporting or excluding certain students
- Consider all the structures and processes including quality assurance in relation to supporting a specific outcome of a young self-sustaining professional of a specific field

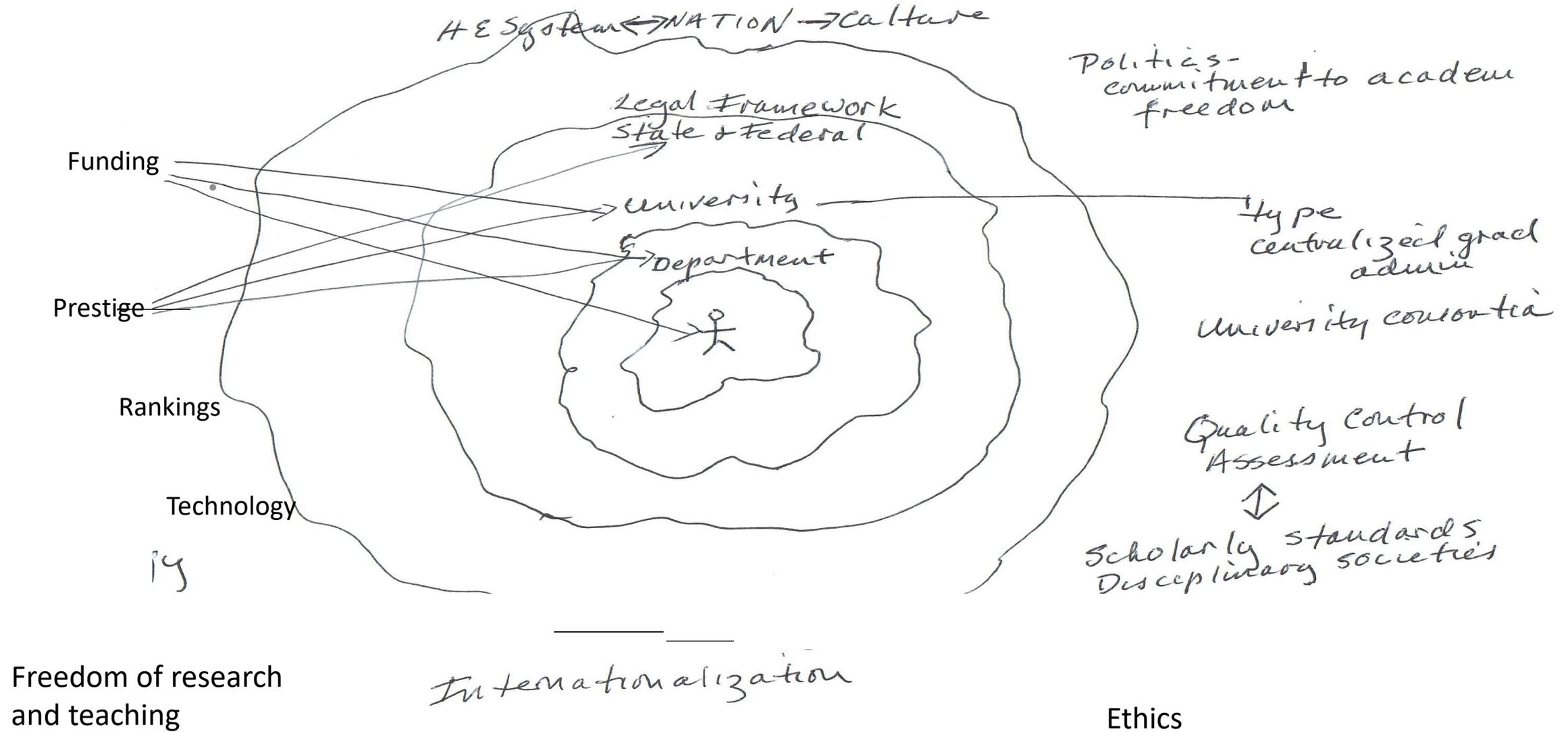
# Why do this?

- Doctoral education not usually considered from a meta perspective
- To create an abstract model of research doctoral education in which the defining characteristics are made explicit
- To understand all the different forces and influences which shape research doctoral training from both within the training organization—the department within a research university—and outside such as professional associations, accreditation agencies or quality control, state funding organizations, etc.
- To distinguish between “structures” which actually regulate doctoral programs, and the processes they support \*\*\*\*\*
- Take into consideration the ineffable “processes” such as the competition for prestige and rank among departments and universities and what could be called “third party actors” -- entities both conceptual and concrete such as technology and higher ed financing agents.

# Doing this to also acknowledge the practical value of a framework for degree recognition

- Highly developed nations all have formal agencies to investigate the comparability of degrees.
- Used heavily for students seeking admission to advanced degree programs
- Promote greater international movement if degree "bedingt vergleichbar", "entspricht" und "gleichwertig,, (Anabin. Kultusministerkonferenz – Zentralstelle für ausländisches Bildungswesen)
- Am 21. August 2019 hat das Statistische Bundesamt die Ergebnisse der amtlichen Statistik zum **Anerkennungsgesetz des Bundes für das Berichtsjahr 2018** veröffentlicht. Demnach meldeten die zuständigen Stellen seit Inkrafttreten des Gesetzes insgesamt 140.703 Anträge auf Anerkennung einer im Ausland erworbenen Berufsqualifikation, davon 29.202 Neuanträge im Jahr 2018.
- **IEE Foreign Credential Evaluations, etc**

# Partial Representation of structures and forces shaping doctoral education



# Point of departure: What is the Purpose of the Doctorate?

- Abstract and historical definition to acquire, develop and create new knowledge through independent research presented in a dissertation
- Purpose and content always under scrutiny and changing
- Program subject to criticism and calls for reform from inside (students, faculty, institution) and outside (financing bodies, governments, society and economy)
- Now has many purposes, in which traditional purpose to train a research and teaching workforce to continue to create and transmit knowledge is and has always been mixed with training a professional workforce whether in or out of the discipline, and outside the academy

# Some current hallmarks of process

- Extraordinary degree of program diversity within university diversity
- Limited and usually selective admission
- 1% US-2% Germany of total population ever holds a doctorate
- Subject to ongoing evolving quality control standards
- Individual and institutional financing a significant shaping agent
- Possible weakening of independent work through funding structure in which research done in lab or other large scale projects
- Employment prospects of new doctorates is a matter of concern and promotes current efforts for broader training

# Characteristics of US doctoral populations

- US 2017 54,664 doctorates granted, 53.3% male, 46.6% female. Of total 65.5% US citizens or PR, 30% temporary visa holders (CHE almanac August 23, 2019)
- [Medical School graduates 2018 ca. 19,500 (Assn Amer Medical Colleges 2018, <https://www.aamc.org/download/321532/data/factstableb2-2.pdf>)]
- [Law School graduates 2017 ca. 33,800 (The Faculty Lounge, <https://www.thefacultyounge.org/2014/04/2-supply-how-many-law-students-will-graduate-in-2017-2018.html>)]
- 69% from educated or highly educated families (NSF, Survey of Earned Doctorates 2018 <https://www.nsf.gov/statistics/2018/nsf18304/static/report/nsf18304-report.pdf>)

# Characteristics of German Doctorates

- **Germany 2016 29,301 “Promotionen” total** (Bildung in Deutschland 2018, Bildungsbericht Tab. F6-12web “Promotionen, usw 1993-2016”)
- **21,887 without all medical degrees** (Ibid.)
- **Come from highly educated families, 79% of those holding a “Universitätsabschluss” likely.** (Bildungsbericht 2014-Web-tabellen F2)
- **Social status of holding a Dokortitel for employment in areas outside academe long an impulse for degree acquisition.**

# Procedure:

- Examine each structured phase of doctoral education from admission through conferring of degree in both countries
- Compare structures, but more significantly compare processes to see if similar or even different structures appear to be educating and socializing the student
- Look at outcomes after the degree: employment, postdocs, non-academic work
- Caveat: comparison appears to be likely in programs in the same field
- At the same time refer to larger system affecting doctoral training

# Case of structured admission process

- United States
  - Department:
  - Admissions structured on objective criteria, BA or MA (courses taken, GPA), GRE, statements of research purpose, reference letters, plus other exams for language or subject competency
  - Measuring competency, knowledge acquisition
  -
- Germany
  - 1. Department/Institute/Graduate School, Structured Program
  - Admissions on objective criteria, MA (courses taken, notes)
  - 2. Lehrstühle: Formal application involving classes taken, exam work, recommendations, other criteria

# The US Graduate Process

- Students admitted with usually a Bachelor's in a highly structured admissions process according to published requirements of often both department and university.
- Recruitment of students formal and informal
- Process often administratively centralized in a "graduate division," with department usually deciding admission
- Admission and entire process subject to implicit biases and the "hidden curriculum."
- Student remains a registered student of the university through entire process whether employed as a researcher or instructor within the university
- In traditional programs students almost entirely full-time

# Structure/Process of Admissions

- Structure: Formal standard set by Graduate Division (Grad Council, Academic Senate) Discipline specific set by department—ostensible transparency and objectivity
- Process: **Objective** that student meets and exceeds requirements, has academic preparation to potentially succeed. **Subjective** evaluation by faculty—tendency to select students like them (particularly in the humanities and social sciences) part of “hidden curriculum.”
- Other assessment and evaluation inputs: undergraduate institution, degree of knowledge about recommenders, personal impressions

# Criteria for Admission, not Advancement to candidacy, both countries

- Number of courses for US bachelor 4-5 years, also master's. field concentration variable. BA/MA Bologna system 5 years
- Exams given when deemed necessary
- Applicants research goal laid out as part of admission evaluation
- Demonstrated writing facility (BA and or MA thesis) and research statement
- Favorable evaluation of student in letters of reference
- Demonstration of competency in personal interviews

# Conclusion so far

- Variable structures shaping admission process
- Evaluation criteria very similar, role of individual faculty assessment
- Student usually socialized to university/academic life, particularly if from privileged families
- Technology the tool formalizing the process
- Process supported by formal legal structure from university, state and federal government
- External assessment, quality management also involved

# Where to go

- Need for comparison of doctoral programs in specific fields, actual case studies
- Look at faculty scholarly level and their student expectations
- Acknowledge that highly subjective criteria in a discipline is part of the learning and socialization process for students. As is scholarly disputation, exposure to different ideas, approaches, methods.
- Accept that individual student evaluation by faculty however different it might appear is to assess substantial knowledge of the field, the ability to conduct self-sustaining research and expand knowledge
- Spend more research energy on the broader context of doctoral education to actually be able to create benchmarks for comparison (slide 7)

Thank you! Comments? Questions?

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