Elite Journals, Publishing as Prestige-Generation, and Academic Careers

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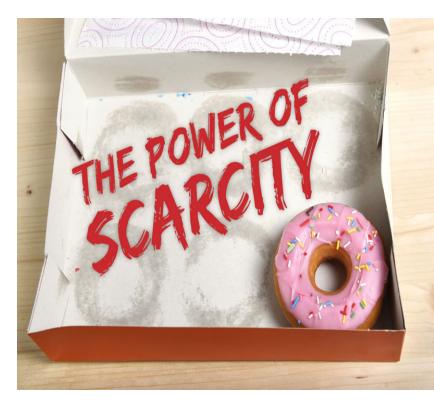
Structure of the Presentation

1. Introduction

- 2. Data Sources & Methodology
- 3. Findings
- 4. Discussion & Conclusions

Introduction: Elite Journals and Seeking Prestige (General Assumptions) (1/2)

- Universities & academics operate in **prestige-driven** environments.
- In prestige economy, scarcity matters. (The upper 1% or 10% of journals will always be limited in number).
- Space: a scarce resource in top journals (high rejection rates).
- The number of scientists wishing to publish in top-tier journals outnumbers the available slots. (Similarity: prestigious grants, fellowships, job placements in top universities).
- Each field: own top-tier journals!
- Through research, institutions and academics are engaged in prestige-maximizing activities. (Taylor et al. 2016; Rosinger et al. 2016).



Introduction: Elite Journals and Seeking Prestige (General Assumptions) (2/2)

- The academic standing of journals plays a role in gaining attention in science.
- Journal prestige is an important part of science signal systems (who publishes where matters in careers; "the Nature effect").
- Publication location matters for individuals, institutions, and countries.
- Not everywhere, but in many countries! (Take-aways in blue)



Elite Journals and Four Dimensions of Academic Life

Publications in top journals increasingly influence four fundamental dimensions of academic life:



- (1) **Securing an initial academic job** and **keeping** it: where academics work (Fochler et al. 2016);
- (2) The speed of promotion & attaining tenured positions: how academic careers develop (Hammarfelt 2017; Lindahl 2018);
- (3) Access to competitive research funding: the scope of externally-funded research (Bak and Kim 2019);
- (4) **Remuneration**: how academics are paid (in some systems; directly or indirectly).

Caveats: Sub-sectors & Disciplines

- The prestige game played by research-intensive universities and their research-focused scientists.
- Difficult **generalizations** to whole, usually vertically stratified, **national systems**.
- **Critical role** in one system's subsectors versus irrelevance in its other subsectors.
- Cross-national differences in the impact of top journal publications on hiring, promotion, and funding decisions.

(see Mouritzen and Opstrup 2020; Sutherland 2018; Kim and Bak 2016).

- Cross-disciplinary differences:
 - stronger roles of elite journals in hard sciences;
 - article-oriented versus book-oriented subfields within the same fields (social sciences and the humanities, Hammarfelt 2017).



Elite Journals and Academic Careers

- Evidence: top journals are **flooded with submissions.** And journals closer to the bottom of the "pecking order" **fight to attract authors**.
- Evidence from country-level analyses: promotion, tenure, recognition & competitive research funding linked to publishing in top journals. E.g.:

Mouritzen and Opstrup 2020 for **Denmark**; Sutherland 2018 for **New Zealand**; Fochler et al. 2016 for **Austria**; Heckman and Moktan 2018 for **the US**; Kim and Bak 2016, Bak and Kim for **South Korea**; Lindahl 2018 for **Sweden**; and Shibayama and Baba 2015 for **Japan**.

• In the prestige economy, academic careers are ever more quantifiable (governance by numbers / indicators!).



Elite Journals and Academic Disciplines (Examples)

- <u>Economics</u>: "publishing in T5 (top five journals) is the most effective means of improving one's chances of obtaining tenure in all of the top 35 U.S. economics departments" (Heckman & Moktan 2018).
- <u>Information systems</u>: top journal publications provide "direct and often the only path to career advances" (Lyytinen et al. 2007).
- Mathematics: top journal publications during the first four years are the most important predictor of future research achievements (Lindahl 2018).
- Biomedicine & economics: external assessment reports used for recruitment in Swedish universities show that the ability to publish in top journals is the most important evaluation criterion of careers. Top journals mentioned in almost all reports, often a clearly decisive factor (Hammarfelt 2017).
- <u>Life sciences</u>: postdocs in Austria top publications are internationally accepted, transferable tokens of academic quality (Fochler et al. 2016: 196).

 <u>Demography</u>: "journals are the dominant force in allocating citations. Articles published in core journals receive considerably more citations than articles in second-tier journals" (van Dalen and Henkens 2005: 231).



- Across Europe, expectations to publish in top journals are standard in national research funding agencies (Lyytinen et al. 2007).
- A must in the European Research Council (Rodríguez-Navarro & Brito 2019).
- Etc. Etc., wide empirical evidence across systems and institutions!

The Present Study: Higher Education Field

- Higher education as a field of study is not immune from these global publishing pressures.
- We explore changes in the global higher education research community.
- In particular, the distribution of country affiliations is investigated from a longitudinal perspective of more than two decades (1996–2018).
- Global change in the academic community is reflected in the changing distribution of country affiliations over time.
- In total, **6,334 articles** published in six elite journals (in **1996–2018**), studied in the context of **21,442 articles** from 41 core journals.
- Two research questions addressed:
 - (1) How is the global higher education research community stratified?
 - (2) How is the **geography of country affiliations** changing over time?

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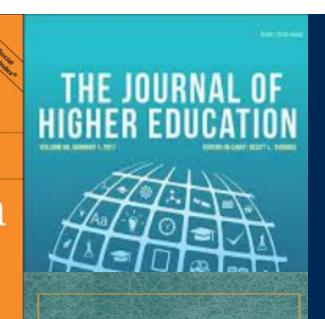
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Theoretical Background: Elite Journals and Knowledge Production

Two strands of research provide theoretical background:

- (1) The prestige maximization model of higher education institutions.
- (2) Principal-agent theory.

The Prestige Maximization Model (1/3)

- Major assumptions:
- Research-intensive universities (their departments and individual academics) act largely as "prestige maximizers". In contrast, companies are "profit maximizers" (Melguizo and Strober 2007).
- Prestige is used to leverage resources, principally through research grants.
- Individual academics **modify their behaviors**—including **publishing patterns**—competing for external resources.
- In "competitive status economy" in higher education (Marginson 2014), research is a powerful source of differentiation and rank ordering.



The Prestige Maximization Model (2/3)

The model posits a strong link between <u>individual</u> and <u>institutional</u> prestige:

"In maximizing their individual prestige, faculty members simultaneously maximize the prestige of their departments and institutions" (Melguizo and Strober 2007).

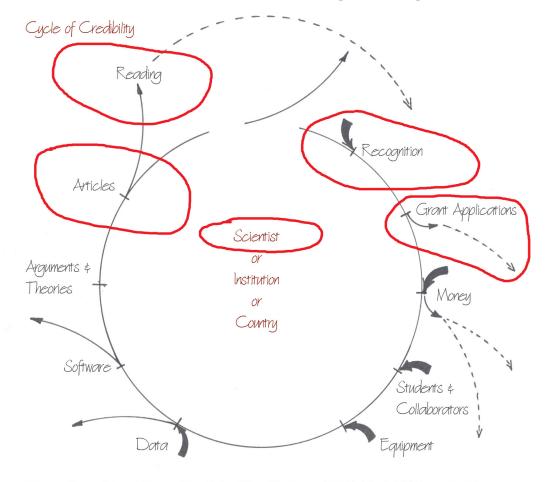
• Individuals who help to enhance their institution's prestige may be rewarded with higher remuneration (performance-based incentives or cash bonuses).

Kim and Bak 2016 show for **South Korea**;

Andersen and Pallesen 2008, Opstrup 2017, and Mouritzen and Opstrup 2020 for **Denmark**; and Franzoni, Scellato and Stephan 2011 for **11 countries**, including China, Germany, Spain, and Turkey; Kwiek 2018 shows an overlap of "**top performers**" and "**academic top earners**" across **10 European systems**.

- Individual publications elevate institutional prestige.
- An **agonistic** (Latin *agon*, or contest) view of science: **the power of competition** at **all levels**, from individual scientists to research groups, departments, institutions, and countries.

The Credibility Cycle in Acdemic Careers



Börner, Katy. Atlas of Science: Visualizing What We Know. (2010). The MIT Press. Pg 59.

- Latour and Woolgar, "The Cycle of Credibility" (Laboratory Life, 1986).
- The credibility cycle enables scientists to progress within their fields.
- The credibility cycle involves the conversion of prestigious articles into recognition (and funding).
- Recognition leads to individual grant funding, which is further converted into new data, arguments, and articles.
- Publication in elite journals (and funding from prestigious agencies) are crucial components of this credibility cycle in academic careers.
- · Scientists as investors of credibility.
- Critical for understanding the role of elite journals today!

Principal-Agent Theory and Elite Journals (1/3)

- Publication metrics are increasingly used by governments and their agencies, national funding bodies, and academic institutions.
- The theory previously **used primarily in studies of corporations**; also applied to the HE and science sectors.

(Kivistö 2008; van der Meulen 1998).

- The <u>agents</u> are <u>research-intensive universities</u> (and their individual scientists).
- The <u>principals</u> are <u>governments</u> and <u>national funding</u> bodies.
- The monitoring of change (or progress) is **made easier if steep journal stratification** is **used** (e.g. top 10%; or *Science, Nature, Cell, Lancet, PNAS* etc. vs. the rest in sciences).



Principal-Agent Theory and Elite Journals (2/3)

- The principals represent the interests of both the state and the academic community at large.
- We assume that the principals must ensure that scientists produce high-quality research!
- However, principals have difficulty in **controlling** the agent, whose **goals may differ** from those of the principal.

E.g., scientists may choose to publish in low-quality journals, not to publish, or to engage excessively in private consulting.

- It is almost impossible for the principal to understand the agent's products publications. Impossible to assess their impact on the science community/the wider society.
- It is less costly and more effective to **equate prestigious journals** with **high-quality research**.
- Therefore **top journals** are so precious to **principals**, being traditionally precious to academics!



Principal-Agent Theory and Elite Journals (3/3)

 Top-tier publications serve as a "screening device" in principals' relationship with agents:

"a principal merely has to count publications that can be assumed to be of high quality ... reading and understanding them— is a more costly and uncertain process." (Gomez-Mejia and Balkin 1992).

- Additionally, publishing in top-tier journals enjoys extensive normative consensus within the academic community.
- Publication in their discipline's best journals is:

"the equivalent of making the big leagues in sports or performing at Carnegie Hall in the arts. While many scholars aspire to publish in the best journals, however, only some realize the aspiration" (Fender et al. 2005: 93).

- The value of all other publications remains unproven.
- As opposed to a close reading of all published papers, the number of top-tier publications needs little monitoring or quality assessment. At any level.



Data Sources and Methodology (1/2)

- Journal selection procedure:
 - all journals in the Scopus database whose titles included the terms "higher education" or "tertiary education"; their major bibliometric parameters were analyzed.
- Six elite journals (in the of context of 41 core journals) that focus exclusively on higher education research.
- The selected elite journals are all top-ranked in the list of 41 and are among the highest-ranking "generic" journals in higher education.
- Articles: **21,442** (**6,334** in six elite journals), 1996-2018.
- The metadata for each article collected.
- A dataset "Elite Journals in HE" at CPPS: ongoing work on
 - age, career stages,
 - gender, and
 - disciplinary origins (changing over time). The graying of the global HE research community vs. its younger generations?



Scopus

Data Sources and Methodology (2/2)

- The six elite journals selected for analysis:
 - Higher Education (HE),
 - Studies in Higher Education (SHE),
 - Higher Education Research and Development (HERD),
 - The Journal of Higher Education (JHE),
 - Research in Higher Education (ResHE), and
 - The Review of Higher Education (RevHE).
- My list based on **sophisticated bibliometric measures of citation numbers** and **citation-driven prestige** is **identical** to lists used in previous studies (e.g., Tight 2014).
- The publication-counting method used: full counting (rather than fractional counting).
- Limitations: journal articles, in English, indexed in Scopus (availability of comparative data over time).



The Global Higher Education Research Community (1/2):

Full-timers and Part-timers

 Authors in six elite journals: 8,226 academics (1996-2018) [see TABLE]

• Authors in 41 core journals: 26,888 academics.

Authors - Full-timers:

• In elite journals: 274 (at least five articles) (or 3.33%).

• In core journals: 878 (3.27%).

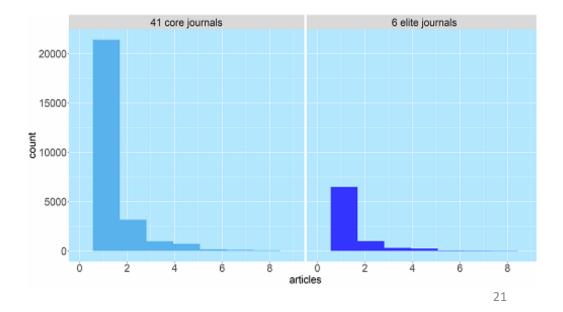
Authors - One-timers:

• In elite journals: 78.81% of authors published just one article.

• In core journals, 79.55%.

 The productivity distribution of authors is thus highly skewed, with a long tail on the right (indicating extreme inequality) [see FIGURE]

	41 core	journals	6 elite j	ournals
$\overline{}$	N	% /	N	%
1	21389	79.5	6485	78.8
2	3164	11.8	997	12.2
3	974	3.0	305	3.7
4	476	1.8	165	2.0
5-9	693	2.6	208	2.5
10-19	160	0.6	59	0.7
20 and more	25	0.1	7	0.1
Total	26888	100	8226	100

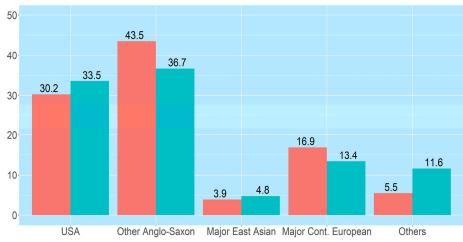


The Global Higher Education Research Community (2/2)

- Full-timers in the six elite journals [TOP FIGURE] come from three clusters of countries (1996-2018 combined).
- In the cluster of "all other countries" (66 countries), full-timers account for 5.0%, and part-timers 10.9%.

• For the 41 core journals [BOTTOM FIGURE] the picture generally mirrors the elite segment.





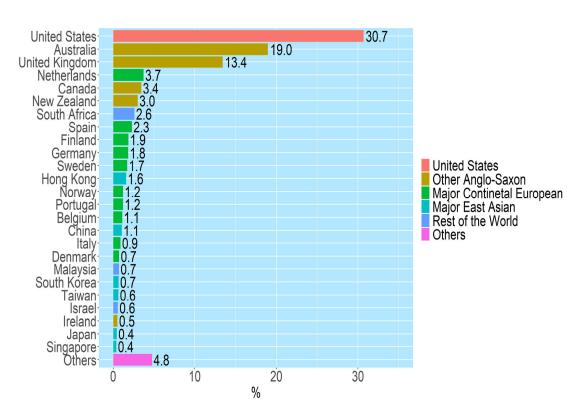
The Geography of Country Affiliations of <u>Authors</u> in the Six Elite Journals Cross-sectional analysis: The top 25 affiliations of Cross-sectional analysis: The top 25 affiliation analysis: The top 25 affiliation analysis: The top 25 affiliatio

 Based on authors' country affiliations, the following question is asked:

How "international" are the six global elite journals, and how have their country profiles changed over time?

- Cross-sectional analysis (1996-2018 combined)
 - **Geographical concentration** (91 contributing countries) [FIGURE].
 - The top 10 countries in the dataset accounted for 81.80% of all affiliations.
 - The top 25 countries accounted for 95.2% (11,131).
 - The remaining 66 countries accounted for a mere
 4.8% of affiliations (557).
- The major **distinction**: the US & other Anglo-Saxon countries versus the **rest of the world**.

Cross-sectional analysis: The top 25 affiliations of authors of articles published in six elite journals by country (combined Scopus data, 1996–2018) for 91 countries (undefined affiliations removed from analysis).



The Geography of Country Affiliations: by Journal

- For JHE and RevHE, the share of US author affiliations for 1996-2018 is about 95-97%.
- From a global perspective, JHE, ResHE, and RevHE are clearly national or domestic journals (in this case, American).
- For HE, more than half of its authors (54.2%) had non-Anglo-Saxon affiliations;

Cross-sectional analysis: Major affiliations of authors in articles published in the six elite journals by country, country cluster, and journal (combined Scopus data for 1996–2018).

	H	HE		SHE		RD	JH	Œ	Res	HE	Rev	HE	Tot	al
Cluster	N	%	N	%	N	%	N	%	N	%	N	%	N	%
USA	456	13.7	224	7.5	97	4.3	836	94.7	1428	85.4	546	96.8	3587	30.7
Other AS.	1066	32.1	1666	55.8	1740	76.8	29	3.3	89	5.3	9	1.6	4599	39.3
Major C. E.	1001	30.2	648	21.7	202	8.9	11	1.2	87	5.2	0	0.0	1949	16.7
East Asian	279	8.4	186	6.2	88	3.9	3	0.3	32	1.9	4	0.7	592	5.1
Other	517	15.6	259	8.7	140	6.2	4	0.5	36	2.2	5	0.9	961	8.2
Total	3319	100	2983	100	2267	100	883	100	1672	100	564	100	11688	100

Note: Other A.-S. means Other Angio-Saxon, Major C. L. means Major Continental European.

The <u>Changing</u> Geography of Country Affiliations: by Journal

- Longitudinal analysis (year by year, 1996-2018) and by journal.
- No previous study has examined changing authorship affiliation patterns in all six elite journals (or any one of them) in detail over time. (Probably).
- How is the role of major Continental European and East Asian countries changing over time?
- Where do the **newcomers** emerge?
- Numbers and percentages (of authors' country affiliations).

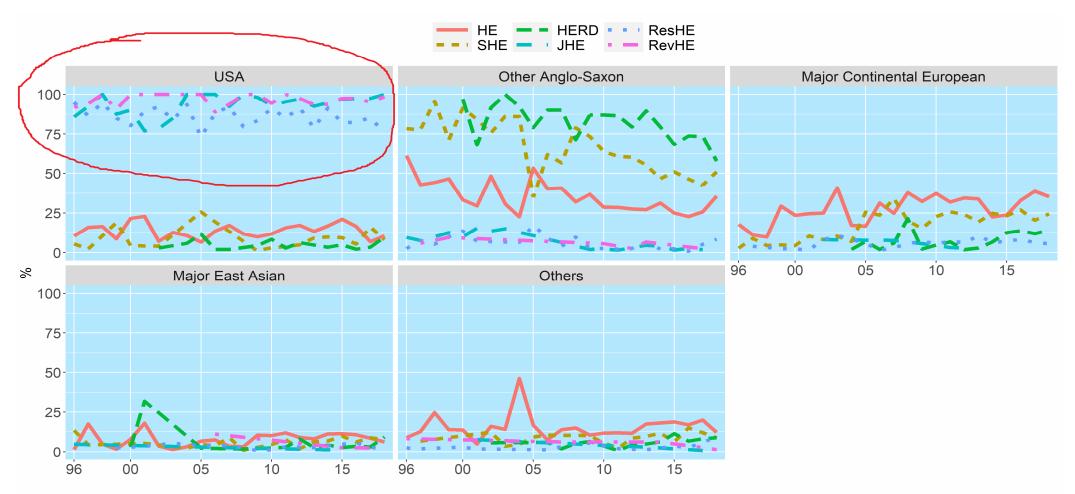
Longitudinal analysis: Changing <u>numbers</u> of affiliations over time. Country affiliations of authors of articles published in the six elite journals (Scopus data for 1996–2018) 91 countries by six-year period by journal (**frequency**).

	HE			HERD			JHE			ResHE			RevHE			SHE			Six journals		
	1996-	2004-	2012-	1996-	2004-	2012-	1996-	2004-	2012-	1996-	2004-	2012-	1996-	2004-	2012-	1996-	2004-	2012-	1996-	2004-	2012-
	2003	2011	2018	2003	2011	2018	2003	2011	2018	2003	2011	2018	2003	2011	2018	2003	2011	2018	2003	2011	2018
Australia	88	160	204	80	356	731	5	0	5	3	4	14	1	1	0	54	147	363	231	668	1 317
Canada	33	68	66	5	14	74	9	3	5	14	34	7	1	1	4	8	22	34	70	142	190
Ireland	0	12	10	0	1	8	0	0	0	0	0	1	0	0	0	0	4	25	0	17	44
New Zealand	2	10	29	8	47	189	0	0	0	0	0	0	1	0	0	2	32	32	13	89	250
United Kingdom	83	121	180	15	55	157	1	0	1	7	1	4	0	0	0	157	240	546	263	417	888
Subt. other Anglo-S.	206	371	489	108	473	1159	15	3	11	24	39	26	3	2	4	221	445	1000	577	1333	2689
United States	70	138	248	1	26	70	112	221	503	338	549	541	110	159	277	10	21	193	641	1114	1832
Belgium	2	15	26	0	4	20	0	0	0	0	4	6	0	0	0	0	16	38	2	39	90
Denmark	1	10	40	0	0	9	0	1	0	0	0	0	0	0	0	0	1	23	1	12	72
Finland	22	37	45	0	0	17	0	0	0	1	0	0	0	0	0	6	28	61	29	65	123
Germany	5	29	89	0	0	7	0	0	0	1	4	21	0	0	0	0	7	51	6	40	168
Greece	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	5	6
Italy	2	27	41	0	0	0	0	2	0	0	0	1	0	0	0	0	7	24	2	36	66
Netherlands	50	86	101	0	8	37	3	0	2	5	11	14	0	0	0	5	29	85	63	134	239
Norway	16	27	45	0	1	4	0	0	0	0	3	1	0	0	0	4	15	25	20	46	75
Portugal	0	22	54	0	0	8	0	0	0	0	0	1	0	0	0	0	9	47	0	31	110
Spain	7	54	74	0	0	35	0	3	0	6	6	2	0	0	0	0	15	67	13	78	178
Sweden	7	28	32	0	21	31	0	0	0	0	0	0	0	0	0	3	23	55	10	72	118
Subtotal Cont. Europ.	112	338	551	0	34	168	3	6	2	13	28	46	0	0	0	18	152	478	146	558	1 245
China	2	6	50	0	1	24	0	0	1	0	0	2	0	0	3	0	1	33	2	8	113
Hong Kong	13	29	33	9	3	26	0	0	0	3	8	4	0	0	0	9	23	25	34	63	88
Japan	16	8	12	0	1	3	0	0	0	2	0	0	0	0	0	0	0	9	18	9	24
Malaysia	1	10	16	0	0	2	0	0	0	0	0	2	0	0	0	0	4	47	1	14	67
South Korea	0	16	29	0	0	5	1	0	1	0	2	5	0	1	0	0	1	16	1	20	56
Tajwan	2	16	20	0	0	14	0	0	0	1	0	3	0	0	0	0	0	18	3	16	55
Subtotal East Asian	34	85	160	9	5	74	1	0	2	6	10	16	0	1	3	9	29	148	59	130	403
Subtotal Others	66	167	284	2	14	124	1	0	3	5	14	17	1	1	3	10	34	215	85	230	646
Total	488	1 099	1 732	120	552	1 595	132	230	521	386	640	646	114	163	287	268	681	2 034	1 508	3 365	6 815

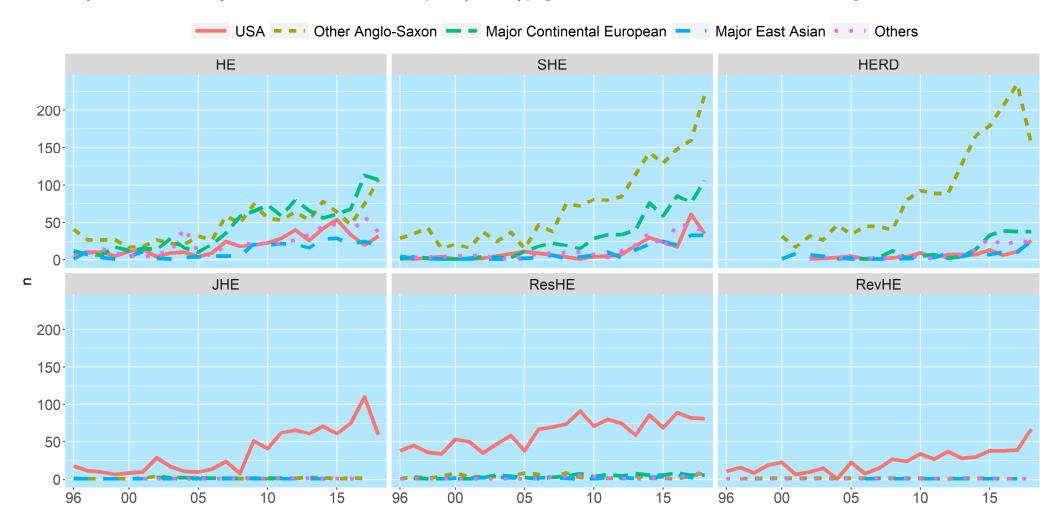
A longitudinal approach: Changing <u>shares</u> of affiliations over time. Country affiliations of authors of articles published in the six elite journals (Scopus data for 1996–2018, 91 countries of affiliation) by six-year periods, by major countries and their clusters, and by journal (**percent**).

	HE			HERD			JHE)			ResHE			RevHE			(SHE)			Six journals		
*	1996-	2004-	2012-	1996-	2004-	2012-	1996-	2004-	2012-	1996-	2004-	2012-	1996-	2004-	2012-	1996-	2004-	2012-	1996-	2004-	2012-
	2003	2011	2018	2003	2011	2018	2003	2011	2018	2003	2011	2018	2003	2011	2018	2003	2011	2018	2003	2011	2018
Australia	18.0	14.6	11.8	66.7	64.5	45.8	3.8	0.0	1.0	0.8	0.6	2.2	0.9	0.6	0.0	20.1	21.6	17.8	15.3	19.9	19.3
Canada	6.8	6.2	3.8	4.2	2.5	4.6	6.8	1.3	1.0	3.6	5.3	1.1	0.9	0.6	1.4	3.0	3.2	1.7	4.6	4.2	2.8
Ireland	0.0	1.1	0.6	0.0	0.2	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.6	1.2	0.0	0.5	0.6
New Zealand	0.4	0.9	1.7	6.7	8.5	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.7	4.7	1.6	0.9	2.6	3.7
United Kingdom	17.0	11.0	10.4	12.5	10.0	9.8	0.8	0.0	0.2	1.8	0.2	0.6	0.0	0.0	0.0	58.6	35.2	26.8	17.4	12.4	13.0
Subt. other Anglo-Sax.	42.2	33.8	28.3	90.1	85.7	72.5	11.4	1.3	2.2	6.2	6.1	4.1	2.7	1.2	1.4	82.4	65.3	49.1	38.2	39.6	39.4
United States	14.3	12.6	14.3	0.8	4.7	4.4	84.8	96.1	96.5	87.6	85.8	83.7	96.5	97.5	96.5	3.7	3.1	9.5	42.5	33.1	26.9
Belgium	0.4	1.4	1.5	0.0	0.7	1.3	0.0	0.0	0.0	0.0	0.6	0.9	0.0	0.0	0.0	0.0	2.3	1.9	0.1	1.2	1.3
Denmark	0.2	0.9	2.3	0.0	0.0	0.6	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.1	0.4	1.1
Finland	4.5	3.4	2.6	0.0	0.0	1.1	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	2.2	4.1	3.0	1.9	1.9	1.8
Germany	1.0	2.6	5.1	0.0	0.0	0.4	0.0	0.0	0.0	0.3	0.6	3.3	0.0	0.0	0.0	0.0	1.0	2.5	0.4	1.2	2.5
Greece	0.0	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.1	0.1
Italy	0.4	2.5	2.4	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	1.0	1.2	0.1	1.1	1.0
Netherlands	10.2	7.8	5.8	0.0	1.4	2.3	2.3	0.0	0.4	1.3	1.7	2.2	0.0	0.0	0.0	1.9	4.3	4.2	4.2	4.0	3.5
Norway	3.3	2.5	2.6	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.5	0.2	0.0	0.0	0.0	1.5	2.2	1.2	1.3	1.4	1.1
Portugal	0.0	2.0	3.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	1.3	2.3	0.0	0.9	1.6
Spain	1.4	4.9	4.3	0.0	0.0	2.2	0.0	1.3	0.0	1.6	0.9	0.3	0.0	0.0	0.0	0.0	2.2	3.3	0.9	2.3	2.6
Sweden	1.4	2.5	1.8	0.0	3.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.4	2.7	0.7	2.1	1.7
Subtotal Cont. Europ.	23.0	30.8	31.8	0.0	6.2	10.5	2.3	2.6	0.4	3.4	4.4	7.1	0.0	0.0	0.0	6.7	22.3	23.5	9.7	16.6	18.3
China	0.4	0.5	2.9	0.0	0.2	1.5	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0	1.0	0.0	0.1	1.6	0.1	0.2	1.7
Hong Kong	2.7	2.6	1.9	7.5	0.5	1.6	0.0	0.0	0.0	0.8	1.3	0.6	0.0	0.0	0.0	3.4	3.4	1.2	2.3	1.9	1.3
Japan	3.3	0.7	0.7	0.0	0.2	0.2	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.2	0.3	0.4
Malaysia	0.2	0.9	0.9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.6	2.3	0.1	0.4	1.0
South Korea	0.0	1.5	1.7	0.0	0.0	0.3	0.8	0.0	0.2	0.0	0.3	0.8	0.0	0.6	0.0	0.0	0.1	0.8	0.1	0.6	0.8
Taiwan	0.4	1.5	1.2	0.0	0.0	0.9	0.0	0.0	0.0	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.9	0.2	0.5	0.8
Subtotal East Asian	7.0	7.7	9.2	7.5	0.9	4.6	0.8	0.0	0.4	1.6	1.6	2.5	0.0	0.6	1.0	3.4	4.3	7.3	3.9	3.9	5.9
Subtotal Others	13.5	15.2	16.4	1.7	2.5	7.8	0.8	0.0	0.6	1.3	2.2	2.6	0.9	0.6	1.0	3.7	5.0	10.6	5.6	6.8	9.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Longitudinal analysis: <u>Percentage</u> of author affiliations for five major clusters of countries over time across the top six journals (Scopus 1996–2018 by year, cluster, and journal); 91 country affiliations (%). [OVERVIEW BY COUNTRIES]



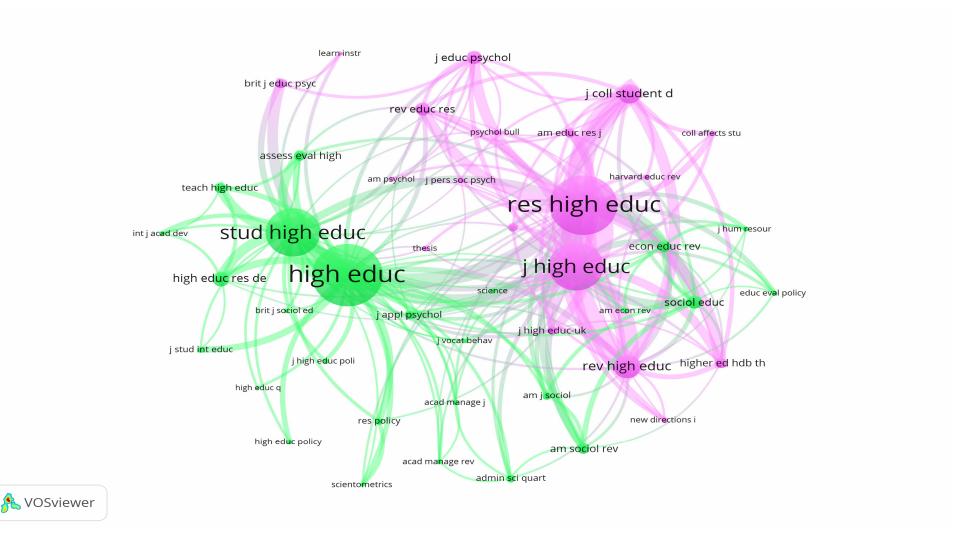
Longitudinal analysis: <u>Number</u> of author affiliations for six elite journals (Scopus data 1996–2018); 91 country affiliations by cluster of countries (frequency). [OVERVIEW BY ELITE JOURNALS]



The Changing Geography of Country Affiliations - Summary

- Previously globally invisible countries become visible almost exclusively through HE and SHE!
- Unsurprisingly, collaborative papers with Continental Europe do not exist (RevHE) or are marginal (JHE) in American journals.
- The only American journal open to trans-Atlantic collaboration and collaboration with scholars from East Asia (and "other" affiliations) is ResHE.
- HE and SHE are equally open as major publishing homes for East Asian and "other" newcomers to global elite higher education research.
- The single biggest (relative) affiliation loser is the US.
- The biggest (relative) **affiliation winner** is **Continental Europe**, where affiliations almost doubled (from 9.7% to 18.3%), with **very high visibility in HE and SHE**.
- The steady increase in "other" affiliations (from 5.6% to 9.5%), with HE dominant.
- Newcomers include such countries as Chile, Turkey, Iran, Poland, India, Mexico, Brazil, and Estonia.

Co-citation Patterns, Six Elite Journals: Two Separate Clusters (21,442 articles, 1996-2018 combined)





Discussion and Conclusions (1/3)

- The pressure to publish in top journals and its implications for careers apply equally well to the global higher education research community.
- The HE research community comprises no more than 27,000 individual academics.
- However, the scale of their participation in the field (through publication!) remains highly skewed.
- 3.3% academics in the field = the publishing core of the global higher education research community (full-timers).
- 80% academics in the field = the publishing periphery, having authored or co-authored a single article in elite (78.8%) or core journals (79.6%) (one-timers).



Discussion and Conclusions (2/3)

- Scholarly conversation may be hindered by the omnipresence of part-timers with a single publication.
- If part-timers are **producing most** of the published research, it may prove **difficult to advance** theoretical & empirical **sophistication in the field**.
- So the authorship patterns reported here the field needs!
- The **community** today is **highly stratified:** few scholars publish **intensively** and masses of scholars publish **just once**.
- Why such a picture of the global community?
 - Perhaps most authors are policy-oriented practitioners, administrators, or focused on teaching?
 - They come and go away from the field. Are they mostly more full-time involved academics doctoral students and postdocs? We will know soon!

Discussion and Conclusions (3/3)

- Only two elite journals (HE and SHE) attract an increasing share of non-Anglo-Saxon authors (especially Europeans) over time.
- Consequently, only HE and SHE can be regarded as truly international.
- The changing distribution of country affiliations over time is **indicative of wider processes affecting the global community:**
 - The relative weakening of the field in the US, and
 - The relative strengthening in Continental Europe, East Asia, and elsewhere.
- The three elite journals (JHE, ResHE, and RevHE) remain strongly American in terms of authorship patterns (even in co-authorships).
- Seeking prestige through publishing in top journals is more important than ever before for academic careers, especially for younger cohorts in our field.
- The Credibility Cycle in higher education careers make elite journals a critical point. Across the globe!
- The role of elite journals (in HE) is reasonably expected to grow in the future! More busy at the top!

