

The position of the social sciences, law, and humanities in research assessments

Dr. Thed van Leeuwen

Centre for Science and Technology Studies (CWTS), Leiden University

Vilnius SSH Teaching

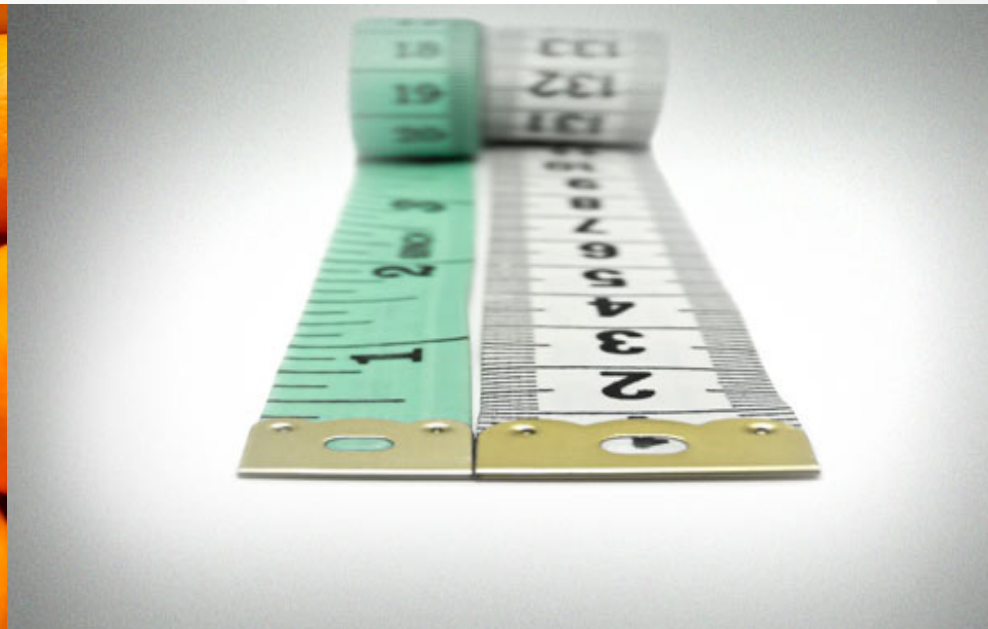
Vilnius , 09-01-2019



Universiteit
Leiden

Key questions here are ...

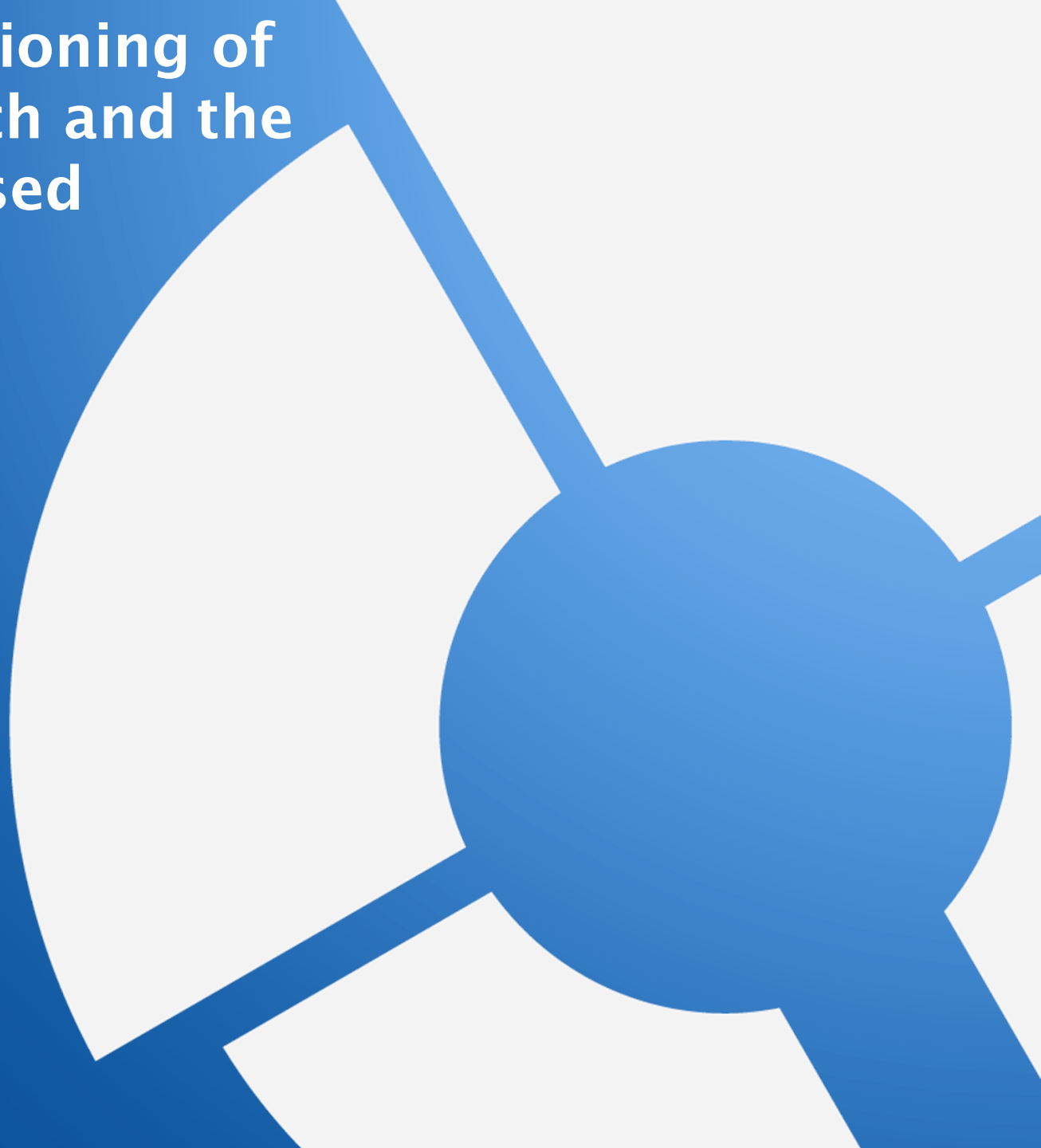
- Can we actually compare apples and oranges ?
- ... or do we need different yard sticks to 'measure' science and scholarship?



Outline of this lecture

- Positioning SSH&L research and the way it is assessed
- Key issues in assessing SSH&L research
- Organization of research assessment in the Netherlands
- Proposed solutions
- Wrap up of this lecture

Historical positioning of SSH & L research and the way it is assessed



In came the metrics ...

- After WW II, we can clearly see the Anglo-Saxon (read: US) global hegemony, also in science (Taylor, 1996).
- Research assessment has taken off from the 1980's.
- This was fueled by NPM as the style of governance accompanying neo-liberalism as political ideology.
- From then on, peer review is no longer the sole basis for assessing scholarly performance.
- Metrics has entered the scene, in a variety of forms ...

Taylor, 1996, The Way the Modern World works

A changed position for SSH&L...

- Metrics applied never fitted the SSH domains adequately (van Leeuwen, 2013)
- Contrary to the single focus on journal publishing in the STEM domains, SSH&L was, and still is, rather diverse ...
- This diversity centered around
 - Variety of research cultures (“understanding rather than explaining”, data collection issues, quanti vs quali methods);
 - Variety of communication cultures, often expressed in a variety of languages, sometimes even in Latin (Sivertsen, 2015)
 - The relationship of SSH&L scholars with their various audiences
- So the challenge for the scholars studying evaluation of SSH&L is to take that diversity into consideration

The challenge we are confronted with ...

evolves around questions such as:

- What kind of assessment is needed for the SSH&L ?
- If any, what kind of 'metrics' is needed to support that assessment ?
- How can scholars in various disciplines support the answering of these questions ?

Key issues in assessing SSH&L research

An abstract graphic consisting of several overlapping blue shapes. A large blue circle is partially visible on the right side, with several blue lines radiating from its center towards the top and bottom edges of the frame. The background is a solid dark blue on the left and a light blue gradient on the right.

Three important aspects in assessing SSH &L research

- Language of publication in SSH&L research
- Authorship in publishing in SSH&L
- The meaning of references, and hence, citation analysis, in SSH&L

The language issue

The language issue ...

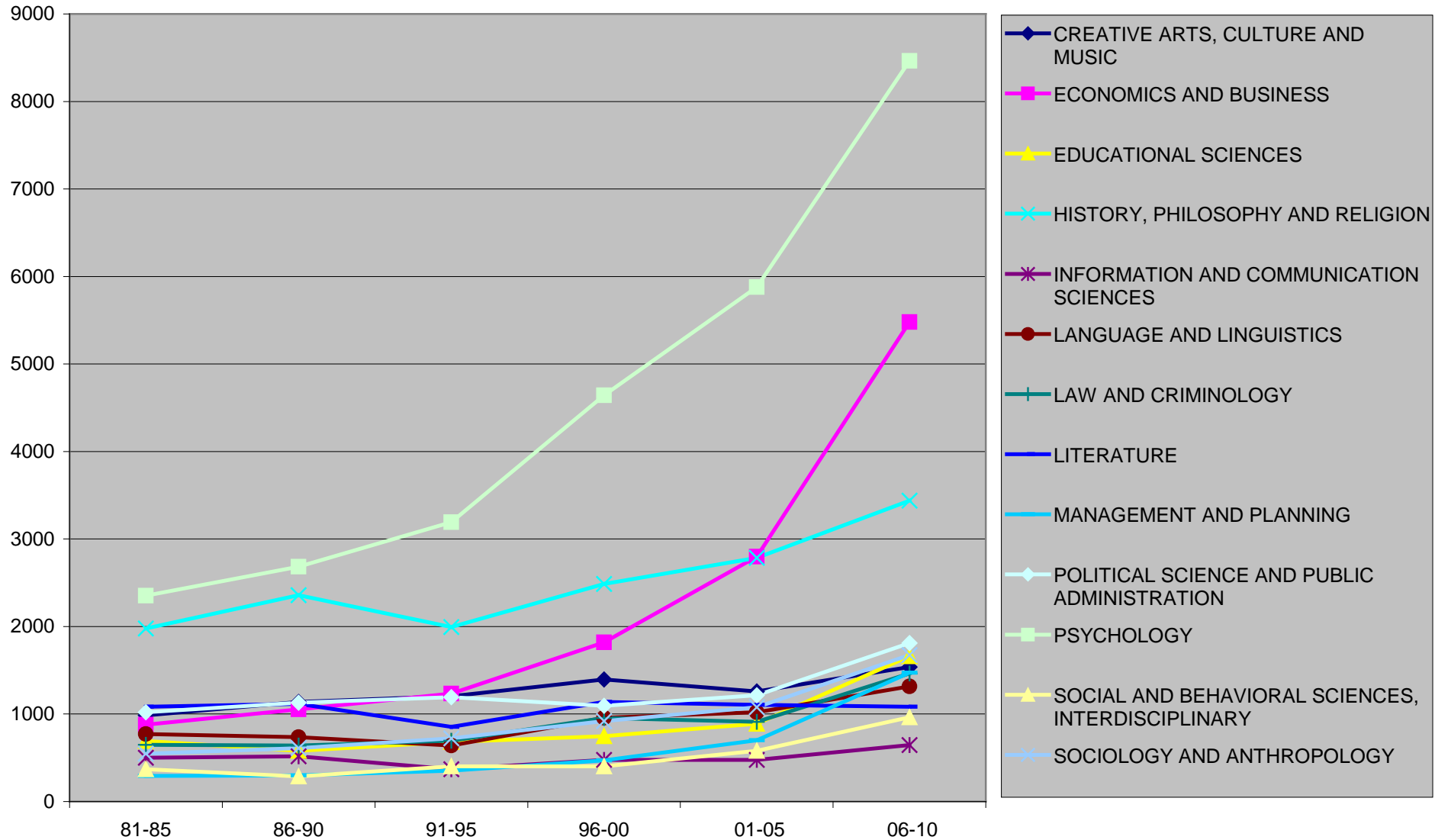
- English has become the major language for communicating research findings.
- Even in Medicine, publishing in other languages than in English will influence the impact scores, ...
- ... as even on the level of a whole country, a 20% difference in scientific impact can be observed (van Leeuwen et al, 2001).

van Leeuwen, T.N., et al., Scientometrics, 2001

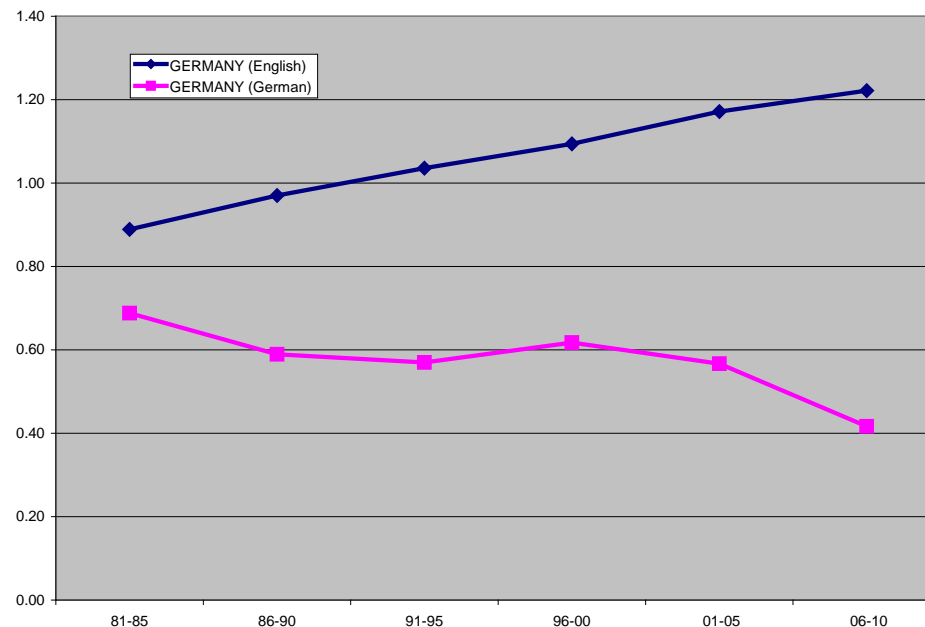
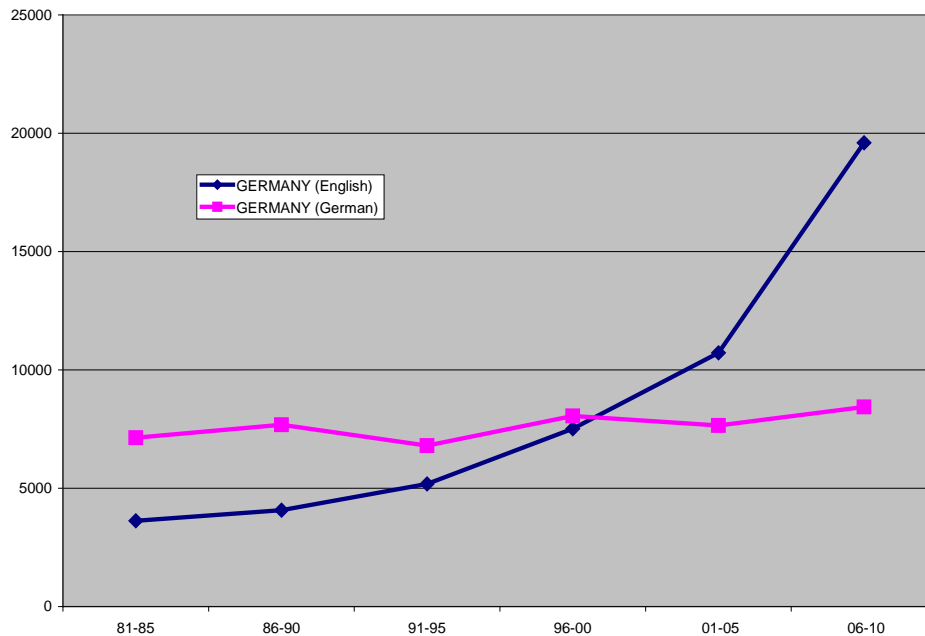
The language of scholarly communication in SSH&L

- Is very much dependent on the field in which you are working as a scholar.
- In SSH&L, research often relates to topics of a very local nature.
- Therefore, these scholars have both a national as well as an international peer community
- Furthermore, scholars in the SSH&L domains often stand in a different relation to society, having various types of audiences.
- Therefore, usage of the local/national language is a frequent phenomenon.

German output in SSH&L Disciplines 1981-2010

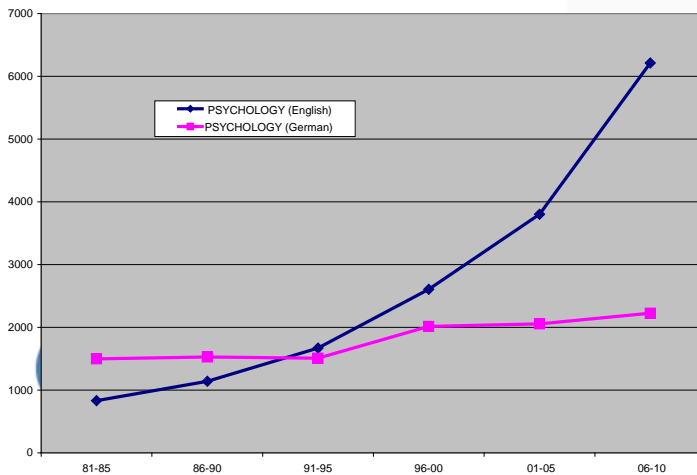
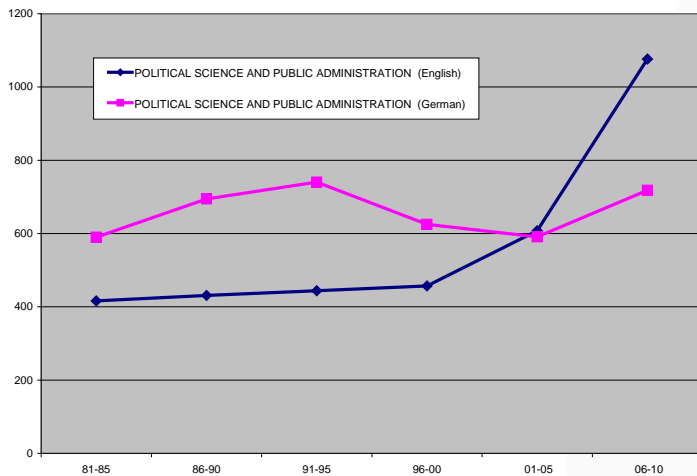
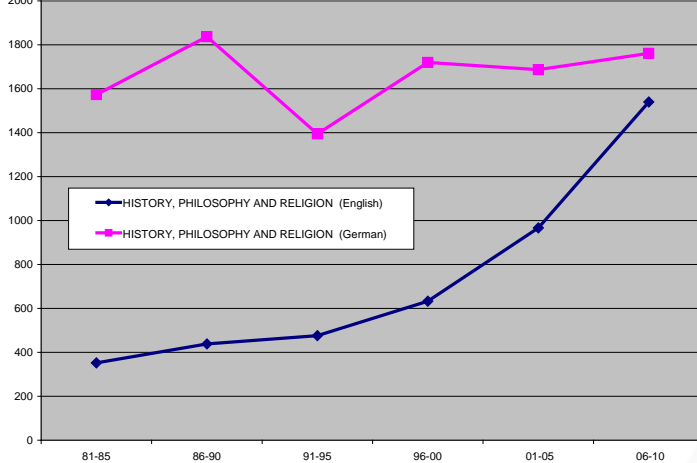


Comparing English and German ...



- The English language part has taken over since 2000.
- The German language part shows a stable output.
- Impact wise, we observe a strong divergence of the two languages of publication !

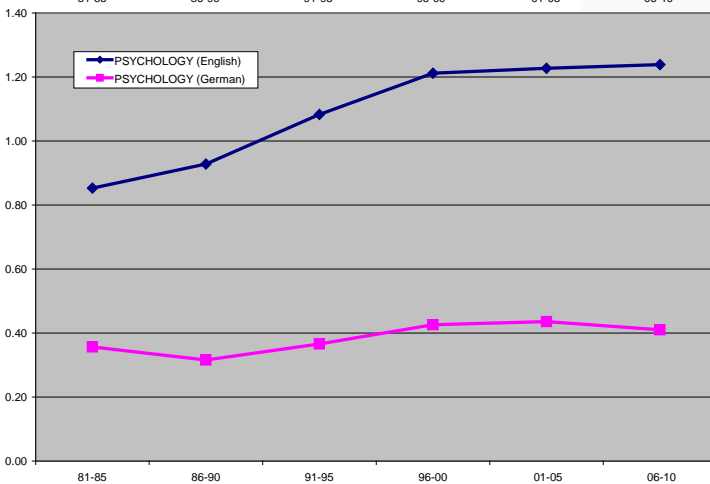
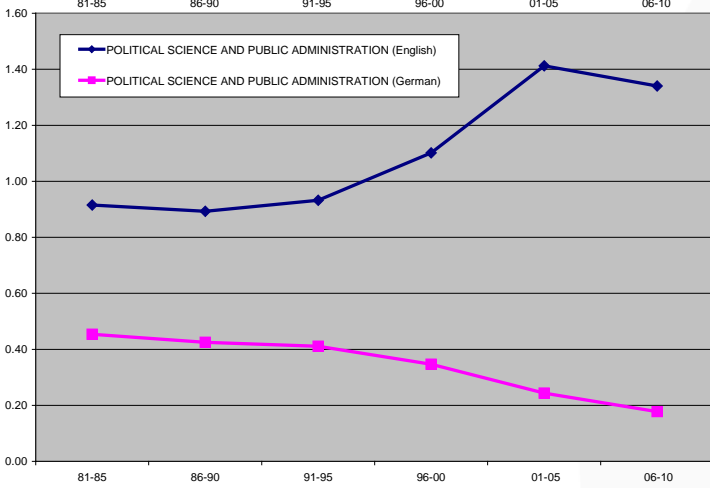
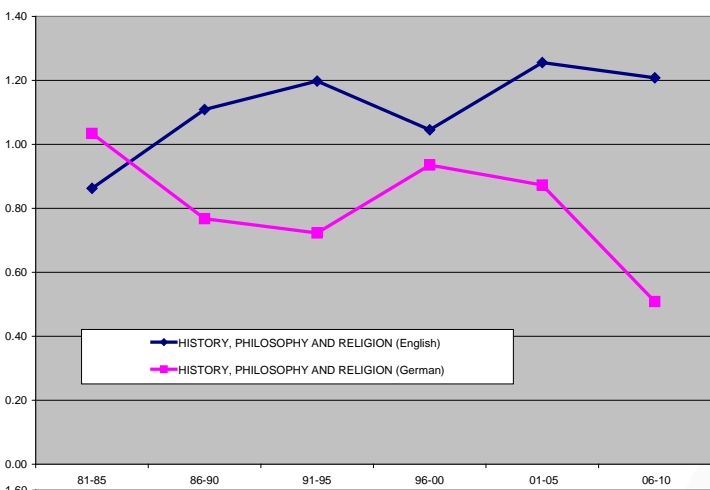
German output in selected SSH&L Disciplines 1981-2010



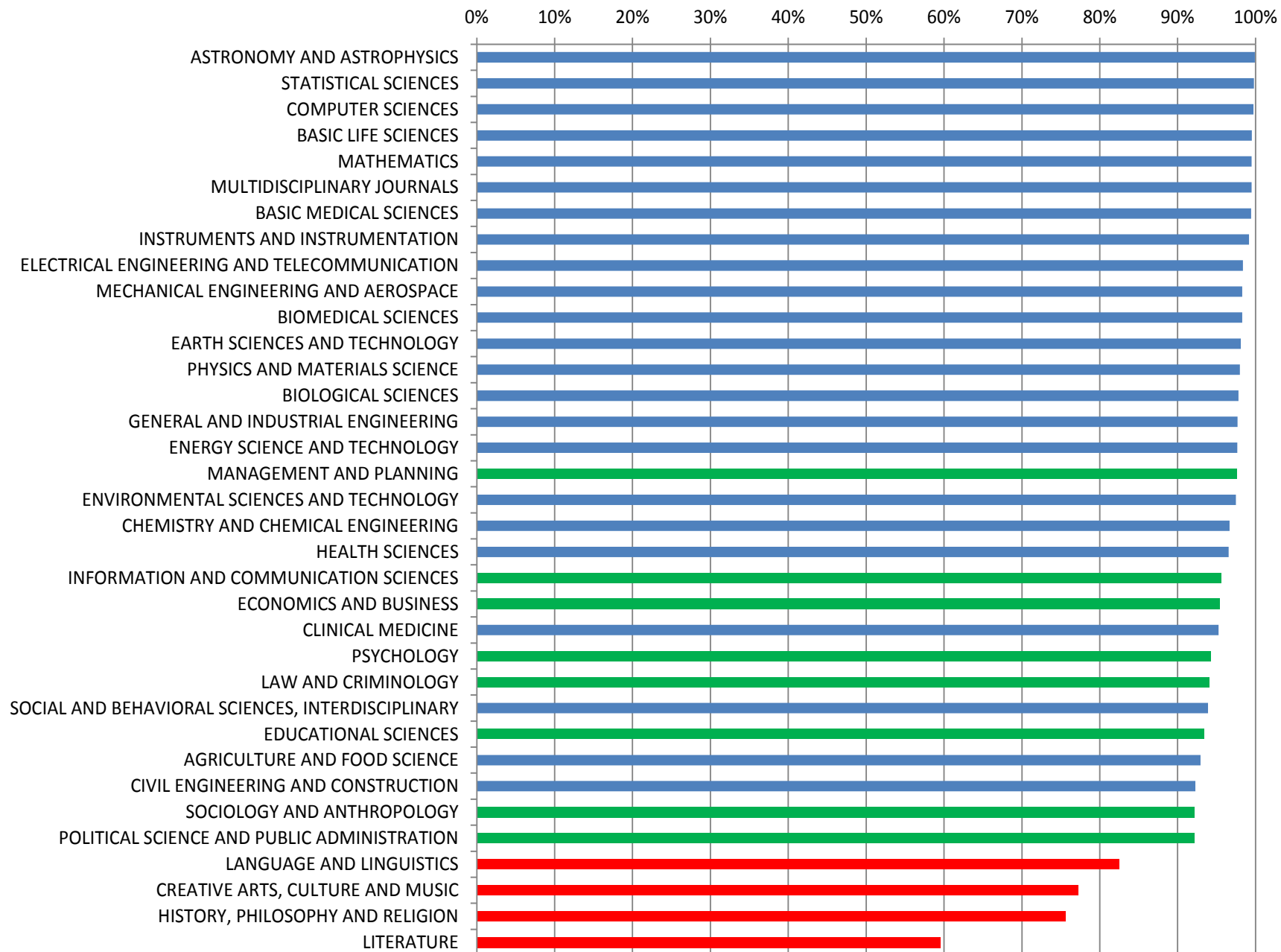
- English language output is increasing its share in German output in the SSH&L.
- The pace of this development is different across disciplines.
- In the Humanities disciplines, German is still the most important language of publication.

German impact in selected SSH&L Disciplines 1981-2010

- English language output has in general a higher impact.
- We either observe a divergence of impact, or a parallel development.
- German language output is having lower impact scores.



Publication language in serial literature 2010



The authorship issue

An abstract graphic composed of several overlapping blue shapes. On the left, there is a solid blue vertical bar. To its right, a large white semi-circular shape is partially covered by a blue arc. Further right, a solid blue circle is positioned, with several blue lines radiating from its perimeter towards the right edge of the frame. The overall composition is minimalist and modern.

The authorship issue ...

- Authorship is an object of study is an important element in STS.
- Authorship relates directly to:
 - Scientific domain.
 - Scientific collaboration
 - Mechanisms of credibility.

Authorship across disciplines

How Many Scientists Does It Take to Write a Paper? Apparently, Thousands

Scientific journals see a spike in number of contributors; 24 pages of alphabetized co-authors



Authorship in High Energy Physics

- Authorship is organized by convention.
- Becoming member of the team means:
 - One becomes author on every single publication.
 - Until 1,5 year after leaving the team
 - Also on your own first-authored papers, all team members appear.
 - Authors alphabetized, after institutional setting
- Contrary to the developments in biomedicine
 - No conventions.
 - Contributorship is unclear
 - Severe fights on first-authorships.

This goes for journal papers as well







Journal of Genetics and Genomics

Volume 42, Issue 7, 20 July 2015, Pages 355–371



Original research

Identification of Global DNA Methylation Signatures in Glioblastoma-Derived Cancer Stem Cells

Eun-Joon Lee^{a,1}, Prakash Rath^{b,1,2}, Jimei Liu^a, Dungsung Ryu^a, Lirong Pei^a, Satish K. Noonepalle^{a,c}, Austin Y. Shull^{a,c}, Qi Feng^d, N. Scott Litofsky^d, Douglas C. Miller^e, Douglas C. Anthony^f, Mark D. Kirk^b, John Laterra^g, Libin Deng^h, Hong-Bo Xin^h, Xinguo Wangⁱ, Jeong-Hyeon Choi^{a,j},  , Huidong Shi^{a,c},  

 Show more

doi:10.1016/j.jgg.2015.06.003


[Get rights and content](#)

Abstract

Glioblastoma (GBM) is the most common and most aggressive primary brain tumor in adults. The existence of a small population of stem-like tumor cells that efficiently propagate tumors and resist cytotoxic therapy is one proposed mechanism leading to the resilient behavior of tumor cells and poor prognosis. In this study, we performed an in-depth analysis of the DNA methylation landscape in GBM-derived cancer stem cells

The Journal of Psychology: Interdisciplinary and Applied

Volume 149, Issue 3, 2015

 Selecteer een taal | ▼

[Translator disclaimer](#)



CrossMark

 click for updates

Original Articles

The Myth of the Angry Atheist

DOI: 10.1080/00223980.2013.866929

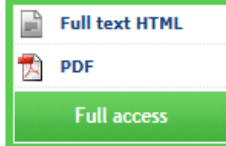
Brian P. Meier^{a*}, Adam K. Fetterman^b, Michael D. Robinson^b & Courtney M. Lappas^c
pages 219-238


Publishing models and article dates explained

Received: 28 Jul 2013

Accepted: 13 Nov 2013

Published online: 21 Mar 2014



 Full text HTML

 PDF

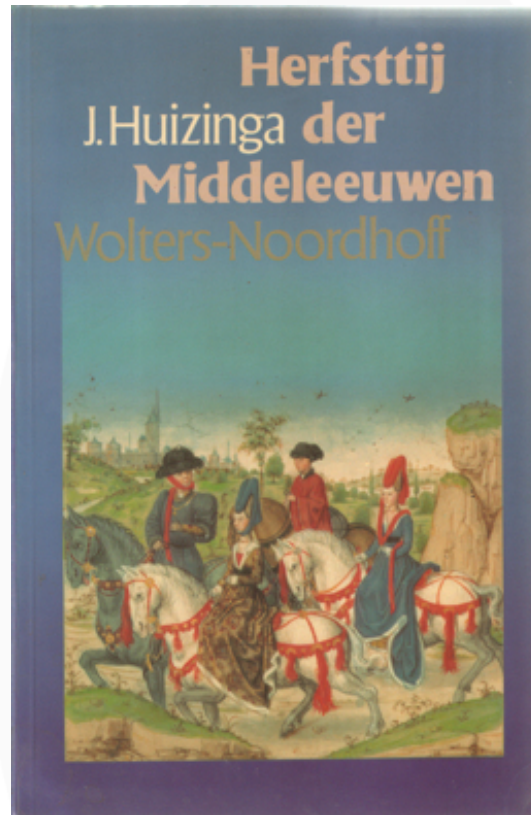
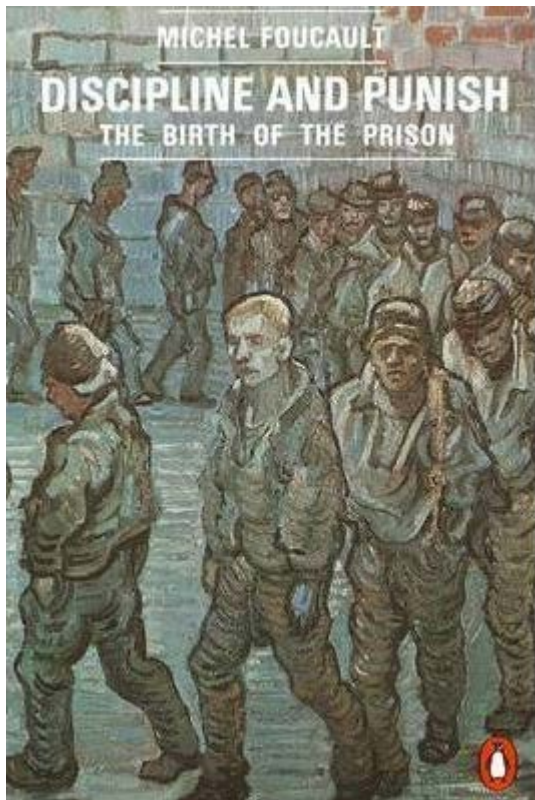
Full access

[Alert me](#)

ABSTRACT

Atheists are often portrayed in the media and elsewhere as angry individuals. Although atheists disagree with the pillar of many religions, namely the existence of a God, it may not necessarily be the case that they are angry individuals. The prevalence and accuracy of

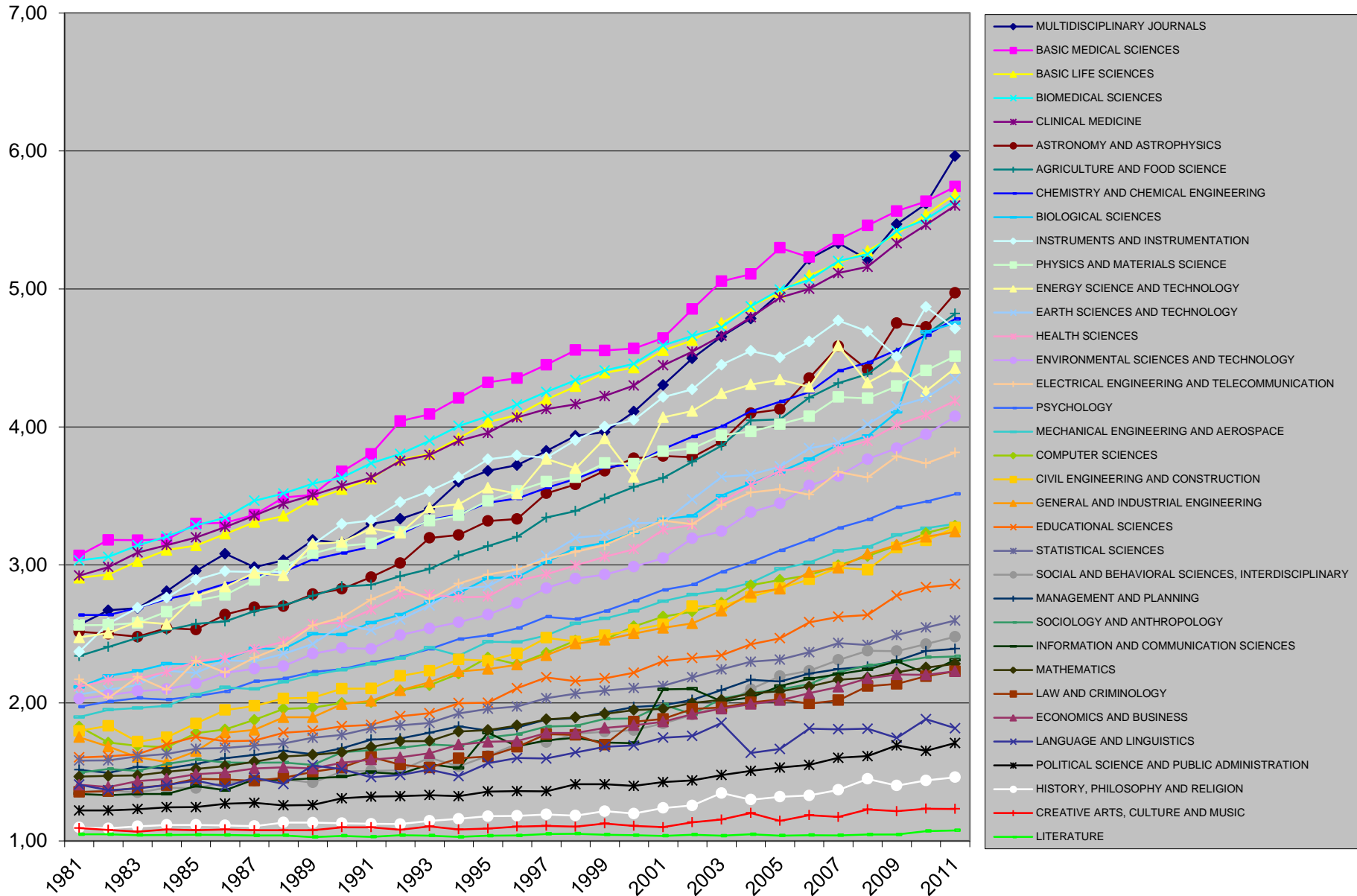
Authorship in SSH domains



Types of authorship

- When we discuss authorship, the degree of contributing to a scholarly output is important.
- Various type of authorship issues relate to:
 - First/second author.
 - Last/before-last author(s)
 - Honorary authorship
 - Ghost authorship
 - Anonymous authorship
 - Group or consortium-based authorship

Authorship across disciplines



Summarizing on authorship

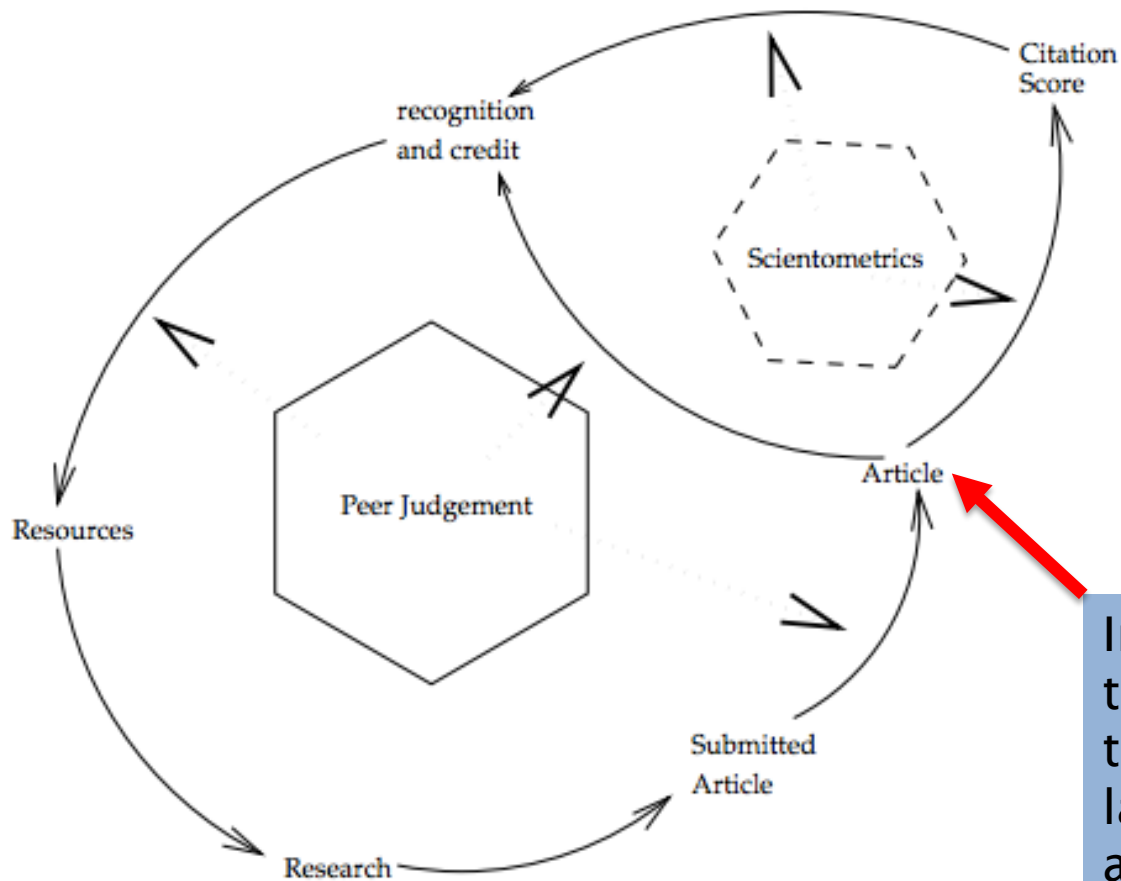
- Single authored publications mostly means lesser publications
- This does not imply, lower quality of the output (*remember the first lecture !*), but is indicative of the diversity of SSH&L
- Acknowledgments are important, and serve partially as authorship/contributorship
- Unfortunately, these are not available

*The meaning of
referencing, and it's
interpretation in an
evaluative context*

Fundamental issues

- Is a different publishing pattern the only explaining aspect of the troublesome relationship between bibliometrics and the SSH&L domains ?
- More specifically, are academic credits ‘earned’ in some parts of the SSH&L domains by another type of usage of source material ?
- Do references, and consequently citation analysis, have a different meaning in the SSH&L domains as compared to the STEM domains?

Extended credibility cycle



In this step in the process, the inversion from reference to citation takes place, in a large scale quantification, by attribution of value in that quantification

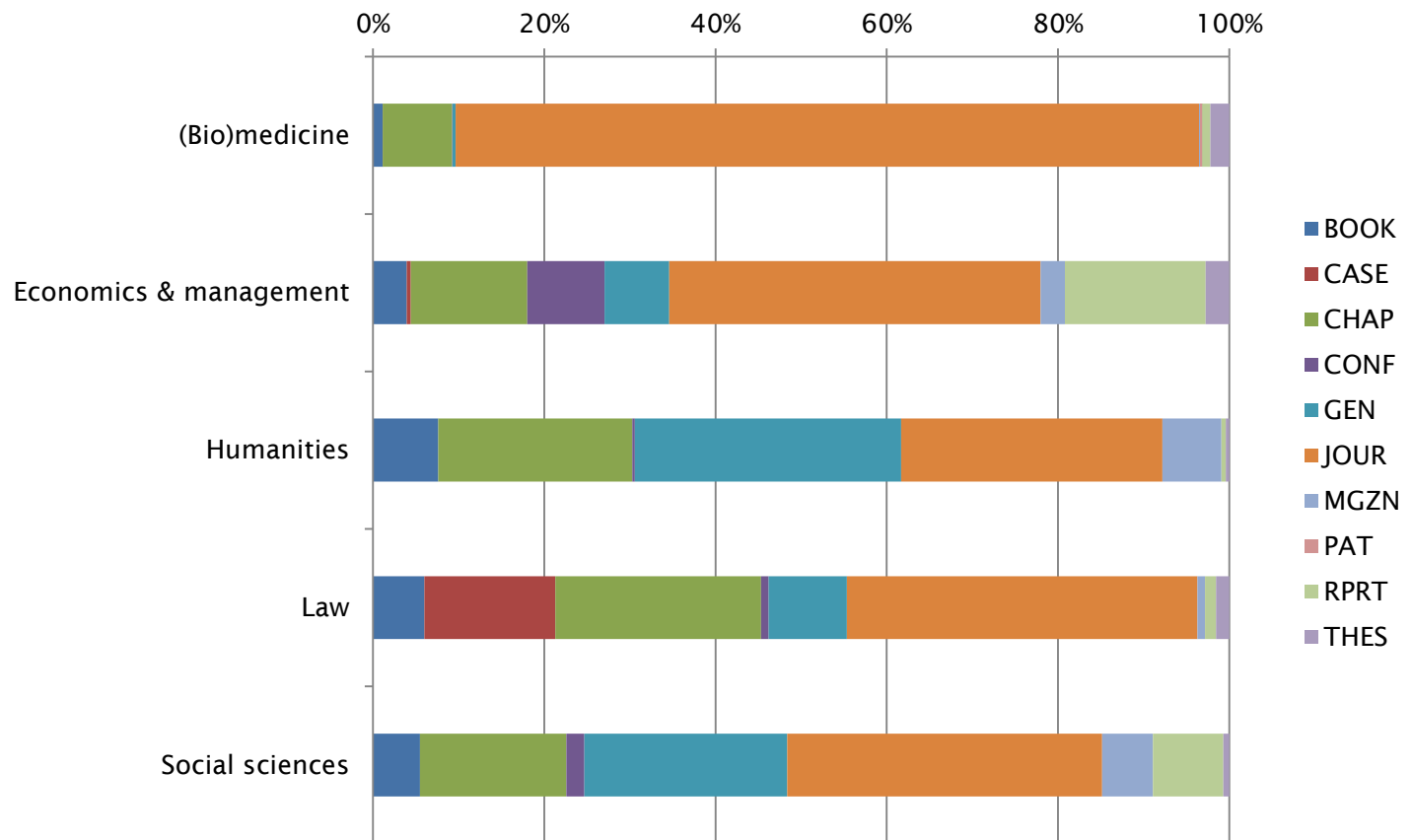
Inversion of the reference into the citation

- First, the *references* given to other work are re-labeled as *citations*.
- This inversion coincides with the attribution of some kind of a **value**.
- This value is considered to be of a 'positive' nature.
- It is important to keep in mind the directionality of the process: citation analysis is oriented towards the most recent past !

Publishing and referencing practices

Field-specific publication practices

- By now, we know monographs, edited volumes and chapters are of importance for scholarly communication in SSH, ...
- ... just as many journals of a more local/national character.

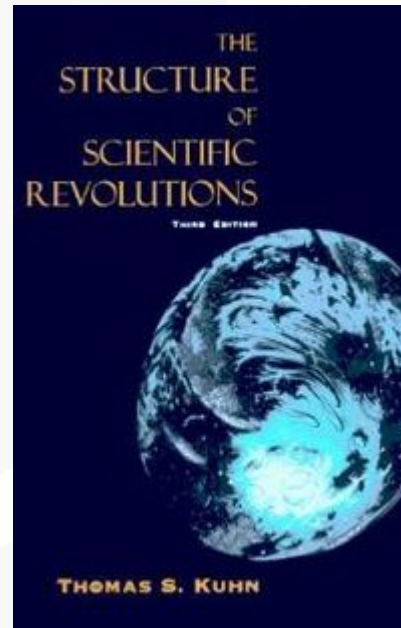


Field-specific referencing practices as well?

- But how about the usage of other source material through referencing ?
- An interesting starting point could be the Book Citation Index by Clarivate Analytics.
- However, usage of primary and secondary material comes in various forms:
 - References
 - Endnotes
 - Footnotes
 - Bibliography

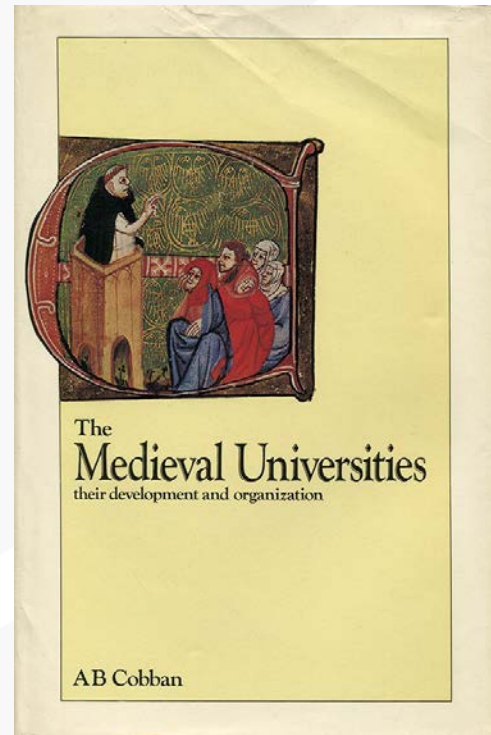
Example #1

- Thomas Kuhn, “The structure of scientific revolutions”, 3rd edition, 1996
- Contains footnotes, with extensive references
- No bibliography



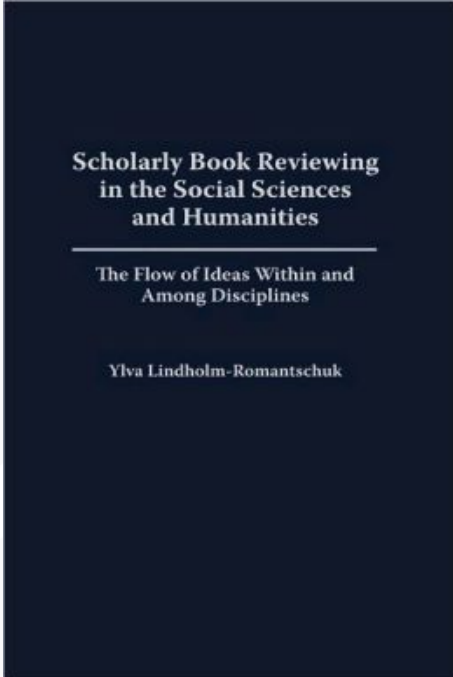
Example #2

- AB Cobban, “The medieval universities”, 1975
- Contains footnotes, function partially as references
- Plus a bibliography



Example #3

- Y. Lindholm-Romantschuk, “Scholarly book reviewing in the social sciences and humanities”, 1998
- Contains endnotes per chapter, references in the text to the bibliography.
- Bibliography available.



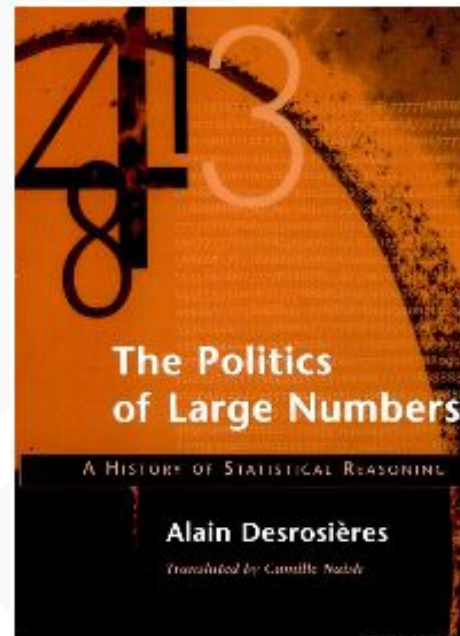
**Scholarly Book Reviewing
in the Social Sciences
and Humanities**

The Flow of Ideas Within and
Among Disciplines

Ylva Lindholm-Romantschuk

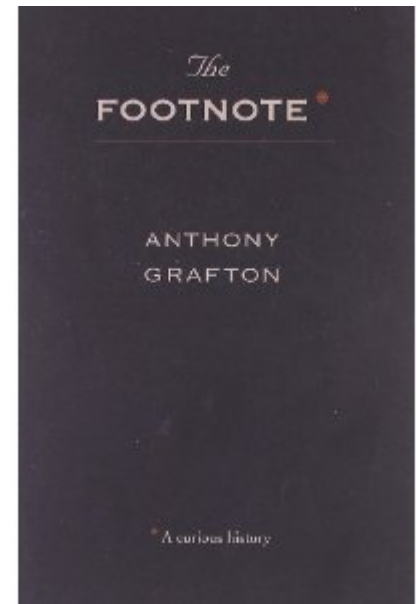
Example #4

- A. Desrosières, “The politics of large numbers”, 1998
- Contains endnotes, which function partially as reference, partially as explanation/expansion of the main text.
- Bibliography labeled as References available.



Another perspective on referencing practices

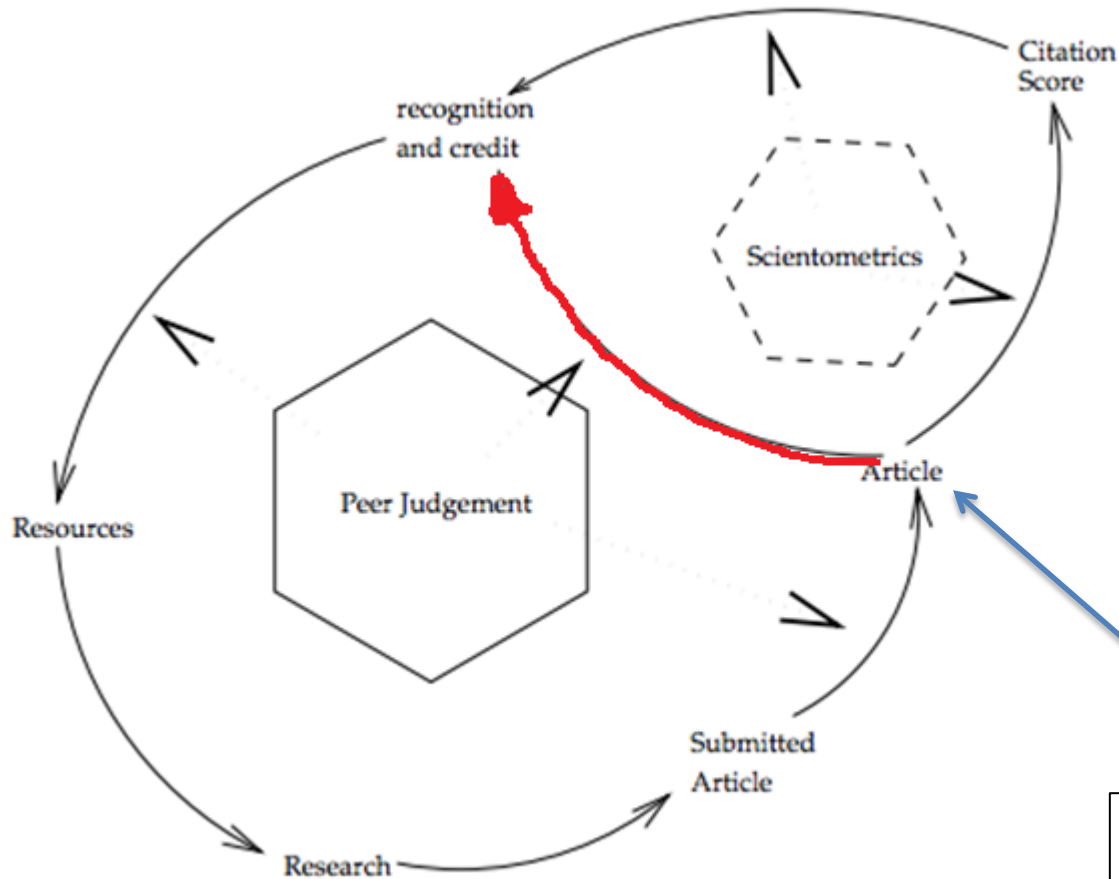
- In history, the references used indicate the novelty of the research, so the number of references used that either open up completely new material, or give a new interpretation on already used archival material is what determines the relevance of the work.
- This book, *“The Footnote”*, focuses on the famous German historian von Ranke, who set new standards in historical research.



Differences between *History* and STEM

- A first difference: at the basis
 - In history, (foot)notes serve the purpose to attribute legitimacy to authors, (foot)notes normally contain new material to show the innovative character of the work presented.
 - In STEM disciplines, referencing is based upon known literature, and not so much on new stuff.
- A second difference: in the assessment
 - Next, the innovative character in history work is made visible through the reference and/or note system, the value-ing of that noting system gives credits to the authors ...
 - ... while in the STEM disciplines, the innovative character becomes clear later on by the references received, being cited and the quantity determines the innovative character.

Credibility cycle in historical research



In History, this inversion of the reference into a citation does not take place in a similar way compared to the STEM domains

Some conclusions so far ...

- Could it be that publication coverage is not the only issue when it comes to applying bibliometrics in the SSH&L domains ?
- We have to re-orientate ourselves on the *usage of source material* in the SSH&L, and the consequences this might have for research assessment contexts.
- But also, we do have to re-orientate ourselves on the *meaning of referencing* in the SSH&L, and the consequences this might have for research assessment contexts.
- Absence of (received) citations is **not** an indication of absence of influence and /or 'quality'.
- Perhaps in some parts of SSH&L, credits are earned differently ?

Some consequences ...

- If the findings of this exploratory research, and the conclusions from it so far, are correct, then we end up with some serious consequences:
 - The current use of bibliometric techniques for the SSH&L domains should be considered with even more care.
 - There is an urgent need for data sources that cover the output of the SSH&L domains in a broader sense.
 - ... and more ?

*Organization of research
assessment in the
Netherlands*

The organization of Dutch research assessment

Standard Evaluation Protocol (SEP – 2003, 2009, 2015)

- Association of Dutch Universities (VSNU)
- National Research Council (NWO)
- Royal Dutch Academy of Sciences (KNAW)

The 2003 SEP revision re-installed the ‘power of decision’ back to the university boards

Report “*Judging research on its’ merits*”

(Advisory Committee from the humanities and the social sciences, May 2005).

[... as humanists and social scientists were worried about the metrics oriented flavor research assessment based on SEP potentially could get]



Interventions supported by the KNAW



“Quality indicators for research in the Humanities”
(Committee on quality indicators for the humanities, Nov. 2011).

“Towards a framework for the quality assessment of social science research” (Committee on quality indicators for the social sciences, March 2013).



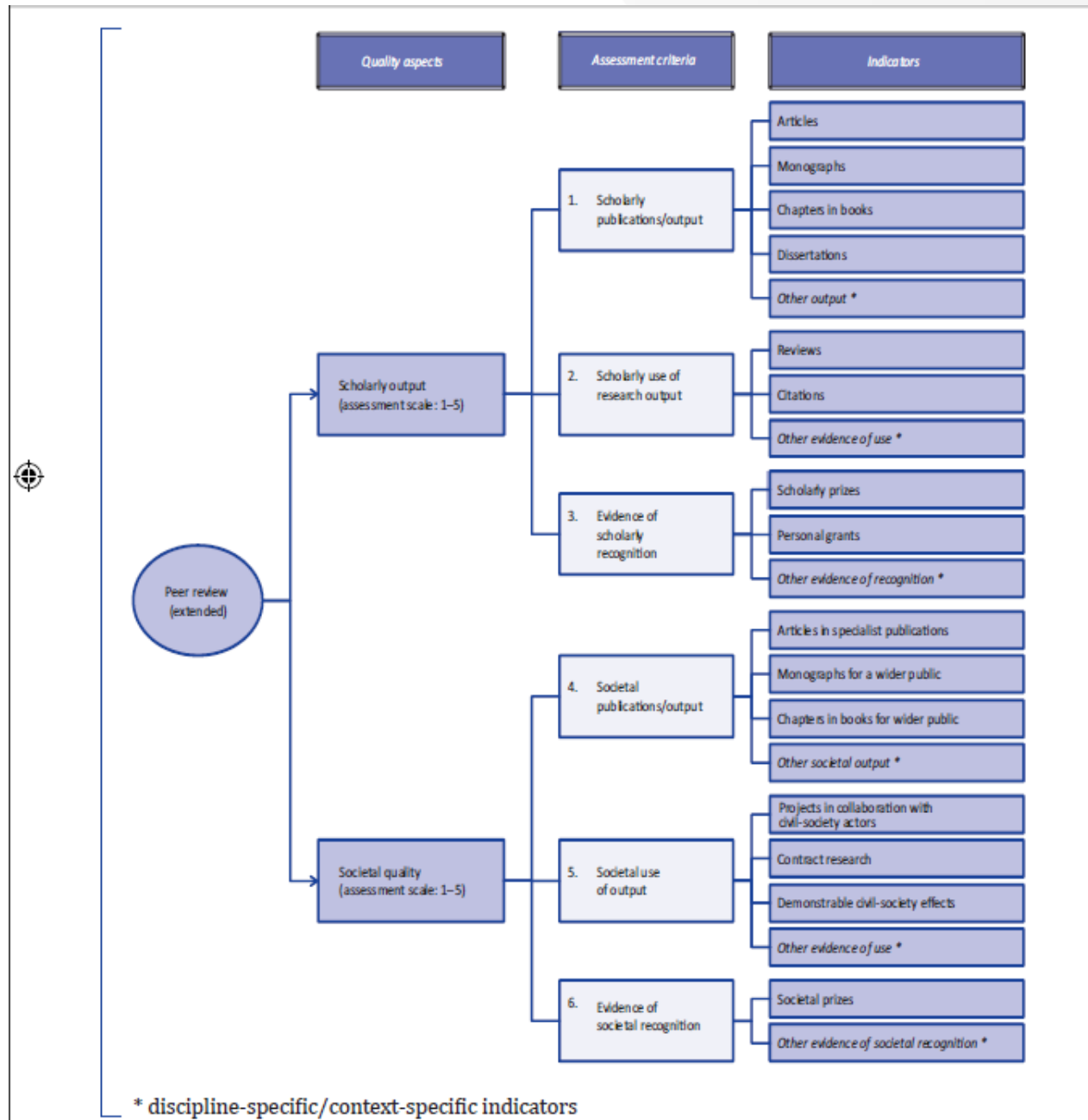
Key issues that were addressed in both reports:

- How to deal with heterogeneity? [without ‘standardizing’ it away]
- Take care of the variety of publication cultures
- How to embed “Societal relevance” aspects ?

Proposed solutions

An abstract graphic composed of several overlapping blue shapes. On the left, there is a large, solid blue circle. To its right, a smaller blue circle is partially overlapping it. Several thick blue lines radiate from the right side of the larger circle, extending towards the right edge of the frame. The background is a light blue gradient that transitions from a darker blue on the left to a lighter blue on the right.

Flow diagram taken from “Quality indicators for research in the Humanities”



The infamous SEP Table D.1 ...

		Quality domains	
		Research quality	Relevance to society
Assessment dimensions	Demonstrable products	Research products for peers	Research products for societal target groups
	Demonstrable use of products	Use of research products by peers	Use of research products by societal target groups
	Demonstrable marks of recognition	Marks of recognition from peers	Marks of recognition by societal target groups

Scholarly output

Criteria

Indicators

Metis categories

Scholarly publications

Articles

Journals

Monographs

Books

Chapters in books

Chapters

Dissertations

Theses

Other output

Scholarly use of output

Reviews

(WoS) Book Reviews

Citations

WoS/Scopus/GS Citations

Other evidence of use

Influencing other scholars

Evidence of scholarly recognition

Scholarly prizes

Other

Personal grants

Other

Other evidence of recognition

Review committees,
editorial boards, etc.

Societal quality

Criteria

Indicators

Metis categories

Societal publications

Articles in specialist publications

Non scholarly journals

Monographs for a wider public

Monographs for a wider public

Chapters in books for a wider public

Chapters in books for a wider public

Other societal output

Media appearances

Societal use of output

Projects in collaboration with civil-society actors

Other

Contract research

Reports

Demonstrable civil-society effects

Participation in advisory councils, or the public debate

Other evidence of use

Media appearances

Evidence of societal recognition

Societal prizes

Other

Other evidence of Societal recognition

Participation in advisory councils, or the public debate

Well-known problems in societal impact assessment

- Issue of the data available for such type of impact analyses
 - Unlike academic impact analysis, no such datasets as WoS or Scopus are available
- Social impact analyses often have to deal with a variety of audiences
 - Unlike academic impact analysis, in which mostly only 1 type of audience is involved
- The very specific problem of how to link a particular societal impact to a particular research effort
 - ❖ Issues of the attribution
 - ❖ Issues of temporality

Proposed solutions:

1- Productive interactions

Productive interactions (Spaapen & van Drooge *)

- Exchange between researchers and stakeholders, in which knowledge is produced and valued, knowledge being both scientifically robust and societally relevant
- “Productive”, if the exchange leads to efforts by stakeholders to use or apply the *research results*, or *practical information*, or *experiences* from the interaction
- Spaapen & van Drooge distinguish 3 types:
 - *Direct: involving direct contact between humans*
 - *Indirect: involving contacts through material carriers (eg, texts, artefacts)*
 - *Financial: involving economic exchanges (eg, a research contract)*

Key characteristics of Productive interactions

- ***Process oriented***, thereby valuing small and necessary steps in a course of interactions
- ***Context oriented***, thereby taking into account the role of contributions of researchers and stakeholders alike
- ***Learning oriented***, thereby focusing on development, growth and recommendation rather than on judging/accounting

Productive interactions can result in ...

- Outcomes might be of a
 - *Quantitative or quantified nature (but not a necessity)*
 - *Qualitative nature (the narrative is considered as important)*
- By using productive interactions as a model, evaluation of societal impact moves away from
 - *an only on peer review based model of assessment (so academic peer review, in combination with stakeholder panel review)*
 - *a linear model of societal impact assessment*
- This latter aspect then solves the two main problems mentioned before:
 - **Temporal issue:** the long time lag between research and impact
 - **Attribution issue:** look at the contribution aspect, and the various developments in the process, also including the unexpected !

An abstract graphic composed of several overlapping blue shapes. On the left, there is a large, solid blue area. To its right, a large white semi-circular shape is partially covered by a blue arc. Further right, a large blue circle is partially obscured by a blue line that extends from the top right towards the center. The overall composition is dynamic and modern.

**Proposed solutions:
2 - Quality &
Relevance in the
Humanities (QRiH)**

The infamous SEP Table D.1 ...

		Quality domains	
		Research quality	Relevance to society
Assessment dimensions	Demonstrable products	Research products for peers	Research products for societal target groups
	Demonstrable use of products	Use of research products by peers	Use of research products by societal target groups
	Demonstrable marks of recognition	Marks of recognition from peers	Marks of recognition by societal target groups

QRiH - Quality & Relevance in the Humanities

- By using publication lists of two faculties of humanities research, we were able to distinguish the various output types
- For journals and academic publishers, we mobilized the research schools to assess the journals and publishers
 - *No grading of journals/publishers, just a list of important/less important*
 - *For both the academic as well as the societal realm*
- This led to the situation that in assessments, outputs on the list being labeled as important were '**authorized**', all others could be '**argumented**' to be of importance (*negotiation process*).

QRiH - Quality & Relevance in the Humanities

- The current SEP protocol mentions a narrative only for the societal realm, ...
 - ***while in QRiH we position the narrative as the over-arching principle***
- The current SEP protocol prescribes the assessment of research, when looking at the table to be filled in, from a strictly column wise approach, ...
 - ***while in QRiH we want to connect the two realms of output, usage and recognition also in a horizontal sense***
- Thereby, we strive to bridge the gap between academic outputs and products to societal products/outputs/activities

The infamous SEP Table D.1 ...

Narrative

		Quality domains	
		Research quality	Relevance to society
Assessment dimensions	Demonstrable products	Research products for peers	Research products for societal target groups
	Demonstrable use of products	Use of research products by peers	Use of research products by societal target groups
	Demonstrable marks of recognition	Marks of recognition from peers	Marks of recognition by societal target groups

Using this table in a somewhat more productive way

		Narrative	
		Quality domains	
		Research quality	Relevance to society
Assessment dimensions	Demonstrable products	Research products for peers	Research products for societal target groups
	Demonstrable use of products	Use of research products by peers	Use of research products by societal target groups
	Demonstrable marks of recognition	Marks of recognition from peers	Marks of recognition by societal target groups



Quality and Relevance
in the Humanities

Home

SEP evaluation

Profiles

Tools

About QRiH

directly to the SEP indicators:

☰ Products for Peers



☰ Societal products



👤 Use by peers



👤 Societal use



💬 Recognition by peers



💬 Societal recognition



Proposed solutions: 3 - Evaluative Inquiry

Developments in the UK and the Netherlands

We have already seen that increasingly research assessment also covers societal relevance as part of the outcomes.

This is welcomed, but ...

- still perpetuates the idea of a divide between “*the academic*” and “*the social*”
- ... is often related to the expectation that everybody has to do everything, societal relevance as extra, additional work
- ... the split between academic and societal relevance is partly an artefact of reductive evaluation mechanisms.

The evaluative inquiry concept

We are currently striving to think & develop alternative ways to assess research.

This consists of:

- More context-sensitive evaluations
- by way of an ecological approach, assuming diversity: not everybody has to do everything at the same time
- evaluation as a means to stimulate self-reflection + emergent development (“evaluative inquiry”, Fochler & De Rijcke, 2017)). .

Evaluative inquiry approach

- Understands academic performance or impact as an effect of translations within and between networks of actors that make up academic research and its environments (Fochler & de Rijcke, 2017)
 - What are the central issues or ambitions, how they are operationalized, what kind of output this yields and where the output travels to (Spaapen & van Drooge 2011 ; Joly et al. 2015; Molas-Gallart et al. 2015; Matt et al. 2017)
- combination of methods, depending on what fits the specific evaluation purpose best

Evaluative inquiry, key elements

- ✓ ***Various representations*** possible, none dominant
- ✓ ***Process***, not carved in stone
- ✓ ***Negotiation***, on the design and contents of assessment
- ✓ ***Pro-active*** rather than reactive
- ✓ ***Inclusion*** (rather than excluding)
- ✓ ***Contents*** rather than form
- ✓ ***Facing complexities and engagement*** head-on
- ✓ ***Learning*** rather than accountability

What can organisations do with it (I)

- Research organizations grapple with changing societal, economic and political contexts and expectations
- Give an overview of goals and missions and the ways these are embedded within the organization (goal > mobilization > output > reach)
- By using multiple methods

What can organisations do with it (II)

- We have seen that our work can serve as a starting point to develop or refine the narrative of the organization
- Based on the views and experiences of researchers and users (bottom up)
- Articulating what is already going on
- And identifying new possibilities
 - *New audiences, existing ones*
 - *Ways of communication next to books and articles*
 - *A clearer structure of the organization, in terms of programs, centres and projects*

Some conclusions on the various developments regarding societal impact assessment

- The SEP protocol fits a wider group of scholarly domains, ...
- Not only scholarly orientation plays a role, ...
- ... but also the society at large is taken into consideration.
- “Productive interactions” concept has stirred quite some follow-up
- Rather than being a technocratic tool, both approaches want to bridge between the inevitable bureaucratic necessity of evaluation and the specific characteristics and strengths of academic disciplines.

The end