**Portfolio II: (Brief) review and project specific literature (Deadline Thursday November 4, 12.00 pm)**

***Brief* review of your field of study (key references and super-brief introduction to what these authors say about your field of study) - incl. five-eight empirical studies, which you think are relevant for your study. No more than 2 pages**

Our literature review took somewhat of a “theoretical”-turn but will hopefully become a literature review once again before December 2nd.

Introduction

The Nobel prize is one of the most prestigious prizes within the scientific community. Being awarded the Nobel prize is a huge seal of approval not only for the particular laureate but also for their field of research. It is a way of celebrating and putting attention to a particular knowledge production within the academic field, recognising “[...] *those who, during the preceding year, have conferred the greatest benefit to humankind*”, as Albert Nobel willed it.

Winning the Nobel Prize is of undoubtable importance to a scientist’s career. As Kary Banks Mullis - Nobel Prize laureate in chemistry in 1993 - puts it: “*Nobody in the world doesn’t understand the weight of the Nobel Prize. Once you have it, there is not a single office in the world that you can’t go into. If I call them and say, I would like to talk to you about something, and I’m so-and-so, the Nobel laureate, they’ll see me at least once. It opens every door*” (Hanson 2018:487).

The Nobel Prize and the Sociology of Science

As the introduction would indicate, the Nobel Prize is of undoubtable interest to the sociology of science. Harriet Zuckerman is one of the most prominent researchers in the sociology of science field, serving as the president of the Society for Social Studies of Science in 1990-1991. In 1963, Zuckerman wrote her doctoral dissertation on the Nobel laureates. She argued that scientists hold an elite position in society, with the Nobel laureates being the elite of the elite within science (Zuckerman 1977: 8). Continuing her scrutiny of the Nobel laureates, Harriet published the book “*Scientific Elite: Nobel Laureates in The United States”* in 1977*.* The book was defining for the further studies of scientific elites for the following two decades (Gordukalova 1997). Zuckerman examined the Nobel laureates using both qualitative and quantitative measures, interviewing four-fifths of the American Nobel laureates. Her extensive work was the foundation for Robert Merton’s concept of the Matthew effect (Merton 1968).

The Matthew and Matilde Effect

The Matthew Effect states that scientists, who are already reputable, get disproportionately more credit than their less acclaimed colleagues - an “accumulation of advantage” (Merton 1988:609) . This is a recurring theme throughout Zuckerman’s interviews with the laureates, where they express that they often get a great amount of recognition for small contributions (Merton 1968:57). Considering the Mathew effect and the overall notion of “recognition” for academic merits, it is hard not to mention the large oversight and devaluation of women’s scientific work and contribution (Rossiter 1993:327). This has also been the case among Nobel laureates, with multiple examples of female scientific colleagues being discarded by the Nobel Committee even though they were co-authors of the articles that contributed to the line of work that led to a Nobel Prize (Rossiter 1993:329, Zuckerman 1977:56). This represents a larger tendency within the scientific community where women’s scientific contributions have been ignored and suppressed (Rossiter 1993:327-231). The systematic undervaluing of women's contribution to science has been called the Matilda effect - a further development on the Matthew effect. Rather than focusing on the accumulation of advantage of those at the top of the scientific hierarchy, the Matilda effect focuses on the disadvantages of those who are already at the bottom, i.e. how little credit some, especially women, gain in proportion to their actual contributions (Rossiter 1993:337). As an almost ironic example of the Matilda effect, Merton - who formulated the Matthew effect in 1968 - later stated that Zuckerman should have been a co-author on his Matthew effect article, as he had relied heavily on her work, but without crediting her (Merton 1988: 607).

The Matilda- and Matthew effect is still a subject for scientific research in contemporary studies. For instance, Lincoln et al. (2012) finds that the Matilda effect is still very much in effect today and argues that the best way to ensure that women will get their due credit is to acquire more women into the research committees (Lincoln et al. 2012: 317).

Here we would like to write more regarding Granovetter’s idea on the strength of weak ties. Lincoln herself refers to him in her conclusion.

The Nobel Prize in Contemporary Studies

(Here, we will make a more traditional literature review, where we review the research that has been conducted on the Nobel Prize more broadly - we have only managed to write a very brief example)

Heinze, Jappe, and Pithan (2019) examines the global distribution of Nobel Prizes and uses it as a proxy for scientific power on a global level. They mapped various statistics on the Nobel laureates and found that a shift had happened regarding the universities affiliated with the Nobel laureates. Examining a period from 1901 to 2017, they found that initially, the Nobel Prize was dominated by European universities in the 1920s. Then, in the 1970s, North America took over as the leading Nobel Awardee. Today, the distribution is more balanced between both European, American, and Asia-pacific universities (Heinz 2019:9).

**Indication of the general analytical direction of your study, e.g. which parts of the course literature do you expect to use directly, which texts are directly relevant? (no more than 1 page).**

In this project, we wish to explore the characteristics of the Nobel laureates and their affiliated universities within the field of physics, chemistry, and medicine.

In the “Theory” section below, we present some of the course literature that relates to our study. At the moment, we clearly see how to place our study within the sociology of knowledge, working our way from Mannheim’s “standpoint theory” on knowledge, up to Haraway’s idea of situated knowledge. Our analysis will draw on network theory, and how various social attributes, such as gender, nationality, and age, characterise the network of Nobel Laureates, and their co-affiliation with each other. From a Harawayian perspective, we could explore questions such as; Where does knowledge come from? Whose views of the world are imposed?

Ideas for empirical material and methodology

Our approach is by and large an exploratory one. We will explore the social organization of the Nobel laureates using social network analysis based on a dataset with information on the laureates’ institutional affiliation and their entire publication history. We have the publication records of nearly all the Nobel laureates in physics, chemistry, and medicine from 1901 to 2016 (92,4% of them). For each publication, we have both the year of publication, the current university affiliation of the Nobel laureate, and the journal in which the paper was published. As the Nobel Prize is not awarded for a single paper, Li et al. (2018) have imputed which papers have contributed to the line of work that led the scientists to win the Nobel Prize. We intend to divide the dataset into 3-4 periods to account for the time dimension and make the nodes of each network more comparable to each other.

We will structure our analysis in three parts. 1) we will have an overall descriptive part of the dataset, in which we describe the distribution of different characteristics of the Nobel laureates such as gender, nationality and age. 2) We wish to analyse the networks of the laureates, with the laureates as nodes and shared affiliation to a university as edges. Here, we will use the different social characteristics of the laureates to explore the network’s structure, using network statistics such as community detection and homophily. 3) We conduct a similar analysis as in part 2, but on an institutional level, so the universities are the nodes, and shared laureate affiliation are the edges. Here, we would also use different characteristics of the universities to explore the network structure.

**5 pages that you would like feedback on (self-selected focus (e.g. methods, theory, introduction, interview-guide, etc.)**

We have written a draft of the beginning of a potential theory section. This is not finished, but we would like to hear your opinion on our line of thought.

The Sociology of Knowledge

Knowledge has been a core concept in sociology ever since Karl Mannheim formally formulated his idea of knowledge as something social. Mannheim had a particular focus on what he called ‘styles of thought’ by which knowledge was produced. He argued that thought does not take place in a vacuum where each individual thinks independently of its fellows, and nor is thought one and the same for all (Mannheim 1953:76). Rather, knowledge production stems from somewhere in between the two polarities, where historically and socially contingent circumstances become constitutive of different “styles of thought”. Thus, thought and ideas are anchored in the social position of the individual. As Mannheim puts it in his art analogy; “*The trained historian of art will always be able to say, even if a work of art is unknown to him:* ‘*This must have been painted at such and such a date by a painter of such and such a school*’” (Mannheim 1953:75). In the same way, Mannheim argues that sociologists should be able to look at a piece of writing and recognize the style of thought by which it is produced, and therethrough derive the social and historical circumstances of its formulation. This implies that knowledge becomes infused with and distorted by the interests of its associated social groups, as Mannheim states that the way in which people experience things is correlated with their societal position (Mannheim 84:1953). The idea that the interests, or ideology, of a social group biases and distorts their conceptions and experience of reality, is heavily influenced by Karl Marx ideas on ideology. But instead of limiting the boundedness of ideology to the ruling class - the Bourgeois - and upholding the position of the subjugated and unprivileged - the proletariat - as objective, Mannheim states that no position is free of ideology (Neurath 236:2020[1930]). Both Marx and Mannheim’s focus on the particular outlook of a given social group could be placed in the category of “standpoint theory” - a tradition that was later adopted, challenged and reformulated by contemporary feminist theorists (Haraway 1988), as we shall discuss later.

The New Sociology of Knowledge

Swidler and Arditi (1994) criticizes Mannheim’s views on knowledge for being reductionist both with regard to the concept of knowledge itself and of the social positions that affect knowledge. They distance themselves from Mannheim’s “old” ways in favour of what they call “the new sociology of knowledge” (Swidler and Arditi 1994:306). The new sociology of knowledge is not limited to Marx and Mannheim’s focus on knowledge and the interest of social groups, but rather on how “[...] *social organization makes whole orderings of knowledge possible”* (Swidler and Arditi 1994:305). Acknowledging that the new sociology of knowledge is not yet a unified field, Swidler and Arditi (1994) present a programmatic text, in which they review six existing approaches to studying knowledge, stating that there is great potential both in the convergence and divergence of these six approaches (Swidler and Arditi 1994:322). The six approaches, or conceptions, are Media, Collective Memory, Authority and Organization, Power and Practices, Informal Knowledge, and Identity, Boundaries, and Differences. Particularly the sixth approach of Identity, Boundaries, and Differences has some clear relations back to Mannheim’s initial formulation of the sociology of knowledge. Swidler and Arditi write that some of the work of contemporary feminists within the “feminist epistemology”-tradition is a return to the concerns of the earlier sociology of knowledge, and particularly to Mannheim’s “standpoint theory”, e.g. his idea that knowledge is correlated with one’s position in a social structure. However, these unnamed feminist theorists do not buy in on Mannheim’s assertion that differences in ideas and thoughts are a consequence of social group interests. Rather, they see it as a consequence of the “differential effects of power in the constitution of subjects” (Swidler and Arditi 1994:320). Developing on Foucault’s concept of “the constituted subject”, they see power as a central concept in the production of different knowledges, arguing that power penetrates - and thereby constitutes - individuals differently based on their social characteristics, e.g. gender, race or sexuality. This results in a generation of socially specific knowledges, such as gendered or racialized knowledge (Swidler and Arditi 1994:320). On a final note, we recognize that it might be somewhat of a rough cut to treat feminist theories as a joined and homogeneous field, but we have nevertheless tried to give a broad overview of the intersection of knowledge and feminist theory, in line with Swidler and Arditi’s reading. This might actually be a prime example of the Matilda effect.

Situated Knowledge and the God Trick

One of the most prevalent feminist theorists in favour of the situated and partial knowledge of “standpoint theory” is Donna Haraway. Here, we would have a section on Haraway.

**Listof your 200 pages project specific literature + 50 pages extra pr. student (to be uploaded on Absalon/discussions for shared reference).**

Literature

* Gordukalova, Galina F. (1997). "'Scientific Elite: Nobel Laureates in the United States' (Reprint Review)". The Library Quarterly: Information, Community, Policy. 67 (3): 306–308. doi:10.1086/629960. JSTOR 40039731. Retrieved May 26,2021.
* Heinze (2019): From North American hegemony to global competition for scientific leadership?
* Li, Jichao, Yian Yin, Santo Fortunato, and Wang Dashun. 2018. “A Dataset of Publication Records for Nobel Laureates.”
* Merton (1968): The Matthew effect on science
* Merton, Robert K. (1988). "The Matthew Effect in Science, II : Cumulative Advantage and the Symbolism of Intellectual Property" (PDF). Isis. 79 (4): 606–623. doi:10.1086/354848. S2CID 17167736.
* Neurath, O. (2020). Bourgeois Marxism. A Review Essay on Karl Mannheim, Ideologie und Utopie (original edition in 1930, translated from German by Alan Scott). Sociologica, 14(1), 235–241. <https://doi.org/10.6092/issn.1971-8853/10822>
* Rossiter (1993): The Matthew Matilda effect in science
* Zuckerman (1977): Scientific Elite