



Article

Imperial Science in Central and Eastern Europe

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Abstract: The history of imperial science has been a growing topic over recent decades. Overviews of the imperial history of science have rarely included the Russian, Habsburg, and German empires. The history of Central and Eastern Europe has embraced empire as an analytical and critical category only recently, having previously pursued national historiographies and romanticised versions of imperial pasts. This article highlights several key narratives of imperial sciences in Central and Eastern Europe that have appeared over the past twenty years, especially in anglophone literature. Interdependence between national and imperial institutions and biographies, the history of nature as an interplay of scales, and finally, the histories of imagining a path between imperialism and nationalism, demonstrate how the history of imperial science can become an important part of the discussion of Central European history from a global perspective, as well as how the history of science can be factored into the general history of this region. Finally, I argue that the imperial history of science can play an important role in re-thinking the post-/decolonial history of Central and Eastern Europe, an issue that, since the Russian invasion of Ukraine, has become the centre of intellectual attention.

Keywords: Central and Eastern Europe; imperial history; Habsburg Empire; Russian Empire; German Empire



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1. Introduction

The first draft of this text was finalised in February 2022, a few days before Russia started its war against Ukraine. In the context of the topics discussed in this text, the 24th of February meant a revision of the concept of imperialism and a discussion about the deimperialisation/decolonialisation of history, both processes still ongoing. While the history of science has not featured prominently in this debate so far, it suffers from the same problems as it does in general history or the history of literature, namely the underrepresentation of regional voices and the centripetalism of historical narratives. The decentralisation of narratives has been a prominent issue in the history of science in overseas empires (e.g., [Harding 2011](#)); only recently, however, has it reached the discussion about science in empires in Central and Eastern Europe (CEE) ([Surman and Kaps 2012](#)) and the discussion about Soviet science, which has retained a very centripetalist type of narrative. One of the aims of this article is to highlight ways in which the imperial history of science has contributed to the decentralisation of the empire. Although it cannot overcome the main shortcoming of the imperial history of science in CEE, it is not decentralised in its practice, even if the theories it is based on argue for the inclusion of voices from all around the empire.

With the imperial histories of science flourishing in historiography in recent years, CEE empires have had a marginal position in the history of science. One of the main reasons for this is the bias towards nations and the negative view of empires in CEE historiography. The predominant historical narrative of CEE that emerged in the interwar period, neatly adopted in the Cold War and flourishing in the 1990s, saw nations as focal points of respective histories ([Górny 2013](#)) and continental empires as an obsolete form of the old world order that was put to rest with the flames of the Great War. While one

might regard Russian and Soviet historiography as an exception, propagating the Soviet imagination of people, the practice behind the official discourses has been, especially after 2014, critically questioned by historians (e.g., Ploky 2017). Socialism in this part of Europe, in theory embracing internationalism, produced in practice, nationalist narratives. This process had long-lasting effects. Multiculturalism, one of the key ingredients of imperial lifestyles and biographies, was gradually defined as an obstacle to, not an asset of, progress. Both general and science historians were more interested in tracing their heroes' "national" biographies to prove that this or that great historical figure was of a particular nationality because of his (rarely her) origin/socialization/etc.

The 2000s and the accentuation of diversity and regionalism in both the enlarged EU and in Russia brought about a realignment of the coordinates, although empire was still struggling to become a neutral analytical term, even before the conservative turns in CEE historiographies in the 2010s. For some, the empire was a part of a glorious past, probably most visible in the Habsburg case (see, e.g., Bruckmüller 2019), with the positive image of the Romanov Empire becoming increasingly popular in the conservative Russian literature (see the discussion in Makhotina 2021). For others, it was a time of oppression—which can clearly be seen by comparing, for instance, works discussing imperial expansion and its effects produced in the post-Soviet space (for a rare view discussing both positions see Abashin 2015). Geographically, these views roughly correspond to the late 19th century nationalised discourse of centre vs. periphery (for the Habsburg situation see, e.g., Kożuchowski 2013 and Dubasevych 2017). Histories with a positive view of empires were more popular in the former capitals of empires and outside the region. Even before 1989, notably, they became popular among US scholars, among whom research on empires boomed in the 1980s. Therefore, many of the examples in this article come from US scholars as well as scholars who obtained positions at US universities but were academically trained elsewhere (especially scholars of *A New Imperial History of Northern Eurasia*). It remains to be seen how much the Russo-Ukrainian War will change this development. While the nationalisation of history is most probable, multiculturalism has become, in recent years, a part of the national narrative, creating a backdoor to imperial history.

Throughout this article, I will use the term "CEE empires" to denote various state forms in CEE, e.g., the Habsburg, German, and Romanov, without engaging in discussions concerning whether and to what extent they were indeed empires, as the literature discussing these questions is rich and flourishing but only marginally relevant for this text (e.g., Judson 2018). Nor does this article discuss the overseas colonies (German Colonial Empire or Alaska); rather, it focuses on continental parts and processes characteristic of them. Furthermore, this article does not pretend to be exhaustive. Rather than offering an overview of science in the region, I am interested in a few phenomena that I consider characteristic of CEE science: interdependence between national and imperial institutions and biographies, the history of nature as an interplay of scales, and the histories of imagining a path between imperialism and nationalism. Imperial science, in the CEE context, is to be understood as encompassing science and scholarship, as the regional languages have one word denoting both, herein meaning science whose epistemology is informed by the empire and imperial experience, or science that relies on imperial networks to be created. As such, national and imperial are not mutually exclusive categories, but rather a matter of perception and the structuring of the historian's gaze (Ash and Surman 2012; Arend 2020).

2. Multinational or Imperial: An Empire's Two Bodies?

The history of science in CEE empires is closely connected to the historiographies of empires, even if science and scholarship play quite a marginal role in general publications (see, e.g., Kivelson and Suny 2017). Likewise, *empire* or *colonialism* are not popular terms in the regional narratives of the past. Habsburg and Romanov empires have only recently been included in investigations into colonial modernity, being regarded previously from other angles. Only in the late 1990s did German historiography start to look at its easternmost parts through the prism of imperialism and colonialism. While multiculturalism was

not removed from most historical equations, its connection with power, the influence of representation in everyday life, the varying and fluctuating power of hierarchies (e.g., micro-imperialisms in provinces), orientalisations, etc. were not part of the story. The narratives were caught between romanticised visions of the empire, which, according to its eulogists, had to have pitfalls to create exquisite places like St. Petersburg or Vienna, and national histories of being victims of imperial oppression, with their black-and-white simplifications. Kazan, in the Russian case, and Vienna, in the Austrian, were places where new imperial histories emerged, very much aided by US scholarship.¹ Tellingly, it was not the St. Petersburg–Moscow axis in the Russian case; centralism has been uninterruptedly prevalent in the Russian intellectual imagination in these two cities, and the popular local saying about Muscovites not knowing Russia outside the Moscow Ring Road (the border of the city until the 1980s) can easily be extended to intellectuals. There are, of course, notable exceptions, like a Moscow–Paris project that has been focusing on knowledge circulation within the empire, addressing the key issue of imperial statehood (Astafieva and Berelowitch 2014), or work related to Central Asia, such as *Russia's Own Orient* (a concept from Tolz 2011; for examples see Gorshenina and Abashin 2009).

Overviews of CEE empires written by general historians refer to science in a variety of ways. In his fundamental study *The Habsburg Empire: A New History*, Pieter Judson (2018) includes only a marginal amount of science and scholarship, concentrating on the social processes of managing multiculturalism in an empire in which differences increasingly shaped politics. By contrast, *A New Imperial History of Northern Eurasia*, a research programme developed around the journal *Ab Imperio*, includes numerous statements about universities and academies of science, and it deals extensively with historiography and raciology (Mogilner 2014). Its authors also note the growing scientification of politics in the second half of the 19th century, proceeding through the inclusion of academically educated economists and political scientists, as well as the growing influence of racial, anthropological, and sociological ideas. Thus, key concepts of this particular narrative, notably progress and modernisation, are defined with the help of categories from scientific discourse (Gerasimov et al. 2017a).

Recent years have witnessed an abundance of publications on the interdependence between science and empire-building. The processes of solidification of CEE empires required bureaucracy, and bureaucracy required knowledge of the controlled (or recently conquered/acquired) territories and tools to count populations as well as to manage and present (first to the rulers, then to the public) their findings (Becker and Clark 2001; Felten and von Oertzen 2020; Göderle 2016). But physicians served also as imperial elites in the Romanov Empire, often being the first outpost of the autocratic state in the 18th century (Renner 2010; Vishlenkova and Renner 2021). Medicalisation was often connected to state-building, not only in expanding the Romanov and Habsburg empires of the 18th century, but also in the late 19th century Kingdom of Posen, where the Polish population was confronted by the German Empire's state-building measures hygienising the region (Turkowska 2013), and the new Habsburg colony of Bosnia-Herzegovina, where after 1878 even midwives became agents of imperial civilising missions (Bernasconi 2021).

In other branches of the literature, we can find the idea of the interdependence between an empire and its nations, and the role of science in this process. Some overviews of the Habsburg monarchy's past note the importance of universities in the modernisation of the state, including becoming crucial venues for nationalists of all sorts (Beller 2018). Others underscore the use of science and scholarship for the development of various national narratives, from philology impacting the codification of literary languages to the philosophical imagination of national missions (Connelly 2020). Overviews of the Romanov Empire follow a similar pattern, with one peculiarity in the accentuation of imperial infrastructure that is worth mentioning: the Academy of Sciences, founded by Peter the Great in 1724, is often cited as the beginning of the Western ideas of the state and progress and features prominently in empire-centred publications (e.g., Boterbloem

2020). By contrast, the universities play a bigger role in narratives concentrating on smaller nations and their modernisation strategies (Kappeler 2015).

One of the shortcomings of the historiography of Russia has been the limitation of science to centres and central institutions. There are several reasons for this, from the dominance of institutions in Moscow and St. Petersburg to problems with access to archival materials. In the last two decades, the narrative has become more diversified, including, for instance, questions of local appropriation of knowledge. An example can be seen in the work of Anna Graber on how regional elites embraced mineralogy as a practical science and integrated it into the Enlightenment projects of Peter I and Catherine II (Graber 2016). More recently, Danielle Ross has shown how Volga-Ural Muslim elites in Kazan² used positivist historiographic methodology to write themselves into the imperial scholarly discussion (Ross 2020, pp. 114–69). Julia Fein, as a final example, looked at how Chita's Museum-Temple was differently appropriated at the turn of the 20th century, for some being a symbol and place of science and progress, for others a threat, and yet for others a place of prayer and contemplation (Fein 2013).

The tension between Russian imperial and national ideas is nothing new and reaches well into the imperial period. It can be illustrated by the example of the Imperial Geographical Society. Since its founding in 1845, it served a double role as an academic society and an enlightened institution of information-gathering. Therefore, not only scholars had an interest in governing it but also a group of "enlightened bureaucrats" did, for whom the Society should also serve as a tool for facilitating reforms. The Society's function as both a Russian and imperial institution resulted in varying approaches to investigating imperial populations. Those following the "imperial" approach intended to catalogue the variety of peoples and dialects in their diversity, explicitly intending to facilitate the functioning of the state. Those following the more nationalist approach concentrated on the search for ethnic Russians and the investigation of their related characteristics (Knight 1998; Tammiksaar and Kalling 2018).

In recent decades, historians have also reevaluated topics previously described from a one-sided nationalised perspective, looking at the ways empires shaped them. For instance, institutions that had been regarded from a national point of view are increasingly described as embedded in imperial processes. They have been shaped by the imperial context, which has proved to be longer than the empire (Dmitriev 2007). Nationalist scholars could also have used the empire for their aims, as Martin Rohde showed in the example of the Ukrainian Schevchenko Scientific Society in Galicia, which, in the late 19th century, used Viennese contacts to counter Polish micro-imperialism in the province and then Russian imperialism in the Romanov Empire (Rohde 2021).

The state figures prominently in imperial historiography in yet another way. It was a space of careering, facilitating not only travel but also more durable engagements (Rolf and Tondera 2020). Imperial institutions often sent their envoys across the country to produce maps (Gibson 2022; Petronis 2007; Seegel 2012) or to count (Darrow 2002; Kappeler 2012; Göderle 2016; Olesko 2020; Skrydlov 2020), as well as to search for resources, collect specimens, and fulfill other tasks (Klemun 2012 and other works by the author). Also, exiled scholars could sometimes do extensive research with the support of state institutions. For instance, several Polish scholars exiled to Siberia after the failure of the January Uprising of 1863–4 would occasionally be supported in their work by the Imperial Geographical Society (see e.g., Dybovskij 1901).

3. Toward a Natural Turn

The discussion about culture and nature, so central to the images of overseas colonialism and orientalism, did not omit their continental counterparts. While there have been, for instance, works concerning German forests/forestry in imperial contexts, both overseas and continental, it is the Romanov Empire history where this discussion has acquired particular importance. Historians of the Romanov Empire argue that the enactment of special categories was a crucial part of asserting Muscovite colonial supremacy, on par

with cataloguing people and erecting orthodox outposts (Kivelson 2006). Over the decades, geography was one of the favourite topics in historiography discussing the Romanov Empire, but it is nature that has become more popular in recent years.

While enviroing (Sörlin and Warde 2009) stands at the forefront of investigations of nature in the Romanov Empire, the other side of this process was the development of conservation. The Romanov Empire counts as one of the pioneers of the conservationist movement, with the idea of *zapovedniki* (strict nature reserves) being proposed in the late 19th century by scholars like Vasily Dokuchaev and Grigorii Kozhevnikov, and gradually realised until the 1970s. Planned as areas devoted to science and free from other activities, they were meant to preserve the diversity of the vast imperial space (Weiner 2000). The prism of conservation was used as an entrance to the discussion of many imperial processes, from the influence of racism to that of local elites wanting to preserve game for hunting (Moon et al. 2021).

Most recently, building on the tradition of the cultural history of nature (but also semiotic history in the Russian version; see Likhachev 1998), scholars have called for a natural turn in early modern Russian history. At the centre should be the question of how knowledge about the natural world was generated at the crossroads of local knowledge and global knowledge (Graber et al. 2018). This approach focuses on local actors and “processes by which Russians selectively adopted and adapted a Western European system of natural knowledge, detailing a series of transcriptions, translations, and illustrations performed by a variety of artisans and scholars” (Graber et al. 2018, p. 9). One of the questions concerned networks and the progressive decentralisation of knowledge production as more and more imperial regions invested in scholarly societies, often in connection with cataloguing and controlling people, nature, and natural resources. Investigations into the calibration of scholarly networks have shown that this process was not unidirectional but involved back-and-forth communication and that both centres and provinces had to work on their conceptual and linguistic frameworks, which modified both of them (Loskutova and Fedotova 2015).

The history of imperial expansion does not stop with the Romanov Empire reaching its farthest points, but it is inextricably connected with infrastructures. The history of permafrost can be seen as a perfect example (Chu 2020). Its emergence is connected with Siberian exiles, but it takes a decisive turn with the construction of the Siberian railway (and, in the Soviet times, the Amur-Yakutiya Mainline). As Pey-Yi Chu argues, the history of permafrost shows that scientific concepts can solidify not only because of the triumph of a single epistemology, but (and here is where the empire’s complexity comes into play) because of an interplay between several epistemologies (Chu 2020, p. 10). With permafrost being today an important reference because of its disappearance due to global warming and the natural and infrastructural problems resulting from it, another soil-related concept was introduced by the Romanov Empire into the global knowledge system in the 19th century, that of *chernozem*. Also here its history is connected with imperial expansion across the Eurasian Steppe and with the imperial administration sponsoring research aiding the soil research required to reduce agricultural crises (Fedotova 2010; Arend 2017).

Staying with the climate question, it has been claimed that the empire was crucial in the development of climate modelling. Also here, sociopolitical processes have been crucial. However, what mattered was not the expansion of the empire, but the question of how to hold an empire together, e.g., the Habsburg Empire in the late 19th century. By highlighting the interconnections between parts of the empire, natural scientists provided the glue holding different provinces together and, at the same time, created an idea of interdependence of climate at a range of scales from local to global (Coen 2020).

4. Searching for an Imperial Mindset

The last question I would like to address concerns an imperial mindset; one that would unite subjects of the empire disregarding their geographic location and, in this way, link scholars in the centres and peripheries, those identifying with empires, and those

identifying with nations. Judging from stereotypes, there has been a specific imperial mindset that, until now, has distinguished scholars coming from different former empires, e.g., Polish scholars coming from the former Habsburg Galicia and those from the former Romanov Empire. Other than the stereotyping, the idea of an imperial commonality has been developed mostly in literary studies investigating and reacting to multilingualism (as in the Habsburg case) or imperial othering (as in all named cases). In other fields, including the history of science, such generalising statements have been rare, although not absent.

In the Habsburg case, as early as 1979 the so-called Neurath-Haller thesis asked for imperial specificity leading to the emergence of scientific philosophy in Austria as contrasted with Germany (Haller 1979; for a more recent version see Textor 2021). This thesis was followed, and contested, by Barry Smith's work showing how scientific philosophy (the Brentano school) flourished all across Habsburg Central Europe (Smith 1997). Finally, the idea of a common philosophical heritage was reified by a multitude of historians of philosophy from across Central Europe, in various endeavours, by and around the Institute Vienna Circle (1991–), which was probably a one-time exceptional multinational research network in the region.

While works on the history of philosophy have rarely delved into the question of how a sociopolitical imperial context produced a specific type of knowledge, works by Deborah Coen and Johannes Feichtinger were more tuned to the particularities of the empire. Coen argued that Habsburg liberals in the 19th century relied on probabilistic thinking as a third way between dogmatism (e.g., of the Catholic Church) and relativism (philosophical, but also political) (Coen 2007, building on Stöltzner 1999; see also Hacohen 2009 and Hofer and Stöltzner 2012). Feichtinger, on the other hand, analysed the habitus of imperial scholars, showing how they meandered between ideas of rigid scholarliness and political engagement, creating an autonomous-engaged position in which they could be politically committed without losing their credibility as scholars. This reflexive science was a result of the imperial situation in which no concept and no point of reference could be taken as absolute, which had already begun at the level of the state meandering between two visions of nationality, one imperial and one language-bound (Feichtinger 2011).

A strikingly similar unease with objectivity can be found in the Romanov Empire. Strategic relativism can be defined as “the discourse and stance that relativises the bounded and internally homogeneous nature of the constituent elements of the sociopolitical space and governance” (Gerasimov et al. 2009, p. 20), which stands in opposition to strategic essentialism, which characterises processes happening during various building projects.³ It is the result of an imperial situation in which no uncontroversial narrative or no uncontroversial universal classificatory principle can be unanimously accepted. This idea has been most fully developed in studies of sciences dealing with race and racialisation and has more recently also been explored in other areas. Marina Mogilner, for instance, argued that, in criminology, strategic relativism resulted in the adoption of Cesare Lombroso's criminal anthropology and defining whole ethnic groups as degenerate (Mogilner 2017). However, the dominance of strategic relativism had ended by the beginning of the 20th century in anthropology and later in linguistics, and essentialism was slowly gaining traction. While the model of language description in which hybridity was the norm and not the exception was also in crisis in the late 19th century, this crisis deepened during Soviet times and suffered a final blow by Stalin in his famous criticism of Marxism (Gerasimov et al. 2017b).

5. Beyond Empire/After Imperial Studies

Studies of CEE empires did not change overnight on the 24th of February 2022 but, judging from the ongoing debates among historians, especially on social media, modification of the current paradigm is inevitable. One is even inclined to say that historians' interest in empires made them conscious of imperial shortcomings and legacies, the latter appearing recently on the research agenda more frequently because of the centenary of the end of World War I. The question for the future is: how can this knowledge be connected to general historiography?

What will the development be, as far as the history of CEE science is concerned? The overview above suggests that imperial history favours polyphony and needs a more intense dialogue among various localities. It also needs to be linked to the ongoing discussion about science as part of the Western, imperial episteme carried out by historians of the science of maritime empires (e.g., Chakrabarti 2021). While historians of the three empires discussed here have made steps in this direction, much remains to be done. This also means that national historiographers should take interest in their imperial pasts, which, especially in the post-Soviet space, seems to be an attractive agenda for the future and one that will oppose Russia's imperialism and its claim to be the sole continuator of the Romanov Empire. Embracing the Habsburg past, with its pros and cons, is already an ongoing process, and notwithstanding German imperialism's conservative propaganda threatening Europe, the Germanic past in CEE is also increasingly being accepted as part of a common history.

The imperial history of science, with its accent on the interplay between the local and the global and on the discursive nature of key social and political categories, can play an important role in the process of re-discussing the past of CEE. By focusing on processes and not personalities, the recent history of science can escape *the canon* with which, for instance, literary studies struggle. Criticism of the elitist character of science and scholarship, which hinders the process of the inclusion of non-imperial voices in the narrative, has been intensely discussed in the literature, for instance, in discussions on communication and the circulation of knowledge. This approach still requires a more intense discussion of the literature covering overseas empires, especially in South Asia, by historians of CEE empires.

Finally, yet importantly, the imperial history of science demonstrates how intimately politics and knowledge become intertwined over time. This revelation places this branch of history in the middle of the discussion on political epistemologies that has been occupying historians of science over the past decade. Here one can emphasise even more the necessity of dialogue between historians of science and historians of imperial science in CEE empires, a discussion which must question and finally overcome disciplinary structures in which it is happening. German historians of science rarely take notice of their colleagues working on (German continental) imperial science, because the latter focus on Eastern or East-Central European history and conventions of the Association for Slavic, East European, and Eurasian Studies, rather than the conventions of the History of Science Society, have been the primary place for historians of CEE imperial science. This is, of course, part of a bigger discussion about disciplinary alliances and interdisciplinarity, in general, as well as about ways of talking about CEE's past in the 21st century escaping 19th- and 20th-century categories, both national and disciplinary ones.

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Notes

- ¹ On Russia, see the discussion in Koplatazde (2019); in between, the number of post-colonially and de-colonially interested researchers grew substantially: see the site of the project Tashkent-Tbilisi <https://t.me/s/ingeorgiadotcom> (accessed on 1 July 2022).
- ² Ross concentrates esp. on Shihābaddīn al-Marjānī (also Shihābetdin Bahavetdin uly Mərxāni, Shigabutdin Mardzhani, 1818–1889), Husayn Faydkhānov (also Həsəen Fəezhanov or Husain Faizhanov 1828–1866).
- ³ “Strategic essentialism” is taken in this case from Ann Laura Stoler (2004), while the term was first proposed by Gayatri Chakravorty Spivak (Eide 2016).

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