Unlocking translations as tools of scientific communication

The genesis of Thunberg's "Travels" in German 1788–1794

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Introduction: science and translation

Between 1770 and 1779 Carl Peter Thunberg (1743–1828), one of the so-called apostles of the renowned Swedish botanist Carl Linnaeus, carried out a scientific expedition, first through Europe and subsequently to South Africa, to Java, and finally Japan, one of the most secluded cultures in the world at the time. However, it took him almost nine years to write his travel account, which was much sought-after by the European reading public. Thunberg's travelogue is titled *Resa uti Europa, Africa, Asia, förrättad åren 1770–1779* (printed 1788–1793), "Travels in Europe, Africa, Asia made between the years of 1770–1779" and will for matters of consistency be referred to as *Travels*, when talking about both the Swedish source text and the German translation (unless explicit reference is made to the particular printed work in Swedish or German). Between 1792 and 1796 no fewer than five translations appeared in French, German, English, and competing translation projects were produced in all the hubs of literary commerce, Paris, Berlin and London.[1] The correspondence related to the major one of two competing German translations of Thunberg's *Travels*, for the first time treated extensively in this article, lasted almost six years. Around fifty letters were circulated between Berlin (publisher), Stralsund (translator), and Uppsala (scientific author) by ordinary post, skippers, and personal envoys, all dependent on the reliability of infrastructure and weather. Despite the radical political change that occurred during this period (e.g., the Swedish-Russian War, the French Revolution, and the murder of the Swedish king Gustav III), these events were never commented on in the correspondence. Literary business evidently took place in a separate sphere from politics.

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Translation, as will be demonstrated in this article, is never a unidirectional process of transferring meaning from one original to a target language but implies interference from a number of stakeholders: the author, the translator, the publisher, the reviewer (of manuscript and outlet) and the more anonymous collective of the 'readership', or to put it more mundanely, the 'market'. In many cases the 'original work' undergoes heavy editing and commenting in the process, is abridged or amended. Furthermore, once printed and even more so in translation, the scientific work starts to live a life of its own. In Thunberg's case, his German translations, which finally were completed in 1794, generated far more impact than its Swedish original (they were read, for instance, by Kant and Schiller) and were eventually translated into French and Japanese. For the vast majority of Swedish scientific literature of the eighteenth century that found its way to the continental and British book markets, it is impossible to reconstruct these conditions of establishment. This article argues strongly for studying the processes through which science was communicated in general and in particular how translation should be regarded as an integrated tool of a "communicative practice of natural history". As Bettina Dietz points out, "[d]oing natural history" in the eighteenth century "committed its practitioners to communicate", due to its specifically global, cumulative and collaborative nature, involving 'experts' and 'amateurs' alike.[2] And moreover, "questions of scientific textuality, including the so far almost untouched topic of translation, have long been marginalized".[3] Following this argument, less attention will be paid to the actual content of Thunberg's travelogue and more to how its German translation came about.[4] In doing so, my aim is to uncover the conditions of the scientific travel account as a genre and its linguistic transformation. First, I will expand on the idea that eighteenth-century scientific explorations and their travelogues played a constitutive part in how the (pre-dominantly non-European) world was framed by a new narrative apparatus. Secondly, it is also necessary to outline genre-specific elements of the travelogue, particularly in its Linnaean fashion, followed by reflections of translation as a means of cultural transfer in Enlightenment Europe. Third, the case studied for this article is situated within the very lively German-Swedish cultural encounters of the period, a crucial ingredient of the circulation of ideas between Sweden and the continent. Finally, I will give a chronological and detailed account of the protracted genesis of Thunberg's German translations and conclude with some general remarks on how scientific culture and translation form an inseparable twin pair in the dissemination of eighteenth-century science.

Travelogues and the new language of planetary consciousness

Travelogues constitute one of the most popular and widely disseminated media of scientific communication in the early modern period. For centuries, first-hand accounts of European worldwide expansion found an enormous readership and constituted an entire narrative genre.[5] Mary Louise Pratt, although not undisputedly, outlined in her *Imperial eyes: Travel Literature and Transculturation* (1992) that travel literature contributed to the formation of a new androcentric "planetary consciousness" achieved by a "construction of global-scale meaning through the descriptive apparatuses of natural history", a project of "global resemanticizing".[6] In the eighteenth century these "descriptive apparatuses" were embedded within the accounts of natural historians (such as Thunberg) and dispersed across the surface of the globe, in letters home or by gathering their recollections in retrospect after their return. Moreover, these writings, says Pratt, "produced other parts of the world for the imagination of the Europeans".[7] Translations as tools of scientific communication inscribed themselves into these processes of writing and disseminating, "verbal representations" and a new narrative of the world: "The scientific enterprise involved all manner of linguistic apparatuses. Many forms of writing, publishing, speaking, and reading brought the knowledge into being in the public sphere, and created and sustained its value"; "narrative travel accounts [...] were essential mediators between the scientific network and a larger European public."[8] However, translations played a crucial part in the mediation and dissemination of these ideas, since they broadened the enlightened readership to embrace several linguistic communities. Translations as tools of scientific communication thus illustrate "cultural dynamics between both national and Europe-wide discourse systems" in the eighteenth century and its lettered culture, understood as "a discursive community based on networking and reciprocal stimulation".[9] Pratt also highlights that scientific exploration concentrated "energies and resources of intricate alliances of intellectual and commercial elites" in Europe. This places the eighteenth-century scientist in a tension between "the (interested) pursuit of wealth and the (disinterested) pursuit of knowledge", an "ideological dialectic between scientific and commercial enterprise" that always formed the backdrop behind exploration.[10] This is where travel literature and its translations as the major medializations become significant, since "scientific exploration was to become a focus of intense public interest, and a source of some of the most powerful ideational and ideological apparatuses through which European citizenries related themselves to other parts of the world", making "sense of their

place on the planet".[11] This might help to explain why writing, translating and publishing travel literature was a profitable enterprise throughout the eighteenth and nineteenth centuries.[12] As we will see, the commercial side of producing Thunberg's *Travels* in German and the attempts to launch it on the German book market form an economic interest of its own. By extending Pratt's argument, it is possible to argue that exploration is a double process, one (as in Thunberg's case) of bringing knowledge from abroad to Europe and the other to bring the knowledge to the European readership, and that both aspects mirror the nexus between economic interest and academic disinterest that the scientific traveller and his co-stakeholders were placed within. Furthermore, there is an intricate interrelationship between natural history and print culture: "The systematizing of nature [...] was to assert even more powerfully the authority of print", Pratt further argues.[13] Through the lens of studying the genesis of Thunberg's German translation I will demonstrate how this interrelationship manifested itself on the book market.

Scientific travel literature as a genre: the Linnaean paradigm

Travel writing of the eighteenth century developed along the lines of a new early-modern appreciation of empirical, authoritative, 'authentic' and autobiographical eyewitness accounts. The ideal stylistics of travel writing was outlined in the so-called *ars apodemica*.[14] The traveller could choose between a chronological and a more encyclopaedic approach or a combination of both; the most important rule was that s/he already *en route* empirically noted down all curiosities truthfully. Economic necessities and increasing systematization of (coordinated) research generated a standard practice of following comprehensive questionnaires. But despite such systematizing efforts there was also an ambition to document everything otherwise noteworthy in the realm of both nature and of civilization, which basically could imply everything of interest to the traveller.[15] Thunberg excelled in gathering both systematic and random information, which influenced the style (and, as we will see, reception) of his four-volume travelogue and its German translation. Stylistically, authors were placed within a tension between information and entertainment or *utile* and *dulce*, depending on the taste and expectations of the audience which had to be courted for reasons of fierce competition. Pratt distinguishes between three different stylistic types of travel literature: the scientific report, survival literature, and the "civic description".[16] Thus, some travellers developed a particularly pleasurable prose or simply spiced their accounts with more fictional elements in order to please the readership, creating

the first examples of what today would be called infotainment.[17] Thunberg largely resisted such temptations.

For the Swedish botanist Linnaeus, travels constituted a "contribution-based epistemology" of its own.[18] He systematized travelling as an aggregating scientific method for his disciples (such as Thunberg), in a "messianic strategy" sending them across the globe to report back to their master.[19] Thus they were collectively assembling and accumulating knowledge for his "classificatory system designed to categorize all plant [and animal] forms of the planet, known or unknown to Europeans", the "natural history information system" and simultaneously confirming the system's legacy.[20] The Linnaean system, writes Pratt, "epitomized the continental, transnational aspirations of European science" and "launched a European knowledge-building enterprise of unprecedented scale and appeal."[21] This project, global in its design, established contact zones between the local and particular ecology and a global and universalized system of knowledge, mediated through the naturalizer, gathering information and hence engaged in the universal mapping, naming, standardization, categorization and labelling exercise.[22] Natural history, for all its science, "was unquestionably constituted in and through language" and translations constitute a tool of the larger linguistic process through which scientific knowledge was communicated within the eighteenth-century "general science of order".[23]

Historians of science have hitherto predominantly paid attention to the *content* of scientific travel literature, but less so to the linguistic dimensions that are embedded within intricate logics of adaptation, alteration and amendment. There is, for instance, no comprehensive study of all the translations of Linnaeus' apostles, and a first indication of how compelling it would be to produce one is given by Marie-Christine Skuncke in her recent book on Thunberg.[24] Such a study would illuminate the conditions of the scientific author and his 'genuine' work on a competitive transnational book-market with few conventions for copyright and even less sense for being true to original. As Bettina Dietz has shown, Linnaeus' "restless system" furthered "translation as textual engineering in eighteenth-century botany".[25] Dietz has analysed the progressive genesis of various editions of Linnaeus' *Systema Naturae* in which successive translations appear as an indispensable element of information management in "translation cycles". Translators did not only make the work accessible, but also helped actively to "supplement and correct it, and thus to shape it".[26] Their text management strategies (of corrections, terminological neologisms, adaptations and expansions) were frequently outlined in the forewords. Interesting to notice here is that new travelogues provided with such supplementary information needed to update the metasystem.[27]

Translation and the circulation of enlightened thought

As mentioned above, translations as a vehicle of diffusion establish "discursive relations" between different linguistic audiences in eighteenth-century Europe by overriding national and language boundaries.[28] Early modern translation theory oscillated between a stylistic ideal of elegant paraphrase and *ad verbatim* or literal transfer of meaning.[29] One reason for the rise of translations on the eighteenth century book market was an ever-increasing literacy. Studies have shown that as much as one third of the titles on offer in German were in fact translations.[30] These were also partly responsible for the mass of travelogues which flooded the German book market. Like travel writing, translation points up notions of difference, interpretation and representation that underpin crucial discussions concerning issues of transfer which question the very translatability of one culture and its language(s) into the system of another.[31]

The primary language of translation in Europe was French, from which secondary translations were frequently made. For instance almost 500 English titles appeared in French, from which 135 secondary translations into German were produced. After 1775, German took over as a supplementary language of secondary translation (which also is demonstrated by the case of Thunberg).[32] The process of adaptation, for instance by translators, implies that the cultural product in the target culture differs from the culture of its origin.[33] Even if this de- and re-contextualization exercise can be explained from a structural perspective (such as cultural settings and the limits of expression and conceptualization in each language), translations as a rule "are always carried out and formed by individuals".[34] When it comes to Thunberg's *Travels*, both German translators are fortunately known to us, which helps to reconstruct the conditions of cultural transfer in general. Furthermore, it reminds us of the intermediary position of the individual translator as privileged agent of scientific communication in particular. Although no comprehensive studies of the subject have been produced so far, it appears that dissemination of scientific thought and translation are intrinsically linked.[35] Alison E. Martin's study of the British poet Young's travel accounts in German translation is intriguing to compare with the case of Thunberg.[36] The German translation appeared in a highly condensed and abridged version compared to the source text. The translator outlined in his preface the agenda, which shaped the target text, in particular since there was much in Young "that was of little or no interest to the German reader". Many of Young's references to English particularities were omitted during the process. We also learn that critics moaned about Young's uninspiring language.[37] Thus, the

translator acted as cultural gatekeeper with reference to the rather anonymous target audience, the German readership and its taste.

Thunberg's original and its German translations

Between 1770 and 1779 Thunberg carried out his scientific travel, first through Europe and subsequently to Africa, to Java, and to Japan, one of the most secluded cultures in the world at that time. Through his contacts with prominent circles in the Netherlands, Thunberg was able to accompany vessels and missions of the Dutch East India Company.[38] Thus, during 1775 and 1776, he spent fifteen months on the artificial island of Deshima, outside Nagasaki, and was invited to take part in an official visit to the court of the shogun in Edo (Tokyo). Foreign visitors to Japan were considerably restricted in their movements and continually supervised. But despite these restrictions, Thunberg was able to use this trip to botanize and to observe Japanese culture. In Edo, he was regarded as a representative of Dutch erudition, a so-called 'Rangaku', and engaged in an active exchange on medical and scientific issues with interpreters and doctors.[39] After his return to Sweden in 1779, the European reading public expected a comprehensive travelogue from Thunberg's voyage to Japan, considering its isolation. At the time, the taste for the exotic was on the rise, communicated through an ever-growing flow of travel literature. Unfortunately for Thunberg, a reprinting of the traveller Engelbert Kaempfer's (1651–1716) account of his stay in Japan in the early 1690s had just been released in Germany, so the market was possibly saturated.[40] Further, it took Thunberg almost a decade to produce the first volume of his travelogue. Between 1788 and 1793 four volumes of more than 400 pages each were published of Thunberg's travelogue in Sweden.[41] Volume 1 (1788) treated his journey through Europe and the Cape 1770–1773, volume 2 (1789) his time in South Africa and Java until 1774 and volume 3 (1791) his stay in Japan (1775–1776). Volume 4, published in 1793, contained additional information on Japan and described his journey back to Sweden via Java and Ceylon. Thunberg mentioned in the preface to the first volume that domestic and foreign friends had motivated him to finally publish his travel account. In Germany, such expectations had been expressed on a couple of occasions, for instance when Thunberg's oration on Japanese coins appeared in German in 1784 or when in the same year his *Flora Japonica* was reviewed in Swedish Pomerania.[42] The question arises why the travelogue was originally published in Swedish and not another language. In 1792, Thunberg outlined an explanation to one of his German correspondents, Christoph Gottlieb

Murr (1733–1811), who had a special interest in Japanese language and coins:[43]

> I have published my travelogue in Swedish in my home country, mostly with the aim to give my fellow countrymen the pleasure of reading about the fateful experiences described therein and so that the expenses for publishing could be secured by myself. As you easily might gather I have therefore not always written for the educated but also for the less educated reader. If I had written in another language, no publisher in Sweden (regrettably!) would have wanted to print the book and perhaps also no one outside my home country. … Apart from that, I am not that well versed in French that I would have liked to write my travelogue in this language. I have received a letter from Mr [d']André in Paris with the wish to arrange for a French translation, and I will shortly reply to him about this matter.[44]

As we can see, the travelogue was considered both a source of income for Thunberg and an element to raise his own status and social capital in Sweden.[45] Furthermore, he admits his inability to write in another language and that the Paris book trader Benoit Dandré had approached him to produce a French version.[46]

Several instances of cultural transfer between Sweden and the German book market need to be addressed in order to explain how and why the German translations came about. First of all, since 1648 (and until 1815), Swedish Pomerania as a part of the Old German Empire was governed in personal union by the Swedish monarch. The cultural implications of this situation, placed between two languages and zones of influence, cannot be overestimated. At the end of the eighteenth century the Swedish possession across the Baltic Sea was perceived as "a hub of Swedish and German literature".[47] Throughout the Swedish period, newspapers and journals developed these cultural ties into one of their major features. By 1800, a group of at least two dozen translators were active in the province, translating everything from newspaper articles to laws and cookery books. Primary forums for marketing translations to German were the biannual book fairs in Leipzig (Easter and St Michael's Mass), and a secondary focus targeted subscriptions. Even though French and English works dominated the translation business, it is remarkable that some one hundred Swedish titles made it to the German book market during the eighteenth century. Among these, scientific works and travelogues occupied the most prominent positions.[48] In Göttingen the seminal *Göttingsche Gelehrte Anzeigen* covered Swedish erudition and politics extensively and thus contributed to their privileged position as subjects on the German reading market.[49]

The translators

A German version of Thunberg's *Travels* was so eagerly anticipated that Christian Heinrich Groskurd (1747–1806), who will be presented extensively below, immediately translated the travelogue into German. Surprisingly, however, it took three years until the first volume was published in German and another six years before the sought-after volume covering Thunberg's African and Asian travels finally saw the light of day. In the above-quoted letter to Murr from 1792, Thunberg wrote, "I had the Swedish text translated while it was still sweating under the printing press [in Sweden] at the expense of the publisher Dr Spener in Berlin, but as far as I know, nothing of this complete text has been published so far."[50] However, in the same year, a competing but abridged translation by Kurt Polykarp Sprengel (1766–1833) was issued. The German translations of Thunberg's *Travels* soon started to live their own life independently of the Swedish original and have been characterized as "partly very free forms of translation", abbreviated, reworked and amended with new content.[51] On the other hand, they also served as new originals for secondary translations, for instance to French.[52]

Christian Heinrich Groskurd, head of the grammar school in Stralsund since 1779, belonged to a group of Swedish-German translators.[53] Groskurd's father had also been active as an author and translator.[54] Christian Heinrich studied during the end of the 1760s in Göttingen and afterwards moved to Stockholm, where, until 1775, he taught as deputy head at the German grammar school. During his time in Stockholm, Groskurd attained comprehensive knowledge of the Swedish language and Swedish literature and published pedagogical titles in German. Back in Stralsund, he published programmes and orations for the grammar school and, during the 1780s, started to translate Swedish travel literature. Christian Heinrich evidently had three brothers, one of whom (known only as 'G.L.') was a tradesman in Stockholm.[55] However, the remaining two, Just Ernst (1750–1780) and Christoph Gottlieb (1770–1834). also had literary ambitions. Just Ernst, apparently in direct correspondence with the Swedish journalist and publicist Gjörwell, appears in the context of the translation of yet another Linnaean traveller, Jonas Jacob Björnståhl (1731–1779). The travelogue was published in six volumes after Björnståhl's dramatic death and was immediately translated to German by the Groskurd brothers.[56] As a result, Christian Heinrich Groskurd was established as an able translator of Swedish travel literature. In 1784, he delivered further proof of his capacity by translating Anders Sparrman's travelogue about his voyage to the Cape of Good Hope, *Reise nach dem Vorgebürge der guten Hoffnung*, published by the aforementioned Spener in

Berlin.[57] Groskurd's services had been recommended to Thunberg, and Groskurd was eventually commissioned to carry out a full-text translation to German.

Kurt Polykarp Sprengel was the translator behind the abridged travelogue published in Berlin in 1792 by Christian Friedrich Voß (1722–1795).[58] No direct links to Thunberg or Gjörwell can be established; however, Sprengel was born and grew up in Boldekow, in Prussian Pomerania, in immediate proximity to the city of Anklam in Swedish territory. After studying theology at the University of Greifswald, where he most likely had met Swedish students and professors, he studied medicine in Halle. Subsequently, Sprengel taught the history of medicine and forensic medicine and was later appointed to the chair in pathology and appointed manager of the botanical garden. In 1810, he was elected a foreign member of the Royal Swedish Academy of Sciences. Sprengel is known for his authorship of a monumental work on the history of medicine (published in five volumes between 1792 and 1799), but he concentrated extensively upon botany and plant physiognomy. His *Vom Bau und der Natur der Gewächse* (1812) was translated to Swedish. Sprengel also edited the sixteenth run of Linnaeus' *Systema vegetabilium* (1825–1827) and a new edition of *Genera plantarum* in two volumes. Between 1789 and 1792 he had translated some minor tracts from Swedish to German.[59] By this time, Sprengel had started to cooperate with Johann Reinhold Forster (1729–1798), a renowned German natural historian, scientific traveller and publisher.[60]

Kurt Sprengel's abridged translation

Sprengel's summary was published in the seventh volume of *Magazin von merkwürigen neuen Reisebeschreibungen aus fremden Sprachen übersetzt und mit erläuternden Anmerkungen begleitet* ("Magazine of peculiar new travel accounts, translated from foreign languages and accompanied by elucidatory remarks"), edited by Johann Reinhold Forster. Forster had studied theology in Halle and worked as a parish priest in Danzig (Gdansk) but in 1765 decided to take a leave of absence to travel through Russia together with his eleven-year-old son, Georg. Forster was evidently more pleased by his occupation as a scientific traveller; in 1766, he moved to England to work as a teacher, translator, and scientific author. Between 1772 and 1775, he participated, again with his son for company, in Cook's second sail around the world, but upon their return, a conflict with the British Admiralty arose concerning the publication rights of the travelogue and its translation. In 1780, Johann Reinhold Forster was appointed Professor of Natural History and Mineralogy at the University of Halle; however, he directed his attention towards topographic and ethno-

graphic literature, not least for economic reasons. Assisted by his son Georg and his son-in-law, Matthias Christian Sprengel (not related to Kurt Polykarp), Forster published translations and edited pieces of travel literature such as *Beiträge zur Völker- und Länderkunde* (14 volumes between 1781 and 1799) and the previously mentioned *Magazin* (no less than 39 volumes between 1790 and 1839). In this context it would be rewarding to study more closely how Forster senior and junior contributed to the natural history connections between Sweden and German-speaking areas. Whereas contacts through Swedish Pomerania naturally could be characterized as first-hand or direct connections, other links such as through Göttingen or Halle could be called second-hand, which indicate the existence of two types of intermediary relationships. Volume VII of *Magazin* gathered two contributions: an abridged translation of Bissot's trip to the United States of America, and, Sprengel's version of Thunberg's voyage. The general introduction to the volume declares the following:

> The appearance of the current volume has been slightly protracted, while still waiting for the last part of Thunberg's travel; however, since it so far hasn't been possible to obtain it, the volume, in order not to fatigue the patience of the [reading] public, has to be published without the final part. As soon as the fourth part of the Swedish original of Mr Thunberg arrives in Germany, it will be delivered to the owners [subscribers] at a later stage for free.[61]

Thunberg later surprised his German translators and publishers by announcing a fourth volume of his travelogue that had not even been published in Sweden. It appeared in 1793, and a summary of the fourth part was never included in any future issue of the *Magazin* or in any other journal. The unsigned preface to Sprengel's translation, written either by himself or by Forster, is full of critique. Three "alphabets" (full sets of print sheets) had been compressed to a much smaller amount of sheets.[62] The rules for the reduction were both to omit what already had been stated (or better stated) in previously known works and not to include "what Mr Thunberg, lacking knowledge of people and countries, has not observed correctly or what others already have refuted." According to the preface, the latter was particularly evident in the first part of the travelogue:

> Mr Thunberg is a very erudite natural scientist; however, his observations of countries and people do not have the particularity, and his style does not have the precision and elegance which is possible to observe with delight in a couple of recent travellers.[63]

If these lacking qualities still only point to a desire for more elaborate writing skills, the following judgement is far harsher: "Furthermore, H. Th. appears only to a limited extent to have been around in the real world, before he commenced his big travel." In other words, he had not studied the economy (a term far wider in scope then than it is now) and geography of the countries concerned. Hence, the translator did not feel obliged to include what Thunberg had observed in a subject area he not was familiar with: "Esteem for the German [reading] public has to count more for a translator than veneration for the merits of a foreign savant."[64] Thunberg's journey from Uppsala via Amsterdam and Paris to the Cape was essentially not worth mentioning at all. However, the description of the Cape was largely ignored since other authors, such as the Swedish and French travellers Sparrman and le Vaillant, had already better described it. The entire treatment of the aboriginal tribe of Hottentots had not been omitted simply because the author had nothing to add; it was more than biased. Thunberg had demonstrated clear contempt

> of the way of life, manners et cetera of the nation of Hottentots, which, following le Vaillant's philanthropic accounts, does not necessarily deserve our affection, but certainly our compassion. Since Thunberg's communications are completely grounded more on hearsay than on personal observation, because he stayed for the most part on the estates of the colonists, they deserve far less attention. In contrast, the more accurate le Vaillant's accounts do appear."[65]

Some of Thunberg's observations were so trivial in nature that the translator feared exposing him to the censure of the readers. This also concerned the descriptions of Batavia and Java. In sharp contrast to all this triviality is the description of Japan: "since a European by scrupulously observed laws is precluded from the opportunity to observe [this country]". The translator included a Japanese-German dictionary but found it far less useful to print new etchings of the poorly executed illustrations of the original. The translation is annotated by both Sprengel and Forster. It has been suggested that Georg may have produced the Forster annotations. However, this would presuppose potential correspondence between Georg and his father, Reinhold, or Kurt Sprengel. Even more intricate is that Georg Forster apparently had been committed as reviewer of Groskurd's full-text translation. During the politically tense summer of 1789, Forster junior addressed publisher Johann Carl Phillip Spener (1749–1827) with the following expert opinion about the manuscript:

> You cannot demand my judgement concerning this work, since there is only one. All Swedish travelogues, even starting with the great Linnaeus,

> are written in the tone of trivial observation that only has some importance to the reader when the observed details concern distant countries about which one likes to read the most precise communications. I was running through the translation of Mr. Groskurd currente calamo [offhand]; here and there I enhanced some expressions, but to recast them his economy left neither margin nor space between the lines, even if it would have paid off to spend time on such a task.[66]

As we can see, this rather harsh judgement was later repeated in the annotations to the abridged translation. In this context, it is relevant to mention that both Reinhold and Georg Forster were engaged in correspondence with Thunberg, whom they had met in London in 1784.[67] Reinhold Forster asked Thunberg for botanical dissertations, seeds, and plants for the library and botanical garden in Halle. In April 1787, Forster received a box with two hundred seeds from the Cape; however, Thunberg had also promised to send him seeds from Japan, Java, and Ceylon, and Forster hoped for this in the near future. In a postscript, Forster asked inquisitively about the translation of Thunberg's travelogue and made a precise proposition concerning it.[68] As far as it is possible to reconstruct, this was the first proposal for a translation Thunberg received from a German correspondent. We do not know whether Thunberg ever reacted to this offer – there is evidence that he might have – but it demonstrates that the travelogue definitely was awaited. More than a year later, Georg Forster addressed Thunberg in a humble letter in Latin; he offered his literary services to the Swedish "Botanicus summus" (for instance, through notices in educated journals) and to further notable translations from Swedish, which he was not unacquainted with. However, there are no accounts of his language skills. This referred explicitly to the travelogue that he intended to translate into German. Forster junior pleaded to Thunberg to send the original text as soon as possible and asked for proper advertising in the German educated press. He demanded to know the amount of copperplates and tables, as well as general information about the entire work and its different sections.[69] At this point in time, however, Thunberg had already established contact with Groskurd in Stralsund.

Sprengel's translation was not reviewed until 1795, in the periodical *Neue allgemeine deutsche Bibliothek*. After having consulted both Groskurd's (full) and Sprengel's (abridged) translations, the reviewer asserted that, to his taste, the author/translator (the roles are indeed blurred) of the extract had "delivered an unbearably dry collection of extracted annotations" in an apparent attempt to please the reading public. However, only when these annotations were placed in the proper context of the entire work (i.e., Groskurd's full translation) was it possible to read them "with

pleasure", even though the observations were not always correct.[70] This was a rather harsh judgement, and it may have influenced the negative reception of Sprengel's translation among German readers.[71]

Establishing contacts for the production of a full-text translation

Direct contact between Thunberg and Groskurd was established in summer 1788 through an intermediary, Christian Heinrich Deneke (1735–1803) in Stralsund, the capital of Swedish Pomerania. Their correspondence suggests they already knew one another.[72]

In anticipation of a positive reply from Thunberg's side, Groskurd had apparently already made a request with the publisher of Sparrman's translated travel, the renowned publishing house Haude & Spener, in Berlin.[73] Spener was a well-versed publisher of travel literature, certainly an expert on the market. He replied positively to the request, since Thunberg's *Travels*, in particular its description of Japan, had been sought after at least since the publication of *Flora Japonica* in 1784, and represented the first contemporary account since Kaempfer's travelogue.[74] The letter (in French) extensively describes the general outline and particular elements to accelerate the process. Spener wanted to obtain a complete manuscript as quickly as possible and asked Thunberg to send each printed leaf to Stralsund in order to speed up the translation.[75] Spener also asked Thunberg not to announce the forthcoming publication in order not to attract other potential translators. This, certainly, was against Thunberg's economic interests as he definitely sought to earn money from his Swedish travelogue. Finally, Spener made an extensive catalogue of questions regarding the travelogue.[76] His intention was almost certainly to get a quick result, ahead of anyone else.[77] Spener's ambition was without doubt to produce a German translation parallel to the publication of the Swedish original. He alerted Thunberg in bold letters to shorten the time for the publication so that readers and publishers would not lose interest. In October of the same year, Spener again lamented the slow speed of communication.[78] From Georg Forster's correspondence with Spener, it emerges that he had received a request to review the travelogue.[79] During the next few months, the correspondence between Thunberg and Groskurd circled around the dispatch and receipt of printed sheets. Groskurd also acted as Thunberg's literary agent, signing a number of subscriptions for the Swedish original. By November 1788, Groskurd had received twelve printed folio sheets (A-L), amounting (in quarto) to 96 pages. More than half had already been sent to Spener in translation, together with the copperplates.[80] Almost simultaneously, Spener wrote to Thunberg that

Wieland (the journalist and publisher) had informed him of a forthcoming German translation carried out by a scholar in Stockholm and inquired if Gjörwell was the mastermind behind this enterprise. Spener made it clear that it was in Thunberg's interest to stop this initiative.[81] The letter demonstrates that Spener was sensitive towards the market and potential competitors. In February 1789, Spener and Forster communicated about the poor quality of the copperplates for Thunberg's *Travels*, and Forster asked to receive the first volume of the German translation.[82] Later, during spring, Georg Forster sent a humble letter in Latin to Thunberg (together with dried plant specimens) in which he declared his desire to read Groskurd's translation as soon as it appeared and made it clear that he considered himself unfit to produce a French translation; Thunberg may have contacted him regarding this issue.[83] Both letters lead to the conclusion that Groskurd's translation was indeed scheduled for printing. Late in February 1789, Groskurd informed Thunberg that the entire translation of part one of the travelogue was now finished. It was obvious to the translator both that Spener would have it printed in time for the Easter fair in Leipzig shortly thereafter and that the publication of part two was scheduled to coincide with St Michael's Mass in autumn 1789. For this to occur, Groskurd demanded the speedy dispatch of new printing sheets (A-P).[84] These arrived only a few days later. Clearly, the intention was still to publish the second part later that year; Groskurd assumed the first part was already (or was in the process of being) printed.[85]

The correspondence in July 1789 reveals that the missing sheets from the second part of Thunberg's Swedish original (but no copperplates so far) had arrived in Stralsund in late May. In the letter, Groskurd for the first time expresses his concerns that Spener had not contacted him for a long period.[86] This impression is intensified by a letter, written approximately one month later, in which Groskurd states that he had not heard from Spener, without any reasonable explanation, despite several attempts to contact him; Groskurd adds that he has neither seen nor heard anything about the first part of the translation in print.[87] There are also no signs of direct correspondence with Thunberg; clearly, something had occurred that caused Spener to significantly slow down the speed of the publication. What followed were two years of extended troubles with the publisher, which were largely due to the fact that two German translations were produced simultaneously and new formats of publishing travel literature were discussed between Forster and Spener (so-called 'forerunners', abbreviated accounts, followed by full-texts). The most intriguing element of a looming conflict between author, translator and publisher was that Spener actually paid 50 ducats as honorarium for the manuscript and thus, in his own view, secured exclusive publication rights. Groskurd and

Thunberg hence were unable to investigate alternative publication channels. The stalemate was only resolved when Thunberg all of a sudden announced a fourth volume on Japan. Groskurd was understandably frustrated over this unexpected development, which nevertheless in the end challenged Spener to move on with his original publication plans.[88]

Acceleration: finally, a publication

Spener wrote to Thunberg in September 1791 and confirmed competition from Voß's translation project.[89] Spener claimed that he had previously suspended the printing because of his (at least pretended) interest in the public, which had always been more inclined towards reading a manuscript in its entirety. He therefore asked Thunberg to send the last volume as soon as possible. It is evident that the publication of Sprengel's and Forster's extract accelerated the development dramatically. It was known in Germany that the extract would appear; in early 1792, however, Thunberg was still unaware whether anything of the full-text translation had been published.[90] Finally, in June 1792, Groskurd was able to announce that the first volume of the German translation, comprising parts one and two of the Swedish original, was to appear in the catalogue for the Leipzig autumn fair, which he confirmed some months later.[91] In October, the translation was finally released; however, Spener desired nothing more than to publish the remaining parts in time for the Easter fair of 1793, preventing Voß from publishing the remaining extract.[92] Early in 1793, Thunberg had sent the last sheets of the fourth volume and had agreed to inhibit the Swedish print in order to stop Voß from printing another extract.[93] Groskurd's translation and the last volume of the Swedish original were ready almost at the same time, but it was too late to have them printed before the Easter or autumn fair.[94] It was not until 1794 that the second volume of the German full-text translation, comprising parts three and four of the Swedish original, were finally published.

Groskurd emerges as the competent partner of Thunberg in his relation to the German book market, establishing contacts with a publisher, announcing the work in journals and organizing subscriptions, sending letters and parcels, carrying out and enforcing payments on behalf of Thunberg, and even preparing legal action. In short, Groskurd occupied a significant function as Thunberg's literary agent in the competitive and complex German book market; this was certainly not out of mere altruism. Unfortunately, we do not know exactly how Groskurd and Thunberg split the payment received from Spener or from subsequent subscriptions and sales. Nevertheless, it is indicative that Swedish Pomeranian intellectuals were oriented towards Scandinavia and imagined themselves as

being placed in a hub of Swedish and German literature. Language competence and lively contacts provided an advantage in a mutual cultural transfer.

Summary and conclusion

To summarize the development in the correspondence leading up to Groskurd's German translation, it can be divided into three phases. In the first phase, Thunberg (in Uppsala), Spener (in Berlin), and Groskurd (in Stralsund) quickly agreed upon a deal. Within months, the framework for the production of the translation was agreed upon. Groskurd efficiently translated the folio print sheets sent to him from Sweden and passed them on to Spener. Already during 1789, the first parts could have been printed. However, possibly because he assessed it to be of poor quality (relying on Forster's judgement?), Spener slowed down the speed of publication he previously was so eager to complete swiftly. This is the second phase of the correspondence: a frustrating wait for news from the publisher about the reasons behind the delay, and complaints from Groskurd and his middle men to the publisher. While Groskurd started to translate the third part, Spener secured the exclusive rights of publication by paying a substantial remuneration; nonetheless, no release remained in sight. Events accelerated only when Sprengel's summary was published in 1792 and when Thunberg announced that a fourth part with additional material on Japan would appear. This introduces the third and accelerated phase of the correspondence: the completion of the third and fourth parts of the translation before Sprengel, or anyone else, was able to produce a second German summary or full translation.

The intricate genesis of Thunberg's *Travels* in German reveals a number of significant features relevant to our understanding of translation as a tool in scientific communication. Translations have a lasting legacy in the history of science. In Groskurd's case, his translation of Thunberg, as shown by Skuncke, influenced future generations of researchers. Translations into other languages such as French and Japanese were also based upon this German 'original', an already linguistically filtered and reshaped version of Thunberg. Furthermore, translations are not produced in a cultural vacuum: without the particular cultural environment that existed through the specific socio-political situation in Swedish-Pomerania as a part of the Swedish realm, Swedish scientific literature would have lacked a significant outreach to the German (and thus indirectly the European) book market. Last but not least, the production of a translation is placed within the framework of a highly competitive and sophisticated book market in which decisions were made out of economic

necessity. The case of Thunberg's translation unequivocally proves that the manuscript turned into a commodity at the disposal of the publisher, who thus played a significant role as a gatekeeper for the dissemination of scientific thought.

Reconstructing translation as a tool of scientific communication demonstrates its significant place among the linguistic practices of natural history as a global and globalizing discipline. Studying Thunberg's *Travels* furthermore underscores the collaborative character of natural history of the eighteenth century, which includes the intricate process of translation. Thunberg's *Travels* and its translations illustrate the process of establishing 'planetary consciousness' in the definition of Pratt on several levels. First of all, Thunberg gathered local knowledge in the local ecosystems (and human societies) of Africa, Asia and Japan and translated it (scientifically) into the Linnaean universal system of classification, thus adding to its overall stability. He also inscribed himself into the heavily idealized role model of the European male scientific adventurer, who defied hardships and threats of foreign climates and cultures to assemble empirical evidence that he reports back to the readership – professional and popular – in the standardized narrative form of a travelogue. It is here that a second instance of universal outreach comes into the picture that is rarely taken into account: linguistic translation promoting (potentially universal) outreach. Since Thunberg chose to write his *Travels* in Swedish, it would have been confined to reception within a very limited and vernacular readership. But the all-European demand for fresh descriptions, particularly of Japan, created a cultural capital that could only be mobilized in the form of a translation into one of the larger European languages. In the case of Thunberg, but more generally Swedish science at the time, the particular situation of Swedish Pomerania as a zone of active cultural transfer cannot be dismissed. Indeed, the province played a pivotal role for the outreach of Swedish science in times of programmatic vernacularization. Thus, the process of broadening the readership to embrace several linguistic communities is an important feature of the globalization of knowledge that deserves further attention. In the case of Thunberg's *Travels* it has also been possible to explore in detail how the presumed academic disinterest and the economic interest of the European book market interacted, touching upon such topics as the style, professionalization and limitations of academic writing for wider audiences.

Notes

1. The most recent treatment is Marie-Christine Skuncke: *Carl Peter Thunberg. Botanist and physician* (Uppsala, 2014), 270. I wish to express gratitude to Marie-

Christine Skuncke, who originally invited and inspired me to work on Thunberg's travel account and its German translation. Research was generously supported by the Swedish Tercentenary Fund, Riksbankens Jubileumsfond.

2. Bettina Dietz: "Making natural history. Doing the Enlightenment" in *Central European history* 43 (2010), 29, 41.

3. Bettina Dietz: "Linnaeus' restless system. Translation as textual engineering in eighteenth-century botany" in *Annals of Science* (2014), 3.

4. Skuncke: *Carl Peter Thunberg*, 35, 252.

5. Skuncke: *Carl Peter Thunberg*, 35, 252. See also Carina Lidström: *Berättare på resa. Svenska resenärers resberättelser 1667–1829* (Stockholm, 2015), 17–30 where Lidström outlines the conditions and characteristics of Swedish travel writing as a genre, applicable to the general situation in Europe during the period. On Thunberg, 317, 319 and 544. Lidström's work is the first comprehensive study of Swedish travel literature.

6. Mary Louise Pratt: *Imperial eyes. Travel writing and transculturation* (London & New York, 1992), 15 and 31.

7. Pratt: *Imperial eyes*, 18.

8. Pratt: *Imperial eyes*, 30 and 29.

9. Stefanie Stockhorst: "Cultural transfer through translation. A current perspective in Enlightenment studies" in Stockhorst (ed.): *Cultural transfer through translation. The circulation of enlightened thought in Europe by means of translation* (Amsterdam & New York, 2010), 7.

10. Pratt: *Imperial eyes*, 23, 18 and 34. Skuncke: *Carl Peter Thunberg*, 18–24, also offering more nuanced readings "[a]voiding the simplistic antinomies of Pratt's early postcolonial work" (23). Carl Jung: *Kaross und Kimono. "Hottentotten" und Japaner im Spiegel des Reiseberichts von Carl Peter Thunberg (1743–1828)* (Stuttgart, 2002), 31–37 on the economic conditions of the East Asian trade within which Thunberg's travel took place.

11. Pratt: *Imperial eyes*, 23–24.

12. Pratt: *Imperial eyes*, 34.

13. Pratt: *Imperial eyes*, 30.

14. Jung: *Kaross und Kimono*, 67–75. Lidström: *Berättare på resa*, 76–77, 254–261 in the context of Swedish natural history.

15. Skuncke: *Carl Peter Thunberg*, 256.

16. Pratt: *Imperial eyes*, 18–21. Lidström: *Berättare på resa*, 38–71 on the figure of the 'adventurer' and on the 'hero' as the original voice on spot on 109–111.

17. Chandler, Daniel, and Rod Munday: "Infotainment", in *A dictionary of media and communication* (Oxford, 2011) URL: http://www.oxfordreference.com/view/10.1093/acref/9780199568758.001.0001/acref-9780199568758-e-1349 [29/7 2016]. Infotainment is defined as the presentation of factual information in an entertaining manner.

18. Bettina Dietz: "Contribution and co-production. The collaborative culture of Linnaean botany" in *Annals of science* 69:4, 554. Lidström: *Berättare på resa*, 278–316 on the Linnaean style of travel writing.

19. Boorstin as quoted in Pratt: *Imperial eyes*, 25. Jung: *Kaross und Kimono*, 25. Skuncke: *Carl Peter Thunberg*, 256. Dietz, "Contribution and co-production", 554, 556, 560, 562, 563, 565 and 567. Lidström: *Berättare på resa*, 317–404, where two of the 'apostles' are analysed more closely. Sverker Sörlin: "Scientific travel. The Linnean tradition" in Tore Frängsmyr (ed.): *Science in Sweden* (Canton, 1989), 96–123.

20. Pratt: *Imperial eyes*, 15. Dietz, "Contribution and co-production", 554, 556, 560, 562, 563, 565 and 567.

21. Pratt: *Imperial eyes*, 25.

22. Pratt: *Imperial eyes*, 28 and 33. On the transfer of local knowledge from "grass roots to the centres", see also Dietz, "Making natural history", 34.

23. Pratt: *Imperial eyes*, 28 and Foucault quoted there.

24. Skuncke: *Carl Peter Thunberg*, 252–270, comparing the genesis of the German, English and French translations and referring to an earlier unpublished version of this article . Sven-Erik Sanderman Olsen: *Bibliographia Discipuli Linnaei* (Copenhagen, 1997) is scarcely a compensation for such a lacuna, but a very good starting point. It gathers the bibliographies of the 331 pupils of Linnaeus. Thunberg's works are listed on 375–404.

25. Dietz: "Linnaeus' restless system": 2.

26. Dietz: "Linnaeus' restless system": 4 and 10 in particular, where the impact of Thunberg's *Flora Japonica* (1784) is addressed.

27. Dietz: "Linnaeus' restless system": 5 and also Alison E. Martin: "Paeans to progress. Arthur Young's travel accounts in German translation" in Stockhorst: *Cultural transfer through translation*, 304–306.

28. Stockhorst: "Cultural transfer", 7.

29. Linguistic philosophy of translation is treated by Avi S. Lifschitz in "Translation in theory and practice. The case of Johann David Michaelis's prize essay on language and opinions (1759)" in Stockhorst: *Cultural transfer through translation,* 11 and 29–43.

30. Stockhorst: "Cultural transfer", 13 and sources quoted there.

31. Martin: "Paeans to progress", 299.

32. Stockhorst: "Cultural transfer", 15–16 and sources quoted there.

33. Stockhorst: "Cultural transfer", 21 and 23.

34. Stockhorst: "Cultural transfer", 25.

35. See for instance Huib J. Zuidervaart: "Science for the public. The translation of popular texts on experimental philosophy into the Dutch language in mid-eighteenth century" in Stockhorst: *Cultural transfer through translation,* 232–262, and Andreas Önnerfors: "*Auswärtige Saamen und Gewächse ingleichen zur Correspondence*. Die Verbreitung linnéscher Naturalhistorie in Schwedisch-Pommern im 18. Jahrhundert" in Dauser, Hächler, Kempe (Eds.): *Wissen im Netz. Botanik und Pflanzentransfer in europäischen Korrespondenznetzen des 18. Jahrhunderts* (Berlin, 2008), 91–112, where the importance of translations is highlighted.

36. Martin: "Paeans to progress", 297–313. We also learn on p. 303 that in the period 1737–1807 no fewer than fifty English works on agriculture were translated directly into German.

37. Martin: "Paeans to progress", 305.

38. For an overview of Thunberg's travels in Japan, see Skuncke: *Carl Peter Thunberg* and "Carl Thunbergs japanska resa i 1770- och 1780-talets medier" in *Sjuttonhundratal* 4 (2008), 44–62, and Bertil Nordenstam (ed.): *Carl Peter Thunberg. Linnean, resenär, naturforskare* (Stockholm, 1993).

39. Thunberg's encounter with and image of Japan is detailed extensively in Jung: *Kaross und Kimono*, 153–217.

40. Karl Meier-Lemgo: "Kaempfer, Engelbert" in *Neue Deutsche Biographie*, 10 (1974), 729. Jung: *Kaross und Kimono*, 27–28.

41. Jung: *Kaross und Kimono*, 75–79.

42. Jung: *Kaross und Kimono*, 76, and *Neueste Critische Nachrichten* (52) 1784.

43. Ernst Mummenhoff: "Murr, Christoph Gottlieb" in *Allgemeine Deutsche Biographie* 23 (Leipzig, 1886), 76–80. See also Murr's treaty on Japan and China, "Beyträge zur Naturgeschichte von Japan und Sina" in *Der Naturforscher*, 7 (1775), 1–51.

44. **Thunberg to Murr, 9 January 1792, Bayrische Staatsbibliothek München** (subsequently BSB). Murr's letter to Thunberg was dated 29/10/1791, Uppsala Universitetsbibliotek (subsequently UUB).

45. See also Marie-Christine Skuncke: "Suède, Europe, Japon. Le botaniste Carl Peter Thunberg sur le marché international" in Bret and Chappey (Eds.): *Traduire entre savoirs et pouvoirs. Pratiques et enjeux scientifiques, intellectuels et politiques de la traduction, 1660–1840* (Paris, 2014).

46. On Dandré, see Skuncke: *Carl Peter Thunberg*, 263–270.

47. Andreas Önnerfors: *Svenska Pommern. Kulturmöten och identifikation 1720–1815* (Lund, 2003), 299.

48. The figure, which has to be substantiated by future research, is based upon a calculation of translated and reviewed titles in the educated journals of Swedish Pomerania as well as my pilot study related to Swedish coverage in the German press.

49. Mattias Persson: *Det nära främmande. Svensk lärdom och politik i en tysk tidning 1753–1792* (Uppsala, 2009). References to Thunberg on pages 62, 66, 131, 133–134 and 136.

50. Thunberg to Murr, 9 January 1792. BSB.

51. **On the translations, see Eberhard Friese: "Leben und Wirken Carl Peter Thunbergs"** in Friese (ed.): *Reise durch einen Theil von Europa, Afrika und Asien hauptsächlich in Japan in den Jahren 1770 bis 1779*, vol. 1 (Heidelberg, 1991) xxiii–xxviii, which is a reprint of the entire travelogue. See also Jung: *Kaross und Kimono,* 12–13 and 76–79.

52. Skuncke: *Carl Peter Thunberg*, 264–266, where Dandré's contacts with Groskurd are outlined and it is mentioned that Sprengel's translation served as the original for an abridged French version.

53. Groskurd's biography is treated for the first time in *Das gelehrte Teutschland*, Georg Christoph Hamberger and Johann Georg Meusel (eds.), vol. 1 (Lemgo, 1796), 675–678, followed by Dietrich Hermann Biederstedt, *Nachrichten von dem Leben und den Schriften neuvorpommerisch-rügenscher Gelehrten seit dem Anfange des achtzehnten Jahrhunderts bis zum Jahr 1822* (Greifswald, 1824), 73. Here also a bibliography of his fifteen publications. The date of the printing of Thunberg's travels is given as 1792 and 1793. Theodor Pyl: "Groskurd, Christian Heinrich" in *Allgemeine Deutsche Biographie,* vol. 9 (Leipzig, 1879), 743–744.

54. Johann Georg Meusel: *Lexikon der vom Jahr 1750 bis 1800 verstorbenen teutschen Schriftsteller*, vol. 4 (Leipzig, 1804), 388–390.

55. Ernst Heinrich Zober: *Urkundliche Geschichte des Stralsunder Gymnasiums von seiner Stiftung 1560 bis 1860*, part V, 1755–1804 (Stralsund, 1860), 42–44.

56. On the Björnståhl travelogue and its German translation in Andreas Önnerfors: "Die Verbindungen zwischen Schweden und dem Osmanischen Reich" in Schmidt-Haberkamp (ed.): *Europa und die Türkei im 18. Jahrhundert* (Göttingen, 2011), 261–276. Meusel, *Lexikon*, 389.

57. Reviewed by Möller in *Neueste Critische Nachrichten* 16 (1784), 121–124; 18 (1784), 140–142. See also the comprehensive summary in *Der Teutsche Merkur* 1 (1784), 97–120. Here it emerges that Sparrman's travelogue was published by Spener in Berlin with

a preface by Georg Forster. Further summaries of the translation in *Allerneueste Mannigfaltigkeiten* 1785, 301–308 and 600–663.

58. See Eduard Wunschmann: "Sprengel, Kurt Polykarp", in *Allgemeine Deutsche Biographie*, vol. 35 (Leipzig, 1893), 296–298 and "Voß, Christian Friedrich" in *Allgemeine Deutsche Biographie*, vol. 40 (Leipzig, 1896), 329–331.

59. *Allgemeine Deutsche Bibliothek*, 87 (1789), 446–447 and *Neueste Critische Nachrichten* 6 (1793), 43 and *Neue Allgemeine Deutsche Bibliothek*, 6 (1793), 70–74; vol. 8, 486–489. See also *Georg Forsters Werke*, vol. 15 (Berlin, 1981), 173 and 444–45.

60. Alfred Dove: "Forster, Johann Reinhold" in *Allgemeine Deutsche Biographie*, vol. 7 (Leipyig, 1878), 166–172. Kurt Polykarp Sprengel has no family ties and is not to be confused with Matthias Christian Sprengel (1746–1803), who was, with his father-in-law and brother-in-law Reinhold Forster and Georg Forster (1754–1794), respectively, the co-editor of a great deal of travel literature. Friedrich Ratzel: "Sprengel, Matthias Christian", in *Allgemeine Deutsche Biographie*, vol. 35 (Leipzig, 1893), 299–300. M. C. Sprengel was the son of a merchant from Danzig who had moved to Rostock. Connections to the Forster family perhaps originated in contacts made in Danzig. Jörn Garber: "Georg Forster", in Vierhaus and Bödeker, *Biographische Enzyklopädie der deutschsprachigen Aufklärung* (München, 2002), 91

61. *Magazin von merkwürigen neuen Reisebeschreibungen aus fremden Sprachen übersetzt und mit erläuternden Anmerkungen begleitet*, vol. 7 (Berlin, 1792), part I, X.

62. In the language of the printers of the time. The abridged version was printed on alphabetically marked sheets A – O 5 and hence appears to be a reduction by more than two thirds of the Swedish original.

63. *Magazin von merkwürigen neuen Reisebeschreibungen aus fremden Sprachen übersetzt und mit erläuternden Anmerkungen begleitet*, vol. 7 (Berlin, 1792), part II, III. See also Jung: *Kaross und Kimono,* 79–80.

64. *Magazin von merkwürigen neuen Reisebeschreibungen aus fremden Sprachen übersetzt und mit erläuternden Anmerkungen begleitet*, vol. 7 (Berlin, 1792), part II, IV. See also Jung: *Kaross und Kimono,* 79–80.

65. *Magazin von merkwürigen neuen Reisebeschreibungen aus fremden Sprachen übersetzt und mit erläuternden Anmerkungen begleitet*, vol. 7 (Berlin, 1792), part II, V. See also Jung: *Kaross und Kimono,* 79–80 and the entire chapter 95–152, where Thunberg's African episode is outlined extensively. An excellent overview of and comparison between different travelogues about the Cape and its inhabitants is offered by Gunnar Broberg: "Världens ändpunkt och vändpunkt – Thunberg vid Kap", in Nordenstam: *Carl Peter Thunberg*, 57–85.

66. Georg Forster to Johann Karl Phillip Spener, 31 August 1789 in *Georg Forsters Werke*, 331.

67. Skuncke: *Carl Peter Thunberg*, 184.

68. Reinhold Forster to Carl Peter Thunberg, 10 April 1787. UUB.

69. Georg Forster to Carl Peter Thunberg, 3 August 1788, *Georg Forsters Werke*, 170–72; the commentary on 443–444.

70. In *Neue Allgemeine Deutsche Bibliothek*, vol. 15, 1795, 244. An extensive, uncommented extract was also published in the periodical *Magazin für das Neueste aus der Physik und Naturgeschichte*, vol. 8:2, 1792, 44–55, the origin of which is unknown.

71. Such as in Murr's letter to Thunberg, 29 October 1791, UUB, where he criticized Voß's enterprise.

72. "Deneke, Carl Henrik", in *Svenska och finska medicinalverkets historia 1683–1812*,

part 3 (Helsingfors, 1893), 703. Alfred Bernhard Carlsson: *Uppsala Universitets Matrikel II. 1750–1760* (Uppsala, 1925), 70. Deneke had studied medicine in Stockholm and Uppsala and may have made Thunberg's acquaintance there or in Stralsund during his return journey to Sweden in 1779. A letter from 1785 mentions that Deneke acted as Thunberg's aide, distributing his *Flora Japonica* and corresponding with German botanists, Deneke to Thunberg, 1 February 1785, UUB.

73. Haude and Spener had commenced their activities already in the early seventeenth century. The standard work on its history remains Konrad Weidling: *Die Haude & Spenersche Buchhandlung in Berlin in den Jahren 1614–1890* (Berlin, 1902).

74. Spener to Thunberg, 17 July 1788, UUB.

75. In the above-quoted letter Thunberg to Murr, 9 January 1791, BSB.

76. Spener to Thunberg, 17 July 1788, UUB.

77. Spener to Thunberg, 26 August 1788, UUB.

78. Spener to Thunberg, 7 October 1788, UUB.

79. Georg Forster to Spener, 10 September 1788 in *Georg Forsters Werke,* 190–191 and 451.

80. Groskurd to Thunberg, 1 November 1788, UUB.

81. Spener to Thunberg, 11 November 1788, UUB.

82. Georg Forster to Spener, 14 January 1789 in *Georg Forsters Werke*, 242–243 and 471.

83. Georg Forster to Thunberg, 6 April 1789, in *Georg Forsters Werke*, 281–282.

84. Groskurd to Thunberg, 28 February 1789, Uppsala Universitetsbibilotek.

85. Groskurd to Thunberg, 25 April 1785, UUB.

86. Groskurd to Thunberg, 6 July 1789, UUB.

87. Groskurd to Thunberg, 14 August 1789, UUB.

88. Georg Forster to Spener, 17 August 1789 in *Georg Forsters Werke*, 329–330. Groskurd to Thunberg, 12 December 1789 and 13 February 1790; Groskurd to Thunberg, 12 and 26 December 1789; Spener to Thunberg, 16 January 1790; Groskurd to Thunberg, 16 May 1791; Spener to Thunberg, 27 September 1791; Groskurd to Thunberg, 14 February 1792. All quoted letters in UUB.

89. Spener to Thunberg, 17 September 1791, UUB.

90. Thunberg to Murr, 9 January 1792, BSB.

91. Groskurd to Thunberg, 9 June and 18 September 1792, UUB.

92. Groskurd to Thunberg, 16 October 1792, UUB.

93. Groskurd to Thunberg, 2 February 1792, UUB.

94. Groskurd to Thunberg, 4 April 1793, UUB. Groskurd mentions that he had sent the last part of the translation to Spener in late March.

Abstract

Unlocking translations as tools of scientific communication. The genesis of Thunberg's "Travels" in German 1788–1794 by Andreas Önnerfors, Docent, History of ideas, the Department of literature, history of ideas, and religion, University of Gothenburg.

Between 1770 and 1779 Carl Peter Thunberg (1743–1828), one of the so-called apostles of the renowned Swedish botanist Carl Linnaeus, carried out a scientific expedition, first through Europe and subsequently to South Africa, to Java, and finally Japan, one of the most secluded cultures in the world at the time. Given the early modern

popularity of travel literature in general and of scientific travel accounts in particular, it came as a surprise that his travelogue, promising the first new insights into an isolated exotic country for almost a century, did not appear until 1788. This was nine years after his return and furthermore, to the frustration of many, the travelogue was published in Swedish. Vernicularization was part of a programmatic popularizing shift in Swedish eighteenth-century science, but it came at the price of international outreach. Therefore, translations played a decisive role for the establishment and dissemination of Swedish science in Europe, yet their position as a tool of scientific communication is underexplored in the history of sciences. Moreover, the grand narratives of nature that were communicated by scientific travellers of the eighteenth century cannot be comprehended properly without also taking their linguistic dimensions (of transfer) into account. This article uncovers the intricate play behind the protracted birth of Thunberg's travel in German and is thus a contribution to a deeper understanding of the important relationship between translation and science as tools of transnational communication and dissemination of science.

Key words: Science and translation, eighteenth-century travelogues, Carl Peter Thunberg, book market, language and natural history.