FINDING (OR NOT) AN EDUCATOR FOR A PRINCE—ON THE RECENT DISCOVERY OF A MISSING LETTER FROM LEONHARD EULER

Most surviving correspondence of the great Swiss mathematician Leonhard Euler (1707–1783), along with his scientific papers and notebooks, is today housed in the archives of the Russian Academy of Sciences in St Petersburg with smaller collections around the world in Basel, Berlin, and elsewhere. Only very rarely do his letters come up for sale at one of the great or perhaps less well-known auction houses, or simply turn up through serendipitous searching, as was the case some six years ago with a letter he wrote on some questions in hydrostatics to the French mathematician and natural philosopher. Jean le Rond d'Alembert (1717–83).

It was, therefore, a matter of considerable interest that recently a letter sent by Euler to Johann Daniel Schumacher (1690–1761), head of administration at the St Petersburg Academy of Sciences,

¹ On the background to that letter, dated 21 September/2 October 1646, see Vanja Hug and Thomas Steiner, 'Une lettre d'Euler à d'Alembert retrouvée', *Historia Mathematica*, 42 (2015), 84–94.

came onto the antiquarian market in Germany. Euler and Schumacher conducted an extensive correspondence, comprising more than three hundred letters and stretching over twenty-seven years from 1730 to 1757. At the beginning of their literary commerce, Euler had held a junior appointment at the Petersburg Academy and was at the start of his scientific career. For his part, Schumacher, who hailed from Colmar in Alsace, was secretary and librarian to the imperial institution. By the end of the two men's correspondence, Euler was a towering figure at the Prussian Academy of Sciences in Berlin with innumerable learned publications in the mathematical and physical sciences to his name, and had recently been elected foreign member of the Académie des Sciences in Paris. Although the letter in question, dated 14 December 1754, contains nothing of consequence scientifically, it is nonetheless of considerable significance because of what it tells us about the nature of Euler's continuing relationship to the Petersburg Academy during his so-called Berlin period.

The letter came to light in an auction catalogue of the antiquarian dealers *Reiss & Sohn* in the idyllic spa town of Königstein im Taunus, and was eventually sold at the hammer price of €4,000 on 25 October 2022.² (Unfortunately, an attempt to purchase it for the Euler edition failed.) The information provided by the dealers was rather spartan. Apart from an image of part of the letter and a partial transcription, all the catalogue revealed was that it was 'a very seldom autograph of one of the most important mathematicians' and that it was 'a letter of recommendation of an educator or companion for a prince'.³

By means of details of the date and the sketched contents of the letter it soon became apparent that its existence had been known of for some time. It is in fact listed as Letter No. 2364 in the register that was published as the first volume of the Correspondence Series (Series Quarta A: Commercium Epistolicum) of the massive edition of the complete works of Euler, published under

the auspices of the Swiss Academy of Sciences.⁴ The basis for that entry was, however, not the original German letter that has now appeared, but instead a shortened Russian translation of it. Only this translation in an unnamed (and presumably unknown) hand is held in the Petersburg archives.⁵ Remarkably, on at least four occasions during the last century this one Euler–Schumacher letter has been put up for auction, twice in Berlin in the 1920s, then in 1963 by the Marburg auction house *Stargardt*, and finally, in 1975, by the Basel book dealer *Erasmushaus*.⁶

Euler's correspondence with Schumacher in the 1750s reveals that the Swiss mathematician during his time at the Prussian Academy continued to pursue close ties to its imperial counterpart in St Petersburg, with often two or more letters being exchanged by the two men every week. Euler readily passed on scientific news gleaned from his extensive scholarly network or gathered from men passing through Berlin, but his support went much further than this.⁷ Whenever Schumacher informed him of requirements for high or middle-ranking scientific personnel in St Petersburg, Euler would seek to provide a solution, telling him of suitable candidates for posts that had become vacant because their previous holders had died or moved on. He delivered other services, too, such as communicating his most recent publications or sending equipment needed for experimental investigations. In this way, Euler provided a valuable service not only to the Petersburg Academy but also to promising members of the scientific community in Germany, France, or his home country.

Euler also communicated on such matters with another German at the Imperial Academy, the

² We should like to thank Dr Britta Klosterberg of the Franckesche Stiftungen in Halle/Saale for bringing this auction catalogue to our attention.

³ Reiss & Sohn, Auction Catalogue No. 212, 25–26 October 2022: Wertvolle Bücher und Handschriften vom Mittelalter bis zur Moderne, Lot 150: 'Sehr seltenes Autograph eines der bedeutendsten Mathematiker. Empfehlungsschreiben für einen Erzieher oder Begleiter eines Prinzen'.

⁴ Leonhardi Euleri Opera Omnia, Series Quarta A (Basel, 1975ff), I, 395.

See Die Berliner und die Petersburger Akademie der Wissenschaften im Briefwechsel Leonhard Eulers, ed. Adolf Pavlovich Juškevič and Eduard Winter, 3 vols, (Berlin, 1961–1976), II, 367–68. This second volume contains the only extant edition of the correspondence between Euler and Schumacher. Many of Euler's letters have been shortened, while Schumacher's letters are largely published as register entries.

⁶ See J. A. Stargardt, Catalogue No. 563: Autographen aus verschiedenem Besitz. Auktion am 28. und 29. Mai 1963 in Marburg, 69; Erasmushaus, Catalogue No. 750 (Basel, 1970), 4.

⁷ On Euler's relations to the Petersburg Academy during his Berlin period see Judith Kh. Kopelevič, 'Leonhard Euler und die Petersburger Akademie', in Johann Jakob Burckhardt, Emil A. Fellmann, and Walter Habicht (ed.), Leonhard Euler 1707-1783. Beiträge zu Leben und Werk. Gedenkband des Kantons Basel-Stadt (Basel, 1983), 373–83, esp. 379–81.

historian and geographer Gerhard Friedrich Müller (1705-1783), who hailed originally from Herford in Westphalia. By the 1750s, Schumacher, a powerful and efficient bureaucrat, had delegated a considerable amount of his own managerial responsibilities to Müller and so we often find parallel discussions to those with Schumacher in Euler's extensive correspondence with him. Thus, when a number of scientific posts at Petersburg became free in 1754, Euler wasted no time in suggesting to both Schumacher and Müller that the mathematician and astronomer Tobias Mayer (1723-62), the natural philosopher Johann Peter Eberhard (1727–1779), and the mathematician and philosopher Johann Konrad Spangenberg (1711–1783) would be suitable candidates. He also informed his Petersburg interlocutors of the conditions under which these men might be persuaded to leave their existing academic posts in Germany. None of these appointments came about, and when Mayer on receipt of improved conditions decided to stay in Göttingen Euler went so far as to tell Müller that he had very much wished to get 'this talented man' into the Imperial Academy. 10

But Schumacher and Müller did not use their epistolary exchanges with Euler solely for academic purposes in a strict sense. Thus, Müller readily informed the Swiss mathematician in September of the same year that a distinguished Russian gentleman required a secretary with good manners and knowledge of literature who was capable of writing letters in French and German. It was suggested that a Frenchman from Berlin or a man from the French-speaking part of Switzerland would be suitable. ¹¹ Just over three weeks later, Euler was able to tell Müller that he had found someone fitting the requirements, a certain Monsieur Jean, who had been a teacher to his children. ¹²

⁸ On Schumacher see Emil A. Fellmann, *Leonhard Euler* (Reinbek bei Hamburg, 1995), 34.

News of the successful outcome of Euler's search did not reach Petersburg quickly enough, however. In his next letter, Müller confessed that the secretary's post had already been filled, but pointed out that another similar post, albeit with less favourable conditions, had become vacant and wondered whether Euler's candidate might nevertheless be willing to consider taking it. Vacancies of an academic nature were also on Müller's mind at the same time. Having still not received a final decision from Eberhard, he now toyed with the ambitious idea that the esteemed d'Alembert might be tempted to move to St Petersburg.¹³

Despite the inferior terms of the new secretarial position, which happened to be with a member of the famous Stroganov family, Jean accepted the offer and Euler set about making arrangements for his former employee's transportation.¹⁴ Since sea travel to St Petersburg during the winter months was impossible, it was not until the following spring that Jean was able to make the journey to Russia. On the other hand, this delay was fortunate both for Euler and for the Imperial Academy. In order to carry out a major programme of experimentation, Petersburg had commissioned a large quantity of magnetic bars from the Swiss mathematician, and he was now finally able to send them by boat from Lübeck accompanied by Jean and his gifted mathematical disciple Michail Sofronov $(1729-1760)^{15}$

The Euler-Schumacher letter under discussion in this short article slots nicely into this sequence of academic and personal transactions that stands out in Euler's correspondence in late 1754 and early 1755. Like Müller, Schumacher had sought to do a favour for a member of Petersburg's social élite, in this case it was in fact a princely

⁹ See for example Leonhard Euler to G. F. Müller, 16/27 August 1754, Leonhard Euler to G. F. Müller, 10/21 September 1754, Leonhard Euler to J. D. Schumacher, 31 May/11 June 1754, and Leonhard Euler to J. D. Schumacher, 2/13 July 1754, in *Die Berliner*, 1, 56–58, 58–59, and II, 350–51, 351–52.

¹⁰ Leonhard Euler to G. F. Müller, 29 November/10 December 1754, in *Die Berliner*, 1, 68: '[...] weil ich gar zu sehr gewünscht hätte, diesen geschickten Mann der Kaiserl. Academie zu verschaffen.'

¹¹ G. F. Müller to Leonhard Euler, 13/24 September 1754, in *Die Berliner*, I, 60.

¹² Leonhard Euler to G. F. Müller, 1/12 October 1754, in *Die Berliner*, I, 62–63.

¹³ G. F. Müller to Leonhard Euler, 26 November/7 December 1754, in *Die Berliner*, I, 66–68, esp. 67.

¹⁴ See Leonhard Euler to G. F. Müller, 13/24 December 1754, in *Die Berliner*, 1, 70–72, esp. 70–71. Euler brushed aside Müller's ideas concerning d'Alembert, noting that even the far more generous conditions offered him by the Prussian Academy had been unable to draw him away from Paris.

¹⁵ See Leonhard Euler to J. D. Schumacher, 19/30 March 1755, Leonhard Euler to J. D. Schumacher, 4/15 April 1755, and Leonhard Euler to J. D. Schumacher, 15/26 April 1755, in *Die Berliner*, II, 383–85, 385–91, and 391–92. See also Peter Hoffmann, 'Leonhard Euler and Russia', in Robert E. Bradley and C. Edward Sandifer (ed.), *Leonhard Euler: Life, Work and Legacy* (Amsterdam, 2007), 61–73; Kopelevič, 'Leonhard Euler', 380.

household, the identity of which is at no time revealed. Schumacher first brings the matter to Euler's attention in his letter of 15/26 October 1754 of which only the draft has survived. After mentioning his recent commission of magnets from Berlin and acknowledging receipt of the latest sheets of Euler's textbook on differential calcuinformed Schumacher Swiss mathematician that a distinguished princely household sought the services of a mature married couple of French extraction. The husband, who needed to be well-educated, was to instruct a young prince, the wife to provide instruction to a young princess. A salary of four hundred Russian Rubels was offered with accommodation, living expenses, and equipage included. As in the case of Müller's search for a secretary, a list of civic preferences was also communicated: Euler was requested to suitable persons from 'Berlin, Stettin, Magdeburg, Hanover, Zelle, or elsewhere'. 16 Why these places might have been preferred remains a mystery.

In his reply, Euler undertook to make enquiries about a suitable couple, suggesting that he would draw on the assistance of the 'local French preacher', an oblique reference to the Huguenot theologian and scientific writer Samuel Formey (1711–1797) who was one of his colleagues in the Prussian Academy of Sciences. ¹⁷ Confident of being able to oblige Schumacher within a short space of time, Euler updated him also on his recent mailing of a box of magnets to Petersburg and the rapid progress that was being made towards completion of his introductory textbook on calculus, the *Institutiones calculi differentialis*, eventually published in Petersburg the following year. ¹⁸

Euler's optimism soon turned to disappointment, for in his next, now missing letter to Schumacher he communicated his lack of success in finding suitable persons and asked that the prince task someone else with undertaking the search.¹⁹ Schumacher duly passed on this request

only for Euler in the meantime after all to find someone suitable, a certain Monsieur Molié. It is this unexpected turn of events that led the Swiss mathematician to put pen to paper and write the letter which is the topic of this short article. Addressing Schumacher flatteringly as a 'most highly esteemed State Councillor, distinguished patron and friend', Euler proceeds to announce the unexpected turn of events:

After having had little hope following my last letter of finding a suitable married couple from this country for the advertised position, I now believe that through my diligent enquiries I have after all found some such persons as fit the desired requirements perfectly. The man is from Bayreuth and is by the name of M. Molié. He is about 40 years old, and apart from having good deportment and charming manners is somewhat academically educated and has spent many years in military service, which can be very advantageous for a young prince. Up to now he has been a widower, but he is thinking of marrying a very suitable French girl in the very near future. On this account, these people would be perfectly suited to the position mentioned. If therefore by now no others have been found, I would request, well-born Sir, that you bring these people into consideration, and that you if occasion presents itself give me, who remains bound to you as your most respectful servant, further news on this matter.²⁰

In view of the length of time that had by now passed and his earlier announcement of failure, it was wise of Euler to add the qualification at the end of his message. Naturally, as in the case of Monsieur Jean, he also felt obliged to keep Molié informed on how things stood. However, Schumacher, who evidently found his role as intermediary disagreeable, remained silent, prompting Euler to take up the matter some two weeks later: 'I recently had the honour to recommend a suitable man for the prince you mentioned, and hope this

¹⁶ G. D. Schumacher to Leonhard Euler, 15/26 October 1754, in *Die Berliner*, II, 363–64.

¹⁷ Leonhard Euler to G. D. Schumacher, 20 October/9 November 1754, in *Die Berliner*, II, 364–65, esp. 365: 'Wegen eines Paar Eheleuten, welche zu der gemeldten Stelle alle erforderten Eigenschaften haben, werde ich mich genau erkundigen und darüber den hiesigen französischen Prediger zu Rathe ziehen'.

¹⁸ Leonhard Euler, *Institutiones calculi differentialis cum ejus usu in analysi finitorum ac doctrina serierum* (Petersburg, 1755).

¹⁹ Schumacher included a corresponding note in the draft of his letter to Euler of 29 November/10 December 1754, in *Die Berliner*, II, 366–67.

²⁰ Leonhard Euler to J. D. Schumacher, 3/14 December 1754. For the original German text of the letter, see below.

commission will not meet with your disapproval, well-born sir. 21

Even this time Schumacher did not respond and not only does it remain unknown which princely household was involved, but also whether Monsieur Molié from Bayreuth ever took up the post in Russia.

As we know, Euler after falling out with Friedrich II returned to the Petersburg Academy in the summer of 1766 and remained there for the remainder of his life. Not all his contemporaries were equally attracted by what were often considerably more favourable working conditions there than at academic institutions in Germany. Euler found it incomprehensible that others such as Eberhard, professor at Halle and member of the Leopoldina, did not think similarly to him.²² However, by now he was well aware of Eberhard's misgivings about taking up the lucrative position he had been offered at St Petersburg. A letter from Eberhard to Müller declining the recently-made offer at the Imperial Academy was coincidentally sent as an enclosure to Euler's letter to Schumacher in December 1754.

It is not clear precisely how or when the Euler letter in question, which no doubt would have been in St Petersburg for nearly one hundred and seventy years, eventually came to be in Berlin, but Euler's correspondence with Schumacher provides us with valuable clues as to the time and likely trajectory. When Schumacher writes to Euler that he has forwarded the Swiss mathematician's first response to the prince,²³ it can be assumed that he did this by means of the original letter, after first having made a Russian summary for the Academy's archive. To have provided simply an account of Euler's reply would not have had the same authority. Thus, the original would have come into the hands of the prince and remained in the family's possession. After the Revolution and during the Russian Civil War (1917–1720), many members of the Russian nobility fled to western Europe out of fear of the Bolsheviks. Tens of thousands of these refugees sought refuge in Germany, and especially Berlin, where there was already a large colony of Russian emigrants by the 1920s. We suspect that the descendants of our eighteenth-century prince were among them, and that like most emigrants they found themselves in financial difficulty and sold the Euler letter at auction.

Berlin was understandably a focal point of the waves of emigration that resulted from unrest and war in Russia.²⁴ Besides having a good local infrastructure including social organizations and cultural centres for the newcomers, the city could also boast more publications of Russian newspapers and journals than any other city outside the Soviet Union.²⁵ A daily Russian newspaper by the name of Rul' appeared in Berlin continuously from 1920 through to 1931.²⁶

Most of Berlin's Russian exile community resided in the western districts of Charlottenburg, Wilmersdorf, and Schöneberg and it was in the nearby district of Tiergarten that the two antiquarian book dealers were to be found which in successive years, 1923 and 1924, put the Euler-Schumacher letter up for auction.²⁷ The first, Josef Altmann, is particularly of note. A member of Berlin's thriving Jewish community, Altmann hat close ties to the 'Novembergruppe', a group of expressionist artists around Max Pechstein and César Klein. He conducted his antiquarian book and art business from May 1919 onwards at Lützow-Ufer 13, overlooking the Landwehr Canal.²⁸ Altmann sold the Euler letter together with numerous other scientific autographs at auction in 1923. Interestingly, the catalogue for the auction

²¹ Leonhard Euler to J. D. Schumacher, 17/28 December 1754, in *Die Berliner*, II, 369–71, esp. 370: 'Neulich habe einen geschickten Mann für den erwehnten Prinzen zu recommendiren die Ehre gehabt und hoffe, es würde Ew. Wohlgeb. diese Commission nicht gereuen.'

²² See Leonhard Euler to G. F. Müller, 14/25 January 1755, in Die Berliner, I, 75–77, esp. 76: 'Er [sc. Eberhard] hat dem Staatsministre H. Baron von Dankelman gemeldet, daß er eine Vocation nach Petersburg bekommen, dennoch aber lieber in Halle bleiben wollte, wann er nur was Weniges erhalten könnte.'

²³ Schumacher to Euler, 28 November/19 December 1754, summary by Juškevič and Winter: 'Dem Fürsten Eulers Antwort übermittelt', in *Die Berliner*, II, 367.

²⁴ See Marc Raeff, Russia Abroad: A Cultural History of the Russian Emigration, 1919-1939 (New York and Oxford, 1990), 16-46; Hans-Erich Volkmann, Die russische Emigration in Deutschland, 1919-1929 (Würzburg, 1966), 4–12.

²⁵ Volkmann, *Die russische Emigration*, 121; Raeff, *Russia Abroad*, 75–77; *ibid.*, 'Emigration – welche, wann, wo? Kontexte der russischen Emigration in Deutschland 1920-1941', in *Russische Emigration in Deutschland 1918 bis 1941. Leben im europäischen Bürgerkrieg*, ed. Karl Schlogel (Berlin, 1995), 17–31, esp. 25–26.

Robert C. Williams, Russian Emigrés in Germany, 1881-1941 (Ithaca and London, 1972), 127, 135–36, 182–88, 222–26; Raeff, Russia Abroad. 61, 82.

²⁷ See Karl Schlogel, *Das Russische Berlin. Eine Hauptstadt im Jahrhundert der Extreme* (Berlin, 2019), 145–93.

²⁸ See Fritz Homeyer, *Deutsche Juden als Bibliophilen und Antiquare* (Tübingen, 1966), 126, 135.

contained an introduction by the botanist and science historian with responsibility for the famous Darmstädter Collection at the Prussian State Library, Julius Schuster (1886–1949).²⁹ Less than a year later the same letter appeared in an auction'-catalogue of the bookseller Karl Ernst Henrici, whose premises were close by at Lützowstrasse 82.³⁰ Possibly, Henrici had himself bought the letter at Altmann's auction in the hope of obtaining a better price for it.

The original version of the letter, which is being published here in its entirety for the first time, reads as follows:

Wohlgebohrener Herr, Hochgeehrtester Herr Etats Rath, Hochgeneigter Gönner und Freund. Nachdem ich nach meinem letzten Schreiben wenig Hoffnung hatte ein geschicktes Ehepaar zu der gemeldten Stelle außer den hiesigen Landen zu finden, so glaube ich doch jetzt durch mein fleißiges Nachforschen solche Leute gefunden zu haben, welche die verlangten Eigenschaften vollkommen besitzen. Der Mann ist aus Bayreuth und heißt Mr. Molié, von ungefehr 40 Jahren, hat nebst einer guten Conduite und artigen Manieren etwas studirt, und viele Jahre in Kriegsdiensten zugebracht, welcher Umstand bey einem jungen Prinzen vortheilhaft seyn kan. Er ist dato ein Witwer, gedenket aber sich mit einer sehr geschickten Französischen Mademoiselle nächstens zu verheurathen. Dahero sich diese Leute zu der erwehnten Stelle vollkommen schicken werden. Sollten sich allso noch keine andren gefunden haben, so ersuche Ewr. Wohlgebohrnen diese in Vorschlag zu bringen, und mir beliebig davon weitere Nachricht zu ertheilen, der ich mit der schuldigsten Hochachtung die Ehre habe zu verharren

Ewr. Wohlgebohrnen gehorsamster Diener L. Euler

Berlin den 14 Dec. 1754

Einschluß an H. Prof. Müller Von H. Eberhard aus Halle

In transcribing Euler's handwriting, we have followed the rules laid down for letters written in German cursive script ('Kurrentschrift') in the most recently published volume of the Euler correspondence edition.³¹ The text is reproduced faithfully, retaining inconsistent spelling and punctuation. Only in a few cases has the original text been slightly modified and standardized: sentence beginnings, personal names, and geographical names as well as titles are written with initial capitals. If it is not possible to distinguish between upper and lower case in the original, the modern spelling is used.

The text consists of one sheet, with the top part given as a transcription in the Reiss catalogue. A section marked by ellipses can be completed by means of the transcribed passage in the Stargardt catalogue. The lower part of the letter, which partially overlaps with the transcribed text, is reproduced in the Reiss catalogue as a facsimile. The text of the entire letter is thus obtained by combining the two parts. Deviations in the transcribed passages of the Stargardt and Reiss catalogues exist for the double 's' (Stargardt has 'ss', while Reiss has '\beta'). Following numerous other Euler letters published in the correspondence series of Euler's complete works,³² we adopt the spelling of the Reiss catalogue, i.e. 'B'. The man from Bayreuth recommended by Euler as an educator is referred to as 'W. Molié' in the Reiss catalogue, while in the Stargardt catalogue he is referred to as 'Mr Molié'. Since abbreviated first names do not occur in Euler's letters, while the abbreviations H. for Herr and Mr for Monsieur occur frequently, we adopt 'Mr' from the Stargardt catalogue, as well as 'ungefehr', which is the usual spelling in other Euler letters. In the transcription of the Reiss catalogue, this word is given in the modern spelling 'ungefähr'.

In conclusion, we should like to point out that this reconstruction of a letter assumed to be lost is a striking example of the importance of auction catalogues for historical research. The search for such catalogues is now considerably facilitated by the collection of some thousand digitized auction catalogues from various German and international

²⁹ Josef Altmann, Autographen aus allen Gebieten, Versteigerung Nr. 25 (Berlin, 1923), 11. On Darmstädter as collector see Alexandra Habermann, Die Rolle von Bibliothekaren und Sammlern im wissenschaftlichen Leben der Weimarer Republik Eine biographische Annäherung (Hanover, 1994), 36-43

³⁰ Karl Ernst Henrici, Autographen: Musik und Theater, Literatur und Wissenschaft, Goethe und Schiller, der Weimarer Kreis, Auktions-Katalog Nr. 85, Versteigerung 28. und 29. Januar 1924, Lot No. 279, 47. The stated estimate for the letter was exceptionally high at 100 Goldmark.

³¹ See Leonhardi Euleri Opera Omnia, Series Quarta A, VIII, xi–xiv.

³² See note 3.

auctioneers, scattered across numerous art and museum libraries, that has been established by the University Library of Heidelberg. The collection is accessible via their website: https://digi.ub.uni-heidelberg.de/en/sammlungen/artsales.html

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