

Subjective practices of war: The Prussian army and the Zorndorf campaign, 1758

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Introduction

It is widely claimed that the new natural philosophy of the seventeenth and eighteenth centuries (the so-called Scientific Revolution) fostered attempts to make warfare mathematically calculated.¹ Azar Gat argued that what he called the ‘military school of the Enlightenment’ tried to identify universal principles underlying war comparable to those Isaac Newton had identified underlying the universe.² Anders Engberg-Pedersen claimed that the influence of geometry led to attempts to eliminate both chance and the varieties of terrain, creating ‘flat media inscriptions of the space of war’.³ This article challenges such ideas, building on new developments in the history of science which have shown that seventeenth-

¹ Henning Eichberg, “Geometrie als Barocke Verhaltensnorm: Fortifikation und Exerziten,” *Zeitschrift für Historische Forschung* 4 (1977): 17-50; Marian Füssel, “Theatrum Belli: Der Krieg als Inszenierung und Wissensschauplatz im 17. und 18. Jahrhundert,” *Metaphorik* 14 (2008): 205-230, 207; Arthur Kuhle, *Die preußische Kriegstheorie um 1800 und ihre Suche nach dynamischen Gleichgewichten* (Berlin: Duncker & Humblot, 2018); Johannes Kunisch, *Fürst-Gesellschaft-Krieg: Studien zur bellizistischen Disposition des absoluten Fürstenstaates* (Cologne, Weimar, Vienna: Böhlau Verlag, 1992), pp.140-43, 156-9; John A. Lynn, *Battle: A History of Combat and Culture* (new edn., Cambridge, MA: Westview Press, 2004), pp.114-5, 119-20, 124-6, 129-31, 143-4; Cathal J. Nolan, *The Allure of Battle: A History of How Wars Have Been Won and Lost*, Paperback ed. (Oxford etc.: Oxford University Press, 2019), pp.139-46, 194; Robert S. Quimby, *The Background of Napoleonic Warfare: The Theory of Military Tactics in Eighteenth-Century France* (New York, NY: Columbia University Press, 1957), p. 4; Wolfgang Schäffner, “Operationale Topographie: Repräsentationsräume in den Niederlanden um 1600,” in Hans-Jörg Rheinberger, Michael Hagner, Bettina Wahrig-Schmidt (eds.), *Räume des Wissens: Repräsentation, Codierung, Spur* (Berlin: Akademie Verlag, 1997), pp. 63-90. For similar views on international relations in this period, see Stephen C. Neff, *War and the Law of Nations: A General History* (Cambridge: Cambridge University Press, 2005), p.90.

² Azar Gat, *The Origins of Military Thought from the Enlightenment to Clausewitz* (Oxford: Oxford University Press, 1989), esp. pp.9, 26-9, 142-4.

³ Anders Engberg-Pedersen, *Empire of Chance: The Napoleonic Wars and the Disorder of Things* (Cambridge, MA, and London: Harvard University Press, 2015), pp.3-46, 50-3, 160-2 (quotation, p.7). See also Hartmut Böhme, “Krieg und Zufall: Die Transformation der Kriegskunst bei Carl von Clausewitz,” in Marco Formisano and Hartmut Böhme (eds.), *War in Words: Transformations of War from Antiquity to Clausewitz* (Berlin and New York: Walter de Gruyter, 2011), pp.391-413; Marian Füssel, “Vom Dämon des Zufalls: Die Schlacht als kalkultiertes Wagnis im langen 18. Jahrhundert,” in Stefan Brakensiek, Christoph Marx and Benjamin Scheller (eds.), *Wagnisse: Risiken eingehen, Risiken analysieren, von Risiken erzählen* (Frankfurt am Main and New York: Campus Verlag, 2017), pp.91-106, 95-6, 98-9.

and eighteenth-century natural philosophy was itself much more subjective than previously thought, in the sense that it was closely connected to literature and aesthetic considerations.⁴ This essay links the history of military theory with the practical history of military campaigns and battles, and places both of them within the broader history of knowledge. It uses the figure of King Frederick II of Prussia (reigned 1740 – 86) to link theoretical with practical military knowledge, placing the military treatises read and written by the king alongside the practical example of the Prussian army's campaign against the Russians in summer 1758 at the height of the Seven Years War (1756-63), which culminated in the battle of Zorndorf. This article shows that both the theory and practice of war – like other branches of knowledge in the long eighteenth century – were fundamentally shaped by the contemporary search for intellectual order. The inability to achieve this in practice led to a reliance on subjective judgment and individual, local knowledge. Whereas historians have noted attempts in the eighteenth century to calculate probabilities mathematically, this article shows that war continued to be conceived as the domain of fortune, subject to incalculable chance.⁵ Answering Steven Shapin's call to define concretely "the subjective element in knowledge-making," the examples of Frederick and his subordinate Lieutenant General Count Christoph zu Dohna reveal sharply different contemporary ideas about how to respond to uncertainty in war.⁶ Whereas Dohna sought to be ready for chance events and react to them, Frederick

⁴ Daniela Bleichmar, "Learning to Look: Visual Expertise across Art and Science in Eighteenth-Century France," *Eighteenth-Century Studies* 46 (2012): 85-111; Oded Rabinovitch, "Chameleons between Science and Literature: Observation, Writing, and the Early Parisian Academy of Sciences in the Literary Field," *History of Science* 51 (2013): 33-62; Kim Sloan, "Sir Hans Sloane's Pictures: The Science of Connoisseurship or the Art of Collecting?" *Huntington Library Quarterly* 78 (2015): 381-415, 384, 412-5.

⁵ On uncertainty in war, see Carl von Clausewitz, *On War*, eds. and trans. into English by Michael Howard and Peter Paret (London: Everyman Publishers, 1993), pp.117-8, 125-7, 138-40; Martin Van Creveld, "Napoleon and the Dawn of Operational Warfare," in John Andreas Olsen and Martin van Creveld (eds.), *The Evolution of Operational Art: From Napoleon to the Present* (Oxford: Oxford University Press, 2011), pp.9-32, 9.

⁶ Steven Shapin, "The Sciences of Subjectivity," *Social Studies of Science* 42 (2012): 170-84 (quotation, p.172).

actively embraced uncertainty and risk-taking, making chance both a rhetorical argument and a positive choice guiding strategy and tactics.

It is well known that the long eighteenth century saw efforts to bring the world – including the natural world – to order, both politically and intellectually.⁷ The new experimental philosophy, for instance, promised intellectual order comparable to the political order sought in Restoration England, while Carl Linnaeus sought to order nature in the service of the Swedish state.⁸ In the German lands, the science of government known as cameralism sought to create a “well-ordered police state,” regulating society.⁹ Both Lorraine Daston and the present author have noted that, whereas *coup d’œil* – the ability of a commander to read terrain visually – was seen by the early nineteenth century as “an effortless instinct” comparable to aesthetic connoisseurship, in the mid eighteenth century it involved generals having an encyclopedic knowledge of the terrain, reflecting contemporary ideas of intellectual order.¹⁰

⁷ David Blackbourn, *The Conquest of Nature: Water, Landscape and the Making of Modern Germany* (New York and London: W.W. Norton and Company, 2006), pp.5-6, 19, 24-64; Lissa Roberts, “Introduction,” in Lissa Roberts, Simon Schaffer, Peter Dear (eds.), *The Mindful Hand: Inquiry and Invention from the Late Renaissance to Early Industrialisation* (Amsterdam: Koninklijke Nederlandse Akademie van Wetenschappen / Royal Netherlands Academy of Arts and Sciences, 2007), pp.1-8, 2; Simon Schaffer, “Introduction,” in Roberts, Schaffer, Dear, *The Mindful Hand*, pp.85-93; Peter H. Wilson, *Absolutism in Central Europe* (London and New York: Routledge, 2000), pp.52-3, 60-1, 69.

⁸ Lisbet Koerner, *Linnaeus: Nature and Nation* (Cambridge, MA, and London: Harvard University Press, 2000), esp. pp.46, 51-2; Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*, new ed. (Princeton, N.J.: Princeton University Press, 2011), pp.341-2.

⁹ Karl Härter, “Vorwort,” in Karl Härter (ed.), *Policey und frühneuzeitliche Gesellschaft* (Frankfurt/Main: Vittorio Klostermann, 2000), pp.vii-x; Marc Raeff, *The Well-Ordered Police State: Social and Institutional Change Through Law in the Germanies and Russia, 1600-1800* (New Haven, CT, and London: Yale University Press, 1983); Keith Tribe, “Cameralism and the Science of Government,” *The Journal of Modern History* 56 (1984): 263-84, 272-7; Keith Tribe, *Governing Economy: The Reformation of German Economic Discourse, 1750-1840* (Cambridge: Cambridge University Press, 1988), pp.28-34.

¹⁰ Lorraine Daston, “The Coup d’Oeil: On a Mode of Understanding,” *Critical Enquiry* 45 (2019): 307-331, 313-22 (quotation, 314); Adam Lindsay Storrington, “Frederick the Great and the Meanings of War, 1730-1755” (Unpublished PhD Dissertation: University of Cambridge, 2017 <https://www.repository.cam.ac.uk/handle/1810/277782>), pp.146-7.

The “police state” was often “disordered,” however, and it was difficult for early modern states to get accurate information.¹¹ This inability to achieve intellectual order in practice led to an emphasis on local and personal knowledge.¹² Matthew Edney noted that the “geographic practices” of the long eighteenth century “functioned meaningfully only at the small and medium scales of geographical enquiry.”¹³ Big mapping projects were hugely expensive and the second Cassini map of France was only completed at the end of the eighteenth century, at the same time that the Ordnance Survey started in Britain. Before that, only local maps could depict topography and physical geography in detail. Contour lines to show the details of terrain also only appeared on maps at the very end of the century, and indeed contemporaries often described terrain in words rather than pictures.¹⁴ Edney and Dorinda Outram distinguished two approaches to acquiring knowledge of nature in this period: personal “reconnaissance” in the field (as practiced most famously by explorers, but also by myriad other travellers and by military officers), and in contrast the detached

¹¹ Ronald G. Asch and Heinz Durchhardt, “Einleitung: Die Geburt des “Absolutismus” im 17. Jahrhundert: Epochenwende der europäischen Geschichte oder optische Täuschung?” in Ronald G. Asch and Heinz Durchhardt (eds.), *Der Absolutismus – ein Mythos? Strukturwandel monarchischer Herrschaft in West- und Mitteleuropa* (ca. 1550-1700) (Cologne, Weimar, Vienna: Böhlau Verlag, 1996), pp.3-24; Arndt Brendecke, *Imperium und Empire: Funktionen des Wissens in der spanischen Kolonialherrschaft* (Cologne, Weimar, Vienna: Böhlau Verlag, 2009); Andre Wakefield, *The Disordered Police State: German Cameralism as Science and Practice* (Chicago and London: University of Chicago Press, 2009).

¹² On the importance of local expertise, see Alix Cooper, *Inventing the Indigenous: Local Knowledge and Natural History in Early Modern Europe* (Cambridge: Cambridge University Press, 2007).

¹³ Matthew H. Edney, “Reconsidering Enlightenment Geography and Map Making: Reconnaissance, Mapping, Archive,” in David N. Livingstone and Charles W.J. Withers (eds.), *Geography and Enlightenment* (Chicago and London, The University of Chicago Press: 1999), pp.165-6. See also *Ibid*, p.191.

¹⁴ Michael Biggs, “Putting the State on the Map: Cartography, Territory and European State Formation,” *Comparative Studies in Society and History* 41 (1999): 374-405, 380-90; Black, Jeremy, “A Revolution in Military Cartography? Europe, 1650-1815,” *The Journal of Military History* 73 (2009): 49-68, 52-4, 65-8; Blackbourn, *Conquest of Nature*, pp.43-4; Edney, “Reconsidering Enlightenment Geography,” pp. 166, 168, 187-90, 191-2; Josef W. Konvitz, *Cartography in France 1660-1848: Science, Engineering and Statecraft* (Chicago, London: University of Chicago Press, 1987), pp.xi-101; Jacques Revel, “Knowledge of the Territory,” *Science in Context* 4 (1991): 133-61, 139-40, 147-8, 155-9; Mark S. Thompson, *Wellington’s Engineers: Military Engineering in the Peninsular War, 1808-1814* (Barnsley: Pen & Sword, 2015), pp.216-21.

perspective of the office-based map-maker or sedentary naturalist.¹⁵ The mid-eighteenth-century concept of *coup d'œil* similarly expected generals to acquire their encyclopedic knowledge of the terrain through personal reconnaissance.¹⁶ As with maps, it was only at the end of the eighteenth century that the development of general staffs would provide an institutional basis for military knowledge.¹⁷ This article shows that, in the mid eighteenth century, Europe – and its armies – still relied primarily on personal and local geographical knowledge.

Similarly, while Ian Hacking, Daston and Rüdiger Campe have shown that the long eighteenth century saw the first development of the mathematical theory of probabilities, Daston has noted that mathematical ideas only slowly replaced older conceptions of risk, which “emphasized prudent judgment based on the particularities of the individual case”. This reflected “a world . . . where specific . . . and above all personal knowledge counted, knowledge to be sifted and weighed by an old hand in the business.”¹⁸ Reinhard Koselleck described how eighteenth-century historians began to move away from chance as an explanation for historical events, but also noted that contemporaries considered it perfectly possible for improbable strokes of fortune to decide events in war, and that chance continued

¹⁵ Edney, “Reconsidering Enlightenment Geography,” pp.165-6, 168, 172-86, 191-2; Dorinda Outram, “New Spaces in Natural History,” in N. Jardine, J.A. Secord, E.C. Spary (eds.), *Cultures of Natural History* (Cambridge etc: Cambridge University Press, 1996), pp.249-65, 261-4; Dorinda Outram, “On Being Perseus: Travel and Truth in the Enlightenment,” in Livingstone and Withers, *Geography and Enlightenment*, pp.281-94.

¹⁶ Daston, “The Coup d’Oeil”: 313-9; Storrington, “Frederick the Great and the Meanings of War, 1730-1755,” pp.146-7.

¹⁷ Van Creveld, “Napoleon and the Dawn of Operational Warfare,” pp.23-4.

¹⁸ Rüdiger Campe, *The Game of Probability: Literature and Calculation From Pascal to Kleist*, trans. into English by Ellwood H. Wiggins, Jr. (Stanford, CA: Stanford University Press, 2012); Lorraine Daston, *Classical Probability in the Enlightenment* (Princeton, N.J.: Princeton University Press, 1988) (quotations, p.112); Ian Hacking, *The Emergence of Probability: A Philosophical Study of Early Ideas about Probability, Induction and Statistical Inference*, 2nd ed. (Cambridge etc.: Cambridge University Press, 2006).

to be used as a rhetorical tool to explain military reverses.¹⁹ Indeed, many international lawyers positively welcomed the chance element in war as an impartial means of settling disputes between states, and the present author has shown that some military thinkers similarly embraced chance in war.²⁰ This article describes how both eighteenth-century military theorists and generals in the field sought to use personal judgment to respond to the uncertainty of war.

This reliance on personal knowledge and judgment in war reflected the importance of what Pamela Smith has called “practical craft knowledge,” as opposed to “the theoretical knowledge of scholars or scientists”. As with Smith’s work on early modern artisans, this article examines eighteenth-century military knowledge primarily through its “practices,” which were “often formulated . . . not in words but instead in works.”²¹ Eighteenth-century military officers offer a particularly fascinating case study because they were overwhelmingly noblemen, whereas practical knowledge has often been associated with lower-status groups. Christopher Duffy noted that in the eighteenth century it was thought

¹⁹ Reinhart Koselleck, *Futures Past: On the Semantics of Historical Time*, trans. into English by Keith Tribe (Cambridge, MA, and London: The MIT Press, 1985), pp.116-29. See also Böhme, “Krieg und Zufall,” pp. 395-6; Füssel, “Vom Dämon des Zufalls,” pp.99-103, 106.

²⁰ Campe, *The Game of Probability*, p.33; Storring, “Frederick the Great and the Meanings of War,” pp.187-204; James Q. Whitman, *The Verdict of Battle: The Law of Victory and the Making of Modern War* (Cambridge, MA, London: Harvard University Press, 2012), pp.2-3, 20, 50-94, 258.

²¹ Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago and London: The University of Chicago Press, 2004), pp.6-8, 17-23, 27-8, 240 (quotations, pp. 6, 8, 18). On practical “expertise” in the early modern period, see Eric H. Ash, “Introduction: Expertise and the Early Modern State,” in Eric H. Ash (ed.), *Expertise: Practical Knowledge and the Early Modern State* (Chicago: University of Chicago Press, 2010), pp.1-24; Ursula Klein and E.C. Spary, “Introduction: Why Materials?” in Ursula Klein and E.C. Spary (eds.), *Materials and Expertise in Early Modern Europe* (Chicago and London: University of Chicago Press, 2010), pp.1-22, 1-7; Ursula Klein, “Artisanal-Scientific Experts in Eighteenth-Century France and Germany,” *Annals of Science* 69 (2012): 303-306; Roberts, Schaffer, Dear, *The Mindful Hand*.

that generalship had to be learnt through practical apprenticeship with the great commanders.²²

Frederick II of Prussia is an important figure uniting the intellectual discourses of the eighteenth century with military practice, as he not only led his armies personally through a series of wars but was also deeply involved in contemporary cultural and intellectual life. The mid eighteenth century saw a huge upsurge in books on military topics, of which some of the most important for Frederick were the works of the Marquis de Feuquières, the Chevalier de Folard, the Marquis de Puységur, the Marquis de Quincy, the Marquis de Santa Cruz, and Maurice de Saxe.²³ Friedrich Moritz von Rohr, an ensign in Frederick's guard, also translated Comte Turpin de Crissé's 1754 *Essay on the art of war* into German, possibly at Frederick's suggestion.²⁴ Along with Frederick's own writings, these works provide a representative sample of contemporary books on war. Frederick's campaigns have been studied in detail for centuries, but historians have generally focused on the king's own writings rather than examining the views of his generals.²⁵ To achieve a broader perspective, this article examines Frederick's unpublished correspondence with his subordinate Dohna.

The Seven Years War saw the upstart Prussian state confronted by a coalition of most of Europe: Austria, France, Russia, Sweden, and the Holy Roman Empire. When the Russian

²² Christopher Duffy, *Frederick the Great: A Military Life* (London: Routledge & Kegan Paul, 1985), p.9.

²³ Gat, *Origins of Military Thought*, pp.25-6; Großer Generalstab Kriegsgeschichtliche Abteilung II, *Friedrich des Großen Anschauungen vom Kriege in ihrer Entwicklung von 1745 bis 1756* (Berlin: Ernst Siegfried Mittler und Sohn, 1899), pp.233-5, 377-9; Ullrich Marwitz, "Friedrich der Große als Feldherr," in Militärgeschichtliches Forschungsamt (ed.), *Friedrich der Große und das Militärwesen seiner Zeit* (Herford, Bonn: Verlag E.S. Mittler und Sohn, 1987), p.75.

²⁴ Christopher Duffy, *The Army of Frederick the Great*, 2nd ed. (Chicago: The Emperor's Press, 1996), p. 53; Friedrich Moritz von Rohr, *Des Herrn Grafen Turpin von Crisse, Brigadiers unter der französischen Armee und Mestre du Camp über ein Husaren Regiment, Versuche über die Kriegskunst* (Potsdam, 1756).

²⁵ Reinhold Koser, "Die preussische Kriegsführung im Siebenjährigen Kriege," *Historische Zeitschrift* 92 (1904): 239-73, 266.

army of Villim Villimovitch Fermor occupied the isolated province of East Prussia in January 1758, Russian troops were in a position to advance toward the Prussian heartland. On 24 March 1758, Frederick appointed Dohna as commander of the smaller Prussian army facing the Russians and Swedes in the north, while he himself faced the Austrians to the south. Fermor's army crossed the Vistula in late May and June and toiled slowly across Poland, reaching Posen on 1 July and Meseritz on 26 July. Frederick expected that the Russians would join the Austrians by entering Silesia or Lusatia, to the south, and that he would face them with his main army while Dohna remained further north. From early August, however, Frederick started planning to march north to unite with Dohna.²⁶

“Perfect knowledge” and “exact information”

Reflecting the long eighteenth century's search for intellectual order, military writers specified that, as the Marquis de Quincy repeatedly emphasized, a general must have a “perfect knowledge” (“connaissance parfaite”) of the country where their army was campaigning.²⁷ The Marquis de Puységur declared that, “the general should have in his head an exact knowledge (“connaissance exacte”) of all the country which his army occupies.”²⁸ Frederick showed that this was more than mere rhetoric, as he demanded detailed information from Dohna about the landscape and the Russian positions. On 1 August, he ordered Dohna “to form a map [of] how the position of the Russians at Meseritz is . . . and how the area and

²⁶ Dieter Ernst Bangert, *Die russisch-österreichische militärische Zusammenarbeit im Siebenjährigen Kriege in den Jahren 1758-1759*, (Boppard am Rhein: Harald Boldt, 1971), pp.46-52, 82-90; *Politische Correspondenz Friedrich's des Grossen* (Berlin: Verlag von Alexander Duncker, 1879-1939), Vol. XVI, pp.220, 270, 323-4, 333-4, 341-2, 346-8, 359, 397; *Politische Correspondenz*, XVII, pp. 96, 120-3, 136-8, 142-3; J. G. Tielke, *An Account of Some of the Most Remarkable Events of the War Between the Prussians, Austrians and Russians from 1756 to 1763: And a Treatise on Several Branches of the Military Art with Plans and Maps*, trans. into English by C. Crawford and R. Crawford, 2nd ed. (London, 1788), Vol. II, pp.13-22, 66, 70-1, 83-6, 89, 95, 97.

²⁷ Charles Sevin Marquis de Quincy, *Histoire Militaire du Regne de Louis le Grand, Roy de France* (Paris, 1726), Vol. VII_II, pp.22, 33-4, 54. On this phenomenon more widely, see Storing, “Frederick the Great and the Meanings of War,” pp.145-8.

²⁸ Jacques François de Chastenet de Puységur, *Art de la Guerre par Principes et par Règles* (Paris, 1748), Vol. II, pp.72.

other circumstances are, so as not to run . . . blind into the enemy.”²⁹ On 4 August, Frederick demanded, “as exact news as possible of the enemy’s position and the area around.” Dohna should “have a map prepared of the position of the enemy, how he stands and how the terrain is.”³⁰ “You . . . must try to find out as exactly as possible the nature of the situation and all routes and circumstances, so that you have everything properly in your head”, Frederick emphasized some days later.³¹

Reflecting the contemporary emphasis on personal and local knowledge of nature, eighteenth-century generals frequently used reports from local people, and Frederick told Dohna to produce his map using information from “foresters, butchers and the like, who know the area around Meseritz at every turn”.³² Frederick and Dohna also used the wider institutions of the Prussian state, with Dohna gleaning considerable information about Russian movements from two Prussian officials who had been captured and interrogated by the Russians, from the Prussian envoy in Danzig, and from Prussian officials in East Prussia.³³ Frederick ordered the commandant of the Silesian fortress of Glogau to “send me at once the best maps that you can find of the Polish border.”³⁴ Dohna also told the local chamber of the Neumark Brandenburg (the territory east of the Oder) to provide him with “charts and drawings of the parts of the Neumark lying on the Polish side, as well as of the Polish borders and also of Poland [itself], especially the part where the Russians . . . are”. The councilors sent Dohna two maps, but apologized that one “is only correct and accurate as far

²⁹ *Politische Correspondenz*, XVII, p.143.

³⁰ *Politische Correspondenz*, XVII, p.150.

³¹ *Politische Correspondenz*, XVII, p.153.

³² Christopher Duffy, *The Military Experience in the Age of Reason* (London and New York: Routledge & Kegan Paul, 1987), p.183; Edney, “Reconsidering Enlightenment Geography,” p.180; *Politische Correspondenz*, XVII, p.150; Thompson, *Wellington’s Engineers*, p.220-1.

³³ Geheimes Staatsarchiv Preußischer Kulturbesitz (henceforth GStA PK), I. HA Rep. 96 Nr. 85 Oo, pp.100r–101r, 123r – 123v, 126r, 131r–131v.

³⁴ *Politische Correspondenz*, XVII, p.157.

as concerns the Neumark, but the border is not marked on it, as the Chamber has not needed this.”³⁵

Just as the knowledge available to early modern states was limited, however, so Dohna’s search for “exact information” was frustrated. He had long had detachments east of the Oder, and learnt in late July that the Russians had reached Meseritz. He established an advance guard, which sent out detachments to find the Russians, and Prussian hussars even reached Königswalde on 13 August and skirmished with Cossacks.³⁶ Dohna was able to report the presence of portions of the Russian army at Königswalde on 4 August, just inside Prussian territory, and then at Landsberg on 11 August.³⁷ Prussian reports on 4 August, however, still erroneously located the bulk of the Russian army at Meseritz, further east, describing in detail the supposed location and defenses of a camp that the Russians had left two days previously.³⁸ Dohna lamented, “I have made all possible efforts, both with patrols and spies, to acquire news on the actual strength of the Russian main army and their position at Meseritz. However, their . . . light troops have prevented me from achieving this objective.”³⁹ The Prussian army prided itself on well-ordered and disciplined line troops, but it struggled to penetrate the Russian army’s screen of irregular, disordered but highly effective light cavalry.⁴⁰ Although he repeatedly praised the achievements of his one irregular unit, the Free Regiment of Hordt, Dohna lamented that “the great number of light troops of the enemy

³⁵ GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.128r.

³⁶ Tielke, *War between the Prussians, Austrians, and Russians*, pp.91-2, 98, 102-7, 119-20; Jürgen Ziechmann (ed.), *Journal vom Siebenjährigen Kriege von Friedrich Wilhelm Ernst Freiherr von Gaudi, Band V: 1758* (Buchholz: LTR-Verlag, 2003), pp.210-14, 219-20.

³⁷ GStA PK, I. HA Rep. 96 Nr. 85 Oo, pp.97r, 99r, 100v, 113r – 113v, 116r, 117v, 119r, 123v, 125r, 127r.

³⁸ Bangert, *Militärische Zusammenarbeit*, p.98; GStA PK, I. HA Rep. 96 Nr. 85 Oo, pp.97r, 102r – 102v; Tielke, *War between the Prussians, Austrians and Russians*, p.101.

³⁹ GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.97r.

⁴⁰ GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.119v; Peter Paret, *Yorck and the Era of Prussian Reform, 1807-1815* (Princeton, NJ: Princeton University Press, 1966), pp.25-8.

make reconnaissance impossible for me.”⁴¹ On 11 August, he admitted that, “at present, it cannot be said with certainty, nor can one reliably find out, whether more or fewer Russian troops are currently at Meseritz.”⁴² The Prussians struggled even to draw on the personal knowledge of local people, as Dohna lamented on 13 August that “the mere suspicion of being a spy has led several unfortunates to be treated with such inhumanity [by the Russians] that it is no longer possible to persuade anyone who could be employed as such.”⁴³ Frederick wrote to Dohna in frustration on the same day that “I have . . . seen . . . , not without displeasure, that you cannot tell me anything accurate about the enemy’s position. It should be at Meseritz: so write to me whether the Russian army is actually there! I absolutely must know where the enemy is, otherwise I [can]not do anything!”⁴⁴ In the wide spaces of Poland and eastern Brandenburg, the Prussians were unable to achieve either “exact information” or “perfect knowledge”.

“Foresight” and Risk

Just as they expected a general to have “perfect”, “exact knowledge” of the terrain, so the military authors read by Frederick, while not proposing mathematical calculations of probability, expected a commander to foresee all eventualities in order to control the play of chance in war.⁴⁵ The Chevalier de Folard emphasized that “foresight [“*prévoyance*”] against accidents . . . is the foundation of great enterprises”.⁴⁶ ‘There is not a single [potential accident] which one can ignore,’ said Folard, ‘at least of those which one can avoid through

⁴¹ GStA PK, I. HA Rep. 96 Nr. 85 Oo, pp.97r – 97v, 113v–114r, 117r –117v, 123v (quotation, p.113v).

⁴² GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.113v.

⁴³ GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.123r.

⁴⁴ *Politische Correspondenz*, XVII, p.169.

⁴⁵ Storing, “Frederick the Great and the Meanings of War,” pp.120-4.

⁴⁶ *Extrait Tiré des Commentaires du Chevalier Folard sur l’Histoire de Polybe, pour l’Usage d’un Officier* (Sans Souci, 1753), p.57. See also *Ibid*, p.77.

precautions taken in advance.⁴⁷ Turpin de Crissé repeatedly emphasized the need for “foresight” [“prévoyance”] on the part of a general, and Puysegur noted that any shortage of supplies resulting from “a lack of foresight” (“un manquement de prévoyance”) on the part of the commander was “a great fault, and . . . worthy of blame”.⁴⁸ Quincy stated that a general “must have foreseen” in advance any danger of their army being defeated, and should “foresee” what line of retreat they would use.⁴⁹ Frederick himself wrote in his 1748 *General principle of Wars* that the general should continually imagine what the enemy might do: “he is the sentinel of his army, he must see, hear, foresee and prevent all the ill that could befall it.”⁵⁰ “One must anticipate everything, sense difficulties, and resolve them,” he wrote.⁵¹ In his 1755 *Thoughts and General Rules for War* Frederick similarly declared that, “a general of an army must be indefatigably vigilant, consider everything, foresee everything and observe even the slightest steps of the enemy.”⁵²

Contemporary authors also emphasized that a general should be ready to take advantage of chance developments that fell in their favor. Folard advised commanders to take advantage of the enemy’s mistakes, and Quincy urged them “to profit [“profiter”] from an advantage” of any kind.⁵³ Turpin said that “it is up to the genius [of the general] to seize the occasions”. While not all “circumstances” could be anticipated, “it is through his skill to profit [“profiter”] from them” that a general could achieve victory.⁵⁴ Maurice de Saxe similarly stressed that a general should “know how to profit from the thousand kinds of situations

⁴⁷ *Extrait des commentaires du Chevalier Folard*, p.96.

⁴⁸ Puysegur, *Art de la Guerre*, Vol. II, p.33; Turpin de Crissé, *Essai sur l’Art de la Guerre* (Paris, 1754), Vol. I, pp.16, 384, 385.

⁴⁹ Quincy, *Histoire Militaire*, Vol. VII_II, pp.63, 81.

⁵⁰ Johann D.E. Preuss (ed.), *Œuvres de Frédéric le Grand* (Berlin: R. Decker, 1846-56), Vol. XXVIII, pp.45-6.

⁵¹ *Œuvres*, XXVIII, p.18.

⁵² *Œuvres*, XXVIII, p.144.

⁵³ *Extrait des Commentaires du Chevalier Folard*, p.19; Quincy, *Histoire Militaire*, VII_II, pp.51, 104 (quotation, p.104).

⁵⁴ Turpin, *Essai*, Vol. I, p. 386.

which present themselves to us”.⁵⁵ Having argued in his *General principles* for the value of an offensive strategy, Frederick admitted that, “one cannot always wage a war entirely on the offensive,” but recommended “a ruse which, inflating the amour-propre of the enemies, induces them into faults from which one can profit”.⁵⁶

Dohna now showed what this “foresight” looked like in practice, as he managed the uncertainty resulting from his limited information by waiting on the Oder river, seeking to respond to eventualities and cover the various possible Russian moves while not committing himself in any one direction. With his main force at Frankfurt on the Oder, Dohna emphasized to Frederick on 4 August that, “if I had only one enemy before me, I would have had no hesitation in crossing the Oder and advancing all the way into Poland. Now, however, I see myself required also to be aware of the Swedes”, who threatened Berlin from the north.⁵⁷ Neither Dohna nor Frederick was sure whether the Russians intended to move south to link up with the Austrians, northward to link up with the Swedes (who were based on the Baltic coast), or whether they might cross the Oder river via the Prussian fortress of Cüstrin and advance directly on Berlin.⁵⁸ The Prussian uncertainty was not surprising, as, even in late July, there were still acrimonious discussions about this within the allied high command. Moreover, the Russian forces included a detached corps commanded by Lieutenant General Browne, which operated independently of Fermor.⁵⁹ The Prussian resident in Danzig reported on 9 August “from reliable sources, that,”

⁵⁵ Maurice de Saxe, *Les Reveries ou Memoires sur l'Art de la Guerre*, de Bonneville (ed.) (The Hague, 1756), p.177. See also *Ibid*, p.206.

⁵⁶ *Euvres*, XXVIII, p. 15.

⁵⁷ GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.97r; Max Immich, *Die Schlacht bei Zorndorf am 25. August 1758* (Berlin, 1893), p.53.

⁵⁸ GStA PK, I. HA Rep. 96 Nr. 85 Oo, pp.103r, 105r, 107r, 117r, 119v, 125r, 132r, 133r, 144v; *Politische Correspondenz*, XVI, pp.346-8; *Politische Correspondenz*, XVII, pp.150, 170, 172-3.

⁵⁹ Bangert, *Militärliche Zusammenarbeit*, pp.62-6, 79-98; Christopher Duffy, *Russia's Military Way to the West: Origins and Nature of Russian Military Power 1700-1800* (London: Routledge & Kegan Paul, 1981), p.73; Ernst von Frisch, *Zur Geschichte der russischen Feldzüge im Siebenjährigen*

Although Fermor's corps is making noises about advancing into Lusatia [to join the Austrians] . . . , its intention is actually to unsettle the Mittelmark [Brandenburg]. The corps of Browne, in contrast, has the plan of uniting with the Austrians Apparently Fermor . . . does not plan to fight a battle but rather to bring our army out of its position through the many raids.⁶⁰

On 14 August, Dohna told Frederick:

It becomes ever more likely that the Russians intend a union with their allies, and that they seek to make this easier by keeping me in watchfulness in this area through the corps of Browne, while their army meanwhile moves to the Oder and can join with the Swedes. If, however, this army were to move from here [Frankfurt] in order to protect the crossing of the Oder against them, the way would thereby be open for the corps of Browne to move to the Austrians.⁶¹

“The enemy has vainly sought to bring me out of countenance through his marches and countermarches”, wrote Dohna to Frederick.⁶² “If my present position changes . . . the enemy could always gain three strong marches on me with his detached corps, whereas my current position . . . has held up the Russians up to now”.⁶³

Kriege nach den Aufzeichnungen und Beobachtungen der dem russischen Hauptquartier zugewiesenen österreichischen Offiziere, vornemlich in den Kriegsjahren 1757-1758, (Heidelberg: Winter, 1919), pp.76-9, 89-90.

⁶⁰ GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.126r.

⁶¹ GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.125r.

⁶² GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.113r.

⁶³ GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.119v.

Dohna's response to his uncertain information was to remain at Frankfurt on the Oder, ready to respond to circumstances. He and Frederick recognized that the Russians might attack the Prussian fortress of Cüstrin, but were confident its defenses would hold.⁶⁴ The Russians had been unable to bring their siege artillery across Poland and, while they attacked and bombarded Cüstrin on 15 August, reducing the town to ashes, they were unable to damage the fortress walls.⁶⁵ Even now, Dohna did not immediately leave his position at Frankfurt.⁶⁶ Only when it seemed that the Russians were actually going to cross the Oder did he rush north to prevent this.⁶⁷

In contrast, despite the claims of his military treatises, Frederick's approach in practice to the play of chance in war stressed not "foresight" but risk. Frederick was fascinated by the play of chance, in war as in other areas of life, and was throughout his life temperamentally inclined to take risks.⁶⁸ His confidante Henri de Catt recorded him repeatedly imagining his own death in battle, and during his march north in August 1758 Frederick three times issued instructions as to what should happen if he were killed.⁶⁹ "My motto is conquer or die," wrote

⁶⁴ GStA PK, I. HA Rep. 96 Nr. 85 Oo, pp.100v–101r, 107r, 113r–113v, 127r, 132r; *Politische Correspondenz*, XVII, pp.169-70.

⁶⁵ Duffy, *Russia*, pp.67-8, 86; Großer Generalstab Kriegsgeschichtliche Abteilung II, *Die Kriege Friedrichs des Großen, Teil III: Der Siebenjährige Krieg 1756-1763, Band VIII: Zorndorf und Hochkirch* (Berlin: Ernst Siegfried Mittler und Sohn, 1910), pp.78-83.

⁶⁶ GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.132r.

⁶⁷ GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.134r.

⁶⁸ Tim Blanning, *Frederick the Great King of Prussia* (London: Allen Lane, 2015), p.266; Wolfgang Burgdorf, *Friedrich der Große: Ein biografisches Porträt* (Freiburg, Basel, Vienna: Verlag Herder, 2011), pp.7-11, 23; Johannes Kunisch, *Friedrich der Grosse: Der König und seine Zeit* (Munich: C.H. Beck, 2004), p.173-4; Friedrich August von Retzow, *Charakteristik der wichtigsten Ereignisse des Siebenjährigen Krieges in Rücksicht auf Ursachen und Wirkungen von einem Zeitgenossen* (Berlin, 1802), Vol. I, p.314. Barbara Stollberg-Rilinger, *Der Staat als Maschine: Zur politischen Metaphorik des absoluten Fürstenstaats* (Berlin: Duncker & Humblot, 1986), pp.66-7.

⁶⁹ *Frederick the Great: The Memoirs of his Reader Henri de Catt (1758-1760)*, trans. into English by F.S. Flint, (London: Constable and Co., 1916), Vol. I, pp.256, 274; Paul Hartig (ed.), *Henri de Catt: Vorleser Friedrichs des Großen: Die Tagebücher 1758-1760* (Munich und Berlin: Deutscher Kunstverlag, 1986), p.56; *Politische Correspondenz*, XVII, pp.158-9, 163, 183.

Frederick to Dohna on 12 August: “whoever does not think the same should not pass the Oder but go to all the devils”.⁷⁰

Historians have argued that Frederick was unusually able to take such risks because of his unique position as both military commander in chief and head of state: not answerable to anyone if things went wrong.⁷¹ The Prussian king, however, also encouraged Dohna to be aggressive and embrace risk, telling him on 2 April 1758:

As to your conduct, always act vigorously and offensively . . . A general must be bold and audacious, providing that he joins good dispositions to his temerity. You are a man, you are not above fortune [“fortune”], misfortunes may befall you, but you must be calm on that point and be assured that I will not judge you on the event but on the circumstances in which you found yourself and on the dispositions that you have made.⁷²

On 10 April, when Dohna was campaigning against the Swedes, Frederick told him, “I . . . recommend to you once more most highly . . . that you not imagine so many difficulties in your undertakings, but rather that you should put what you want to do briskly into action, otherwise you will not move from your position.”⁷³ On 20 July, while he was still facing the Austrians in the south, Frederick told Dohna to attack the Russians alone.⁷⁴ He added on 24 July that, both for himself and Dohna, each in their own theatres of operations, “nothing else

⁷⁰ *Politische Correspondenz*, XVII, p.165.

⁷¹ Clausewitz, *On War*, p.626; Füssel, “Vom Dämon des Zufalls,” pp.101-2; Johannes Kunisch, *Das Mirakel des Hauses Brandenburg: Studien zum Verhältnis von Kabinettspolitik und Kriegführung im Zeitalter des Siebenjährigen Krieges* (Munich: R. Oldenbourg Verlag, 1978), pp.77-80; Theodor Schieder, *Friedrich der Große: Ein Königtum der Widersprüche* (Frankfurt am Main: Propyläen Verlag, 1983), pp. 185-6.

⁷² *Politische Correspondenz*, XVI, p.347.

⁷³ *Politische Correspondenz*, XVI, p.371.

⁷⁴ *Politische Correspondenz*, XVII, pp.122-3

remains than . . . to advance vigorously and to try to hit [the enemy] good and hard". A postscript in the king's own hand emphasized: "one must be active and profit from all advantages".⁷⁵

Throughout the campaign, Frederick saw the uncertainty about Russian intentions as a cause not for delay but for action. "If I leave the Russians time," he wrote on 4 August, "they will divide, with one part going to the Mark [Brandenburg] and the other to Silesia".⁷⁶ By 8 August, he had developed a plan to circle around the Russian position and threaten their supply base at Posen, thus drawing them out to give battle.⁷⁷ On 9 August, he angrily told Dohna to send stronger detachments to confront the Russians. "It seems to me," Frederick told his general, "as if, when you see danger, you do not want to have any part in it . . . You and all your officers must get it out of your heads that the Russians are in an un-attackable camp".⁷⁸ Once the siege of Cüstrin had been stymied, shortage of supplies might have obliged the Russians to withdraw of their own accord, but Frederick instead chose to cross the Oder to attack them.⁷⁹ It was a decision that he felt the need to defend in his later memoirs. "The king . . . had to fight a battle so as to rid himself for a time of one army and thus to be able to turn in another direction. The king could employ three weeks in this expedition, but how to finish it so quickly without coming to blows?"⁸⁰ Whereas Dohna showed "prudent judgment" in cautiously seeking to anticipate and respond to chance events, Frederick reflected alternative ideas that actively embraced uncertainty and risk.

⁷⁵ *Politische Correspondenz*, XVII, pp.136-7.

⁷⁶ *Politische Correspondenz*, XVII, p.150

⁷⁷ *Politische Correspondenz*, XVII, pp.152-3.

⁷⁸ *Politische Correspondenz*, XVII, pp.156-7.

⁷⁹ Tielke, *War between the Prussians, Austrians, and Russians*, pp.149-51.

⁸⁰ *Œuvres*, IV, p.229.

Local knowledge

The focus of the campaign around Cüstrin, in the heartland of the Prussian state, now demonstrated the importance of local and personal knowledge in eighteenth-century warfare. “When one is in one’s own country,” Frederick wrote later, “one has all the help possible, both from detailed maps and from the inhabitants.” It was therefore easy to plan marches.⁸¹ Folard had criticized governments trying to plan campaigns based only on the map, emphasizing that the great generals of his day “reasoned and established the state of the war through the knowledge they had of the country.”⁸² In his 1749 poem *The Art of War*, Frederick similarly emphasized that, before a battle, “the commander advances alone, he must reconnoiter everything / He can triumph . . . by a masterly coup d’œil.”⁸³ The Prussian generals knew the area around Cüstrin from personal experience, and this, alongside the much greater support available from the Prussian state, now gave the Prussian army substantial advantages.

Frederick had lived in Cüstrin from 1730 to 1732, after his failed attempt to flee from Prussia as an adolescent. Initially imprisoned in the fortress, Frederick was then apprenticed in the local administration and travelled widely in the area. His letters record him visiting Lebus, on the route his troops now took when marching to Cüstrin, as well as Himmelstedt near Landsberg, where the Russian army camped. At his father’s insistence, Frederick also hunted regularly, a particularly relevant activity given that Folard recommended hunting as a way to develop coup d’œil.⁸⁴ The crown prince developed a close friendship with Frau von Wreech, whose estate at Tamsel lay just east of Cüstrin, and he went duck shooting with her husband,

⁸¹ *Œuvres*, XXIX, p.125.

⁸² *Extrait des Commentaires du Chevalier Folard*, p.16.

⁸³ *Œuvres*, X, p.315.

⁸⁴ *Extrait des Commentaires du Chevalier Folard*, pp.10-12, 15, 24; *Œuvres*, XVI, pp.17-18; *Œuvres*, XXVII_III, pp.20, 24-36, 43-6, 48-51, 53, 55-9, 61-2, 63-4.

Colonel von Wreech.⁸⁵ Frederick also produced a treatise about commerce on the Oder River, noting its trade connections with Silesia and the Baltic.⁸⁶ As he tried to persuade his father to readmit him to the army, Frederick was already thinking about the area in military terms, promising that, ‘if the Poles were to attack here [Cüstrin] six thousand strong, I hope my most gracious father will allow me . . . to seek an opportunity to distinguish myself’.⁸⁷

Frederick was not alone in his personal knowledge of the area around Cüstrin. On 1 June 1754, Dohna attended the Prussian army’s maneuvers at Stargardt, Pomerania, some distance north of Cüstrin. He wrote to Frederick that he was looking forward to “this new opportunity to learn my profession [“mètier”] under the eyes of Your Majesty.”⁸⁸ A map among Dohna’s correspondence shows various corps of an army deployed in the area west of Cüstrin, giving some impression of the terrain and picking out the road that ran from Manschenow northward to the Oder. The map is undated, so there is no definite evidence to link it to the 1754 maneuvers, and it is not certain whether Dohna visited the ground personally or whether the map was simply a paper exercise.⁸⁹ Nevertheless, it is clear that not only Frederick but also his subordinate had made a study before the war of the route that the Prussian army now took to outflank the Russians.

The Prussian state was also now able to provide much greater assistance. Frederick and Dohna had small boats gathered, which could be used for pontoon bridges, and Frederick had

⁸⁵ *Œuvres*, XVI, pp.9-20; *Œuvres*, XXVII_III, pp.24-5.

⁸⁶ *Œuvres*, XXVII_III, pp.38-43, 45.

⁸⁷ *Œuvres*, XXVII_III, pp.23-4.

⁸⁸ GStA PK, I. HA Rep. 96 Nr. 602 S; Dohna to Frederick, 15.5.1754; Karl Heinrich Siegfried Rödenbeck, *Tagebuch oder Geschichtskalender aus Friedrich’s des Großen Regentenleben* (Berlin: Plahn, 1840-2), Vol. I, pp.267-8.

⁸⁹ GStA PK, I. HA Rep. 96 Nr. 602 S.

pontoons constructed in Berlin. Dohna prepared his own pontoon bridge at Cüstrin, and had wood for bridge building sent from Berlin.⁹⁰

The Prussian state was also bringing order to the natural world in which the campaign took place. Between 1747 and 1753, Frederick had overseen a program to drain the marshland along the Oder northward from Alt-Güstebiese (where the Prussians would now cross the river) and to re-route its channel. During the Seven Years War, work continued to drain the valley of the Warthe River.⁹¹ The Prussian bridging materials were now sent via the network of canals that had been built to connect the Oder to other waterways, and were gathered at Wriezen, the administrative center for the settlement of the drained lands.⁹² The Prussian army was thus maneuvering in a landscape that had been ordered by the Prussian state.

Whereas the Prussians were aided by their knowledge of the area, Fermor apparently believed that Cüstrin and Schwedt (to the north) were the only places where the Oder could be crossed, and divided his forces by sending General Rumyantsev to hold the latter point.⁹³ Having hurried north from Silesia at the head of a picked force, Frederick arrived at Dohna's camp at Gorgast, west of Cüstrin, on 21 August.⁹⁴ Finding the Russian position at Cüstrin too strong to attack directly, Frederick resolved to cross the Oder further north. On the night of 22-23 August, the Prussian advance guard and first line of infantry marched via Zechin and

⁹⁰ GStA PK, I. HA Rep. 96 Nr. 85 Oo, pp.133r, 142r, 144r; *Politische Correspondenz*, XVII, pp.143, 152, 162, 169-70, 178.

⁹¹ Blackbourn, *Conquest of Nature*, pp.33-41.

⁹² Blackbourn, *Conquest of Nature*, pp.53-4; *Memoirs of Henri de Catt*, pp.281-2; Großer Generalstab, *Zorndorf und Hochkirch*, pp.97-8; GStA PK, I. HA Rep. 96 Nr. 85 Oo, p.144r; *Œuvres*, IV, p.230; *Journal vom Siebenjährigen Kriege*, p.228.

⁹³ Duffy, *Russia*, p.86; F. A. von Etzel, *Die Operationen gegen die Russen und Schweden im Jahre 1758 und die zweitägige Schlacht bei Zorndorf am 25. und 26. August* (Berlin, 1858), p.154; Immich, *Schlacht bei Zorndorf*, pp.61-2; Dmitri Theodorovich Masslowski, *Der Siebenjährige Krieg nach russischer Darstellung, Teil II: Der Feldzug des Grafen Fermor in den östlichen Gebieten von Preussen (1757-1759)*, trans. into German by Albert Christian Karl von Drygalski (Berlin, 1891), pp.149-153.

⁹⁴ *Journal vom Siebenjährigen Kriege*, pp.217-219, 228.

Ortwig (both places picked out on Dohna's 1754 map) to Alt-Güstebiese, where they met the bridging materials from Wriezen. The second line marched via Goltzow and Wollup (places where Frederick in 1731 had hunted and suggested improvements to the land) to Ortwig and Alt-Güstebiese. Advance units crossed by boat, and the Prussians laid a pontoon bridge over which the main army began to cross at noon on 23 August. Frederick thus cut the Russian army in two, dividing Fermor from Rummyantsev.⁹⁵

Learning of the Prussian crossing, Fermor abandoned the siege of Cüstrin and took up a position south of the swampy Mietzel River. At the western end of the Russian position was the village of Quartschen, which Frederick had visited several times in 1731. To the east was Massin Wood, near a glass foundry Frederick had visited in 1732.⁹⁶ While the Russian position was too strong to be attacked frontally, Frederick was able to outflank it to the east, capturing bridges at Neudamm Mühle and Kersten on the evening of 24 April, and building more overnight. Two Prussian forestry officials guided his troops as they marched through the woods in the early hours of the morning of 25 August and around the Russian right flank.⁹⁷ Military knowledge in the long eighteenth century – like knowledge of nature more broadly – was substantially local and personal. Around Cüstrin, personal experience gave the Prussian commanders the kind of “perfect knowledge” of the terrain required in contemporary military treatises, while the Prussian state was able to bring the natural world – including the space of war – intellectually and physically to order.

⁹⁵ GStA PK, I. HA Rep. 96 Nr. 602 S; *Œuvres*, XXVII_III, pp.24, 26, 28, 34-5; *Politische Correspondenz*, XVII, p.178; Georg Friedrich von Tempelhoff, *Geschichte des Siebenjährigen Krieges in Deutschland zwischen dem Könige von Preußen und der Kaiserin Königin mit ihrer Allirten als eine Fortsetzung der Geschichte des General Lloyd* (Berlin, 1783-7), Vol. II, pp.221-2; *Journal vom Siebenjährigen Kriege*, pp.228-229.

⁹⁶ Masslowski, *Der Siebenjährige Krieg nach russischer Darstellung*, pp.153-66; *Œuvres*, XXVII_III, pp.28, 31, 34, 61-2.

⁹⁷ Großer Generalstab, *Zorndorf und Hochkirch*, pp.118-9, 123, 128; Immich, *Schlacht bei Zorndorf*, pp.66, 69; Simon Millar, *Zorndorf: Frederick Faces Holy Mother Russia* (Oxford: Osprey, 2003), p.50; *Journal vom Siebenjährigen Kriege*, pp.230-1.

“A nothing can change everything”

As he debouched from the woods, Frederick was presented with precisely the kind of unexpected advantage, thrown up by chance, that contemporary military treatises advised commanders to “profit” from, for Fermor had left his baggage train virtually unprotected at Groß-Kamin to the southeast. If Frederick turned to capture it, the Russians would be forced to retreat even without a battle. Major General von Ruesch, a Prussian hussar officer, urged Frederick to do this, but the king refused. Instead, he kept his army marching around the Russians to reach the village of Zorndorf, just north of Frau von Wreech’s estate at Tamsel. Frederick later admitted that, “if he had been in less haste, he might have taken it [the Russian baggage train] without difficulty, and obliged them [the Russians] by some marches to quit the country.”⁹⁸ A few days after the battle, Frederick belatedly acknowledged the advantages he would have gained from destroying the Russian supplies, noting that, “if I burn them, then the [enemy] army must retreat head over heels . . . that is better than a battle.”⁹⁹

Instead, Frederick attacked the Russian main army, expecting that his tactic of the “oblique order” (which concentrated the attack against one point on the enemy line) would win outright victory. “By mishaps and misunderstandings,” however (as Frederick later put it), the attack miscarried as the different corps of the Prussian infantry failed to support each other, and the Prussian left was routed by a Russian counterattack. The battle of Zorndorf degenerated into murderous chaos, ending at nightfall with both sides exhausted. In the

⁹⁸ *Œuvres*, IV, pp.230-1 (quotation, p.231); Retzow, *Charakteristik der wichtigsten Ereignisse*, Vol. I, p.315.

⁹⁹ *Politische Correspondenz*, XVII, p.197.

following days, Frederick allowed the Russians to retreat and himself returned southwards to confront the Austrians.¹⁰⁰

Having preferred the risk of battle to the opportunity of “profiting” from chance advantages, Frederick now blamed chance for his misfortune. His intimate de Catt claimed that Frederick in the previous days had anticipated the outcome. “I have made my dispositions,” he supposedly said on 24 August, “but . . . a nothing can change everything, and the commander will be held responsible.” “I will march as quickly as possible,” Frederick allegedly said on hearing of the bombardment of Cüstrin, “but if the thing does not succeed they will criticize me.”¹⁰¹ Trying, that winter, to rationalize what had happened, Frederick argued that, “whatever precautions a general takes, there always remain many risks to run . . . in all battles.”¹⁰² This was a long-standing theme for Frederick, who had lamented in his 1748 *General Principles of War* that “our little wisdom and prudence often becomes the plaything of chance”, so that generals were blamed for chance events that were beyond their control.¹⁰³ Frederick’s argument reflected contemporary ideas of the inevitability of chance in war, and the Prussian king embraced such ideas first as the basis for his strategy and tactics in the Zorndorf campaign and then as a justification when things went wrong.

Conclusion

Military commanders directing armies on campaign may seem an unlikely subject for the historian of science, but the Prussian army’s campaign against the Russians in summer 1758 provides an important reminder of the importance of personal judgment and personal, local

¹⁰⁰ Duffy, *Frederick the Great*, pp.165-72; Großer Generalstab, *Zorndorf und Hochkirch*, pp.129-161, 253-261; *Œuvres*, IV, p. 231; *Journal vom Siebenjährigen Kriege*, pp.232-41, 315-7.

¹⁰¹ *Henri de Catt Tagebücher*, pp.60, 62.

¹⁰² *Œuvres*, XXVIII, p.180.

¹⁰³ *Œuvres*, XXVIII, pp.96-8 (quotation, p.98).

knowledge in eighteenth century cultures of knowledge. Numerous military historians have argued that eighteenth-century warfare was ‘calculated,’ and that contemporary military thinkers sought to reduce war to the principles of geometry and physics. However, just as recent research has noted the subjectivity of long eighteenth century science, so the military treatises written and read by King Frederick II of Prussia, and the practices of Frederick and his subordinate Count Christoph zu Dohna on campaign, show an emphasis on subjective judgment as the basis for military decisions. Reflecting the period’s search for order – in war as in other branches of knowledge – military treatises called for the general to have “perfect knowledge” of the terrain, and during the summer campaign of 1758 Frederick demanded that Dohna provide him with “exact information” on the theatre of war. Institutions to provide such knowledge, however – such as large state mapping projects or general staffs – would appear only slowly in the later years of the eighteenth century. The Prussian army’s maneuvers leading up to the battle of Zorndorf demonstrated that, in the absence of such institutions, knowledge (including military knowledge) was often local and personal.

The long eighteenth century saw efforts to turn uncontrollable chance into mathematically calculated probability, and historians like Anders Engberg-Pedersen have claimed that military theory sought to control the play of chance in war. The practices of the Prussian high command in 1758, however, like the military literature of the time, fully recognized the uncertainty of war, and sought to respond to it through subjective judgment – the ability of the individual general – rather than mathematical calculation. Moreover, the examples of Frederick and Dohna show that this “subjective element of [military] knowledge-making” took a variety of forms. Dohna’s cautious maneuvering reflected ideas that generals should use “foresight” to anticipate what might happen, while being ready to “profit” from chance events and turn them to their advantage. In contrast, Frederick showed that risk could be

embraced as a deliberate choice in military decisions, with the play of chance used as justification when risky plans miscarried.