

History 425

Research Paper

Factors in the Failure of Operation
Barbarossa, 1941

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Introduction

“There are things in Russia which are not as they seem.”

- Georgy Zhukov

The Eastern Front was by far the deadliest, most brutal theatre in the deadliest, most brutal war in history. There are few other instances in the chronology of warfare where grand, sweeping, continental maneuvers entailed millions of soldiers, thousands of tanks, a whole continent's industrial capability and consumed not divisions, not armies, but *army groups*.

Its role in the outcome of the Second World War is beyond dispute. To put it into perspective, the same number of Soviet soldiers died in a single battle – Stalingrad – as the number of American soldiers who died in the entirety of the war. The Eastern Front was its own war, and unlike many other fronts, where decisive turning points can sometimes be traced to within a few hours in one day – El Alamein, Midway, or Normandy – the tide was turned in the East painfully, tediously, across many years, owing to the complicated factors that often leave the realm of the military and its actions.

The Eastern Front roared into action with Hitler's offensive Barbarossa in 1941, the epitome of the Blitzkrieg that had felled all of Western Europe, and which began with expectedly astounding success. The conflict in the east began with German tanks racing across the flat expanses of the Russian steppe and encircling division-level units of unprepared Soviet forces;

within months, German units were within miles of Moscow, and all looked lost for Stalin. Yet the conflict emerged years later with the massive Soviet offensive Bagration, in an unstoppable drive towards Berlin; Stalin now fielded an army so large and potent that the stage had already been set for the bipolar world of the Cold War, decades later. German forces paled in comparison. Why did Barbarossa, so successful early on, ultimately fail?

We shall now seek to answer this question. I argue that the failure of Barbarossa cannot be pinned on a decisive encounter, battle, moment, or factor, but was instead due to a combination of three indispensable causes which all acted patiently in concert. We do indeed see decisive military encounters playing a role; we see the absolute disparity in economic identity that translate to performance on the battlefield; and finally, we see the varying capabilities in political leadership, particularly in Hitler's cabinet, that foretells the military outcome.

Historical Overview

“You only have to kick in the door and the whole rotten structure will come crashing down.”

- Adolf Hitler

After the invasion and the partition of Poland in 1939 by German and Soviet forces, the German war machine turned its attention to the West before pivoting again to the East. In the short period between the Battle of Poland and Operation Barbarossa, Germany would conquer (or at least force the birth of puppet governments) in Belgium, the Netherlands, France, Norway, and Denmark. They would fight and lose the Battle of Britain, but this was not a consequential loss for the outcomes on the Eastern Front; the conquest of Britain was not one of Hitler's main goals anyways, and did not cause enough Luftwaffe losses to seriously jeopardize German military capability when invading the east. Of course, Britain made D-Day and the Battle of Normandy possible, but this would come much, much later in 1944, well after the outcome of the Eastern Front was more or less foreseeable.

From the Nazi leadership perspective there was plenty to be gained in the Soviet Union. Apart from a systematic need to eliminate races they deemed subhuman, which included Slavic peoples, there were several pragmatic reasons¹ for the offensive:

- supply of labor for the German economy and military production;
- supply of land and agricultural products, especially in the Ukraine;
- and the expansion of territory to further consolidate Germany's position on the European continent.

The German attitude towards invasion, and achieving these objectives, very narrowly considered Soviet military capabilities, and overlooked economic, cultural, and social aspects that would come into play in a war of attrition. Indeed, if victory could come quickly, as it did in the Battle of France in a matter of weeks, there was little else to consider but the ability of German units to conduct effective Blitzkrieg. Equivalently, this was also a question of whether Soviet military forces were in a position to effectively stop it.

Initially, they certainly were not. When German units invaded via Blitzkrieg on June 22, 1941, “the invasion induced nothing short of utter chaos.”² Soviet troops suffered from serious communications and coordination issues, as well as a lack of air power. Consequently, any counterattacks were grievously mistimed and resulted in determined, tenacious, but ultimately ineffective resistance.³ With the Luftwaffe working around the clock in this period to provide

¹ Roberts, Andrew. *The Storm of War: A New History of the Second World War*. New York: Harper Perennial, 2012. 147-148.

² Stahel, David. *Operation Barbarossa and Germany's Defeat in the East*. Cambridge University Press, 2009. 156.

³ Ibid.

support to the armored spearheads, German units quickly advanced around pockets of resistance, surrounding vast numbers of Soviet soldiers, on the order of hundreds of thousands. In Minsk alone, 400,000 Soviet soldiers were encircled, and then captured. In the first few weeks of the campaign the Soviet forces were utterly routed, and German units were advancing across the entire face of the front, from the Arctic to the Black Sea. Owing to superior Wehrmacht organization, training, tactical maturity and air superiority, Barbarossa was initially a resounding success for Hitler.

However, during this period we also begin to witness the first signs of what was to come. Despite the German superiority in military technicality, the environment was of no help to the advancing units. Across the continent, fast-advancing divisions came upon “catastrophic road conditions that were impossible to traverse,”⁴ no doubt due to occasionally wet weather conditions and the general poor state of roads in the Russian countryside during this time. This served to stretch out German columns and strain the supply lines that already had to ferry vital supplies across hundreds of kilometers. Yet this was only the summer.

During this time, German units also began to notice the ferocious resistance put up by Soviet units. Despite being ineffective in stopping the advance as a whole, and despite suffering calamitous numbers of casualties, Soviet defense was stiff for how disorganized it was. Small platoon-sized units wreaked havoc on German supply columns already stretched out by the poor road conditions, and despite resistance being tactically futile most of the time, still caused noticeable numbers of German casualties, especially among officers.⁵ While, for now, losses

⁴ Ibid.

⁵ Ibid. 160.

could be sustained, this would certainly foreshadow what was to come in the remainder of the conflict.

As the autumn and winter dawned, and as German forces enjoyed another victory at Smolensk, the final drive to Moscow was in preparation. Yet these months only exacerbated the problems that the Germans suffered. Now under constant partisan attack, with the weather and elements against them, and the inexperienced Red Army finally able to regroup as tenacious pockets of resistance slowed the German advance, this was a transformative period where the war in the east morphed from a rapid, quick-moving, decisive style of combat into one of slow, arduous, attrition. As Stahel concisely put it, “[the] encirclements in the center of the front achieved impressive operational successes but did not open up a strategic alternative through which the war could be won.”⁶ Much can be attributed to German miscalculation of many factors: the resistance offered by shattered but still operational Red Army units, the poor state of local infrastructure slowing advance, and possibly above all, the prospect that losing millions of men and thousands of vehicles in the beginning of the conflict was somehow not enough to force Stalin’s capitulation. Instead, Stalin had moved his heavy industry, factories, and command structure east of the Ural mountains, well out of reach, where they continued to churn out simple, cheap, but iconically robust and effective weapons like the T-34 tank and the IL-2 ground attack plane. After suffering a high cost, Stalin had stopped the German advance – part of which was also due to German unpreparedness – and could now transition into a phase of warfare in which the cards were heavily stacked against the Germans.

⁶ Ibid. 259.

In October 1941 the Germans, using the last of their momentum that they acquired in the summer, launched a massive offensive on Moscow. Yet this was in the famous Russian winter; Stalin had also incidentally finished assembling reinforcements from Siberia that were well-equipped to fight in the present conditions. As the offensive petered out and both militaries ground to a halt to suffer through the winter, Operation Barbarossa was well and truly over.

I. Military Encounters

“We are facing very difficult days, perhaps the most difficult that a man can undergo.”

- Erwin Rommel

There are occasionally wars – (arguably) the Cold War, for instance – in which the tactics and results of belligerent militaries had relatively little impact on the outcome. Instead, the might of militaries may manifest on the negotiation table, or in the minds of enemy citizens. The Eastern Front was certainly not one of these wars. While we will argue that factors of Barbarossa’s failure are multifaceted outside of just military results, it would be dishonest to not attribute to them their significance.

It could be argued that so important were the results of military encounters on the Eastern Front that even with a stronger economy or leadership, the Soviet defensive cause could have been lost. Had the Germans taken Moscow in the winter of 1941, for example, would the war have been over then? Despite Stalin bringing in Siberian reserves, and ingeniously moving his factories east of the Urals, could the Soviet Union have survived losing the center of its political leadership, an industrial heartland, and cultural icon? The very legitimacy with which this question can be asked is certainly a testament to the importance of military results.

We make a case that the Wehrmacht ultimately failed. They did not achieve the decisive, fast, and total success that would be required to contribute positively to the German war effort in the

east, and to characterize this, we analyze three instances of combat: initial advances, Smolensk, and Moscow.

Initial Encounters

The initial surprise attack in June 1941 began very successfully for the Germans. In one week, they advanced 400 kilometers⁷ and were hitting their stride conducting Blitzkrieg, something that was well-rehearsed in France. Yet even in these initial successes – if they could be called successes at all – were signs that not all was well for the Wehrmacht. German soldiers, still winning their battles, were doing so “on the point of exhaustion;”⁸ and more vehicles were lost to the mud and poor roads than to enemy fire.⁹

Despite this, poster victories kept rolling in – hundreds of thousands of Soviet soldiers were being encircled and defeated in Minsk, in Kiev, and in hundreds of other pockets scattered across the colossal front. This period is often cited as a period of decisive victory for the German war machine, and there is a conception that the German defeats really came afterwards, at later turning points like Stalingrad and Kursk. We must dispute the claim that things were really this simple. The events of this early period of invasion did indeed appear conclusive on paper, but we must not forget the toll that the speedy Blitzkrieg exacted on the German army. As discussed before, the Wehrmacht suffered from chronic and costly supply shortages and transportation issues; soldiers were being exhausted, and there simply was not enough time to recover. German chief of staff Franz Halder accurately remarked that they had “underestimated the Russian

⁷ Hartmann, Christian. *Operation Barbarossa: Nazi Germany's War in the East, 1941-1945*. Oxford University Press, 2018. 49.

⁸ Ibid.

⁹ Ibid.

colossus.”¹⁰ This period laid the foundations for what came later – and informed the results of later battles. After all, the German defeat in Moscow would have certainly seemed like a surprise, if one were not informed of the grueling “victories” that had been wearing down German soldiers for five months.

In many ways, this period of the war produced many Pyrrhic German victories when viewed in retrospect. The German war machine, infinitely more well-trained and more refined at this point than the Soviet one, were buying victories that they ultimately could not pay for.

Smolensk

A telling example of a Pyrrhic German victory was the Battle of Smolensk, in the very same city which handed Napoleon a Pyrrhic victory over a century earlier, in 1812. Smolensk, being directly on the road to Moscow, was a central focus of Hitler’s Army Group Center and, like many other engagements fought during the campaign, was quick to be surrounded by German advances. This entrapped three Soviet armies in the city,¹¹ while the Soviet front, badly mauled, backed away further to the east – this formed a salient, with a neck that, if closed, would mean the destruction of hundreds of thousands of Soviet soldiers.¹² Yet despite the tactical obviousness, the city was not completely surrounded quickly, instead requiring days more for German forces on the north and south to finally close the gap.¹³ This delay was caused partly by the German armored divisions moving too fast, and the infantry units not being able to catch up, meaning that

¹⁰ Ibid. 50.

¹¹ Stahel, David. *Operation Barbarossa and Germany’s Defeat in the East*. Cambridge University Press, 2009. 271.

¹² Ibid. 290.

¹³ Ibid.

the assault could not be sustained. This was now a common occurrence on the Eastern Front, which was costly, as the fast pace of Blitzkrieg was no longer being used to its full advantage. Consequently, at Smolensk, many Soviet units escaped to augment the frontline to the east.

Smolensk was certainly a German victory, and was touted as such, but again a high price was paid. The German air force, the Luftwaffe, had suffered from a crippling combination of fuel and replacement shortages, an increased presence of Soviet air sorties, and the ever growing size of the front. Constantly being pressed to cover greater and greater areas with less and less planes and resources, Stahel rightfully describes the Luftwaffe being more of a “fire brigade”¹⁴ at this point, hopping from offensive to offensive to support, but never really possessing total air superiority.

Meanwhile, other problems were coming to light. German soldiers, previously in high spirits after a breakneck speed, victory-filled, but exhausting trek across western Russia, began to see by late July around the offensives and bridgeheads around Smolensk, that they were up against stronger and stronger Soviet resistance. Whereas the lightning offensives in June and early July had seen disorganized Soviet units essentially collapse under the well-synchronized Blitzkrieg, now there was a real, stiffened, organized resistance after Soviet units were given time to regroup and reorganize. Soviet artillery sometimes outmatched German artillery in volume of fire,¹⁵ putting German soldiers against a greater technological threat – this was new in this campaign. Soviet units first began to deploy the famous Katyusha truck-mounted rocket launchers – Stalin’s Organs – that four years later would wreak havoc on Berlin. Soviet small-

¹⁴ Ibid. 305.

¹⁵ Ibid. 299.

arms were held in high regard¹⁶ and their superb robustness, especially in the muddy, dusty, and rugged Russian summer and autumn, would cause them to be sought-after by German soldiers. In typically Soviet style, be it small arms, artillery, or other crude but effective pieces of equipment, they were able to be produced and deployed en masse, creating no shortage of replacements. They also did not have to be ferried across thousands of kilometers of muddy country road under constant partisan attack, as their German counterparts had to be.

By the end of July, the Luftwaffe could not even maintain air superiority. Army Group Center was badly bruised after its hard-earned victory at Smolensk, and all the same Hitler expected the whole campaign to be over within a month. German replacements thinned, and Stalin's industry had switched into high gear. Smolensk was one of the last major victories for Germany on the Eastern front, and certainly one of the last ones that German planners could reasonably expect to win. Taking into account all of the factors that served to hamstring the German Army, it is not hard to see why. Of course, beyond Smolensk, lays Moscow.

Moscow

Operation Typhoon to take Moscow was launched in early October. Hitler, and by extension much of the German high command, had a conception that this was the final victory, that this would "break the Red Army's back."¹⁷ Of course, it did not. But the offensive did start off very successfully. Fedor von Bock, commander of the German Army Group Center, at the head of the massive German offensive of 2 million men had made staggering advances and had surrounded

¹⁶ Ibid.

¹⁷ Stahel, David. *Operation Typhoon: Hitler's March on Moscow, October 1941*. Cambridge University Press, 2015. 298.

up to 1 million Soviet soldiers as they moved on Moscow,¹⁸ and a large hole had been opened up in the Soviet front. However, Soviet reinforcements came in the form of General Mud, as heavy seasonal rains turned the already poor state of Russian country roads and fields into soft, soggy, mud that halted much of the German advance.¹⁹

Old problems, of course, were ever persistent. Lack of supplies, poor preparation, and the exhausting toll of this speedy warfare were compounded now by the plummeting temperatures of the onset of the Russian winter, the weakening of the Luftwaffe, and the deterioration of conditions across the board. By the end of October, Typhoon had failed. The Germans had come very close to Moscow, but not close enough. Stalin was busy strengthening his forces for a devastating phase of counteroffensives; Soviet manpower was still nearly inexhaustible; and ultimately, while both sides had paid a heavy price in lives and resources during Barbarossa, the Germans disproportionately paid more.

The decisive blow that was needed to defeat Russia had once again been eaten away by the harsh conditions and sheer size of the countryside. The German war machine had lost its momentum, and with it, any hopes that Barbarossa would be a victory.

As winter rolled in and both sides scrambled into the next phase of operations, Operation Barbarossa quietly petered out on the barren, frozen fields outside of Moscow, in late October 1941.

¹⁸ Ibid.

¹⁹ Ibid. 299.

All in all, Operation Barbarossa had been a German endeavor that failed to achieve its military goals. By the end, despite conquering most of European Russia and despite inflicting millions of casualties upon the enemy, the German army found itself in a situation that was rapidly worsening against them.

There is controversy regarding if Barbarossa can really be hailed as a victory. While it certainly can be considered one by tactical metrics – the conquering of land and the inflicting of casualties – it left Germany in a precariously bad position with no easy solution. It set up the stage for Germany to fight a war it could not afford in any metric. Barbarossa sure did well, but ultimately not well enough, and in the life-or-death results of total war, not well enough inevitably translates to defeat.

II. Attrition: Economy at War

“Whenever a dozen divisions are destroyed the Russians replace them with another dozen.”

- Franz Halder

The question of economic capability to conduct the war in the east is, in many ways, a simpler one than military capability. There is much less controversy, and as far as writing is concerned, much less convincing. The question of how the military did was a complex one involving many factors that acted to varying degrees. In contrast, there is little doubt that the economy’s role in shaping Barbarossa was significant, and the results were clear.

German economic considerations would play a far greater role in the latter stages of the Eastern conflict, well after Barbarossa, when raw materials, manpower, and vehicles were all in shortage. As a country and party with a war economy model based off of conquering territories for a ready source of material and labor, the German economy under Hitler had reached reasonable heights during Barbarossa, taking advantage of their Western European conquests.

The Soviet economy, however, changed drastically over the course of Barbarossa. As Hartmann explains it, everything stemmed from the need to fight for survival,²⁰ and hence much more

²⁰ Hartmann, Christian. *Operation Barbarossa: Nazi Germany's War in the East, 1941-1945*. Oxford University Press, 2018. 117.

could, and was willing, to be done. Given the much larger Soviet population, and the much larger capability for industry, the Soviet war machine would be unstoppable given adequate time to develop. The Germans' hope for decisive and quick military victory would knock out the Soviets before their economy could be weaponized to full war capacity. Having failed to achieve quick victory throughout Barbarossa, the Soviet economy did precisely that: become weaponized to full war capacity. The growth would start shortly before the invasion and continue well until the end of the war.

As previously mentioned, and even before the start of Barbarossa, Soviet development was occurring in the east, around and beyond the Ural mountains.²¹ Specifically, as the German invasion started, up to 2000 industrial plants could be relocated eastward and out of reach of the advancing German Army.²² By 1942, over 40% of Soviet capital was invested in the east,²³ and of course this was a massive contribution that served the Red Army well. As Barbarossa went on, there was certainly no shortage on the Soviet side of weapons, tanks, aircraft, and other basic tools of war. This no doubt had a massive effect on the outcome of Barbarossa.

The general attitude of survival enabled Stalin to “use all available means to mobilize absolutely everything that the country and people had to offer”²⁴ which placed more burdens on the population, but was somewhat compensated by the increased need to identify as a nation, and to fight for survival. Lesser differences were “concealed”²⁵ as all people banded together to fight

²¹ Ibid. 120.

²² Ibid.

²³ Ibid.

²⁴ Ibid. 121.

²⁵ Ibid.

the Great Patriotic War. The use of that term itself is a great testament to the attitude that fueled the Soviet war economy during the second half of 1941. In contrast, of course, Germany did not have a similar mode of motivation; there was no similar need to survive as a nation and as a people.

A final note on the economic differences lies in the general attitude that was taken towards technologies and weapons. From small arms to artillery to tanks, Soviet production was comparatively of lower quality, but much cheaper and faster to make. The greatest comparison can be seen in the heavy Soviet production and use of the T-34 medium tank. The German counterpart, the Mk. IV or Mk. V (Panther) were of better quality and craftsmanship, but less adapted specifically to the demanding Russian fighting environment, and there were far less of them. In the vastness, as well as extreme heat and cold of the summers and winters, along with all ranges of terrain from marsh to plains to forest, having cheaper, easier to replace equipment was a better choice than having better equipment. The sheer size of the battlefields also meant that having a greater number of tanks could be taken advantage of.

It can be concluded, with all things considered, that the Soviets were in a much better position to fight a prolonged war, or a war of attrition, than the Germans were. The Soviet economy was too big, too stubborn, and too elusive for the Germans to match, and this was very apparent as Barbarossa went on. Soviet forces only got stronger, more numerous, and better equipped, while the harsh fighting environment meant the opposite for the Germans. When the Germans failed to achieve their decisive knockout blow that Barbarossa was designed to be, the war could have been considered over. Conversely, Barbarossa would not have been a Soviet defensive victory had it not been for their unstoppable economic might, and its ability to take punishment.

III. Headless: Disastrous Leadership

“In Hitler’s launching of the Nazi campaign in Russia, we can already see, after six months of fighting, that he has made one of the outstanding blunders in history.”

- Winston Churchill

The question of leadership and its effects on Barbarossa, is largely a question on the German side. This is because Hitler was, as a leader, eccentric and unpredictable. He was known to contradict his military advisers despite him having no formal military training or education, and he was a huge risk taker in military decisions. Ultimately, the German war machine was crippled at the top, which had a huge effect on their potential in Barbarossa.

Hitler had a tendency to disrupt the established long-term plans of his planners in deference to his personal decisions and plans. In the east, this was no different. The most striking example was his dispute with the command of Army Group Center in July of 1941 on the decision to assault Moscow. His commanders, realizing that Moscow was the far more valuable target, had planned a fast, strong assault on the city with all available resources. Yet Hitler decided to divert some of Fedor von Bock’s tank divisions (the centerpieces of the German military offensives) to take Kiev instead,²⁶ at the disapproval of his more qualified military commanders. This resulted

²⁶ Stahel, David. *Operation Typhoon: Hitler's March on Moscow, October 1941*. Cambridge University Press, 2015. 299.

in a weakening of the German forces near Moscow, and ultimately delayed the assault. As we know, heavy rains stopped the attack before it reached Moscow. It is very likely that if Hitler had not intervened in the longer-term military planning, the assault would have not been delayed, and Moscow would have been taken. Events would have developed significantly differently if that had happened, and Barbarossa may not necessarily have failed.

Instances like these are scattered all over Hitler's reign. Other instances include Hitler diverting forces from Dunkirk during the Fall of France so they could parade in Paris, allowing a significant number of British troops to evacuate. In Stalingrad, Hitler prevented a breakout of the German forces even after they were surrounded, destroying the German army trapped within as they were whittled down without any supplies.

Hitler may have been very gifted in the political arena, but he was mediocre at best at making military decisions. This was exacerbated by his perceived military genius from the almost flawless conquest of France and the low countries. While it is difficult to gauge the exact effect of his actions as we will never know what would have happened had he not been in command, there is no doubt that in certain instances, like during Operation Typhoon's drive to Moscow, Hitler had made the poorer strategic decision and had reduced the efficacy of German troops.

In general, the existence of the Nazi party in the military command complicated matters. It insisted on a close and disruptive way of command that placed incapable people like Hitler in the decision-making process, often overruling the advice and command of more qualified professional military commanders. In this sense, and in light of the enormous potential consequences that these poor decisions had, we must conclude that poor leadership, and

generally the injection of poor commanders in critical positions was as much of a detriment to Germany's hopes in Barbarossa as its military defeats were.

The obvious discussion that remains is the exact amount to which Hitler's poor decisions affected the outcome of Barbarossa. While authors like Stahel seem to suggest that Barbarossa had been lost within months of its beginning,²⁷ attributing it more to military and economic factors, the evidence seems to suggest that poor leadership also played a key role.

It is not difficult to conceptualize a situation where if the most qualified military commanders of Germany planned things as they wished, without the almost parasitic nature of the Nazi command injected in the military structure, the campaign would have had a higher chance of being successful. While the existing controversy means we cannot definitively say so, the very least to say is that we should not disregard the effect of poor Nazi military leadership in the disaster that was Barbarossa.

²⁷ Stahel, David. *Operation Barbarossa and Germany's Defeat in the East*. Cambridge University Press, 2009.

Aftermath & the Legacy of Barbarossa

“If you win, you need not have to explain. If you lose, you should not be there to explain.”

- Adolf Hitler

The Eastern Front dwarfed every other theatre in the Second World War in sheer scale, brutality and cost of combat. The German defeat in Operation Barbarossa set the stage for years more of long, arduous attrition that ground both sides down and would leave its mark in a generation of people. Understanding why Barbarossa failed naturally leads to a better understanding of why the entire Eastern Front, and indeed why the Second World War, played out the way it did.

We proved that Barbarossa was the culmination of three key factors: military encounter, economic might, and leadership capability. Yet the value and importance of its study is apparent when we study most other wars, for those results often also depend on these factors.

In conventional modern warfare, the factors that were present at Barbarossa 80 years ago are still there – the attrition, the mud, the cold, the decisiveness, the importance of economic industry and leadership. To understand combat, and to understand how conflicts have, and will, shape the world, Operation Barbarossa is a great proving ground. For warmongers and peacemakers alike, there are great lessons to be learned in the cold, muddy, Russian autumn of 1941.

Bibliography

Hartmann, Christian. *Operation Barbarossa: Nazi Germany's War in the East, 1941-1945*. Oxford University Press, 2018.

Roberts, Andrew. *The Storm of War: A New History of the Second World War*. New York: Harper Perennial, 2012.

Stahel, David. *Operation Barbarossa and Germany's Defeat in the East*. Cambridge University Press, 2009.

Stahel, David. *Operation Typhoon: Hitler's March on Moscow, October 1941*. Cambridge University Press, 2015.