

# Navigating Neutrality: The Significance of Esperanto During the Cold War



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## Introduction

Language is a powerful political tool. During the Cold War, the ideological and geopolitical struggle between the United States and the Soviet Union went far beyond the nuclear arms race and conventional military confrontations. This battle for global influence was also fought indirectly through psychological warfare, propaganda, espionage, embargoes, sports diplomacy, and technological competitions like the Space Race. In addition to waging proxy wars, both superpowers engaged in a contest over the spoken word. During this period, the Russian language ascended to global prominence, becoming an official language of international organizations such as the United Nations and UNESCO.<sup>1</sup> The Soviet Union's efforts to promote Russian were a strategic response to the West's attempts to maintain or expand its political and cultural influence, especially in the post-decolonization era.<sup>2</sup> Both superpowers recognized that language could serve as a potent form of soft power. Amid this linguistic rivalry, interest in a language outside the political fray—Esperanto—also grew, highlighting the broader cultural dynamics during this tense period.

Esperanto is one of several “neutral planned” languages—consciously designed to be free from the influence of any single ethnic or national language.<sup>3</sup> It is undoubtedly the most successful of these languages, having achieved its goals of becoming a means of interlingual communication, acquiring a community of first and second-language speakers, and impacting the global political and ideological landscape. As noted by Gledhill, there is little practical or utilitarian incentive to learn Esperanto.<sup>4</sup> The language lacks a community of native speakers, mass media presence, legal code, territory, state authority, or state-supported education system to

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<sup>1</sup> Padmini Subhashree, “The Spread of the Russian Language in the Global South during the Cold War,” Fletcher Russia and Eurasia Program, April 3, 2024, <https://sites.tufts.edu/flecherrussia/the-spread-of-russian-language-in-the-global-south-during-the-cold-war/>.

<sup>2</sup> Ibid.

<sup>3</sup> Asya Pereltsvaig, “Esperanto Linguistics: State of The Art,” *Language Problems and Language Planning* 41, no. 2 (October 27, 2017): 168–91, <https://doi.org/10.1075/lplp.41.2.06per>, 1.

<sup>4</sup> Christopher Gledhill, “Phraseology as a Measure of Emergent Norm: The Case of Esperanto,” *Politiques Linguistiques et Langues Autochtones d’enseignement Dans l’Europe*, June 28, 2021, 317–48, <https://doi.org/01220025>, 323.

promote or defend it.<sup>5</sup> So why, then, did the Esperanto movement become so prominent in Eastern Europe during the state-socialist period? This often-overlooked movement's rise sheds light on some of the most significant social issues of the time, revealing the complex relationship between language, access, identity, and politics. It also offers a closer look at the essence of Esperanto, not just as a language, but as a social movement in its own right. The Esperanto movement gained significant momentum during the Cold War by adeptly balancing political neutrality with occasional alignment to socialist ideals, all while providing consistent access to global engagement. It opened doors to a world beyond the Soviet bloc and expanded in remarkable ways, serving as a testament to ideological resistance against the dominance of Russian and English languages, despite not being directly tied to a specific political agenda.

## Background

To fully appreciate the significance of Esperanto during the Cold War, it is crucial to first understand the core beliefs embedded in the Esperanto movement. As Garvía notes, the desire for an international language, as envisioned by Esperanto's creator, L.L. Zamenhof, shared common traits with early twentieth-century social and political movements like Socialism, Nationalism, or Positivism—characteristics akin to a secular religion, offering a message of meaning, a set of moral principles, and a vision of salvation.<sup>6</sup> Esperanto welcomed a wide range of people, including amateur radio enthusiasts, car enthusiasts, chess players, cyclists, people with disabilities, homosexuals, naturists, photographers, tourists, and vegetarians.<sup>7</sup> The movement's limited ideology was rooted in language neutrality and communication equality.<sup>8</sup> These principles, combined with Esperanto's simple, logical, and flexible nature, set it apart from national languages like English.<sup>9</sup> This made Esperanto much more accessible for a diverse range

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<sup>5</sup> Ibid.

<sup>6</sup> Roberto Garvía, "Religion and Artificial Languages at the Turn of the Twentieth Century," *Language Problems and Language Planning* 37, no. 1 (February 1, 2013): 47–70, <https://doi.org/10.1075/lplp.37.1.04gar>, 47.

<sup>7</sup> Ana Velitchkova, "Esperanto, Civility, and the Politics of Fellowship: A Cosmopolitan Movement from the Eastern European Periphery," *University of Notre Dame*, June 26, 2014, 1–178, <https://doi.org/https://doi.org/10.7274/th83kw55120>, 68.

<sup>8</sup> Ibid, 79.

<sup>9</sup> Ibid.

of language learners compared to English, the rising lingua franca of the time, or Russian, the language of the Soviet bloc. Esperantists argued that non-native speakers of these dominant languages are at a disadvantage when communicating with native speakers, which—intentionally or not—favors countries where the national language holds international status.<sup>10</sup> In contrast, Esperanto eliminates these disadvantages because it does not belong to any particular nation. This made it the ideal international language, especially during the Cold War for those who did not want to embrace either English or Russian, given their symbolic associations during the period. Esperanto thus became a symbolic language of its own, one that stood outside the traditional East-West struggle for linguistic dominance. Given the emphasis on equality and its ability to connect speakers of diverse native languages, it is no surprise that the Esperanto movement thrived in the early Soviet Union.

### **Esperanto's Political Identity**

Determining whether Esperanto operated as a political or neutral language during the Cold War is crucial for understanding its importance as a movement during this period. Esperanto was historically viewed by the socialist movement as a potential international language for workers, which led to its relative popularity and socialist support in the early years of the Soviet Union.<sup>11</sup> However, the movement was not entirely free from heavy censorship even in the early Soviet years.<sup>12</sup> Despite this, Esperanto and its movement's organizations became channels through which the institutional boundaries between cultural and political spheres, as well as public and private domains, were challenged.<sup>13</sup> Although they initially received Soviet support, Esperantists fundamentally saw themselves as distinct from the socialist governmental structure, marking the beginning of a complex relationship between Esperanto and Cold War politics. It's important to note that while Esperanto was designed as a neutral language without ties to any specific ethnic

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<sup>10</sup> Ibid.

<sup>11</sup> Pereltsvaig, "Esperanto Linguistics: State of The Art," 12. 1. Brigid O'Keeffe, *Esperanto and Languages of Internationalism in Revolutionary Russia*, 1st ed. (S.I.: Bloomsbury, 2021).

<sup>12</sup> Ibid.

<sup>13</sup> Velitchkova, "Esperanto, Civility, and the Politics of Fellowship," 66.

or religious group, it was still a movement imbued with its own values. Although it claimed no political stance, this very neutrality became a form of political stance.

In many countries behind the Iron Curtain, the Esperanto movement operated outside the institutions of the nation-state, existing in what Konishi describes as “hidden space-times outside the realms of state guidance.”<sup>14</sup> At the same time, the Esperanto movement offered an alternative to the “territorial utopia of Western modernity founded on the modern nation-state,” promoting a non-territorial model of “transnational, non-state associations of 'the people' around the world.”<sup>15</sup> This non-nation-based, non-territorial alternative became increasingly appealing in a world that had witnessed the failures of the nation-state model. This highlights that, despite its claimed political neutrality, the Esperanto movement did hold political beliefs—these beliefs simply existed outside the conventional East-West politics of the time. This observation has broader implications, as not all social and political movements during the Cold War fit neatly into the distinct political categories of either side. However, Esperanto’s lack of alignment with the state socialist regime raises important political questions: Was Esperanto a language of resistance in the Eastern bloc? Did it serve as a tool for either the East or the West?

It's important to note that Soviet Esperantists had a unique ability to share the harsh realities of Soviet life with contacts abroad—a privilege that few others possessed—and they actively used it.<sup>16</sup> Additionally, they sought to uncover the true conditions of life outside the Soviet Union, which were increasingly distorted by Soviet propaganda. This engagement further suggests that while the Esperanto movement had some ties to socialism, it didn’t support the soviet regime and worked to separate itself from it while evading persecution. The Soviet regime, fearing any alternative to its ideology—whether religious, political, or nationalist—soon began persecuting the movement.<sup>17</sup> Despite fluctuating periods of both encouragement and persecution by state-socialist governments, Esperanto's claimed identity as a politically neutral

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<sup>14</sup> Sho Konishi, “Translingual World Order: Language Without Culture in Post-Russo-Japanese War Japan,” *The Journal of Asian Studies* 72, no. 1 (February 2013): 91–114, <https://doi.org/10.1017/s0021911812001751>, 91.

<sup>15</sup> Pereltsvaig, “Esperanto Linguistics: State of The Art,” 4.

<sup>16</sup> Norman Berdichevsky, “Why Esperanto Is Different,” *The New England Review*, December 2007, 58–71, 61.

<sup>17</sup> Norman Berdichevsky, *Modern Hebrew: The Past and Future of a Revitalized Language* (Jefferson, NC: McFarland & Company, Inc., Publishers, 2014), 42.

language allowed it to survive and even expand. Esperanto's lack of alignment with state socialism suggests it may have served as a subtle form of civil resistance—one that, while potentially disfavored by the regimes in power, was not perceived as highly threatening due to its detachment from strong Western politics. This political independence is what made Esperanto particularly significant and sustained its importance throughout the Cold War.

### **The Bulgarian Case**

A more detailed understanding of how Esperanto operated, expanded, and was used in the Eastern Bloc can be gained by examining the particular case of Bulgaria and its robust Esperanto movement. From the mid-1950s onwards, the Esperanto movement experienced significant growth in Eastern Europe, where earlier decades had seen its members persecuted and even imprisoned.<sup>18</sup> This period of expansion was particularly notable in Bulgaria and Poland, where the number of UEA members increased dramatically between 1954 and 1979, making these countries the largest centers of the Esperanto movement in Europe.<sup>19</sup> The Bulgarian Esperanto movement, in particular, presents a unique case that offers insights into the broader dynamics of Esperanto during the Cold War.

In Bulgaria, the movement actively promoted the achievements of state socialism, such as through the publication of the magazine *Nuntempa Bulgario* (Contemporary Bulgaria), which allowed the movement to thrive under state approval.<sup>20</sup> The Bulgarian Esperanto Union also criticized U.S. militarism, NATO, and the political neutrality of the Esperanto movement.<sup>21</sup> Despite these political undertones, Eastern European Esperantists overwhelmingly maintain that both they and the Esperanto movement were nonpartisan.<sup>22</sup> This claim is in fact a strategic decision that began in the 1950s at the international level and evolved into a defining

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<sup>18</sup> Ibid.

<sup>19</sup> Ibid, 17.

<sup>20</sup> Velitchkova, “Esperanto, Civility, and the Politics of Fellowship,” 45.

<sup>21</sup> Nikola Aleksiev, *Al Aktiva Pacbatalo*. Sofia: Bulgara Komitato de Mondpaca Esperantista Movado (MEM), 1982.

<sup>22</sup> Ana Velitchkova, “Nationalized Cosmopolitanism with Communist Characteristics: The Esperanto Movement’s Survival Strategy in Post–World War II Bulgaria,” *Social Science History* 46, no. 3 (2022): 617–42, <https://doi.org/10.1017/ssh.2022.5>, 618.

characteristic for movement participants.<sup>23</sup> The claim of non-political status is not surprising, as it was this stance that enabled the Esperanto movement not only to survive the Cold War but also to serve as a crucial social link between the East and the West, accommodating people of various political orientations both within Eastern Europe and globally. It is somewhat unexpected, however, that individual Esperantists continue to assert their non-political stance even twenty years after the transition to democracy.<sup>24</sup> The Esperanto movement in Eastern Europe did not engage in direct contentious actions against the state; instead, it sought to establish collaborative relationships or at least a degree of tolerance with communist governments.<sup>25</sup> In Bulgaria and Poland, a strong majority of citizens supported the comprehensive vision reflected in their endorsement of various social movements and their skepticism toward U.S.-led NATO.<sup>26</sup> In contrast, those in Czechoslovakia and Romania showed greater support for the Western political vision, particularly the human rights movement, with less consensus on the comprehensive approach.<sup>27</sup> This implies that the flexible and independent core principles of Esperanto allowed for a diversity of individual beliefs while still upholding the central themes of internationalism and inclusion, which contributed to its widespread popularity.

Not being clearly aligned with either the West or East during the Cold War did not disqualify the Esperanto movement from being a movement of activism. The Bulgarian Esperanto movement managed to survive under state socialism by cultivating a legitimate activist culture that was acceptable to the regime while simultaneously creating “free spaces” for semi-autonomous action.<sup>28</sup> This approach mirrors the strategies used in democracies, where gaining insider status and legitimacy also aids in the survival of social movements.<sup>29</sup> Even under

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<sup>23</sup> Velitchkova, “Esperanto, Civility, and the Politics of Fellowship,” 73.

<sup>24</sup> Ibid, 74.

<sup>25</sup> Jeremy Brooke Straughn, “‘Taking the State at Its Word’: The Arts of Consensual Contention in the German Democratic Republic,” *American Journal of Sociology* 110, no. 6 (May 2005): 1598–1650, <https://doi.org/10.1086/428818>, 1611.

<sup>26</sup> Velitchkova, “Esperanto, Civility, and the Politics of Fellowship,” 77.

<sup>27</sup> Ibid.

<sup>28</sup> Francesca Polletta, “‘Free Spaces’ in Collective Action,” *Theory and Society* 28, no. 1 (1999): 1–38, <https://doi.org/10.1023/a:1006941408302>, 31.

<sup>29</sup> Bob Edwards and Sam Marullo, “Organizational Mortality in a Declining Social Movement: The Demise of Peace Movement Organizations in the End of the Cold War Era,” *American Sociological Review* 60, no. 6 (December 1995): 908–27, <https://doi.org/10.2307/2096432>, 916.

an authoritarian regime where opposition is repressed, a movement can maintain activist networks, pursue social change, and sustain collective identities. Ideologically, the Esperanto movement advocates for peace, justice, and mutual respect among different peoples, positioning Esperanto as a “neutral” tool to mitigate international cultural inequality.<sup>30</sup> Survival for movements with transnational connections, such as Esperanto, is particularly challenging under authoritarian rule. In the Soviet Union, internationalism clashed with anti-cosmopolitan sentiments, including anti-foreignness, anti-Semitism, and suspicion of intellectuals.<sup>31</sup> Both democratic and authoritarian states have, at times, opposed Esperanto, perceiving it as a threat to the nation-state system.<sup>32</sup> Nevertheless, various Esperanto institutions, including artistic, economic, educational, and interest-based groups, flourished.<sup>33</sup> The movement adapted to its environment by incorporating communist characteristics that aligned it with the official state ideology.<sup>34</sup>

Rhetorically, the movement skillfully used national and global discursive resources to legitimize itself to different audiences, particularly the state and the local population.<sup>35</sup> This proved to be an effective strategy for legitimization.<sup>36</sup> In its self-reported practices, the Bulgarian Esperanto movement was not fully aligned with the regime but focused on its own priorities, coordinating Esperanto activities at local, national, and international levels. By forming pragmatic partnerships and avoiding conflict, Bulgarian Esperantists were able to thrive under the communist regime, recruit new members, and actively participate in the global Esperanto movement. Bulgarian Esperantists had the rare opportunity to travel to Esperanto World Congresses and even hosted two World Congresses in 1963 and 1978, despite the limited freedom of movement for most Bulgarians.<sup>37</sup> The achievements of the Esperanto movement in

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<sup>30</sup> Roberto Garvía, *Esperanto and Its Rivals: The Struggle for an International Language* (Philadelphia: University of Pennsylvania Press, 2015), 618.

<sup>31</sup> Velitchkova, “Nationalized Cosmopolitanism with Communist Characteristics,” 618.

<sup>32</sup> Garvía, *Esperanto and Its Rivals*, 618.

<sup>33</sup> Ibid.

<sup>34</sup> Lyn Spillman and Russell Faeges, “Nations,” *Remaking Modernity*, February 1, 2005, 409–37, <https://doi.org/10.2307/j.ctv11smmq3.17>, 431.

<sup>35</sup> Ibid.

<sup>36</sup> Velitchkova, “Nationalized Cosmopolitanism with Communist Characteristics,” 618.

<sup>37</sup> Maryam Borjian, *English in Post-Revolutionary Iran: From Indigenization to Internationalization* (Bristol: Multilingual Matters, 2013), 71.

Bulgaria included stable organizations, professional offices, cultural houses, a cooperative, state support, strong publishing activities, language instruction in schools and universities, organized interest groups, cooperation with organizations both within and outside of Esperanto, tourism, a rich cultural life, radio programs, and articles about Esperanto published outside the movement.<sup>38</sup>

Esperanto's remarkable impact in Bulgaria was achieved through a blend of activism, independence, and careful avoidance of direct opposition to the authoritarian state. This highlights Esperanto's unifying power, demonstrating that while it may not have actively participated in global Cold War politics on either side, it provided greater community access for those seeking it and significantly bridged gaps between the East and West.

### **Esperanto's Transnational Role**

The growth of Esperanto movements during this period was not confined to state-socialist countries. In fact, the expansion of Esperanto organizations in places like Sweden and the United States paralleled similar developments in Eastern Europe throughout the Cold War.<sup>39</sup> This suggests that the Esperanto movement played a significant role in East-West citizen-based transnational relations during this period. For many people in the East and those in the West, Esperanto offered a unique opportunity to forge international connections where other avenues were closed. It served as a gateway for those seeking broader access to community, knowledge, and internationalism. The international focus inherent in this language set it apart from others, as it lacked a specific ethnic or religious target population.<sup>40</sup>

Shortly after the Iranian Revolution, there was a growing interest in engaging with internationalism without prioritizing the West. In such a climate, there was little interest in borrowing anything from the West, including Western languages.<sup>41</sup> Instead, emphasis was placed on Esperanto, likely because it was not associated with any particular Western nation.<sup>42</sup> Ayatollah

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<sup>38</sup> Ibid, 618-619.

<sup>39</sup> Velitchkova, "Esperanto, Civility, and the Politics of Fellowship, 59.

<sup>40</sup> Christopher Gledhill, "Phraseology as a Measure of Emergent Norm: The Case of Esperanto," *Politiques Linguistiques et Langues Autochtones d'enseignement Dans l'Europe*, June 28, 2021, 317-48, <https://doi.org/01220025>, 323.

<sup>41</sup> Borjian, *English in Post-Revolutionary Iran*, 71.

<sup>42</sup> Ibid, 72.

Khomeini is known to have praised Esperanto, even encouraging Muslims worldwide to learn the language as a means of communication among Muslims of different linguistic backgrounds.<sup>43</sup> It is also reported that Khomeini suggested Esperanto should replace English as the international language.<sup>44</sup> Shortly after the establishment of the Islamic Republic, an Esperanto translation of the Quran was prepared and Esperanto began to be used in the renowned seminary of Qom.<sup>45</sup> However, this favorable attitude towards Esperanto was short-lived, as Islamic authorities realized that the language was supported by followers of the Bahá'í faith.<sup>46</sup> Consequently, in 1981, Iranian politicians distanced themselves from their initial support for Esperanto<sup>47</sup>. Khomeini's brief interest in Esperanto highlights what the language represented at the time: a means of connecting with the outside world without being inherently tied to the West or its associated ideals. This quality made Esperanto significant during such a divided period.

It wasn't a language for those resisting behind the Iron Curtain who sought Western values, nor was it for the ardent socialist aiming to spread socialism globally, or even for the Islamic Republic looking to embrace international communication without resorting to English. While all these groups may have engaged with Esperanto, the key point is that the language was designed for everyone. During the Cold War, Esperanto served those who didn't align neatly with the dominant languages or the messages they conveyed. It became a language for activists who fell outside the traditional Cold War struggle, fostering community both locally and internationally.

## **Conclusion**

Esperanto may not have wielded significant political power during the Cold War or shifted the political landscape, but it found a place in community groups and postcards exchanged between pen pals. It thrived under the Soviet authoritarian regime due to the need for global access. The Esperanto movement grew during this period by carefully balancing political neutrality with

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<sup>43</sup> Ibid.

<sup>44</sup> Ibid, 71.

<sup>45</sup> Ibid, 72

<sup>46</sup> Ibid.

<sup>47</sup> Ibid.

socialist ideals, aiming to attract a diverse membership and reduce the risk of persecution. Its endurance stemmed from its ability to engage people who sought to live and learn, functioning as a movement that, while not entirely politically neutral at its core, stood apart from the traditional East-West conflict. This perceived neutrality attracted a wide range of individuals, aligning with the language's original intent.

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## Bibliography

- Aleksiev, Nikola. 1982. *Al Aktiva Pacbatalo*. Sofia: Bulgara Komitato de Mondpaca Esperantista Movado (MEM).
- Berdichevsky, Norman. *Modern Hebrew: The past and future of a revitalized language*. Jefferson, NC: McFarland & Company, Inc., Publishers, 2014.
- Berdichevsky, Norman. "Why Esperanto Is Different. New English Review. ." *The New England Review*, December 2007, 58–71.
- Borjian, Maryam. *English in Post-Revolutionary Iran: From Indigenization to Internationalization*. Bristol: Multilingual Matters, 2013.
- Edwards, Bob, and Sam Marullo. "Organizational Mortality in a Declining Social Movement: The Demise of Peace Movement Organizations in the End of the Cold War Era." *American Sociological Review* 60, no. 6 (December 1995): 908–27.  
<https://doi.org/10.2307/2096432>.
- Garvía, Roberto. *Esperanto and its Rivals: The Struggle for an International Language*. Philadelphia: University of Pennsylvania Press, 2015.
- Garvía, Roberto. "Religion and Artificial Languages at the Turn of the Twentieth Century." *Language Problems and Language Planning* 37, no. 1 (February 1, 2013): 47–70.  
<https://doi.org/10.1075/lplp.37.1.04gar>.
- Gledhill, Christopher. "Phraseology as a Measure of Emergent Norm: The Case of Esperanto." *Politiques linguistiques et langues autochtones d'enseignement dans l'Europe*, June 28, 2021, 317–48. <https://doi.org/01220025>.
- Konishi, Sho. "Translingual World Order: Language Without Culture in Post-Russo-Japanese War Japan." *The Journal of Asian Studies* 72, no. 1 (February 2013): 91–114.  
<https://doi.org/10.1017/s0021911812001751>.

- O’Keeffe, Brigid. *Esperanto and Languages of Internationalism in Revolutionary Russia*. 1st ed. S.l.: Bloomsbury, 2021.
- Pereltsvaig, Asya. “Esperanto Linguistics: State of The Art.” *Language Problems and Language Planning* 41, no. 2 (October 27, 2017): 168–91. <https://doi.org/10.1075/lplp.41.2.06per>.
- Polletta, Francesca. “‘Free Spaces’ in Collective Action” .” *Theory and Society* 28, no. 1 (1999): 1–38. <https://doi.org/10.1023/a:1006941408302>.
- Spillman, Lyn, and Russell Faeges. “Nations.” *Remaking Modernity*, February 1, 2005, 409–37. <https://doi.org/10.2307/j.ctv11smmq3.17>.
- Straughn, Jeremy Brooke. “‘Taking the State at Its Word’: The Arts of Consensual Contention in the German Democratic Republic.” *American Journal of Sociology* 110, no. 6 (May 2005): 1598–1650. <https://doi.org/10.1086/428818>.
- Subhashree, Padmini. “The Spread of the Russian Language in the Global South during the Cold War.” Fletcher Russia and Eurasia Program, April 3, 2024. <https://sites.tufts.edu/fletcherrussia/the-spread-of-russian-language-in-the-global-south-during-the-cold-war/>.
- Velitchkova, Ana. “Esperanto, Civility, and the Politics of Fellowship: A Cosmopolitan Movement from the Eastern European Periphery.” *University of Notre Dame*, June 26, 2014, 1–178. <https://doi.org/https://doi.org/10.7274/th83kw55120>.
- Velitchkova, Ana. “Nationalized Cosmopolitanism with Communist Characteristics: The Esperanto Movement’s Survival Strategy in Post–World War II Bulgaria.” *Social Science History* 46, no. 3 (2022): 617–42. <https://doi.org/10.1017/ssh.2022.5>.