

Public Opinion in Revolutionary Times: Cybernetics, Sociology, and the Politics of Estonian Perestroika

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Abstract. During Perestroika, the Estonian Popular Front (PF) used opinion polling to assert itself as the only political force attentive to public feedback. This article situates this claim in the longer history of Soviet debates over the necessity for feedback in complex societies. It argues that the PF's politics of polling were based on cybernetics-inspired theories of social communication, developed in the 1960s and 1970s at Tartu University by researchers such as Marju Lauristin. Institutionally, the rise of polling was enabled by organisations created to deliver the Scientific–Technological Revolution in Soviet economics and society, such as the Sociology Laboratory in Tartu, and the management consulting bureau Mainor, in Tallinn. Thus, the political contestations of the late 1980s appear as the radicalised end point of a decades-long Soviet debate over the shape and methods of social reform.

Keywords: Perestroika, Estonia, cybernetics, sociology, polling, environmentalism

INTRODUCTION

From Moscow to Tallinn, social scientists were central to late Soviet political reforms. Cybernetics, systems analysis and the emerging field of global problems deeply influenced Mikhail Gorbachev's New Thinking (*novoe myshlenie*).¹ The Secretary General of the CPSU was convinced that the challenges facing the Soviet Union, from the rise of a post-industrial economy to environmental degradation, were planetary in scope, interconnected by nature, and unsolvable by the kind of linear thinking that characterised Soviet bureaucracies. Gorbachev found this perspective so convincing that he named Russian geologist Vladimir Vernadsky, an early planetary systems thinker, one of the precursors or co-authors of his reformist ideology.²

Other social sciences helped flesh out Gorbachev's program of reform. Scholars have particularly noted the role of economists, chiefly at the Novosibirsk Institute of Economics and Industrial Organization, which employed two of Gorbachev's key advisors, Abel Aganbegyan and Tatyana Zaslavskaya. In influential reports, they described the extent of the Soviet economy's underdevelopment, and proposed reforms that built on other socialist experiments, most notably the NEP era in early Soviet history, China's Special Economic Zones, Hungarian market socialism and Yugoslavian self-management.³ Aganbegyan, Zaslavskaya and others provided a scientific language for discussing Soviet mismanagement, and a buffet of options for reform that allowed Soviet leadership to save face, maintain its commitment to a socialist model, and still contemplate structural changes to the Soviet state.⁴

- 1 For an overview of this literature, see E. Rindzevičiūtė. *The Power of Systems: How Policy Sciences Opened Up the Cold War World*. Cornell University Press, Ithaca, NY, 2015; R. English. *Russia and the Idea of the West: Gorbachev, Intellectuals, and the End of the Cold War*. Columbia University Press, New York, NY, 2000; K. Tatarchenko. *Soviet SCI_BERIA: The Politics of Expertise and the Novosibirsk Scientific Center*. Bloomsbury, New York, NY, 2024; B. Shoshitaishvili. *The Planetary Mirror: Earth Science and the Re-imagining of Humanity*. Forthcoming; A. Velmet. *The Information Revolution: The Politics of Digital Infrastructure from Soviet Cybernetics to Estonian E-Governance*. Forthcoming.
- 2 M. Gorbachev. *On My Country and the World*. Columbia University Press, New York, NY, 2000, 176.
- 3 C. Miller. *The Struggle to Save the Soviet Economy: Mikhail Gorbachev and the Collapse of the USSR*. UNC Press, Chapel Hill, NC, 2016; A. Leeds. *Administrative monsters: Yurii Yaremenko's critique of the late Soviet state*. – *History of Political Economy*, 2019, 51, S1, 127–181.
- 4 The role of sociology for Gorbachev and other metropolitan perestroika leaders is comparatively underexplored, but two starting points might be Г. Юдин. *Общественное мнение, или Власть цифр*. Изд. Европейского Университета в Санкт-Петербурге, Санкт-Петербург, 2020, 121–127, and M. Gessen. *The Future Is History: How Totalitarianism Reclaimed Russia*. Penguin, New York, NY, 2017.

Once the language of social science, particularly cybernetics and systems analysis, had been legitimised in politics, political movements on the periphery of the Soviet Union seized it and radicalised it. In Soviet occupied Estonia, the Popular Front (PF), an organization of mass politics, used social science terminology to broaden the boundaries of permitted political debate. Indeed, the leader of the PF, Edgar Savisaar, was himself trained in systems analysis and wrote his candidate's thesis on the scenario planning method and the Club of Rome.⁵ As Juhan Saharov has argued, proponents of an "Estonian perestroika" used social science to push for new, market-based economic experiments, criticise Moscow's dominance over Estonian affairs, and demand the devolution of power first in economic, then in social, cultural, and ultimately political, affairs, culminating with the restoration of independence in 1991.⁶ Alongside historians, environmentalists, and heritage specialists, social scientists now appear as key actors in Estonian perestroika.⁷

This article examines a different overlooked, yet historically influential discipline: sociology, with an emphasis on public opinion polling. It follows the career of one scientist-cum-politician, Marju Lauristin, from her training at the Sociology Laboratory at Tartu University in the late 1960s to the top leadership of the PF in the 1980s. As the leader of the PF's Tartu branch, Lauristin used public opinion surveys to argue that Moscow was systematically ignoring popular demands, and that the PF organising around local environmental issues gave it a political legitimacy that the Communist Party lacked. Put in cybernetic terms, Lauristin argued that Moscow failed and the PF succeeded in responding to mechanisms of *feedback*.

Lauristin did not work alone. In the 1960s, other socialist states, too, set up institutes of opinion polling, often drawing on local sociological traditions. In Poland, Hungary, and Czechoslovakia, sociologists had remarkable freedom to study issues such as social stratification and inequality, topics that had seemingly no relevance for ostensibly classless societies. In East Germany, under Walter Ulbricht,

5 E. Savisaar, L. Valt. Globaalprobleemid ja tulevikustenaariumid. Eesti Raamat, Tallinn, 1983.

6 J. Saharov. Eesti perestroika keeled (1986–1988). – Acta Historica Tallinnensia, 2023, 29, 1, 93–127. On the role of other social science experts, see L. F. Stöcker. Perestroika and the Economic "Westernization" of the USSR: Soviet Estonian Market Pioneers and Their Nordic Partners. – Ajalooline Ajakiri, 2016, 3–4, 447–476.

7 M. Tamm. The republic of historians: historians as nation-builders in Estonia (late 1980s–early 1990s). – Rethinking History, 2016, 20, 2, 154–171; O. Liivik. Vastuseisust protestideni: võitlus fosforiidikaevanduste vastu 1970. ja 1980. aastate Eestis. – Methis, 2022, 24, 30, 132–155; M. R. Auer. Environmentalism and Estonia's Independence Movement. – Nationalities Papers, 1998, 26, 4, 659–676.

opinion polling functioned as a form of governmentality, serving as a tool of surveillance, control, and planning for the party.⁸ Often, polls were conducted by new mass media organisations, such as TV and radio, and focused on politically safe issues such as habits of cultural consumption or lifestyle.⁹ And in periods of political turmoil, the tools of polling could quickly be converted to provide evidence of political dissent and bolster the power of oppositional organisations such as Solidarity in Poland.¹⁰

There was considerable cross-fertilisation between these groups, both within the socialist bloc and across the Soviet Union. In the 1980s, Lauristin worked both with Hungarian sociologists, and colleagues in other Soviet republics.¹¹ Seen in this light, the case of the Popular Front in Soviet Estonia expands the importance of opinion polling beyond the confines of 'liberal' socialism in the Eastern Bloc.¹² This case suggests seeing the PF's reliance on cybernetic sociology as part of a broader postwar dynamic that foregrounds the reliance of states on social science for knowledge about their citizenry, and the unpredictable power the discipline could wield in moments of political crisis.

This article also reframes the political function of expert language in late Soviet politics. Most scholarship has focused on how expert language worked to expand the boundaries of permitted debate beyond the limits set by Moscow. But political movements have to do more than contest existing regimes; they have to build new coalitions capable of sustaining the challenge.¹³ This article argues that public opinion surveys and sociological expertise helped solve a different problem faced

- 8 C. Reinecke. Fragen an die sozialistische Lebensweise Empirische Sozialforschung und soziales Wissen in der SED- »Fürsorgediktatur« – Archiv für Sozialgeschichte, 2010, 50, 311–334; J. Gieseke, Opinion polling behind and across the Iron Curtain: How West and East German pollsters shaped knowledge regimes on communist societies. – History of the Human Sciences, 2016, 29, 4–5, 77–98.
- 9 K. Kunakhovich. Communism's Public Sphere: Culture as Politics in Cold War Poland and East Germany. Cornell University Press, Ithaca, 2022, 102–128; D. S. Mason. Public Opinion and Political Change in Poland, 1980–1982. Cambridge University Press, Cambridge, 1985.
- 10 D. Mason. Public Opinion and Political Change, 117–125.
- 11 J. Saharov. From Future Scenarios to Sovereignty Declarations: Estonian Cyberspeak and the Breakup of the Soviet Union. – Europe-Asia Studies, 2022, 74, 5, 809–831, see fn 7 on p. 813. On collaborations with Hungary, see M. Лауристин, Б. Фирсов. Массовая коммуникация и охрана среды: Опыт социологического исследования. Ээсти раамат, Таллинн, 1987.
- 12 This argument is advanced, for instance, in S. Kotkin, J. T. Gross. Uncivil Society: 1989 and the Implosion of the Communist Establishment. The Modern Library, New York, 2009, xiv, xvii.
- 13 W. Sewell. Logics of History: Social Theory and Social Transformation. Chicago University Press, Chicago, 2005, 225–269; M. Warner. Publics and Counterpublics. Zone Books, Brooklyn, 2002; D. McAdam, S. Tarrow, C. Tilly. Dynamics of Contention. Cambridge University Press, Cambridge, 2001, 26–28. On publics in socialist states, see M. Silberman. Problematising the "Socialist Public Sphere": Concepts and Consequences. – What Remains: East German Culture and the Postwar Republic. Ed. by M. Silberman. AICGS Conference Report, Washington D.C., 1995, 1–35.

by reform-minded politicians: Who exactly was the public in whose name the PF was supposed to speak?

The problem facing the PF as it emerged as a mass movement was twofold. First, as an organisation founded by social scientific experts like Edgar Savisaar and Marju Lauristin, it could easily be depicted as an elite undertaking with no stronger claims to represent the people than the Communist Party. As one journalist told Lauristin, as much as the PF insisted on truly being *popular*, a “revolution from below”, it was easy enough to see the PF as “a game for children with higher education”.¹⁴

Second, who exactly constituted ‘the people’ and what political propositions they supported was much less clear than the PF made it appear. Many nationalist movements mobilised around russification as the central political issue of the time. In their view, Moscow’s plans for new industrial megaprojects, and the resulting immigration of Russian-speaking workers, were threats to Estonian language and culture.¹⁵ Consequently, the old guard of the Communist Party found it easy enough to label *any* reform movements as expressions of nationalism and xenophobia unbecoming of a workers’ state. The PF’s sociological work attempted to triangulate these positions by distinguishing between ‘developed’ popular opinion and ‘undeveloped’ opinion, which enabled them to sidestep the nationalism question almost completely. Expert language was crucial for expressing political dissent in a form that the Soviet leadership could accept; it was equally critical in creating a public whose dissent the PF was supposed to represent.¹⁶ Through this process, the PF created space for political contestation, which soon expanded to encompass not just reform, but independence.

A note on terminology. In the following discussion, I use the term ‘cybernetics’ to refer to a variety of disciplines inspired by Norbert

14 Э. Сависаар. Народный фронт – революция снизу. – Советская Эстония, 7 June 1988; Marju Lauristin quoted in Ю. Таммалу. Комментарии для Вперед – Вперед, 17 May 1988. Both in Rahvusarhiiv (National Archives of Estonia, ERA), Tallinn, ERA.9599.1.5.

15 O. Liivik. Vastuseisust protestideni, 146.

16 Historians of public opinion are quick to point out that polls are “as much responsible for creating a mass public as they were reacting to its arrival”, and that the conclusion that can be drawn from, in particular, surveys of the “average” or of the “typical” citizen are loaded with assumptions. S. Igo. *The Averaged American: Surveys, Citizens, and the Making of a Mass Public*. Harvard University Press, Cambridge, MA, 2008; S. Patriarca. *Numbers and Nationhood: Writing Statistics in Nineteenth-Century Italy*. Cambridge University Press, Cambridge, 1996; J. Cowans. *Fear and Loathing in Paris: The Reception of Opinion Polling in France, 1938–1977*. – *Social Science History*, 2002, 26, 1, 71–104; L. DuMond Beers. *Whose Opinion? Changing Attitudes towards Opinion Polling in British Politics, 1937–1964*. – *Twentieth Century British History*, 2006, 17, 2, 177–205; F. Meijer. *Charting Dutch Democracy: Opinion Polls, Broadcasters and Electoral Culture in the Netherlands, 1965–1990*. – *BMGN – Low Countries Historical Review*, 2022, 137, 3, 32–59; S. Ploeg, E. Vesterlund. *Opinion Polls across Boundaries: The Early History of Northwestern European Opinion Polling beyond National Borders and Disciplinary Frameworks*. – *Contemporary European History*, 2025, 34, 531–548.

Wiener's foundational contributions. As numerous scholars have noted, the influence of cybernetics extends far beyond work that explicitly uses the term: concepts and metaphors developed in cybernetics and information sciences were adopted in fields ranging from molecular biology to economics.¹⁷ Many fields found it useful to reconceptualise their subjects as dealing with information processing, and deploy terms such as signal, noise, storage, and feedback in their analyses. In the Soviet Union, this trend was amplified by the political cachet of the term.¹⁸ In the following analysis, the term 'cybernetics' refers to disciplines that explicitly draw on the work of Norbert Wiener and use concepts such as feedback, information processing, systems thinking, etc. In the Soviet Union, these disciplines included fields such as systems analysis, management science, and the field of global problems.

THE SCIENTIFIC–TECHNOLOGICAL REVOLUTION AND ITS INSTITUTIONS

Sociology laboratories grew out of Soviet attempts to rationalise and improve its flagging economy through what they called a Scientific–Technological Revolution. Since the late 1950s, both reformist and conservative leaders in Moscow struggled over the direction of the USSR's economic policy.¹⁹ At issue was the question of how to fulfil Nikita Khrushchev's promise of catching up with and overtaking the United States, not just in military-industrial prowess, but in the 'kitchen debate', i.e. the standard of living and consumption available to the average Soviet citizen. One faction, which included the reformist premier Alexei Kosygin, envisioned a broad overhaul of the Soviet economy. This faction wanted to direct Soviet enterprises towards the production of consumer goods and services, create incentives for efficient production and service delivery, and take on the many forms of corruption and graft that hobbled Soviet businesses. The other faction, embodied by Leonid Brezhnev, balked at the prospect of structural change, which would upset

17 R. Kline. *The Cybernetics Moment: Or Why We Call Our Age the Information Age*. Johns Hopkins University Press, Baltimore, 2015, 4–5; P. N. Edwards. *The Closed World: Computers and the Politics of Discourse in Cold War America*. The MIT Press, Cambridge, MA, 147–173.

18 S. Gerovitch. *From Newspeak to Cyberspeak: A History of Soviet Cybernetics*. The MIT Press, Cambridge, MA, 2002, 199–254.

19 Members of the Sociology Laboratory have recently narrated their own history in M. Heidmets, M. Lauristin, P. Vihalemm. *Vabaduse labor*. Tallinn, Hea Lugu, 2025. Unfortunately the book was published after this article was written and could not be incorporated into the manuscript.

the existing system of entrenched privilege and hierarchies of power. Yakov Feygin has described the outcome of this struggle as a calculated political decision that prioritised stability at the cost of stagnation.²⁰

With structural reforms off the table, the alternative path to renewal became the Scientific-Technological Revolution (STR). Soviet advances in science and technology, from the launch of Sputnik to the construction of nuclear power stations and ice breakers, led Soviet elites to conclude that the socialist state stood on the brink of a new qualitative leap equal to that of the Industrial Revolution. The Third Party Program, adopted in 1961 explicitly argued that social progress and advancement towards communism would be achieved through scientific and technical progress. This did not mean simply prioritising engineering and physics, but giving “a scientific basis for guiding society’s development” more broadly.²¹ The Soviet Union was to be opened up to new fields of enquiry linking mathematical forms of analysis to the study of social organisation. The most important of these fields was cybernetics, which modelled the interactions within complex human-machine systems as information flows, and promised to improve the accurate transmission of command and control messages through the use of computers.²² But Soviet leaders welcomed other forms of social enquiry as well, from management studies to, indeed, sociology.

Much of the STR agenda was championed by Dzhermen Gvishiani, a systems analyst, enthusiast of scientific management, and, not coincidentally, Kosygin’s son-in-law. Gvishiani was, for all intents and purposes, the Soviet science tsar, analogous perhaps to the role Vannevar Bush played in the development of American science during World War II. Gvishiani had a hand in most big technological innovation projects of the time, from the development of an All-Union computer network (Viktor Glushkov’s OGAS, which was never realised), to the work of the Club of Rome. He was, among other things, the Vice Chairman of the State Committee on Science and Technology, and established the

20 Y. Feygin. *Building a Ruin: The Cold War Politics of Soviet Economic Reform*. Harvard University Press, Cambridge, MA, 2024, 94–151, 149–150.

21 Resolutions and Decisions of the Communist Party of the Soviet Union, Vol. 4: The Khrushchev Years, 1953–1964. Ed. by G. Hodnett. University of Toronto Press, Toronto, 1974, 246. See also S. E. Reid. The Khrushchev Kitchen: Domesticating the Scientific-Technological Revolution. – *Journal of Contemporary History*, 2005, 40, 2, 289–316; S. Guth, S. Guth. One Future only: The Soviet Union in the Age of the Scientific-Technical Revolution. – *Journal of Modern European History*, 2015, 13, 3, 355–376; E. Aronova. The politics and contexts of Soviet science studies (Naukovedenie): Soviet philosophy of science at the crossroads. – *Studies in East European Thought*, 2011, 63, 3, 175–202, particularly 185–189.

22 S. Gerovitch. *From Newspeak to Cyberspeak*; B. Peters. *How Not to Network a Nation: The Uneasy History of the Soviet Internet*. The MIT Press, Cambridge, MA, 2016.

All-Union Institute for Systems Research, the International Institute for the Study of the Problems of Economic Management, and the International Institute for Applied Systems Analysis, an East–West collaboration for the study of problems that exceeded the boundaries of the superpower blocs.²³ By exploiting these institutions and his own personal connections, Gvishiani ensured that the language of scientific management, systems analysis and cybernetics penetrated the highest echelons of Soviet policymakers.²⁴

Certainly, not all organisations that flew the flag of the STR took the term seriously, although many did.²⁵ In the 1960s and 1970s, Moscow created new opportunities and privileges for technocratic experts, particularly those associated with the increasingly expansive field of cybernetics. In 1965, Kosygin issued the decree *On the Improvement of Management, Planning and Stimulation of Industrial Production*, which gave enterprises more control over their finances, enabling them to make investments that were not strictly prescribed by Gosplan. Importantly for our argument, firms were pushed to employ scientific experts to improve the social development of its workers, management practices, and profitability, all in line with the ideology of the STR.²⁶ This push to undertake contract work for what was essentially management consulting created room for new institutions that could provide these sorts of service.

The other priority for proponents of the STR was cross-border technical cooperation and exchange. In the 1970s, the USSR expended considerable energy in setting up cooperation and standardisation agreements under the umbrella of Comecon, the socialist economic alliance. Historians have studied how such cooperation led to standardisation and specialisation of technical expertise within the socialist bloc, and the emergence of clusters of excellence, for instance in Bulgarian computing.²⁷ Under the Comecon agreement, the USSR launched institutional exchanges, consulting missions, and cooperation agreements across the socialist bloc. In 1973, 48 ministries

²³ Y. Feygin, *Building a Ruin*, 151–158, 165–168.

²⁴ E. Rindzevičiūtė, *The Power of Systems: How Policy Sciences Opened Up the Cold War World*. Cornell University Press, Ithaca, 2016, 36–49.

²⁵ On the institutional limits of the STR, see E. Aronova, *Big Science and “Big Science Studies” in the United States and the Soviet Union*. – *Science and Technology in the Global Cold War*. Ed. by N. Oreskes, J. Krigé. The MIT Press, Cambridge, MA, 2014, 414.

²⁶ M. Heidmets, P. Vihalemm, M. Lauristin, *Sotslabori juhtum*. – *Vikerkaar*, 2024, 4–5, 94; M. Heidmets, interview with the author, 13 December 2023; E. Terk, interview with the author, 7 August 2023.

²⁷ V. Petrov, *Balkan Cyberia: Cold War Computing, Bulgarian Modernization, and the Information Age Behind the Iron Curtain Book*. The MIT Press, Cambridge, MA, 2023.

and management institutions and 290 research institutions cooperated with their counterparts in Czechoslovakia on over 550 scientific topics. Importantly for the Soviet Union, the fig leaf of cooperation hid a desire “to transfer more sophisticated technologies and knowledge.”²⁸

The same desire applied to cooperation with neutral non-socialist countries as well. In Soviet Estonia, authorities supported contract work for institutions that held the promise of knowledge and technology transfer from Finland and Sweden. Thus, researchers from the Institute of Cybernetics travelled to Finland on a regular basis from the 1970s onwards.²⁹ In 1971, the Estonian the Ministry of Light Industry approved the establishment of its own management consultancy based entirely on contract work and knowledge transfer. This bureau, The Self-Managing Centre for the Organisation of Labor and Management, later renamed Mainor, became an important centre for social scientific expertise in the region, and played a central role in Estonian perestroika in the 1980s.³⁰ Management consulting was also taught by Raoul Üksväära at the Tallinn Polytechnic Institute, and practiced at the Estonian Management Institute, as well as at consulting centres attached to collective farms and industrial firms. As Erik Terk has argued, Soviet Estonia probably had the largest contingent of management consulting expertise in the USSR, after Moscow.³¹

To provide expertise for these new consultancies, Soviet elites rehabilitated the discipline of sociology. The field had virtually disappeared from Soviet universities in the 1930s. It was one of the many victims of Stalinist purges, a casualty through its association with Nikolai Bukharin, who had authored the *Popular Textbook of Marxist Sociology*. Bukharin was executed in 1938, and his sociology textbook, along with the whole discipline, fell into disfavour.³² Like cybernetics, the discipline was

28 E. Kochetkova. Technological inequalities and motivation of Soviet institutions in the scientific-technological cooperation of Comecon in Europe, 1950s–80s. – *European Review of History*, 2021, 28, 3, 355–373, figures on p. 360, quote on p. 358.

29 E. Tyugu. Computing and Computer Science in the Baltic Region. – *History of Nordic Computing 2. IFIP Advances in Information and Communication Technology*, vol. 303. Ed. by J. Impagliazzo, T. Järvi, P. Paju. Springer, Berlin, 2009, 37; H. Aben to Yuri E. Sotnikov, letter from 4 January 1982. Tallinn, ERA.R-2357.1.342. The first indication of cooperation with the Soviet-Finnish firm Elorg dates from 1977, “Tööl põhjanaabrite juures”, 9 March 1981, unidentified newspaper clipping, Tallinn, ERA.R-2351.1.296.

30 E. Terk. Professor Üksväära koolkond juhtimisteaduses: teke, toimimine ja mõjud majandusele. – *Estonian Discussions on Economic Policy*, 2020, 28, 1–2, 2020, 117–135; E. Terk, interview with the author, 7 August 2023; M. Laos. Mainori lugu. AS Mainor, Tallinn, 2014, 7–14.

31 E. Terk. Professor Üksväära koolkond juhtimisteaduses, 129–130.

32 M. Gessen, *The Future is History*, 38–39; M. Lebedeva. Social Sciences in the USSR/Russia: History and Current State. – *Global Perspectives*, 2023, 4, 1, 2; E. Weinberg. *Sociology in the Soviet Union and Beyond: Social Enquiry and Social Change*. Routledge, London, [2004] 2018, 33.

revived in the late 1950s, now under the name ‘concrete social research’ (in an explicit attempt to distance this field from Bukharin).³³ Its task was to better understand key social phenomena, such as labour, family life, and communication, with the goal of “forecasting possible paths of development” and proposing “optimum paths for active intervention in social processes in a socially desirable direction”.³⁴ In other words, sociology was revived in the service of social planning.

The first centre of concrete social research was the Leningrad State University’s Sociology Laboratory, founded by Vladimir Yadov in 1960. The laboratory brought together a Marxist-Leninist agenda – the study of labour and mass communication, two fields central to the development of the New Soviet Man – and Western methods, inspired by Talcott Parsons’ functionalism and Paul Lazarsfeld’s media studies.³⁵ Yadov spent a year at Cambridge, and quickly turned his experience into a new research agenda in Leningrad upon his return.³⁶ Soon after, Yadov met two enthusiastic Estonian students with designs for social reform of their own: Asser Murutar, and Ülo Vooglaid.

Both Vooglaid and Murutar were student activists at Tartu University, and rising stars within the local Communist Youth. By 1960, Murutar had moved on to graduate study in Leningrad and Vooglaid was working at the party newspaper, *Edasi*, designing rudimentary studies on reading habits. The two had grand designs, but little formal preparation; thus, they approached Yadov for more structured guidance. Vooglaid was interested in studying whether anyone ever read the party-line editorials in *Edasi*, most likely replicating a similar experiment the sociologist Yuri Levada had conducted with *Pravda* in Moscow. The meeting expanded into a two-week internship in Leningrad, followed by a lecture series delivered by Yadov at Tartu in 1965. In 1967, convinced by the popularity of the lectures and the discipline’s potential usefulness for industry, the rector of Tartu University, Feodor Klement authorised the foundation of a Sociology Laboratory at Tartu. Vooglaid became director, and his seemingly infinite energy drew in many of the brightest students of his

33 L. Titarenko, E. Zdravomyslova. *Sociology in Russia: A Brief History*. Palgrave Macmillan, Cham, 2017, 46.

34 В. А. Иадов. Престиж в Опасности, Литературнаи Газета, 28 February 1968, 11. For a longer discussion of the discipline’s revival, see E. Weinberg. *Sociology in the Soviet Union*, 58–59, and L. Titarenko, E. Zdravomyslova. *Sociology in Russia*, 46–50. For the context in Estonia, see M. Lagerspetz. *Sotsioloogia – Peatükk Eesti kultuuriloost*. Unpublished manuscript, 2007. <http://users.abo.fi/mlagersp/SotsAjalEestis2007.pdf>.

35 On the role of functionalism in Soviet sociology, see V. Slapentokh. *The Politics of Sociology in the Soviet Union*. Westview, Boulder, 1987.

36 On Yadov’s Leningrad period, see Б. З. Докторов. Мир Владимира Ядова: В. А. Ядов о себе и его друзья о нём. Радуга, Москва, 2016, 38–47.

generation. One of them was a young student who had recently left her job at the RET radio electronics factory in Tallinn, Marju Lauristin.³⁷

SOVIET REFORMERS IN SEARCH OF FEEDBACK

For nearly a decade, the Tartu Sociology Laboratory advised institutions ranging from party newspapers to collective farms, transportation centres and industrial firms. The Laboratory was, for all intents and purposes, a market research bureau. In 1973, the Laboratory employed 22 scientific staff, six engineers, and 26 lab workers, a total of 54 people. It was also entirely funded by contract work.³⁸ The staff was funded by ten contracts, which ranged from studying labour conditions at an automotive centre to developing criteria for organising family housing in the fast-developing *mikrorayons*. The unit worked for both local institutions, and for All-Union organisations such as the Scientific Research Institute of Technical Aesthetics (VNIITE).³⁹ The laboratory was, by all accounts, an intellectual powerhouse, benefiting from its peripheral location at the Western edge of the Soviet Union. In Moscow, Yuri Levada fell into disfavour and had his laboratory shut down after he condemned the Soviet repression of the Prague Spring in 1968. Vooglaid's Laboratory continued to thrive for several years after.⁴⁰

The geographic and linguistic specificity of Tartu played a key role in the lab's development. It was only a few hours away from Leningrad and close enough to the ski resorts of Otepää and lakeside dachas of Elva that luminaries like Yadov could easily be lured over for a series of guest lectures or summer schools. Yadov's sociology textbook, the first of its kind in the Soviet Union, was essentially an edited transcript of lectures he gave at Tartu in 1965, and rotaprints of his presentations were circulated among university students for years.⁴¹ The proximity to

37 Ü. Vooglaid. Jadov – Eesti sotsioloogia Õpetaja. Sotsioloogialabori algusest. – Inimeste maa. Aeg: Asser Murutar ja teekaaslased. Koost. A. Kasemets. MTÜ Heliraamat, Tartu, 2022, 22–32.

38 On the importance of contract work for the development of reformist thought, see chapter II.

39 Sotsioloogialabori isikkoosseis ja materjalid laboratooriumi tegevuse kohta 1972/73 õ-a. Tallinn, EAA.5311.115.1; for a history of VNIITE, see A. Sankova (ed.). *Discovering Utopia: Lost Archives of Soviet Design*. Thames Hudson, London, 2023.

40 Б. Докторов. Жизнь в поисках «настоящей правды». За метки к биографии Ю. А. Левады. – Социальная реальность, 2007, 6, 85–87.

41 В. А. Иадов. Методологические проблемы конкретного социологического исследования. Ленинградский государственный университет им. А. А. Жданова, Ленинград, 1967; see also Vooglaid, Jadov – Eesti sotsioloogia Õpetaja, 31–32; E. Hion et al., Marjustini sajud, 117. For materials of the Kääriku seminars, see Ю. Вооглаид. Материалы встречи социологов. Кязрику – 1968. Тартуский государственный университет, Тарту, 1969.

Finland mattered as well. Finland was a neutral country in the Cold War, and one from where generally suspect goods, such as foreign literature, could be shipped more easily than, say, from the United States. It was not outrageous, therefore, for Lauristin to learn the basics of media sociology from Joseph Klapper's *Effects of Mass Communication*, or to hear about Thomas Kuhn's work on scientific paradigms in her graduate courses. Joint seminars with Finnish colleagues from Tampere or Helsinki created epistolary networks and led to the exchange of Western academic literature that had been translated into Finnish. Once these books made it to Tartu, popular seminars with the reputation of fostering liberal and open discussions ensured that their content would spread to universities across the whole of the Soviet Union.⁴²

The Sociology Laboratory could develop its complex typologies of newspaper readers, factory workers, and urban dwellers only because it was one of the few institutions with regular access to a Ural-4 mainframe computer. Since the Lab focused on media sociology, it soon gained access to a second mainframe, at the Estonian Radio Computing Centre. This was novel work as mainframes tended to be reserved for military and industrial uses. Even in Leningrad and Moscow, researchers were doing complex calculations by hand. The use of mainframes at Tartu enabled more complex, multivariate calculations as well as leading to novel collaborations. Lauristin, for instance, borrowed methods from biologists who also used the Ural-4, developing cluster analysis of cultural consumption, creating groups of roughly similar theatre-goers and book readers.⁴³

What kind of theory of society underpinned the Laboratory's work? Much like cyberneticians, Tartu sociologists thought most social issues were, at the core, issues of communication. Indeed, Lauristin and her partner in both life and research, Peeter Vihalemm, began their 1977 media sociology textbook with Norbert Wiener's definition of information. They were particularly interested in the concept of feedback. Drawing on Joseph Klapper, they argued that "the development of centralised management, the ever-evolving specialisation of different social institutions and the increasing professional differentiation has led to the weakening of links between different parts and levels of the social system. This has brought about the need for specialized feedback channels".⁴⁴ Officially, the Lab presented itself as facilitating

42 E. Hion, M. Lauristin, M. Visnap. Marjustini sajand. Hea Lugu, Tallinn, 2016, 116–117.

43 Ibid., 114–115.

44 M. Lauristin, P. Vihalemm. Massikommunikatsiooniteooria. Tartu Riiklik Ülikool, Tartu, 1977. For the reference to Wiener, see p. 8, for feedback, see p. 24.

such feedback channels in order to help state institutions understand whether their “large and complex task of constructing a New Man and the ideological fight against capitalism” was truly having an impact on its intended audience.⁴⁵ In Vooglaid’s words, “the propagandist can only be effective if his audience respects, trusts, and believes him. Otherwise, he may well be speaking the right words, but those words land without impact.”⁴⁶

By emphasising the role of feedback, Tartu sociologists threaded an important political needle. Cybernetic theory argued that proper feedback was essential for “effective action on the outer world”⁴⁷ in any complex system. In the human body, the central nervous system monitors the accuracy of its movement through proprioception. In machines, negative feedback systems ensure that, for instance, thermostats can maintain a specific temperature in a space even as the outside temperature fluctuates.⁴⁸ The point made by Norbert Wiener, the father of cybernetics, was that similar mechanisms are needed to maintain social stability as well.⁴⁹ Indeed, one Estonian thinker, the academician Gustav Naan argued that bureaucracy and intellectuals served precisely these roles in Soviet society, with bureaucrats providing stabilising negative feedback, and intellectuals providing the experimental, innovative thrust that kept society in motion.⁵⁰ By emphasising that they were interested in developing new forms of social feedback through the conducting of opinion surveys, researchers at the Sociology Laboratory ensured that their work remained firmly within the boundaries of the STR. At the same time, this enabled them to construct and describe new social categories of people in Soviet Estonia: from workers who might be dissatisfied and unmotivated to consumers who desired a particular kind of lifestyle.

With the state now emphasising “social development” alongside production quotas as metrics of industrial success, the lab could put Vooglaid’s theory into practice.⁵¹ The lab’s first major contract was with the national party newspaper *Edasi*, where Vooglaid moonlighted.

45 L. Brezhnev cited in M. Lauristin, P. Vihalemm. Massikommunikatsiooniteooria, 3.

46 H. Sööde. Mõtteid propagandisti prestiižist. – Punalipp, 21 December 1974.

47 N. Wiener. Cybernetics or Control and Communication in the Animal and in the Machine. The MIT Press, Cambridge, MA, 2019 [1948], 130.

48 Ibid.

49 N. Wiener. The Human Use of Human Beings: Cybernetics and Society. Free Association Books, London, [1950] 1989, 26.

50 G. Naan. Võim ja vaim. – Looming, 1969, 12, 1860–1861. See also G. Naan, Norbert Wiener ja ajastu mõttelaad. – N. Wiener. Küberneetika ja ühiskond. Loomingu Raamatukogu, Tallinn, 1969, 10–11.

51 M. Heidmets et al. Sotslabori juhtum, 95.

Vooglaid's team surveyed over 2,000 readers, the study coming to the conclusion that the majority of readers never even glanced at the paper's front page editorials, which provided the official party line, and flipped straight to obituaries and sports pages. Vooglaid created a typology of readers, showing that there was no average reader of the paper, but that readers with different social backgrounds and different levels of education read different pages. The Lab ran a series of experiments on newspaper design and style. For example, they used A/B testing and had the paper print identical stories with two different headlines, with the team studying which headline prompted more readers to engage with the story.⁵² The paper was reportedly quite receptive to the lab's findings, ditching the party-line editorials on the first page and focusing more on interviews and human interest stories. Editors began consciously to differentiate their audience, targeting articles at readers with different levels of education.⁵³

The Laboratory focused on feedback and grassroots satisfaction in its labour and urban planning research as well. It studied work satisfaction in various industrial and agricultural organisations such as the Tartu Construction Materials Factory, the Red Kunda Cement Factory, Järvakandi Glass Factory, and various automotive management and repair centres.⁵⁴ In contrast to the official line that socialist workers were primarily motivated by social improvement, secondarily by personal growth, and only tertiary by financial gain, the Lab's researchers created complex typologies of satisfaction, arguing that no general theory of job satisfaction could be assumed and that, instead, firms would have to get feedback from their actual employees.⁵⁵ At the Tartu Construction Materials Factory, for instance, Asser Murutar had employees describe their satisfaction with their labour and leisure conditions in 357 different categories, boiling them down to 20 different aggregate indicators that could be used to improve retention – but only at that specific factory.⁵⁶

From 1970–1974, the All-Union Design Bureau, VNIITE, contracted the Lab to study urban lifestyle patterns of families across

52 E. Hion et al. Marjustini sajand, 112; Ü. Vooglaid, interview with the author, 12 June 2017.

53 Heidmets et al. Sotslabori juhtum, 96.

54 K. Haav. Tööraahulolu kontseptsiooni areng Eestis: Asser Murutar – rahulolu empiiriliste uurimuste algataja Tartus ja Eestis. – Inimeste maa, 86–102.

55 K. Haav. Tööraahulolu kontseptsiooni areng Eestis, 90–91. See also T. Karukäpp, J. Kivimägi, K. Mits. Tehasekollektiivi rahulolu küsimusi: konkreetne sotsioloogiline uurimus. Tartu Riiklik Ülikool, Tartu, 1968; G. Raudver. Inimene ja töö. – Edasi, 1 June 1968.

56 T. Karukäpp, J. Kivimägi, K. Mits. Tehasekollektiivi rahulolu küsimusi; Ü. Vooglaid, interview with the author, 12 June 2017; T. Kõnnusaar, Sotsioloogialabori süünd, hiilgeaeg ja hukk. – Inimeste maa, 37–38.

Soviet Estonia in preparation for the development of new housing projects. Existing districts such as Mustamäe in Tallinn or Annelinn in Tartu, followed typical modernist schema of interspersing blocky high-rises with the open fields of green parks and playgrounds. These projects were equally prized for their spaciousness and modern amenities, and despised for their often poor construction quality, cookie-cutter design, and lack of kitchen and laundry spaces.⁵⁷ In her study titled *Your Home*, Marju Lauristin and others created a taxonomy of ten different family types with different desires and needs for their living spaces. Some residents, for instance, prioritised privacy, thus suggesting the need for apartments with more subdivisions, while others prioritised large common spaces.⁵⁸ Such taxonomies were possible thanks to the availability of computing power at Estonian Radio, on the one hand, and the resources of VNIITE, which made it possible to survey over 2,000 families across the country, on the other.⁵⁹ VNIITE's response was enthusiastic. The laboratory was awarded new contracts with the Central Housing Design Bureau TsNIIEP-Dwelling, which allowed it to study residential desires in cities as far apart as Dushanbe and Vilnius.⁶⁰

The good times did not last. In 1975, the lab was formally reprimanded by the Estonian Communist Party's Central Committee for "the reducing quality of the ideological-political content of its research, uncritical borrowing from bourgeois sociology ... caused by chasing a large quantity of contractual work."⁶¹ The same year, the university disbanded the laboratory. Yet critically, the work done at the Lab did not stop, rather members moved their contract work to other institutions: Mati Heidmets continued to work on urban planning at

57 C. Varga-Harris. *Stories of House and Home: Soviet Apartment Life during the Khrushchev Years*. Cornell University Press, Ithaca, 2016, 64–66.

58 Т. Ниит, М. Хейдметс, Й. Круусвалл. Психология среды в Эстонии. – Исследования в области психологии среды в Эстонии часть I: теоретический анализ и теоретические модели. статьи, опубликованные в 1979–2002. Ed. by M. Raudsepp, M. Heidmets. Tallinn University Press, Tallinn, 2022, 13; М. Лауристин, Й. Круусвалл, Т. Райтвийр. Региональное социальное исследование образа жизни (опыт социологов Тартуского университета). – Планирование социального развития городов 2. ИСИ АН СССР и ССА, Москва, 1975, 154–175.

59 M. Heidmets, M. Lauristin, P. Vihalemm. *Sotslabori juhtum*, 97.

60 TsNIIEP stands for Центральный научно-исследовательский проектный институт жилых и общественных зданий; though it had considerable resources and sub-institutes in all the constituent republics, its impact on Soviet urban design was nonetheless limited – designs went from TsNIIEP to a number of other institutions, the most important of which was Gosstroï (State Committee for Construction in the Soviet Union), which often watered them down due to cost or complexity. See, for instance, K. Malaia. *A Unit of Homemaking: The Prefabricated Panel and Domestic Architecture in the Late Soviet Union*. – *Architectural Histories*, 2020, 8, 1, 1–16. For the global proliferation of these forms, see L. Stanek. *Architecture in Global Socialism: Eastern Europe, West Africa, and the Middle East in the Cold War*. Princeton University Press, Princeton, 2020.

61 ECP CC decision cited in M. Heidmets, M. Lauristin, P. Vihalemm. *Sotslabori juhtum*, 97.

the Pedagogical Institute of Tallinn, Ülo Vooglaid eventually moved to the Mainor management consultancy, and Marju Lauristin continued to work on lifestyle and mass communication at Tartu University. The end of the laboratory was ultimately more of a formality. Tartu sociologists had cemented survey research and the public circulation of polling results, at least on topics that could be associated with the scientific rationalisation of production, as legitimate forms of cybernetic feedback. Though the 1970s have been considered a period of retrenchment for Soviet sociology, the legacy of the Sociology Laboratory suggests that at least in Estonia, this was not the case.⁶² Having weathered the decade, sociological expertise moved to more explicitly political fields in the 1980s.

THE POPULAR FRONT INVENTS 'DEVELOPED' PUBLIC OPINION

Estonian perestroika was a cybernetic project. Cybernetic concepts featured centrally in Mikhail Gorbachev's proclamations. He emphasised the need to restructure the Soviet economy in order to overcome non-linear and complex global problems, a concept with roots in the work of the Club of Rome and its computer models of industrial development, which predicted an upcoming global resource crisis caused by the overexploitation of the planet's bounties.⁶³ Estonian technocratic politicians put even more emphasis on the cybernetic and social science basis of their proposed reforms. In part, this had to do with the reformers' background. Edgar Savisaar, the leader of the Estonian Popular Front, wrote his candidate's thesis on global problems and the Club of Rome. His economic advisors included economic cyberneticians and management consultants from Mainor and elsewhere. Marju Lauristin, and other former members of the Sociology Laboratory, quickly rose to the top ranks of the PF. Much like in the 1960s, the cybernetic language employed by these experts helped legitimise political proposals that might have otherwise appeared overly radical.⁶⁴

62 E. Weinberg. *Sociology in the Soviet Union*, 135–137; for the Estonian case, see M. Lagerspetz. *Sotsioloogia*, 6–7; A. Rämmer, V. Kalmus, H. Käärik. *Academia Sociologica* 25. – Tartu Ülikooli ajaloo küsimusi, 2015, 43, 14–15.

63 For Gorbachev's thinking and the role of global problems, see A. Brown. *Seven Years That Changed the World: Perestroika in Perspective*. Oxford University Press, New York, 2007, 57–58; R. English. *Russia and the Idea of the West*, 183–185; F. Bartel. *The Triumph of Broken Promises: The End of the Cold War and the Rise of Neoliberalism*. Harvard University Press, Cambridge, MA, 2022, 165–176.

64 J. Saharov. *From Future Scenarios to Sovereignty Declarations*, 809–831.

Consequently, the early days of the Estonian Perestroika were very much an elite affair, even though they later gave birth to a mass movement. At first, a group of four experts, Edgar Savisaar, Siim Kallas, Mikk Titma, and Tiit Made, proposed decentralising the economic governance of the Estonian SSR under the heading of self-management (*isemajandamine*). This concept referred to a Soviet economic concept that had thus far only been applied to industrial firms, to the cybernetic concept of self-regulation, and by way of linguistic proximity, to the Estonian term for independence (*iseseisvus*).⁶⁵ Over time, the concept expanded to include social and cultural governance and other forms of self-regulation and feedback. Proponents of self-management argued that a complex, non-linear social system could not be managed simply through economic mechanisms but had to account for the entire breadth of the system.⁶⁶ This expansion of the concept had a concrete political goal. The wider concept allowed for the discussion of environmental issues, language and cultural policy, and many other issues that were becoming salient in popular politics. In other words, this shift was designed to turn self-management from an elite project into a true popular movement, to be integrated with the nascent PF. Savisaar's Council on Self-Management (*IME Probleemnõukogu*) ultimately developed a document, The Self-Management Conception, which included sections on "the stability of the ecological system", "development of self-regulation", "maintaining the social reproductive capacity of the nation", "increasing cultural potential", and "developing the nation's spiritual potential".⁶⁷ In total, less than 30 pages out of the 78-page project discussed economic reforms.

A key claim the PF advanced was that Moscow's centralised rule could not create accurate and immediate mechanisms of feedback for the Estonian SSR that such a complex system required. As Savisaar wrote in one influential essay, "all movement of matter, in inorganic nature as well as in biological, social and technological systems, functions through self-regulation." Every complex system had to deal with unexpected shocks, conflicting motives, and unpredictable changes in its operating environment. The problem with large, centralised, polities like the Soviet Union was the distance between the decision-making bodies and the collectives they were managing. This distance had the effect

65 J. Saharov. From an Economic Term to a Political Concept: The Conceptual Innovation of "Self-Management" in Soviet Estonia. – Contributions to the History of Concepts, 2021, 16, 1, 116–140.

66 U. Mereste. Mis on Isemajandamine? Isemajandamisteooria alused. Eesti Raamat, Tallinn, 1989, 44.

67 IME Kontseptsioon – Projekt, p. 1, Tallinn, ERA.5006.1.141.

of “creating in the manager a (sometimes quite well-founded) fear of information getting lost or distorted.”⁶⁸ Trying to solve this problem would inevitably lead to new, and worse, problems: a desire to account for all eventualities, micromanagement, and the collection of ever larger amounts of information. These reactions, in turn, led to an explosion of bureaucracy and, ultimately, worse decisions, as “after a certain limit, receiving additional information results in increasingly irrational decisions.”⁶⁹ Proper self-regulation, Savisaar claimed, could only happen in a relatively small territory such as Estonia. But he had yet to prove that the PF could provide the necessary mechanisms for such self-regulation.

The convening of the Council on Self-Management, with its multitude of working groups, was in itself a way of creating feedback mechanisms. The working groups were intended to show that the Council reflected the needs of the social system, not just factional or nationalist interests (as communist hardliners were likely to argue) or straight up economic fantasies (as radical free-marketeers would claim). In the Council’s view, only scientific expertise and a data-based approach could “create the conditions and control mechanisms necessary for the creation of self-regulatory processes.”⁷⁰

What did feedback mean in practical terms? Here, the Council relied on Marju Lauristin’s insight, as she had developed a sophisticated theory of mass communication during her years at Tartu University. In a 1977 textbook she co-authored with her husband Peeter Vihalemm, Lauristin had defined “the creation and expression of public opinion” as one of the central functions “that the means of mass communication have as feedback channels between different social institutions and levels of leadership.”⁷¹ Public opinion was thus no mere plebiscite, a canvassing of the people, but a delicate dialogue between the media, groups of experts, the public, and, finally, political leadership. Lauristin had modelled this process in her research at Tartu, after the closing of the Sociology Laboratory, producing opinion surveys on topics ranging from consumer research to the study of readings habits.⁷²

Environmental justice became a test case for this theory of feedback in the Perestroika years. In 1987, Estonian activists, experts, and the media began to raise alarm over plans by All-Union industries to

68 E. Savisaar. Võitlus mõtteviisi pärast: Neljas lugu. Edasimineku alternatiivid II. Tsentraliseerimine ja regioonipoliitika. – Vikerkaar, 1987, 2, 49.

69 E. Savisaar. Võitlus mõtteviisi pärast, 50.

70 IME Kontseptsioon – Projekt, p.3, Tallinn, ERA.5006.1.141.

71 M. Lauristin, P. Vihalemm. Massikommunikatsiooni teooria, 29.

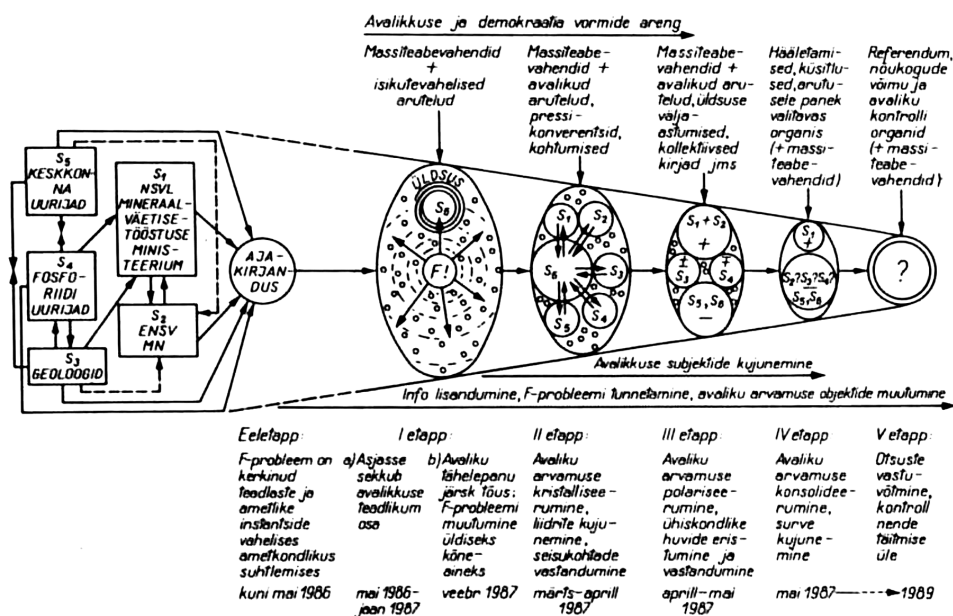
72 Marju Lauristin, interview with the author, 12 April 2018.

establish phosphate mines in eastern Estonia, a process that presented a variety of environmental risks, from the contamination of groundwater to the destruction of wildlife preserves.⁷³ Over the course of a year, the discussion expanded from the pages of popular magazines and TV broadcasts to mass protests, letter-writing campaigns, and public meetings that opposed the expansion of mining. Lauristin termed this process “the formation of the subjects of public opinion”. This was the moment for the PF to show that it was capable of participating in this formative process, and responding to public opinion in ways that the Communist Party could not. Lauristin’s discussion of the PF’s role in this “school of democracy” deserves longer discussion.

Lauristin visualised her model of public opinion formation in the form of a complex diagram that represented four years of debate around the “phosphate war” (Figure 1). One part of the diagram resembled electronic schematics, another part looked more like a set of gears interacting with one another, or a bubble of gaseous particles, drifting ever closer to each-others orbit. On the left, the diagram portrayed a debate that, until 1987, had remained rigidly contained at the level of official bureaucracy: scientists, the Council of Ministers, the Ministry of Mineral Fertilisers, and so forth. Here, two-way communication only happened between official institutions, and journalists (represented by a small bubble) only *received* information if and when official sources deigned to provide it. Scientists did not have the skills needed to communicate with the public, and, as Lauristin argued, they tended to consider the public “as polluters, not as environmentalists”. It was only the expansion of journalistic freedom during Perestroika, combined with Estonia’s dense networks of newspapers, radio and television, as well as its history of critical political culture, Lauristin argued, that made it possible to break through the otherwise impenetrable wall between officialdom and the public in 1987.

The right side of the diagram represented the next few years as increasingly dense sets of interacting bubbles or gears. These were, in Lauristin’s analysis, the years when public opinion crystallised. The people no longer simply received messages from mass media, but came to position themselves in support of or in opposition to the official line. Political leaders and activist organisations came to channel action, directing it to exert pressure against officials through actions such as collective letters and protests (the second and third bubbles on the

73 O. Liivik. *Vastuseisust Protestideni*, 132–155; T. Muide. *Green Bicycle Tours in the Years 1988–1993*. – *Methis*, 2022, 24, 30, 228–235.



Avaliku arvamuse kujunemine fosforiidikaevanduse suhtes.

Figure 1. Lauristin's depiction of the formation of public opinion on the phosphate issue. The graph depicts the evolution and crystallisation of public opinion from 1985 to 1989. Initial debate between experts and officials (such as the ESSR's Council of Ministers) was filtered to the public through the mass media, where it catalysed a process of information sharing, public meetings, the formation of interest groups, and the polarisation of public opinion, leading to pressure on decisionmakers

diagram).⁷⁴ This was cybernetic feedback in action: communication no longer flowed centrally from official institutions, but in two-way loops between the public, media organisations, and activist groups. Yet this kind of public pressure could not be maintained indefinitely, Lauristin argued. The crowd was fickle, and its attention span was short. To maintain pressure, and win real changes, public opinion had to be shaped, and given organisational support.

Lauristin and Savisaar sponsored a series of surveys to counter critics who claimed that “popular sentiment” opposing phosphate mining was “at first underqualified, then emotional, and finally nationalist”.⁷⁵ Officials both in Estonia and in Moscow asserted that environmental activists were simply xenophobic nationalists in disguise. Indeed, some critics noted that new mining would mean increased immigration from Russian-speaking areas of the Soviet Union, thus further endangering the

⁷⁴ M Lauristin. Fosforiidisündroom ja avalikkuse areng I. – Eesti Loodus, 1988, 7, 425.

⁷⁵ M. Lauristin. Fosforiidisündroom ja avalikkuse areng I, 424.

status of Estonian culture and increasing russification.⁷⁶ Lauristin and Savisaar countered this claim in two ways. First, Lauristin's early 1980s survey of environmental awareness across the Eastern bloc (conducted with Hungarian, Lithuanian and Russian sociologists) challenged the notion that "the public is considered more as a threat to the environment rather than its protector".⁷⁷ The difference was rather one of scale: Estonians were concerned about the ecological health of *their particular localities*, in contrast to the residents of nearby Leningrad, who were more concerned with the overall health of the planet.⁷⁸

Second, Lauristin and Savisaar argued that the reason why Russian-speakers tended to support phosphate mining, while Estonians tended to oppose it, had to do with a "lack of information". Objectively, Russian-speakers were at least as threatened, if not more, by the mines as Estonians. Now employed at the Planning Committee, Savisaar formed a special commission which showed in a series of studies that tensions between Estonian and Russian residents were increasing in the eastern mining regions, and that further development in the region would only increase conflict. The expansion of mining ought to be of concern to Russian-speakers as much as to Estonian, the studies argued, since "mining activities ... have caused workers, most of whom are non-Estonian, serious health issues, degraded the health of children and increased mortality."⁷⁹ That Russian speakers were more supportive of phosphate mining was only further evidence of state neglect and a lack of proper feedback mechanisms. "Russian periodicals have discussed environmental issues mostly on the all-union and global level, not so much on the republican level.... The structure of public opinion (*avalikkus*) ... is undeveloped within the Russian population. There are no widely acknowledged opinion leaders, the sense of common interest is weak, not to mention feelings of ownership and responsibility for one's living environment", wrote Lauristin.⁸⁰

Lauristin's surveys reinforced the idea that complex environmental issues were best handled at the local, republic level, where the chain of command was manageable and the authorities could respond

76 M. Raudsepp, M. Heidmets, J. Kruusvall. Environmental Justice and Sustainability in Post-Soviet Estonia. – Environmental Justice and Sustainability in the Former Soviet Union. Ed. by J. Agyeman, Y. Ogye-Himmelberger. The MIT Press, Cambridge, MA, 2009, 215–235; J. Dawson. Eco-Nationalism: Anti-Nuclear Activism and National Identity in Russia, Lithuania, and Ukraine. Duke University Press, Durham, NC, 1996.

77 M. Lauristin. Fosforiidisündroom ja avalikkuse areng, 425.

78 M. Lauristin, R. Timak, P. Vihalemm. Keskkonnateadvus – arusaamad ja hinnangud. – Eesti Loodus, 1985, 6, 378–379.

79 M. Lauristin. Fosforiidisündroom ja avalikkuse areng II. – Eesti Loodus, 1988, 8, 495.

80 M. Lauristin. Fosforiidisündroom ja avalikkuse areng II, 495.

to local needs – just as Savisaar had written in his articles on global problems. “The analysis of the causes of the socio-economic problems of north-eastern Estonia”, Lauristin wrote, “led directly to the need to fundamentally reorganise our republic’s relations with All-Union institutions on the principle of sovereignty and self-management.”⁸¹ But neither could responding to these issues be left to the public. The “spontaneous public movement” could run out of steam, lead to a “loss of focus and fatigue” or to resignation and mistrust.⁸² More than simple feedback, society needed an “organisational backbone, clear forms of action and mechanisms of power” – it needed the Popular Front (the last two bubbles on the diagram, culminating in a decision that resolves the controversy).⁸³

Institutions that were originally designed to effectuate the STR were now repurposed for the PF. Estonian reformers had ties to other progressively-minded organisations and people across the Soviet Union, from economic institutes to academies of science. Personal links tied Estonian reformers to intellectuals such as Agambegyan and Zaslavskaya,⁸⁴ although the PF had considerable local resources as well. In 1988, Savisaar accepted a position as research director of Mainor, where he immediately launched Estonia’s first public opinion polling firm, EMOR.⁸⁵ Savisaar’s initiative paralleled developments in Moscow, where the heterodox sociologist Yuri Levada had just started his own polling firm, VCIOM, in collaboration with Zaslavskaya.⁸⁶ With the help of Mainor’s research team, composed of hundreds of social scientists, and its considerable computing power, Savisaar’s polling firm could produce research that both revealed and shaped public opinion on the political role of the Popular Front.

The environmental debate made clear that the PF struggled to justify its role as a legitimate representative of popular feedback. On the one hand, as nationalist critics argued, Russian-speakers and the majority of ethnic Estonians had divergent political views. This was a powerful claim, even if the reality was considerably more complicated.

81 Ibid., 498.

82 Ibid.

83 Ibid.

84 K. Axe. From Model Pupils to Model Teachers? Estonian Economists and the Neoliberalization of the (Post)Socialist World. PhD Dissertation. Freie University Berlin, 2024, 132–133; 152.

85 M. Laos. Mainori lugu, 227–228.

86 On the history of VCIOM, see Л. Борусяк. От ВЦИОМа к «Левада-центру». «Взрослые люди». Беседа с социологом Борисом Дубинным. Вторая часть. – Полит.ру. 5 November 2009, <https://web.archive.org/web/20091105084913/>; <http://www.polit.ru/analitics/2009/11/04/dubin.html> (1 July 2025).

On the other hand, leaders of the PF were wary of adding to the already considerable tensions between the two populations. Mainor's public opinion polls, however, suggest that ultimately the PF decided to emphasise their alignment with the Estonian population, as more Soviet-minded movements began to mobilise the non-Estonian public.

To make this point, Mainor's polls divided the population of Soviet Estonia into the two categories of Estonians and aliens (*muulased*), and highlighted diverging sentiments on the country's future political orientation. In October of 1989, the polls showed majority support for the Popular Front among Estonians, while among aliens the most popular political force remained the Communist Party. Similarly, surveys of Estonians showed increasingly dominant support for "Estonia's independence outside of the Soviet Union", while aliens were about equally divided between "retaining current status within the USSR" and "independence within the Soviet Union as a confederation". The chief pollster, Juhan Kivirähk, noted that it was unlikely that any single political movement could jointly represent the interests of both Estonian and alien populations – given that the goal of self-management was becoming increasingly entwined with "political separation from their motherland".⁸⁷ Later surveys, which specified that "Estonia should become an independent country with deep economic, political, and military cooperation with the USSR" achieved majority support among non-Estonians as well. Thus by 1990, the Popular Front could claim full-throated support for its goal from the entire population, irrespective of ethnicity.⁸⁸ In 1991, independence became a reality.

CONCLUSION

Opinion polling and cybernetics-influenced social theory were central to the Popular Front's politics during Estonian perestroika. The PF claimed that it was the only force capable of responding to feedback from Estonia's population – but first it had to show what that feedback actually meant. This turned out to be a difficult task, precisely because on many important questions, from environmental policy to political representation, Estonian residents were deeply divided. Marju Lauristin helped the PF formulate a theory of public opinion that solved this issue

87 J. Kivirähk. „Mainori“ avaliku arvamuse uuringute keskus teatab. – Noorte Hää, 11 October 1989, 3.

88 Mida oodatakse uult Ülemnõukogult. – Päevaleht, 19 March 1990, 1; J. Kivirähk. Ka muulased pooldavad Nõukogude Liidust eraldumist. – Rahva Hää, 15 September 1990, 2.

by separating the population into groups in which public opinion was 'developed' and groups in which it was not. According to this view, the problem with the Russian-speaking residents of Estonia was not their ethnicity, but the fact that they were poorly integrated into the Estonian public sphere. Thus, cleavages between Estonian and Russian speakers became further proof that centralised control from Moscow failed to respond to local conditions.

The importance of opinion polling in the 1980s drew on two earlier developments in Soviet Estonia. The first was the creation of privileged institutions in the 1960s, where sociological and consulting expertise could be developed. Mainor, the Sociology Laboratory, and other similar organisations were products of the STR. They were organisations that relied almost entirely on contract work for the scientific rationalisation of Soviet institutions, a model that grew out of Kosygin's reforms. Second, pollsters drew on the concept of feedback, a politically influential cybernetic term that sociologists used to justify market research, and, later, political polling, whilst remaining within the boundaries of cybernetic discourse. Without two decades of experience, and the considerable resources of Mainor and the Tartu sociologists, it is hard to imagine that the PF's claims to represent public opinion would have taken the form that they did.

The Popular Front radicalised the promises of perestroika and guided them in a direction that ultimately opened up the path to Estonia's sovereignty. But the PF was simultaneously a deeply Soviet project, the product of discourses and institutions that made sense specifically within Soviet society. Rather than positing the Estonian 1980s as a decisive break from the Soviet system, we might do better to consider it the culmination of two decades of internal debate.

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AVALIK ARVAMUS
REVOLUTSIOONILISEL AJAL.
KÜBERNEETIKA, SOTSIOLOOGIA JA
EESTI PERESTROIKA POLIITIKA

Aro Velmet

Ajaloolased on hakanud üha rohkem rõhutama sotsiaalteaduste, eriti majandusteaduse ja süsteemianalüüsi rolli perestroika-aegsetes poliitilistes debattides. Nõukogude Liidu eliidi huvi teaduspõhise ühiskonna-reformi vastu muutus perestroika ajal oluliseks ressursiks nii Mihhail Gorbatšovi lähikondsete kui ka Baltikumi reformiliikumiste jaoks. Ekspertkeelte kasutamise kaudu oli võimalik laiendada poliitiliste võimaluste akent ning maalida radikaalsed ideed Moskva jaoks „parketikõlblikuks“. Ent sotsiaalteadused võimaldasid lisaks poliitilise eliidi mõttemaailma kujundamisele ka tööd laiema avalikkusega. Käesolev artikkel vaatlleb sotsioloogia ja avaliku arvamuse küsitluste rolli Isemajandava Eesti probleemnõukogu ja Rahvarinde tegevuses ning seob selle „konkreetses sotsioloogia“ ajalooa sõjajärgses Nõukogude Liidus. Artiklis väidan, et 1960-ndatega alanud reformiperiood, mis mobiliseeris küberneetika ja sellele lähedased distsipliinid Nõukogude ühiskonna ja majanduse reformimiseks teadus-tehnilise revolutsiooni nime alla, võimaldas Eestis tekkida intellektuaalsel ja poliitilisel eliidil, mis mängis perestroika perioodil Eesti poliitikas võtmerolli. Marju Lauristin ja teised Rahvarindega seotud sotsioloogid aitasid oma uuringute ja analüüsidega luua avalikkust, mille nimel Rahvarinne kõneles, ning õigustada olukorda, kus Rahvarinne väitis end rääkivat kogu Nõukogude Eesti elanikkonna nimel, jättes samas kõrvale sügavad lõhed, mida toonases kontekstis näidati sageli rahvuspõhistena.

Artikli esimene osa annab ülevaate teaduslik-tehnilise revolutsiooni rollist Nõukogude Liidu reformikatsedel 1960-ndatel. Mõistes, et Nõukogude majanduse struktuurne reformimine ei ole võimalik, asetas NSV Liidu eliit oma panused Nõukogude tööstuse ja ühiskonna uuendamisele ühiskonna- ja süsteemiteaduste abil. Keskset rolli pidi selles protsessis mängima küberneetika – käsitus ühiskonnast ja tehnoloogiast, mis kujutab kõiki süsteemseid protsesse kui infovahetusprobleeme, mida on võimalik arvutustehnika abil analüüsida ja optimeerida. Soovides viia küberneetilist mõtlemist tehastesse ja kolhoosidesse, anti Nõukogude institutsioonidele luba teha teatud määral plaaniväliseid lepingulisi töid ning korraldus tegelda asutusesisese töökorralduse teadusliku

ratsionaliseerimisega. See tekitas omakorda vajaduse neid lepingulisi töid täitvate uute sotsiaalteaduslike asutuste loomiseks. Eestis olid sellisteks kergetööstusministeeriumi konsultatsioonibüroo Mainor, Tartu ülikooli sotsioloogialabor ja paljud teised asutused.

Näidiskaasusena keskendub artikkel nimelt sotsioloogialaborile. Ülikooli allüksus loodi 1967. aastal Ülo Vooglaiu juhtimisel ning suleti 1975. aastal, kui oli saadud EKP keskkomiteelt ametlik noomitus. Sealt algas paljude hilisemate Rahvarinde korüfeede, nende hulgas Marju Lauristini karjäär. Vooglaiu juhtimisel arendati seal välja uni-kaalne kommunikatsiooni ja avaliku arvamuse teooria, mis keskendus küberneetilisele „tagasiside“ mõistele. Selle kohaselt oli massimeedia ja sotsioloogide ülesanne anda avalikkusele ja ühiskonna liidritele tagasisidet avaliku arvamuse seisust, inimeste toetusest partei initsiatiividele ja muutustele mingi kollektiivi töökorralduses, soovidest elamuehituse või tarbimise valdkonnas. Sotsioloogialaboris korraldati sel põhimõttel hulk lepingulisi uuringuid, näiteks tsemenditehasele Punase Kunda, Järvakandi klaasivabrikule, aga ka üleliidulistele organisatsioonidele, nt tööstusdisainibüroole VNIITE.

Argumendid sotsioloogiast kui ühiskondlikust tagasisidest muutusid oluliseks Rahvarinde tegevuse ajal 1980-ndatel. Küberneetika ja süsteemianalüüsi terminoloogia oli Rahvarinde liidritele tuttav ning ühiskonnateaduste ja konsultatsiooniga tegelevatest institutsioonidest, mis pärinesid suuresti 1960-ndatest, sai Rahvarindele omamoodi ajustrust. Üheks Rahvarinde põhiliseks kriitikaks NLKP ja EKP suunal oli, et Moskva tsentraalne juhtimine ei võta arvesse kohalikku konteksti ja rahva tagasisidet, samas kui Rahvarinne kohaliku ja kaasaegse massiorganisatsioonina suudab just nimelt seda teha. Ent mida vastata kriitikutele, kes süüdistasid Rahvarinnet natsionalismis või, vastupidi, liigeses elitaarsuses? Marju Lauristin vastas neile fosforiidisõda käsitlevates artiklites, kus rõhutas, et avalik arvamus peab „arenema“ ning olema organiseeritud, vastasel juhul võib rahvaliikumiste stiihiline energia raugeda. Samuti peab rahvas olema korralikult informeeritud – vastasel juhul võib tekkida apaatus ka teemade vastu, mis tegelikult kohalikke otseselt puudutavad. Nii selgitas Lauristin Ida-Virumaa venekeelse elanikkonna vähest huvi fosforiidisõja vastu kitsalt ja Rahvarinde vastu laiemalt. Teisalt legitimeeris Lauristin selle argumendiga Rahvarinnet kui „arenenud“ avaliku arvamuse tõelist esindajat.